

THE FEMININE ARCHETYPE: A MISSING FACTOR IN CONTEMPORARY PSI RESEARCH

BEVERLY RUBIK

Modern parapsychology has focused largely on the exterior manifestations of something far deeper that involves the personal or subjective domain, perhaps even down to the core of beingness itself. Moreover, psi researchers typically assume the separability of mind and matter with some sort of interaction between them. Contemporary psi research has not adequately addressed the depths of the unity of mind, matter, and spirit. It focuses instead on that-which-can-be-measured, the surface phenomena, hoping to build a bridge to mainstream science, to move academic minds towards acceptance. But decades of research and reams of marginally statistically significant data have not budged the mainstream scientific opinion one iota. Funding for parapsychology in the U.S. apparently has recently decreased, and it appears that the field is in crisis. This paper addresses that crisis from a feminine and humanistic perspective.

Like conventional science, parapsychology starts with the premise that mind and matter are separate entities connected by subtle interactions. The psi researcher is generally looking for interactions, effects, or influences of mind on matter that challenge the dominant paradigm. However, the concepts of "interaction" or "influence" in psi research have been imported from the paradigm of mechanical reductionism. This paradigm does not offer any possibility for mind-matter interactions. Moreover, the worldview of Newtonian physics may be inappropriate for the subtle realm of consciousness, perhaps even inappropriate for living systems in general.

The "effects" or "influence" of mind on matter might be considered as an outgrowth of the generally dominant ideology in science in which there is a one-way street from the mover to the moved. Modern science projects an alienation from nature, along with an implicit goal to dominate and manipulate it. As such, the masculine archetype dominates the feminine, yielding a gender imbalance in the archetypal expression. Scientists typically believe they are observing an objective, mechanical

universe detached from themselves in which they may cause "effects" by manipulation. But the process of psi, whatever it is, is most unlikely to be mechanical or causal in the sense that physicists use these words.

Thus, conventional science as well as the dominant paradigm in parapsychology reflect an image of the masculine stereotype—impersonal, objective, unemotional, and dominant over nature (often regarded as female) and the feminine archetype. This is true for all aspects of science, including the epistemology, questions, paradigm, methodology, and language used in parapsychology, as will be shown herein. Although it is probably as true for the sociopolitical hierarchy within parapsychology as it is for science in general, this will not be addressed here. My main concern is the lack of a counterbalancing feminine archetype within science, which creates a lopsidedness, an imbalanced approach.

The fragmentation between mind and matter is one manifestation of the dominant masculine archetype. However, mind and matter have not always been split in Western thought. Prior to the Cartesian split in the 17th century, subject and object were not so distinct. According to the philosopher Heidegger (1977), prior to the Renaissance, nature was subject and included oneself, supporting one's sense of identity. Object was then associated with fantasy that one might hold in the imagination. With the split between mind and matter and between humans and nature, nature became an object, and self or mind in particular became subject. The invention of perspective in art at the time is indicative of the shift in perception.

So the mind-matter split that seems so fundamental to modern science is a relatively recent idea historically. Is it possible to recover something of the wholeness of the mind-matter continuum or process prior to the Cartesian split? This would seem to require an expanded (yin) or feminine archetypal viewpoint of subject, of the human being in which self is in communion with nature. Conventional science under the dominant paradigm has much to do with a yang or contracted view. It is one that is separate from nature that operates impersonally within rigid laws, largely mechanically.

Science names our relationship to nature and new discoveries through its language and metaphors, which are important for stimulating new models, concepts, and research questions. Consider the language of conventional science. Both the physical world and the living world are

made up of "building blocks"—quarks, atoms, molecules, cells, etc. There are "master" molecules and "regulatory" genes that "control," "govern," or "trigger" responses. There are "magic bullets" or "weapons" to "fight" disease. There is the "war on cancer." There is a "central dogma" in molecular biology that DNA is the "master blueprint" of life. "Big Bang theory" describes the event that started creation and cosmic evolution. "Physical laws" are "obeyed" by nature; these and other theories and principles of causality cannot be "violated" by any phenomena. This is the language of patriarchy—of boys' games elevated to war games. Parapsychology is not immune to this. For example, there are "targets" that participants "influence" or "interact" with.

