Feature Article

Why Parapsychology is Amongst the Most Important of the Sciences¹

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"Let me show in allegory how far our nature is enlightened or unenlightened. The truth may be nothing but the shadows of images. If told this were an illusion, would Man not fancy that the shadows he formerly saw were truer than the objects now shown to him? He will take refuge in the shadows, which are clearer to him than the truth." (Plato, 1998 version of the original ancient Greek); (condensed)

THE PROBLEM

It is with the full realisation of my own inadequacies, that I examine the implications for scientific endeavour of a subject that I believe to be of the utmost importance, both philosophically and in possible practical application. So much and yet so little is known: so much because a vast body of evidence has accumulated over more than a century; and so little because of this knowledge base's limited ability to withstand critical scientific analysis. The discipline is, of course, a subject originally with philosophical and theological bases, a metaphysical concept and a religious exercise, that Max Dessoir in 1889 termed the science of "parapsychology" (Thalbourne & Rosenbaum, 1986; Hövelmann, 1987).

¹ This paper is an adaptation of the first prize paper ("great scholarship") in Dr. Alexander Imich's 20th international essay contest: "Why Parapsychology is among the most important sciences."

Despite the American Association for the Advancement of Science controversially making the official body of this discipline—the Parapsychological Association—an Affiliate of their Association in 1969, many mainstream scientists reject parapsychology and its contributions out of hand. "If there were a tenth the evidence for any other subject as there is for telepathy, I would accept it immediately, but even if there were ten times more evidence for telepathy, I could never accept it." (Neppe, 1973, cited on page 31.) Such prejudice amongst scientists reflects the irrational scientific approach. The basic tenets of how parapsychology functions are disputed by many in the more conventional scientific community. To them, questions could always remain as to its basic legitimacy.

Parapsychologists continue trying to prove the same phenomena over and over to satisfy the critics that so-called ESP (Pagenstecher, 1924) and PK (J. B. Rhine, 1943; L. E. Rhine & Rhine, 1943) (or compositely "psi") exist, or to argue the evidence on controversial areas such as survival.

And yet as far back as 1959, a doyen of psychology, Eysenck, argued that if fraudulent experimentation is the answer to the positive evidence for ESP, it implies that there is "a gigantic conspiracy involving some thirty University departments all over the world and several hundred respectable scientists in various fields" (Eysenck, 1958). We can feel comfortable there is a place for such research.

THE PERSPECTIVE

It is not the mission of this paper to attempt to prove that anomalous phenomena exist. Nor do I aim to prove the extent of anomalous behaviour (slight and comprehensible within our worldview, or radical requiring profound perspective changes). Like Eysenck, I strongly maintain that the summary dismissive attitude of the major science dealing with the anomalous is incorrect and inappropriate, and that the area not only deserves rigorous scientific scrutiny, but could contribute enormously to our knowledge base and methodology: Parapsychology uses, where applicable, the conventional scientific methods and scientific principles of deduction, induction, data examination, formulating hypotheses, testing hypotheses and empiricism, and applying, where applicable, theoretical mathematical realities. It is a science that has accumulated solid research data over a century. But those data have been subject to a scrutiny and scepticism unparalleled in any other area of scientific endeavour. Parapsychology could, ipso facto, be argued to be amongst the most important of the sciences for the very reason that it evokes such emotional attention: its research is not silent; it thunders through controversy because the consequences of its ostensible findings are literally mind-shattering. This is

because the domain of parapsychology impacts, interfaces and extends to cosmological theories.

However, cosmological scientific data by their very properties do not involve control of the experiments by humans. Therefore, certain exact experiments cannot be replicated, either because the situation of the experiment never again exists in that exact form, or because the results require examination through the limited scientific instrument of our conventional three-dimensional space and one-dimensional time universe. Cosmologically, such results may reflect the Platonic shadow and not the whole perspective of data extending beyond these four dimensions.

