DEVELOPING "EXTREME CASE" CAUSAL MODELS FOR SYNCHRONISTIC PHENOMENA

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The subtitle for this paper could well be "Why Robert Morris Doesn't Theorize Very Often." Some basic considerations have given me problems as I've attempted to develop a theory myself or interpret theoretical discussions of other people. One consideration is that for theory and model construction to be consensually effective, we must first have some consensus on the data base our theories explain. Personally, I feel a good theoretical system should account for such as the following: discrete outcome PK, both micro- and macroscopic; stable system PK; rare cases of static object PK (the limits in this category are uncertain and should be discussed); pure telepathy precedures; pure clairvoyance procedures; precognition and retrocognition procedures; restricted choice; free response; somatic indicators of ESP; unconscious psi; psi over distance; lack of cognitive complexity limits; apparent irrelevance of target physical properties, including PK success without feedback or knowledge of target; the apparent goal-oriented nature of psi, etc; psi-missing; individual differences in psi; evidence indicating psi information is actively preserved within the organism and certain other systematic anomalous coincidences (see below). Yet even among present company, I would be surprised to find anyone who agrees completely with my list.

A second consideration is that, given that we can articulate a set of studies or observations which we feel we must explain, we don't yet really have good ways of construing the actual role of psi in the generation of those phenomena. When I come later on to develop models for synchronistic phenomena, I'm going to take two radically opposing view points to show the different ways we might construe psi as operating in the phenomena that we're trying to theorize about.

I'd also like to cover some preliminary considerations that need to be taken into account as we theorize. Any theorizer should articulate some kind of approach to the notion of causality and the basic nature of observation. Parapsychology, perhaps more than any other discipline, has come to be an observation-based science. Jung developed an idea that

systematic anomalous coincidences, to which an observer could give meaning, could be regarded as synchronistic, i.e., connected by acausal connecting principles. Yet, as his main empirical support he drew from the data of parapsychology, labeling them acausal because they could not be interpreted by the known laws of physics. Yet it seems as though the very essence of psi experimentation involves designating a source, receiver, message, barrier to known channels and so on, manipulating some source of information to observe the effect upon a receiver. And, sooner or later, in all such studies, we come across a dependent variable and an independent variable. The logic by which we link those is such as to infer the existence of something called psi. It really assumes a notion of causality or at least of contributory causality, yet abandoning completely the notion that there is anything that could be construable as a single cause for a single effect.

If there are noncausal coincidences in our studies, we may observe them, but we cannot study them experimentally. We can experimentally study only the causal portions of the universe. To clarify the above, it seems to me that it would be appropriate to regard the process of scientific inference about nature as based on the study of information, rather than the study of physical effect. The business of science is, then, to understand the information its observers are capable of processing, rather than to persuade itself that it really is understanding the underlying physical reality which serves as the basis for the information it's processing.

A few arbitrary definitions may help. I'd like to see information regarded as detectable pattern. An observation is the detection and storage of information so as to allow retrieval and further information processing. An observer is an information processing unit, living or non-living. This means that an observer can be an individual engaging in the act of introspection of whatever it is that one observes going on inside oneself. This is an observation, is information, is continuing to be processed, in many of the same ways as processing of external information. An event is any arrangement of information capable of being distinguished conceptually or representationally by an observer. A coincidence is any two events or sets of events capable of being conceptually linked by an observer—a very broad definition. A meaningful coincidence, which is what most of us mean when we say coincidence, is any coincidence to which an observer in fact does attribute conceptual significance. Such a coincidence should be regarded as meaningful with respect to that set of observers who label the coincidence conceptually significant. An anomalous coincidence is a coincidence regarded as meaningful by a set of observers, but whose meaning is not conceptualized by those observers in terms of cause-effect linkages presently understood by those observers.

A psi coincidence is an anomalous coincidence involving one set of events external to a reference organism and one set of events internal to it. Those are some basic definitions; quite unlike some other more ordinary definitions of the terms, but ones that I'm finding fairly useful.

Now, for a few assumptions. They are really rather arbitrarily chosen and are offered in somewhat the same spirit as that of my small children as they build sand castles at low tide near the edge of the water, i.e., they know a big wave's going to come along and wash the castles away very shortly, but it's still okay. At any rate, here are the assumptions.