Both the language of science and its methodology of taking apart and analyzing reflect a simple mechanical order modeled after the man-made world of machines. There is the male tendency toward domination over others. Nature is likened to a demon that is to be tamed and manipulated, and science is the masculine sport that conquers, giving men power over nature. Nature is reduced to a mindless, spiritless mechanical clockwork mechanism that men can dissect, understand piecemeal, and thereby control.

The subjugation of the feminine goes deep in Western culture. Consider the metaphors "hard" and "soft." These are frequently used in value judgments, and they implicitly reflect gender. "Hard" facts are good; the connotation "soft-headed" is bad. The hard sciences are considered to be more difficult, more important, and have larger budgets than the soft sciences. There is a hierarchy within the sciences, with the "hard" sciences at the top reigning above the "soft." The dominant notion of causality in science involves the reduction of the "soft" to the "hard," which is regarded as more fundamental. It is no wonder that parapsychology has evolved in recent times in the way that it has, with attempts to move toward greater "hardness."

Although "hard" over "soft" still dominates conventional scientific thinking, modern physics offers a very different worldview from the mechanical reductionism described above. Matter is not "hard," but has indeterminate features. Quantum theory may therefore offer a more gender-balanced, holistic paradigm for parapsychology.

Several interpretations of quantum theory are relevant to psi research, although there is ongoing confusion over these within modern physics. That the observer may have a role in "collapsing the wave function"

bespeaks of a masculine archetype of interaction. Perhaps the most "feminine" aspect of quantum theory is that there is an undivided wholeness (or softness) within nature, and therefore, within experiments. Quantum theory suggests that other alternatives besides "interaction" or "influence" exist in which to describe psi, and this may lead to a more feminine conceptualization for parapsychology.

Bell's theorem has been used as a possible interpretation for parapsychology experiments to render a paradigm fit with modern physics. Complex macroscopic systems such as the random event generators used to produce targets may be assumed to have an underlying quantum mechanical structure. Bell's theorem predicts observed nonlocal correlations in such systems. This notion of a fundamental nonlocal interconnectedness may be regarded as a "feminine" interpretation for parapsychology. Lucadou (1992) has raised the question of whether observed psi effects could be interpreted as such nonlocal correlations (noncausal) rather than as a signal emitted by the participant that changes the random process (causal). The evidence at present cannot decide between these conflicting views.

No interpretation of psi phenomena from the viewpoint of modern biology has been advanced to my knowledge. The conventional paradigm of modern biology is essentially mechanistic reductionism, in which the living state is assumed to be reducible to conventional physics and chemistry, generally classical. Mind is typically considered as an epiphenomenon of the brain, resulting from complex biophysical processes. There is nothing in contemporary biology or psychology that would permit direct mental action beyond the boundaries of the body.

Thus, contemporary science offers very limited possibilities of encompassing parapsychology, as it trivializes the roles of humans both as researchers and participants. The general focus in psi research has been on "anomalous phenomena," so named as though these should not occur, for they seemingly "violate" conventional science. Psi researchers have focused on measurability, quantifiability, reproducibility, replicability, stability, and consistency with the picture of conventional science, all characteristic of the masculine archetype of outer manifestations and the "hard" or physical science approach. None of these deal adequately with the subtlety of the phenomena or their inner dimensions, which are features of a feminine archetype. Although psi research fundamentally involves humans and their remarkable abilities in

particular states of consciousness, much less attention has been paid to these factors in contemporary parapsychology.