Imagine: Imagine an area of scientific endeavour that is so important that it changed the perspectives of other sciences. All sciences are important and all sciences use similar methodology in that one is looking at possible information and trying to test hypotheses to improve knowledge. Very often science involves deductive and inductive reasoning, and often repetitive phases of these, like verification or retesting, or new hypotheses occur as further information becomes available.

I maintain that parapsychology is one of the most important of all the areas of scientific endeavour for five major reasons:

- firstly, because its implications broaden our worldview at minimum, and are so profound in its more radical framework;
- secondly, because parapsychology allows the development of cosmological theories, and new scientific endeavours may develop as a consequence;
- thirdly, because its methodology serves as a model for both the physical and humanistic sciences to adopt;
- fourthly, as an extension of the methodology issue, because, the subjectivity approach in parapsychology extends its usefulness even further in the social and medical sciences;
- and fifthly, partly a synthesis of the above, parapsychology should be accepted as a major legitimate scientific endeavour as the implications for findings are so fundamental, ubiquitous and versatile for almost all our sciences: It is not a narrow endeavour. It potentially implies extremely broad impacts on almost every other discipline.

Any of these five reasons would be sufficient to elevate it to such a lofty status. The discussion below is not intended to provide cogent proof for the area. The purpose is not to provide factual evidence or analyse the strengths

and weaknesses of specific research, but to allude to the scientific methodology that has developed and can develop, and by so doing, demonstrate the potential breakthrough attempts and potential implications of an ongoing scientific area that has been, is being, and will be explored.

THE IMPLICATIONS OF PARAPSYCHOLOGY BROADEN OUR WORLDVIEW

Imagine: Imagine being at a single point in a three-dimensional spatial box and being able to obtain information in another remote area of this enormous box without using any of our conventional sensors (e.g., seeing, hearing, any forms of electronic communication). That metaphorical box could be our earth. If we are able to replicate such apprehending of information by ostensibly paranormal means, we would demonstrate contemporaneous ESP (extrasensory perception) (or what I would prefer to call *contemporaneous anomalous cognition*). This imaginary research could demonstrate the extension of the nature of space either beyond or differently from our perspective of three-dimensional spatial realities.

Imagine: Or imagine being able to manipulate other objects in that box or events occurring remotely, ostensibly without using appropriate motor or known physical apparatus (like electromagnetism or light waves). If sufficiently controlled and replicated, we would demonstrate "psychokinetic" phenomena (PK) (J. B. Rhine, 1943; L. E. Rhine, 1970; L. E. Rhine & Rhine, 1943) (or what I would prefer to call *contemporaneous anomalous influence*).

Imagine: Or imagine someone at a single point in time being able to look forward towards the future or backwards at the past. Imagine someone apprehending this information by means other than our usual conventional physical senses or logic. Imagine demonstrations of this experience being replicated repetitively by others. This imagine example is different because it would potentially demonstrate the scientific veridicality of precognition or retrocognition and would argue cogently for a concept of time beyond our current point-to-point present concept in which we do not even know what will happen a second in advance unless there are sensorimotor or logical or electrical or other conventional physical or psychological clues. Time to us, in our current world, is not even linear: it is a series of discrete moments! Our imaginary events, moving across time, would illustrate that movements along a linear or other dimension are occurring.

However, the conventional scientific reality of parapsychological research is different. These imaginary events appear to be rare. They are very difficult to apprehend or influence in the conventional small-worldly

physical framework of our three dimensions of space and one of time. We use a tiny portion of our one-dimensional, unidirectional "linear" time that we specifically call the "present". That present does not allow glimpses into the future except using logic and deductive reasoning. We can make logical predictions and even have meaningful correct "guesses" of spontaneous events, but we cannot easily quantify such meaningful coincidences. Such quantification and replication is a challenge for the important scientific discipline of parapsychology, but when demonstrated, it would extend our breadth of thinking in the sciences.