Assumption one. There is a single universe or reality consisting of a continuous flow of what I'd like to call real occurrence, constantly generating information capable of being observed, conceptualized and organized into events.

Assumption two. The continuous flow of real occurrence is temporally uni-directional. Information does not flow backward in time.

Assumption three. The universe operates in accordance with a set of natural laws which govern and describe the spatial-temporal patterning of occurrence.

Assumption four. Any given event can be regarded as an effect, determined by an infinite set of antecedent events or, more accurately, their underlying occurrence, in accordance with natural laws. Such antecedent events are contributory causes. There is no such thing as a single cause for a given event or effect. Although the set of contributory causes for any event is infinite, it has limits.

Assumption five. Within the infinite set of contributory causes for a given event, some may exert more influence than others, the extent of influence varying with several factors, such as the number of mediating events between a particular designated contributory cause and its ultimate effect.

Assumption six. The infinite set of contributory causes for a given event can be construed as composed of two subsets: the subset of contributory causes involving the laws of physics and physical events as we presently understand them, which is also always infinite and the subset of psi-mediated contributory causes, which may range from infinitely large to zero, depending on the event and its relationship to available psi sources.

Assumption seven. Observers, including scientists and researchers, tend to link sets of events conceptually in accordance with a set of rules unique and true to each observer, but partially shared by any two observers in proportion to the similarity of the past information, including programming or its equivalent, processed by the two observers. A computer can be an observer, too. Computer lib forced me into that admission.

Assumption eight. The subset of psi causes is not always large enough,

relative to the physical causes, for its effects to be detected by observers. Observers may make two kinds of errors in interpreting the influence of psi in the linkage between two coincident events: (a) the false positive, in which there is a strong conceptual resemblance between two events, produced essentially by non-psi causes not apparent to the observer, such that the observer incorrectly attributes the resemblance to psi-mediated causes and (b), the false negative, in which the conceptual resemblance between two events is produced essentially by psi-mediated causes which are not acknowledged by the observer, who labels the resemblance incorrectly as due to non-psi causes.

I'd now like to sketch two particular kinds of models which I found important in terms of trying to construe the role of psi in daily events and in our experimental findings. The first model is what I call the psi conservative extreme case model. This model assumes the minimum of psi functioning. I'm going to make some very arbitrary propositions here, some of which are not technically propositions, chosen mainly to represent the form a psi conservative model is likely to take.

Proposition one. Psi is rare and most of what is labeled as psi is not.

Proposition two. The proportion of events influenced significantly by psi-mediated contributory causes is very low.

Proposition three. Although in principle everyone has the capacity for psi, few have the ability and they are of roughly three kinds—those who have undergone special training, a few natural talents whose mental properties allow them access to psi functioning and a very few who experience powerful events in life which somehow unlock their capacity.

Proposition four. Psi-mediated contributory causes are rare and their value for most events is zero.

Proposition five. Psi functioning occurs in short, relatively powerful bursts, which influence enough events in turn so that their influence is eventually readily observed.

Proposition six. Most spontaneous cases and many experimental results are due to presently understood natural factors.

Proposition seven. The remainder of the experimental results are due to the psi functioning of occasional good subjects and experimenters.

Development of the features of this model will involve four components. Number one: articulations of the conditions facilitating the development of true psi ability. Number two: the development of a comprehensive description of presently understood means of communication and influence. Number three: modeling of the temporal properties of psi. Number four: the development of a solid model for the properties of the data and studies produced by experimenter psi and I've come up with four examples of that sort of thing—what I call lazy psi, shy psi, nasty psi and sly psi.

Lazy psi is the kind of psi which operates just enough so that an experiment barely reaches statistical significance at P less than .05 or P less than the .01 level, whichever was chosen by the experimenter as the crucial level. This kind of psi just manifests itself until its job is done and then it wipes its forehead and relaxes. It's very lazy.

Shy psi is psi which likes to hide itself in a rather normal distribution. For instance, in a typical study the experimenter would find meaningful statistically significant differences amongst conditions, such that one would think that subjects were psychically generating scores in one direction under Condition A, but in Condition B they were pushing them in the other direction. All the scores added together make a completely normal distribution with just the amount of variance that one would expect by chance. The psi is shy; it's not really manifesting itself in the kinds of strongly deviant positive and negative scores which would lead one to conclude that the subjects really did affect the overall distribution of scores to deviate from randomness.