My past research in parapsychology left me perplexed as to how to treat these subtleties, frustrated as I was by the inadequacy of the dominant paradigm. This work included studies done with the noted American healer, Olga Worrall (Rauscher & Rubik, 1980, 1983; Rubik, 1992). There were some unreported circumstances and anecdotal data related to the inner dimensions. For example, particularly successful sessions were usually marked by Worrall entering a deep trance in which she frequently verbally consulted with her deceased husband or other disembodied spirits she felt were present and involved in the experiment. On several different occasions, Worrall was able to remotely ascertain information about the status of the bacterial cultures she was asked to treat, such as whether they had been poisoned or starved for nutrients, despite the double-blindness of the experiment. Because these were singular events neither anticipated nor controlled for in our studies, they are not considered to be reportable scientific evidence. Nonetheless, these data are significant and meaningful. The scientific method as it stands requires that further experiments be set up to measure these apparent psi abilities by an appropriate methodology. However, from my psi research experience in both healing and random event generators, it appears that psi phenomena may manifest more readily under conditions of natural spontaneity than focused, repeated attention with intention. Can parapsychology really ever meet this level of spontaneity? Moreover, how can we experimentally address the inner realms of our participants?

There appears to be an elusiveness to psi phenomena, or more generally to consciousness, which is most fleeting, like a butterfly that you attempt to catch that seems to anticipate your action and changes its course, effectively thwarting your attempts to capture it. In this sense, one cannot use a "masculine" means of "capturing" psi phenomena. Instead, one needs to utilize more subtle means to "charm" them into manifesting. Similarly, a meditator cannot reach subtle states of mind by actively trying, but rather by letting go. Can parapsychology rise to the challenge of developing more appropriate subtle strategies that may be more "feminine"?

Parapsychologists struggle with the scientific validating criteria of reproducibility and replicability. However, are these really appropriate

in parapsychology, given the elusiveness of the phenomena? Large numbers of trials in psi research may indeed be statistically significant but humanly insignificant, because repetitive trials lead to habituation. In my research with Worrall, by the third experiment, she expressed her reluctance to repeat what she had already done twice before, and the data reflected this.

In a typical modern psi experiment, the participant is regarded as the one who affects a "target" or experimental outcome. Alternatively, we may consider the psi participant, the experimenters, and the ground of their being in that particular moment in space-time as an integral unit. The paradox of being separate (masculine archetype) and wholly interconnected in a unity (feminine archetype) both need to be incorporated in a new paradigm for parapsychology.

A more humanistic framework for parapsychology that would balance the gender archetypes is a systems approach. The experimental human system consists of researchers and participants, with psi a property of the whole system, which consists of all persons and devices. Psi events may be dynamical spontaneous features of the cosmos at large, analogous to Mach's principle in physics, in which events involve all other bodies in the cosmos. Rather than putting all the emphasis on the psi participant, acknowledgment of a holistic ideology may be an important step forward for psi research, both philosophically and methodologically. This means that the specific space-time, people present, and other subtle factors, including the geocosmic relations (solar activity, geomagnetic fields, etc.) may be important in the specific outcome of an experiment. Attention to many factors presently ignored would be required for such a holistic systems approach.

Parapsychology needs to reexamine other foundational assumptions of conventional science—one in particular, that replicability of results must be achieved by any scientist. This seems ludicrous for psi research when considered from a systems viewpoint, for each person is mentally and physically distinct and interacts uniquely with others. None of us are impartial observers—we have interest in and even passion over our hypotheses. If the skeptic James Randi had attempted to repeat our experiment with Olga Worrall, undoubtedly he would not obtain the same results. However, there is a myth in the scientific community, an expectation that scientists should function as intelligent extensions of machines—another manifestation of the overly masculine ideology of

contemporary science. Is this not a delusion, this ideal of impartiality? The reality parapsychologists study is soft, human, and spontaneously creative—and the persons involved are not machines. The psi research experiment is not the "hard" reality of the classical physicist.

If the consciousness of the experimenter in parapsychology is important, will a scientist who believes strongly in psi affect the outcome of the experiment? (Even here I am aware that I am groping with our fragmented language, using the word "affect," when I mean the subtle interconnectedness of the experimenters' and participants' minds in psi research.) From a holistic view, new properties emerge at new levels of systems order, that is, the new combinations of persons and devices in a psi experiment. Just as powerful manifestations of collective or coherent phenomena are observed at molecular and cellular levels, one might expect strong synergies of collective consciousness and resonance phenomena associated with mind-body fields of a coherent group of people. These could be explored experimentally.