Using the examples above, with us at a single point in the box, obtaining or manipulating contemporaneous information elsewhere or even into the future or past, it could be that we could examine time and space purely from within and yet somehow jump to another point in time and space in that "box". But we may not see the whole picture, just glimpses, and this may be what sometimes happens when we apprehend or influence information, objects or events. This may imply an approach that still is radical in that it defies conventional scientific endeavour, but it may still be explained within the conventional fabric of laws that may require modification but not total revamping. I call this the "minimalistic parapsychology" approach (Neppe, 2003a). Physicists may be intrigued by the implications and attempt to explain them using modified models of quantum physics, for example. In essence, scientists may be able to accommodate such theorising within the natural laws of our current scientific base.

Nevertheless, prior to this theorising stage comes the conventional methodology of replication of findings. This has proven a major difficulty, even at this minimalistic level, although there are areas where major experimental designs have demonstrated replicability and extensions of hypotheses, with such results being generated world-wide by tens of researchers and appropriately repeated. Areas such as remote viewing, Ganzfeld research, and biological healing at the microscopic level, broadly referred to as DMILS (Direct Mental Interaction on Living Systems, or bio-PK), micro-PK and the potentially more radical macro-PK (e.g., PK metal bending) are examples of current promising forms of research. These areas have created new, fertile and provocative areas for research, making parapsychology an ongoing modern science with new ideas and extended previous concepts.

Some of the components of psi research could be argued to be anomalous in the context of our current materialistic world-view, but because of their difficulty of replicating in lab situations, they may still be explained using this world-view. Whereas these threaten that our carefully constructed materialistic edifice may collapse, they do not leave it entirely

shattered. We invoke, instead, explanations ranging from statistical aberrations, to new theories of quantum physics, or new perspectives on mathematics and dimensional physics, or if none of these work, conventional scientists can use the ultimate backhanded compliment to parapsychologists, and explain results simply as the "result of plain fraud".

Imagine: Imagine this approach of minimalistic parapsychology attempting to solve problems that do not quite fit into the fabric of our physical worldview. Imagine results that were statistically relevant and the research was untouchable. This would require alterations or modifications of our basic laws of physics and reality, but would still fit well into our fabric of natural law. However, this is only if minimalistic parapsychology were enough.

THE IMPLICATIONS OF PARAPSYCHOLOGY ARE PROFOUND IN ITS MORE RADICAL FRAMEWORK

It is extremely difficult to "perceive" the full three-dimensional box from within the three dimensions itself: As a parallel, it is easier to see the one side (two dimensions) of a three-dimensional box from the standpoint of being located at another point in our three-dimensional world, than having just a two-dimensional fabric, and being contained in it. Similarly, we would have enormous difficulty trying to conceive of the whole three-dimensional box if we were located in a two-dimensional mirror or TV tube. Using our conventional world, the observer in a four-dimensional (4D) space-time universe would perceive a fifth dimension as extra-dimensional. Yet an observer in that fifth dimension could potentially more easily perceive the lower four dimensions because they would be observing from without. Psi would become much easier, as the whole picture would be seen.

Similarly, it may be that in order to look outwards in time, we may need to "look in" to perceive a reality across past, present and future, instead of discrete blips of the present. That look implies seeing time not as a point in space, but made up of multiple points along at least one dimension. That looking in can be done more easily from the outside and this could imply a linear dimension of time available (moving from a point in time to a line) at what should in our physical reality be a single moment in time.

Similarly, the three dimensions of space in the box example could require a conceptual jump to another area of spatial reality in order to apprehend or manipulate the multiple or complex information or event sources. Examples could conceivably be the so-called "cross-correspondences" and other alleged forms of communication with the dead.

This would imply a further dimensionality shift in space.

In our mythical box, we could imagine a point out beyond that box. In order to see that whole box, the earth and the cosmos, one needs a further dimension. Using similar reasoning for time as for space, one may need a further dimension in time. This implies we could need a fifth dimension to have cogent anomalous awareness of our four-dimensional world. But if a fifth dimension is possible, we could look from the outside into those five dimensions. This implies a sixth dimension. We could look from the outside again into the sixth dimension from the standpoint of a point that is an extra dimension away. Logically, we can extend this observational theory ad infinitum, producing an N-dimensional universe or cosmos of time and space—what I describe as "N-dimensional pluralism". I have not commented here on the nature of this N-dimensional framework. but such studies involve significant implications from, and directed towards, parapsychological research. There would be enormous philosophical implications and scientific endeavours that would need a whole new base to extend beyond the limitations of the conventional 4-D earth-based concepts. The implications are literally earth-shattering!