Nasty psi is a kind of psi which doesn't necessarily do the experimenter any good. Rex Stanford experienced a case of nasty psi a long time ago. I was one of his subjects in his first EEG study. He published that study when it was part way through, in *Parapsychology: From Duke to FRNM*, the proceedings of an FRNM anniversary symposium. He had statistically significant positive results as of this initial publication. The rest of the study went downhill and although it still achieved significance of another sort, the main effort anticipated by the experimenter was at chance. That additional observation, be it by Rex as an experimenter or the rest of us who learned of the results, appeared to turn things in a nasty way.

Sly psi is psi in which the psi component you're looking for is a statistical difference between two conditions. Sly psi gives it to you by producing just enough negative scoring in one of the conditions that statistically you get your significant difference between the two. It's sly, accomplishing the effect in an indirect way. In each of the above cases the psi effect may well be due to experimenter/observer psi, rather than the psi of the designated subjects.

The psi liberal extreme case model assumes that psi is constantly functioning in great abundance, but in ways that are not necessarily amenable to detection by presently employed means of observation.

Proposition one. All living organisms are constantly interacting psychically with environmental events, providing contributory causes for them.

Proposition two. As a result, any given event is determined in part by contributions from several psi sources.

Proposition three. Such contributions are like votes in a large election

employing an electoral college, so that a final event is based on all the votes of a series of intermediate events, which in turn are each determined by earlier votes.

Proposition four. As a result, many votes may be cast, but their influence masked and rendered undetectable by the other votes.

Proposition five. Votes may function in both digital yes/no and analog directional push fashion.

Proposition six. Psi sources may vote over and over with varying strengths, the result being the functional equivalent of very many or very few votes for a specific event.

Proposition seven. Psi sources may vote over varying periods of time, thus affecting the number of events influenced in the contributory causal chain of events.

Proposition eight. A psi source can functionally vote for more than one event at a time.

Proposition nine. All votes register at the occurrence level with respect to the earlier definitions and yet are reflected to us only as we detect and process information about them.

The development of this model will involve (a) a comprehensive description of known physical contributory cause-effect relationships, (b) articulation of the factors affecting the voting capabilities of psi sources and (c) development of models for the effective interaction of (a) and (b). In other words, occurrence produces information in ways that we can never know and never understand, because all we can ever do is deal with information that we're capable of observing. And a lot of the junk and strange stuff that we run across may have to do with various lags and anomalies in the relationship between occurrence and the information that we can derive from it. Observers observe the information; they process it in varying ways in accordance with rules unique to them, but which can be conceptually expressed to a certain extent. The business of science then is further processing, dividing information into events and inferring the existence of certain kinds of natural laws which link things together in what we call cause/effect relationships. And I think that we should at least try for a while, in some respects, to reconstrue our whole endeavor in terms of accounting for the information that we observe, rather than feeling that we must understand the occurrence that underlies it.

DISCUSSION

BRAUDE: What I'm trying to get at is what you mean by conceptual linkage. You first define a coincidence as any two events capable of being

conceptually linked by an observer. Do you mean events that occur at any time whatever?

MORRIS: That's right. What I mean by conceptual linkage has to do with whatever way an observer has been programmed or has been given a set of rules by which events are linked. That is deliberately a very general definition of coincidence. It is the only one that I find useful, especially if people will allow me to then define a meaningful coincidence.

BRAUDE: But I'm just not sure you need to go quite so far.

MORRIS: Why not?

BRAUDE: It violates my intuition about what a coincidence is for something that happened in 1900 BC to be coincident with something that happens now. I'm not sure exactly how I'd want to limit it, but that's one thing about the definition that bothers me. You might want to restrict the coincidence to events occurring more explicitly at some relevant time.

MORRIS: Well, on the other hand, suppose we take Stonehenge. About 3800 years ago some folks stuck some stones in some interesting places with respect to what we can do with them today. Later we come along; we notice where those stones are and the relationship they have to where the sun is at certain times of year and so on, and we attribute meaning to that coincidence. We attribute meaning in terms of presently understood cause/effect relationships. We say those stones work now, they worked then; these people were primitive astronomers.

BRAUDE: What was the coincidence there?