Human systems may be considered mutually interactive and leading to unpredictable novelty. In this regard, there are different ways of considering and working with participants under study. One way, a masculine approach, is to render them naive and uninformed about the experiment, controlling everything from the onset. Another is a more feminine approach, a cooperative interplay between researchers and participants, allowing them to contribute directly to hypothesis formation, experimental design, and so on. Because novelty is apparently important to psi manifesting, the latter approach may be more fruitful for psi research. This is predictable from analogous situations in education or business where it is observed that people perform better when participatory management is employed.

The real challenge for parapsychology is not simply to refine a method for reproducibly measuring and documenting psi, nor to enhance the magnitude of the psi phenomena observed, but to create a paradigm that appropriately addresses the fullness of the phenomena and is gender balanced and holistic in scope. Years ago I stopped doing parapsychology research because I acutely felt the need for a new paradigm (Rauscher & Rubik, 1983), one that I could not address alone, which requires a collective effort on the part of a body of parapsychologists. The conventional scientific paradigms are overly "masculine" in their orientation and have impeded progress in psi

research. Modern parapsychology has suffered from "physics envy," adopting its main approach straight from physics—object-oriented, impersonal, quantitative, and statistical. The classical physics paradigm has been applied by parapsychologists inappropriately, although sincerely, in a valiant effort to scientifically validate parapsychology, with inadequate consideration of basic epistemological and methodological issues.

A whole new basis for the life sciences, and particularly for the human sciences, is needed. The humanistic psychologists have pointed out this need for decades (Maslow, 1966; Rogers, 1963, 1965, 1985). A human science emphasizing human experience as its core is beginning to emerge (Barrell, Aanstoos, Richards, & Arons, 1987). Some new methodologies include qualitative approaches (Van Maanen, 1983), heuristic methods (Douglass & Moustakas, 1985), perceptual psychological methods (Combs, Richards, & Richard, 1976), contemporary hermeneutics (Bubner, 1987), and phenomenological methods (Giorgi, 1985). Rather than a single best method, the methods are more appropriately seen as tools to select as most appropriate for the research question. These methods may be considered more "feminine" or "softer" than the "harder" masculine approaches. Unfortunately, the methods of humanistic and transpersonal psychology have not yet had significant impact on mainstream psychology.

The need for a new paradigm is shared by several other areas of frontier science that also challenge the mainstream. Medicine is having to cope with how the mind dramatically affects one's health, for example, how thoughts, feelings, and beliefs affect the immune system and healing. The efficacy of homeopathy, acupuncture, and other forms of complementary medicine often called "energy medicine," which are modalities of subtle intervention, seem to defy a reductionistic mechanistic explanation. Bioelectromagnetics shows that there are effects of extremely low-level nonionizing electromagnetic fields on organisms, suggesting the possibility that life may in fact be fundamentally electromagnetic in nature. Nonlinear dynamical systems with their properties of bifurcation and chaotic behavior are being used to model life. These are not predictable from an analysis of their components because they are dependent upon an underlying holistic dynamics. What may appear to be separate entities interacting, upon further analysis may be seen as a single nonlinear dynamical system.

Such systems can be very sensitive to extremely small, that is, subtle, fluctuations within themselves or their environment. Thus, conventional notions of causality may play a decreasing role in understanding realms of the subtle, particularly the body-mind or mind-matter manifestations. Taken collectively, the frontier sciences of the subtle realms spell out the rudiments of a new worldview for life. Living systems show greater interconnectedness, interdependence, and higher dynamical sensitivity to very small changes in parameters than was thought previously. New findings in the frontier sciences raise new questions about the nature of causality and the separability of mind and body and mind and matter. It remains to be seen whether the new findings can be accommodated by science as we know it today, or whether they will call into question the foundations of science. New developments in the frontier sciences may indeed pave the road toward a new paradigm for psi as well as a revised postmodern science.