These speculations imply extension beyond our conventional 4-dimensional universes and clearly have radical implications. These ideas imply that any mathematicians, physicists, chemists, physicians, psychologists and any other scientists heavily committed to a monistic one brain/ one body / physicalistic view would have to change their whole fabric of thinking. They would have to unthink thoughts they have thought before! This is what I call the "radical parapsychological approach" (Neppe, 2003a). It is radical as the implications force scientists to radically modify their worldview. Such radicality is uncomfortable even for many parapsychological researchers, possibly because their tenuous attempts at scientific respectability may be more distanced as established scientific knowledge becomes even more threatened.

Imagine: Imagine this world of new science that was very different and required radical parapsychology. The whole fabric of our current perception and world-view would change. Imagine an awareness of more than four dimensions of space and time and even an N-dimensional cosmology or reality. Again, the impacts for science are radical. Reaching to ostensibly deeper dimensions, if true, has radical implications for theories that explain all events, including life, as purely (bio)physico-chemical. These are examples of ideas that have a cosmological nature. These cannot be tested using our broader physical three-dimensional space universe as a base as they would require radical new hypotheses, which are outside this realm. Clearly, future directions in parapsychological research may assist in

supporting theoretical frameworks about our nature in the cosmos. Such theories in their turn may provide better heuristic frameworks for the future of parapsychological research. Conversely, if we were able to find a philosophical paradigm that did not conflict with any of the conventional sciences, we would have advanced enormously in our potential progress towards understanding the cosmos and we would be ready to advance radically our scientific knowledge in other sciences as well. There are certainly levels to the radicality, however.

Imagine: Imagine apparently knowing events that happened in, for example, an operating room while in a coma. This requires radical alterations of conventional thinking in relation to memory. This shakes the entire basis for the *physicalistic presupposition* as the only basis for reality. If such events happen, even if rare, and these can, indeed, be demonstrated to be proven, then we need to re-look at our whole idea of everything being physical. Even such non-survival of bodily death experiences may be radical in their hypothetical needs. But *such experiences can be tested because they still significantly impact on our 4-dimensional realm.*

Imagine: Imagine now going beyond easily testing hypotheses in our 4-D realm. Imagine if there were scientifically overwhelming data for survival of bodily death. A century of psychical research has focused on the issue of survival after bodily death, and particularly communication. Imagine that survival of the human personality after bodily death had demonstrable, cogent, scientific evidence.

Survival of the human personality after bodily death is certainly a radical concept even in parapsychological research, so much so that many have steered away from it to the more basic ESP and PK research variants. However, there is accumulating challenging and sometimes even cogent data, particularly given information from scientifically based proxy sitter mediumistic communications, hypnotic regression, reincarnation research, new approaches to xenoglossy, to cross-correspondences, to so-called near-death experiences and also (to a lesser extent) even to out-of-body experiences and occasionally to ectoplasmic materialisations.

However, to encompass the most parsimonious approach, the so-called "super-ESP" hypothesis (so named by Hornell Hart) (Gauld, 1961; Hart, 1958, 1959) has been invoked. But this hypothesis in and of itself, still involves the "radical parapsychological approach" as it implies by its very definition that there are no known limits to psi on the part of the living. By so doing it attempts to exclude most elements of survival, but it is radical in that it requires extension across time, space, simultaneous events and sometimes acquisition of information not known to anyone. And moreover,

there are alleged survival cases that cannot even be explained by super-ESP (Neppe, 1973). But these areas are ostensibly not replicable. Certainly, many scientists would argue that such events as the very nature of survival of the human personality are not easily demonstrable in a lab situation. This may well be true. It is extremely difficult. Research here becomes cosmological and goes beyond our 4–D verification realm.