MORRIS: The coincidence in that case is that 3800 years ago, the placement of the stones was such that when you stand in a certain place at the equinox you'll see the sun shining through in a specific direction. Now, 3800 years later, we stand there and see the sun shining directly through a gap in the stones. And we ask is that just a chance arrangement of the stones? No. That's a coincidence that that stone is in just the right place. It's a meaningful coincidence. We make sense out of it. We find that another stone is also in a specific place. We then relate it to processing of a lot of other information that we've built up in such a way as to say that the coincidence of Stonehenge has conceptual meaning for us in accordance with what we now know about astronomy.

BRAUDE: I would say that there's a pre-theoretic distinction we need to respect here. That is between events which are not coincidental at all; events which are coincidental, but not meaningfully coincidental and those which are meaningfully coincidental. I don't have any decent proposal as to how to draw those distinctions.

MORRIS: I have seen people who have been labeled as psychically talented and they were attributing meaning to an incredible array of

phenomena. I am concerned that any coincidence may possibly be any two sets of events in the world that are capable of being observed, because somebody who has an appropriate set of rules can label them as meaningfully coincident. And notice, all I'm talking about here is an observer labeling something as meaningfully coincident. I'm not speaking in some abstract sense. I'm hard put to come up with any two events that couldn't be labeled as meaningfully coincident by an especially creative and/or adequately programmed observer.

STANFORD: I have a couple of questions on these two extreme models that you put together. I need to know a little bit more about one of them particularly. Under general assumption four you say, "Any given event can be regarded as an effect, determined by an infinite set of antecedent events or more accurately, their underlying occurrence in accordance with natural laws. . . . There is no such thing as a single cause for a given event or effect. Although the set of contributory causes for any event is infinite, it has limits." Why do you say an infinite set and what kind of limits are you talking about?

MORRIS: It's just the notion that if you take anything that an observer would want to label as an event or an effect and look at all of the other kinds of events which went on before it, you'd be hard pressed to know exactly where to stop. If you consider something akin to the electoral college model, you could say that each individual voter is in fact his or her own electoral college. You could take an infinite regress back in such a way that if the sun had blown up 8000 years ago, many, many other events would have been modified and changed. In other words, if you go backwards in time and you break it down finely enough, you can really find no way of confining the events, which, if they had been modified in some way, would have affected a present event.

What I'm saying is, although the set of contributory causes for any event is infinite, it has limits in that it doesn't include all of the events that have ever taken place in the past. So it's finite. In just the same way I can say there is an infinite number of points along one straight line and an infinite number of points along another, but they can be added. Also, I think it should be noted that, in fact, what generally happens is that an observer who comes along processes batches of information into big events and then talks about them in such a way that it really constricts things down to a usable finite set of events for most purposes. We clump things together. I'm just simply saying, in principle we should regard it as a potentially infinite set.

STANFORD: If you do list under the psi conservative extreme case model experimenter effects specifically in the various sub-varieties that you mention, I was wondering why you chose to put it under that

category, because it seems to me that some experimenter psi effects could certainly occur under the other model and indeed, under some assumptions, they might be more likely under the other model.

MORRIS: What I was trying to do here was to put the conservative elements under the most conservative model. I put it where I did because I felt that this would emphasize the notion that under the psi-conservative model we're saying a lot of the studies that we presently accept, not only as evidence for psi but as evidence for meaningful relationships amongst variables in psi, may well be contributed by the psi of just a very, very few individuals such as the experimenters and may not be truly reflective of the underlying processes at all. A lot of experimental parapsychology research from which we derive the notion that we've all got psi may be spurious. Your point is really completely valid, in that the notion of experimenter psi can go under the psi liberal extreme case model also. In fact, this notion that people can be casting votes, so to speak, in terms of influencing a lot of events is compatible with the notion of an experimenter effect as well as with everybody who is an observer of an experiment exerting such an effect. One of the implications of the psi liberal extreme case model is that psi research may be effected by the present status of psi in the social system within which the researchers are functioning. One of the key questions there is how much do you have to be linked to a psi study or a psi event in order to be casting your vote for it.

JAHN: Bob, I liked your little list of shy, sly, nasty and lazy psi. I guess I would like to know what you plan to do with it now that you've named it. What is the implication of this?