Contemporary science largely ignores the psychological aspects of both experimenters and participants, assuming that its validity depends only on physical operations for gathering evidence. However, psi research results suggest that the psychological conditions of the experiment are critically important, which is not surprising as subtleties of consciousness are involved. The scientific method calls for the control of all relevant variables, but how can we adequately control for the subjective? The notion of "controlled" variables in conventional science is related to the "masculine" ideology of separability and domination over nature. Numerous parapsychology experiments, such as those of Jahn and Dunne (1986), suggest that consciousness is not bounded by ordinary space-time, so are "boundary conditions" and "control" not meaningless in the mental realm? Are we deluding ourselves in believing that when we close the laboratory door in a parapsychology experiment we are isolating ourselves from other relations, including the consciousness of others? If psi phenomena are best modeled as nonlocal events, how can we "control" nonlocal factors?

In order to develop a new paradigm for psi research, we need a new way of looking at the world and interpreting it that is holistic and gender balanced. If we do not develop a way to appropriately address the fullness of psi, we run the risk of simply doing parapsychology badly. However, it is extremely difficult to see that there are alternatives to our traditional ways of thinking and seeing that are not shaped by a

patriarchal culture, because our ordinary states of consciousness and our language are so entwined with that tradition and its offspring of conventional science. We need ways to transcend our compulsive attachment to "objectivity" and our perceptual split between the observer and the observed, between mind and matter, between self and universe. It is important to develop a whole new orientation with new language for parapsychology, a language that also reflects a feminine archetype. Words that convey the continuum of mind-matter would be helpful. Acausal connecting principles such as Bell's theorem and geocosmic relations are attempts to deal with higher patterns of cosmic order, and others may grow out of the feminine viewpoint of Gaia, the whole world as a living organism. We need to cultivate a unique "oneness with the cosmos" inside ourselves in order to understand psi. Both women and men scientists need to go within themselves to draw upon a deep feminine archetype, which one hopes still exists, and give new expression to it, if our education has not destroyed it. It is important to bring a gender balance to parapsychology, which will help it to adequately address the subtlety of psi phenomena.

The subtle realms include meaning and inner experience of consciousness, the more "feminine" or inner dimensions of psi. These are as important as the outer manifestations already being addressed in parapsychology. Interpretation and meaning of the subtle, inner realms may be approached by (a) measurable physiological correlates to altered states of consciousness; (b) psychological interviews and testing of participants; and (c) the intersubjective consensus of experimenters and participants. For the latter, the scientists must be as familiar with psi as are the participants, preferably through experiential knowing. Experiential and phenomenological research could have important interplay with other research designs in a new paradigm for psi research. Psi phenomena manifest from the deepest core of being, and an appropriate science of psi must include not only psychological and physical data but that of the spiritual domain to accommodate its fullness. We cannot study human potential except as humble and aware human beings in pursuit of knowledge as well as self-knowledge.

Parapsychology desperately needs a new approach. Such a new vision may come from a new perspective, a feminine perspective. If we were to achieve gender balance in the sciences, this might help us resolve the difficulties that remain. It would surely usher in a new era for

parapsychology and other frontier sciences that deal with the soft or subtle realms of interrelationship, which would then no longer be suppressed from mainstream thought. This will require far more than just a change of intellectual climate, but a major cultural shift and a deep transformation within ourselves. The world is in transition, and the time is ripe for such an inner change as well. Until we achieve gender balance within our own psyches, we cannot achieve it within our science or any realm of human endeavor.