However this does not diminish the *relevance* of such endeavours. All sciences are relevant; and all sciences are consequently important. And when data acquired have radical implications for science, and scientific method is adopted, though the results may be inexplicable in our conventional 4-D worldview, such truth is overwhelmingly relevant. As an example, the implications of survival communication are philosophically remarkable, for example: death as an extinction would be an illusory concept; human entities would survive physical death; these individuals would retain at least some knowledge of their physical experiences; and the 'dead' would, under appropriate conditions, be able to communicate with the living. Possibly, the information would suggest that individuals could continue to learn after physical death. And the furthest, even more radical stretch in terms of Occam's razor—the law of parsimony—would be the reincarnation hypothesis.

Even more so, proof of some form of life after death would also have enormous impact on our conventional science. They are the "dollars" in the "mint". And that would mean that the mint exists. The "mint" here would imply that laws are apparent which contradict, or which occur outside the range of, our physical laws of space, time and even mass. Many scientists would find this terrible: They would have to unthink what they had learnt before. Or maybe, they would have at least to realise the limitations of their thoughts in the 4-D realm.

Additionally, because parapsychology allows the development of cosmological theories, there are new scientific endeavours that may develop; and parapsychology potentially impacts extremely broadly on almost every other discipline and would require recognition of a whole new body of scientific theory.

Conventional scientific endeavours look at the results in the framework of the four dimensions (4D) of our physical realm—three space and one time. They cannot go beyond and need not go beyond. However, beyond these four dimensions, there are significant difficulties in applying our physicalistic presuppositions and methodologies to explain everything or prove anything. When time, instead of being a single very transient point becomes linear extending backwards or forwards, suddenly one has a whole new perspective of looking at the world. One has to invoke cosmological theories and hypotheses and this contradicts the scientific convention of

replicability.

Does non-replicability or inconsistent replicability disqualify parapsychology as a science, never mind as one of the most important of the sciences? The answer is a decisive "No!" There are areas of accepted science that are not replicable or not easily proven. To "replicate", the possibility of replication is needed. Only phenomena controlled or produced by Man can be replicated. Many phenomena cannot be replicated. But replicability does not apply to certain events because they do not appear more than once in that exact form. One cannot replicate creation or the big bang or past events as illustrated by previous evolution. For that matter, theoretical physicists cannot "prove" 10 or 11 or 26 dimensional string theories: Whereas there is support for string theory in that it fits the data, as yet there is no evidence that it is a better theory: For example, M-theory is an extension of string theory but does not yet even have any equations, and the equations (which have not been found yet) would have infinitely many solutions so that they could not define reality. In this context, "it is truly 'vapourphysics', and all that supports it is mathematical elegance." (Josephson, 2004). However, these limitations, be they replicability or lack of equations, do not negate these areas as being "sciences". To quote another physicist, Stephen Hawking: "We have no idea how the world really is. All we do is build up models which seem to prove our theories" (Boslough, 1985).

Similarly, we cannot exactly replicate spontaneous anomalous events, because even if they recurred, they would never be exactly the same because events, time, space, physics and psychology, all necessarily change from moment to moment. And these are key confounders in parapsychological research: Invariably, the situations in parapsychological research may show minor differences, and because the results relate to rare though quantifiable events, such differences become highly relevant clinically and statistically, such that the research situation becomes different and not repeatable. Confounders and variables include progression of time in seconds, sidereal time, time of day, geomagnetic variations, so-called "experimenter effects", cognitive, affective, conative and physical conditions of the subjects, percipients, agents and observers, as well as the macro- and micro-environments.

Moreover, parapsychology, by its very nature, implies if not more than our conventional four dimensions in the radical model, then certainly a different perspective on the four dimensions in the minimalistic model. We cannot easily measure information in the context of the conventional worldview because that worldview is being modified. This is what transforms many aspects of parapsychology into a special kind of cosmological science. The cosmological does not need replication and often

cannot be replicated in our four-dimensional reality. All we may see are the Platonic "shadows" intruding into our 4-D world.