MORRIS: There are ways to go back to the original raw data from key studies and look at the shapes of the distributions generated by those data. For instance, at one time, we were going to look for lazy psi and see if we could calculate the exact P values of a large mass of published studies, to see whether or not there would be a little bump in the frequency of studies that got just enough to exceed the magic significance level. My own doctoral dissertation involved female birds making a choice towards one male bird or another. Had one additional bird gone in the wrong direction, I might be Mr. Morris right now, because I had just the magic number needed to get a significant effect. I think that there are a number of other ways of looking at what the data should be like if, on the one hand, several of the people who are participating in the study really are being psychic, biasing the data in a certain direction, versus the notion that none of the individuals are being psychic, but that the data somehow is fitting itself into the appropriate distribution. It really will have to do

with massaging a lot of earlier data and we're hoping to use it on some of our material.

JAHN: I would like to encourage you to do just that. Indeed, had I had more time, my pontifical list of the ultimate theory's characteristics would have included the suspicion that some of the experimental annoyances that tend to prevail in this field perhaps ought to be regarded not as annoyances, but as indications of some very fundamental properties of the process. I have in mind just the ones you've listed, and I would add to them, the all too familiar annoyances of the decline effect. The shape of that curve is just too ubiquitous in this field to be categorically relegated to an annoyance. It's trying to tell us something about the fundamental nature of this entire domain. It comes up in too many classes of experimentation; it comes up in too regular a form to be simply rejected as an annoyance. Similarly, the irreplicability frustration may be a fundamental hint rather than an experimental annoyance. Likewise, the tangential nature of many psychic effects, i.e., their tendency to occur on the periphery rather than at the directed focus, which arises in so many classes of psychic experimentation from poltergeist disturbance patterns to remote perception, may be a very basic characteristic.

My suggestion is simply that we replace our hand-wringing over such experimental annoyances with a presumption that these are also a fundamental part of the evidence. In looking at it on the grand scale, I think this might facilitate the model, so I encourage your data correlation on that basis. I think that's a sound way to proceed.

HONORTON: In advocating that we view science as the study of information rather than the study of some physical reality, are you essentially advocating that we adopt the kind of operationalism that Bridgman introduced back in the nineteen-teens?

MORRIS: Well, I don't want to say "yes" unequivocally to that because I don't understand Bridgman thoroughly enough. But I found that throughout the preparation of this material I was referring to things that I would call operational definitions and that is the whole notion of just simply paying much firmer attention to the operations carried out by observers, including researchers, as they go about setting up their studies, as they go about acknowledging the rules by which they process information. In a curious sort of way, too, this throws emphasis back on a much more thorough understanding of our own "mental processes" as we go about the business of doing our research, as we go about construing events, as we go about labeling things as psychic or not. And throughout this, wherever you can articulate things, define them procedurally as much as possible, I think that's very much implied by the ideas expressed above.

HONORTON: We could test lazy psi or certain aspects of it that you alluded to due to the sociological contributions to the strengths of effects, by all agreeing that we'll raise the criterion of significance. Instead of the magic number being two standard deviations we won't consider anything significant unless it's four.

MORRIS: Good. And can we also promise to ignore psi missing for a while?

HONORTON: Recently, in going back over the early PK dice work, I'm very impressed with the consistency of the quarter distribution decline effect. It was consistent on the level of the page, on the level of the set, on the half-set, over eighteen series of experiments. But who in the last twenty or thirty years has found a quarter distribution?

MORRIS: We don't use those nice data sheets any more.

BRAUDE: First about the specter of operationalism, it may be worthwhile to mention that there are traditionally two kinds of operationalism, one of which is apparently far less vicious than the other. The more extreme form is that statements about theoretical entities are really synonomous with statements about observable phenomena, so that if you take that position seriously, theoretical entities are really nothing. The more moderate view is just that we can only know about theoretical entities through their observable effects. So we might want to say, well, there really are electrons, but we can't observe them directly. This is a much weaker view than saying there really are no electrons; there are just these observable regularities.

I'd also like to ask you something about assumption six which bothers me. You say that the infinite set of contributory causes for a given event can be construed as composed of two subsets. You identify them as physical and psi-mediated subsets. You could probably predict that I would object to that. It seems to me that we might want to leave room, for example, for organic or biological events which are not reducible, to events described solely in terms of the laws of physics.

MORRIS: I might or might not put what you mean by those events in one or more of those two categories. For a while I had a third category in there which I dropped, which was going to leave me that little operating room and maybe it should go back in.