REFERENCES

- Barrell, J.J., Aanstoos, C., Richards, A.C., & Arons, M. (1987). Human science research methods. *Journal of Humanistic Psychology*, 27(4), 424-457.
- Bubner, R. (1987). *Essays in hermeneutics and critical theory*. New York: Columbia University Press.
- Combs, A.W., Richards, A.C., & Richard, F. (1976). *Perceptual psychology: A humanistic approach to the study of persons*. New York: Harper & Row.
- Douglass, B.G., & Moustakas, C. (1985). Heuristic inquiry: The internal search to know. *Journal of Humanistic Psychology*, 5(3), 39-55.
- Giorgi, A. (1985). *Phenomenology and psychological research*. Pittsburgh, PA: Duquesne University Press.
- Heidegger, M. (1977). Modern science, metaphysics and mathematics. In D.F. Krell (Ed.), *Basic writings* (pp. 243-282). New York: Harper & Row.
- Jahn, R.G., & Dunne, B.J. (1986). On the quantum mechanics of consciousness, with application to anomalous phenomena. *Foundations of Physics*, 16, 721-772.
- Lucadou, W. v. (1992). Nonlocality in complex systems—a way out of isolation? In B. Rubik (Ed.), *The interrelationship between mind and matter* (pp. 83-110). Philadelphia, PA: Center for Frontier Sciences at Temple University.
- Maslow, A.H. (1966). *The psychology of science: A reconnaissance*. New York: Harper & Row.
- Rauscher, E.A., & Rubik, B.A. (1980). Effects on motility behavior and growth rate of *Salmonella typhimurium* in the presence of a psychic subject [Summary]. In W.G. Roll (Ed.), *Research in parapsychology 1979* (pp. 140-142). Metuchen, NJ: Scarecrow Press.
- Rauscher, E.A., & Rubik, B.A. (1983). Human volitional effects on a model bacterial system. *Psi Research*, 2(1), 38-48.

- Rogers, C.R. (1963). Toward a science of the person. *Journal of Humanistic Psychology*, 3(2), 72-92.
- Rogers, C.R. (1965). Some thoughts regarding the current assumptions of the behavioral sciences. *Journal of Humanistic Psychology*, 5(2), 182-194.
- Rogers, C.R. (1985). Toward a more human science of the person. *Journal of Humanistic Psychology*, 25(4), 7-24.
- Rubik, B. (1992). Volitional effects on a bacterial system. In B. Rubik (Ed.), *The interrelationship between mind and matter* (pp. 169-190). Philadelphia, PA: Center for Frontier Sciences at Temple University.
- Van Maanen, J. (Ed.). (1983). *Qualitative methodology*. Beverly Hills, CA: Sage.

DISCUSSION

HEINZE: I think we are slowly getting some place. We started with creating awareness of the situation, and I think that is important. And we also mentioned the language we are using and the need to be aware of language as it is used by other people. But I found it is of equal importance to be very much aware of the complexity of the issue. This is mostly avoided by hard sciences, by masculine sciences. I had to face it at UC Berkeley. When I showed all my research data and added, "but I also have this evidence," they said, "you have to leave that out. It is not part of your research design." So, there is almost a phobia for the complexity of the issue. I think our gender prepares us for facing chaos a little bit better than men. I just see a housewife with five children, writing her dissertation in the middle of everything, and being able to do this. A man would break down, take a vacation or send the kids off, whatever. So, the hard sciences are very much, let's say, blindfolded, because when you can come up with an educated guess that is better than the male research, that tells you something: there is something very wrong with male data. They are put on a Procrustean bed, and everything is cut off that doesn't fit. So, I think we should keep the issue of complexity very much in mind. How can you research an object that is in flux, in movement? You can't, because you have to use different techniques simultaneously. You can measure the velocity of a stream. You can measure the consistency of a stream, which requires a completely different approach. You also can measure what influence the environment has on the stream. So, if you are aware of the complexity

and the many different approaches, not only one approach, then you are in much better shape and can come up with usable results. I think the word wholeness is used too quickly, because the people who use it don't take great care and deny the great complexity. We also should always mention the areas that are unknown. I'm not afraid of saying I only have a very small piece of the jigsaw puzzle. I feel comfortable about it. But I fully respect the wide areas I don't know. This may be one way to approach it.

UTTS: All of these papers so far have left me wondering about why it is that we are studying psi. I mean, it is very clear why we have been studying it, and that has been proof-oriented—trying to show that there is something there. But if we move into these new ways of thinking and studying it, what should the purpose be?

RUBIK: Well, I think the purpose can be expanded. I think science has really been detached from values and the inner realm. I think we need to realize how that has been devastating for the Western world. Are we going to let parapsychology go that way too and let technologies of mental warfare develop, just as warfare sprang out of physics and biology? I think that needs to be taken into consideration by parapsychologists before we get to that place down the road where the values have been long gone, and we look back and we ask "What happened?" But again, I think a feminine epistemology brought into science would address the need to marry values and ethics with the science that we know and bring a gender balance to it.

UTTS: But what are we trying to do? Are we trying to discover how it works? We're saying that it's an ever-changing system, and yet... I don't know.

RUBIK: I see it as a multiplicity of things. Again, I think the patriarchal way of thinking has been overly simplistic, as Ruth said. And I think that is also true for why we are doing research. Because we want to know, period, and that's it, with no discussion? I think we need to raise a discussion to clarify the multiplicity of ways in which we want to know nature—for its beauty, for its truth, for its meaningfulness, for our place in it, for all the delicate interconnections that we haven't yet looked at, much less explored, but which we need to consider in order to heal the world, given the situation we are in now. And, there is such a multiplicity of ways that have meaning for the world right now that could be addressed in the new science.

HEINZE: Can I say something very quickly? I think one word has been very carefully avoided so far in psi research, and that is the word spiritual. It adds a different dimension to science. And it is also connected to ethics, which are very much missing in the hard sciences.

RUBIK: I fully agree. That has been one of my main goals in life, to heal that rift between matter and spirit, between science and spirit. That drives me to do science. That's why I do it, not for any other reason.

HEINZE: Nor add another dimension, I meant.

RUBIK: That is the deepest dimension for me.

HEINZE: We have a three-dimensional model, and I think we should add a fourth.

RUBIK: Sure.

BLACKMORE: I wanted to say something about this paradox about mind and matter that you talked about. I don't think it's a paradox. I don't think it's paradoxical in the way you described it, really at all. I think it's quite clear that parapsychology and most of the fringe sciences that you've talked about are based on an assumption of mind and matter being separate. You have *Brain/Mind Bulletin*, for goodness sake. You know, there are all of these things. They start from that premise and go on to say, "Ah, but they interact." You explained this fairly clearly, but then I disagree with you from there, because I think the whole enterprise is completely misguided. In the same way, I think the whole enterprise of parapsychology is misguided, in that it starts from that separation. It is no good to say we are going to mend that separation by saying, "Ah, but there are interactions." The only way is to say that Descartes was actually wrong. He put up a false dichotomy. It isn't there. All there is is this body. It is born; it is evolved; it is here; it is purposeless; it gets on with its amazing chaotic life. And there is not some separate me sitting up here, you know, in control of things, doing psi or whatever.

It's quite frightening to accept this complete inseparability, but I think that is how it is. Now, if you accept that, a whole lot of fringe studies seem to be misguided in the same way as parapsychology. And I think the difference is clear if you compare something like psychoimmunology with homeopathy. Psychoimmunology is going great places. It's going fantastically; discoveries are being made all the time. People have had to go, "Oh, wow, weren't we wrong? Isn't this interesting?" And the research is going ahead. Homeopathy is a dead-end street. It's going nowhere. The research appears to be either finding nothing or possibly

it's fraudulent, and so on. I think the reason is quite clear. One takes as its starting point the biologically evolved system and tries to understand it. The other takes as its starting point a separation between that system and what is going to be done to it by some magical means of diluting bits of water. So, I think it's actually quite clear, and for me, the answer is to drop the dualism and get on with accepting what we are, which is just lumps of flesh.

RUBIK: I would like to address that. First of all, I don't think homeopathy is going nowhere. I think that the popular press certainly has given that impression, as we discussed yesterday over dinner. But I hope you will take a look at *Frontier Perspectives*, because we have a number of articles in there, including a summary of one in the *British Medical Journal*, which is a meta-analysis of clinical trials in homeopathy that clearly shows clinical efficacy for it. We hosted an international round table on the subject and brought together people from about seven countries who are doing research documenting some very interesting high-dilution effects. These results are just simply not allowed to be published in *Science* or *Nature*, so you are not going to read about them unless you're reading the *British Journal of Homeopathy* or *The Lancet* or a few other journals where they appear.

But, I think there is still a fundamental paradox of being separate and yet one. I think that maybe we need to go through that paradox. Maybe it is too much to jump back into the oneness of mind and matter. Maybe we're still struggling with the Cartesian duality. And I think if we can begin to hold in our minds the dualism of being separate and yet one and work from that perspective, this will help us recover ourselves in science where we have implicitly cut ourselves off from the research. At least, that has been a part of the conventional scientific method. Maybe we need to reinvent the method of doing science, because we have separated ourselves from that which we study. I think if we let go of that separability, then we really throw out the whole methodology as we have known it and we have to build something completely new. Are you prepared to do that?

BLACKMORE: Oh, absolutely.

HEINZE: If you use linear thinking, then you have opposites. If you use circular thinking you have no problem with opposites. There is a day and there is a night. There is a yin and a yang, but the yin becomes a yang and the yang becomes a yin, and it is in constant flux. So, the

opposite is just a momentary impression, but you know it's already moving towards the other direction.

RUBIK: Yes, I would like to offer a perceptual analogy of this: the Necker cube in psychology. Imagine a cube made of sticks and then you can interpret it from two different perspectives. These can flip suddenly. There's a perceptual shift in the mind that is like a paradigm shift. It suddenly looks one way and then, bang, it looks another way. I think this is how we can deal with that apparent paradox of separateness and oneness. I think it's a good analogy.

BLACKMORE: Can I just answer the point about separateness in one's own scientific endeavor? For some parapsychologists it isn't like that, and I think a lot of us know parapsychologists who integrate their own experience with their science. I think it's a sad fact that we don't often get up and talk about it, and it isn't in the printed papers and so on. But, we all know it's there in the conferences.

My life has been like that, trying constantly to relate personal experience to the work and live life as the science, not being separate from it. Now, it's not easy, though I think it's becoming easier, and so I absolutely agree with you. But even in someone as apparently rigid as Popper, you can see germs of this. Because in all this hypothesis-testing stuff, he's saying, "Ah, but the inspiration of the hypothesis you have to test." Where does that come from? He even talks in his magnum opus, about the scientist lying in the bath having the inspiration. Now, in parapsychology our inspiration must come from our own experience; that is where the hypotheses come from. So even then, a typical scientific hypothesis-testing science has room in it for integrating personal experience in life with science.

KHILJI: I would like to refer back to Ruth's point of spirituality and parapsychology or the phenomena that we are talking about at this point. I think it has a lot to do also with the classification of sciences. We have so far talked about the gender culture, but there are also country cultures that we have to deal with. And I have found from doing all my research in the Muslim block that the general attitude and belief system and their classification of sciences is somewhat different from the Western perspective. Muslim cultures uphold transmitted sciences that supersede intellectual sciences, and parapsychology, by virtue of being a part of transmitted sciences, does take precedence over the intellectual sciences. So, hard sciences are not given that much authority. Secondly, the use of

the word anomaly, as you had pointed out, could be due to the lack of the appropriate words. If I were doing research in Arabic, I would use the word *jinn*, which is interpreted as "hidden" (there are many interpretations/translations). But if I translate that into English it would lose its indigenous meaning and flavor.

BISCHOF: I'd like to respond to Jessica. What should be the aim of parapsychology when it stops trying so much to prove the existence of the phenomena? I'm not sure if I'm right, but from my standpoint, parapsychology should enrich our world picture, enlarge the picture of reality we have and help to unfold human potential, give life a wider meaning. By placing so much emphasis on proving the existence of phenomena, which is a main thrust of Western science anyway, this other aim has been missed. Interestingly, Russian science is not so much bent on this. I think science is tending to strangle itself by doing this, and it does not enlarge the picture but rather, it does the opposite.