Moreover, those elements intruding beyond our conventional four dimensions would involve cosmological proofs. We cannot generally prove the cosmological, as such proof would require the current 4-D realm as endpoint, and that 4-D shadow may not accurately reflect dimensions beyond our current four.

Sometimes one shadow is enough. This is the dollar in the mint and we see only a 4-D shadow of the extra-dimensional elements. There may potentially be thousands of examples of excellent spontaneous data shadows in psi research, but that is actually not necessary. We know that the single dollar note can prove the existence of the mint. But that dollar note has to be so incontrovertible, as the implications may be enormous, as the existence of the place it was produced (the mint) would be proven. This is why in parapsychological research, statistical probability values of p < 0.05are not realistic, even though that would be accepted in psychology and medicine. The parapsychologist sometimes may generate p-values of one in a thousand or even one in a million. Then the dollar has certainly served its purpose. But many times because of the spontaneity of the phenomena, and the absence of a controlled or comparative naturalistic framework, statistical quantification is meaningless. Nevertheless, genuine and strong examples would serve only to strengthen the overall position by their excellent value per se, but if refuted would not disprove psi experience. Parapsychology remains different from and very unusual in its approach to both the conventional statistical method and the impossibilities of replication because of the requirements of going beyond the non-cosmological physicalistic 4-D based sciences.

Proof of cosmological theories would be excellent scientifically. But alas, that it is very difficult. That is a major challenge for scientific parapsychological research. But, conversely, we cannot generally disprove cosmological theories either. However, inability to prove or disprove is a limitation that occurs in the other areas of scientific endeavour listed above, such as string theory in physics, and is not limited to parapsychology.

And so we cannot easily move away from the almost tautological stumbling block to parapsychological research: ostensibly anomalous, possibly non-physical perception, manipulations and experiences are examined through the screen of physical evidence: We attempt to marshal evidence for non-physical perception in a negative way because findings must make contact with physically verifiable evidence if results are to be meaningful to conventional scientists using the basic methods of scientific reasoning, deduction and induction, in an empirical sense.

However, the implications remain profound. Just to illustrate the

extent of impacts such theorising would have on science, consider a basic example: If time is different dimensionally, this has enormous implications. Such basic relationships as special relativity, energy and mass as in $e = mc^2$ are modified because speed of light is relative to a constant time-period. If time is contracted or expanded or non-existent in some realms, it is a new confounder, and fundamental theories need to be modified to include this, or at least to imply their limitations in 4-D reality only.

THE METHODOLOGY OF PARAPSYCHOLOGY

The methodology of parapsychology serves as a model for both the physical and humanistic sciences to adopt. There are two major contributions of parapsychology to methodology, namely, the "no holds barred approach", and the "detailed phenomenological" approach. Parapsychology uses what I call the "no holds barred approach". It goes flat out to ensure the greatest rigidity and scrutiny of the data.

Imagine: Imagine a need for developing a methodology in science that is so rigid that it takes into account variables that scientific endeavours usually ignore. This approach means every source of possible physical and psychological leakage has been eliminated or controlled or accounted for. This way the scientist can be certain that he or she is discussing anomalous experiences. This implies the utmost care to establish that both afferent (sensory or perceptual or any other form of communication) and efferent (motor, executive or mechanistic) information transfer is eliminated. This means that we can conclude, if the research quantitatively demonstrates it, that so-called ESP can be the only explanation at the afferent level, and that so-called PK can be the only explanation at the efferent level. Such research generally involves the minimalist parapsychological approach, so it is possible to quantitatively use our 4-D realm. Examples, of such methodological advancements include random number generation to ensure complete randomness, computer-generated targets to apparently ensure that human influence may be diminished (except, of course, this may not be so in psi research!), automated recordings to exclude recording errors critical in rare events, Faraday cages to exclude any sensory leakage or motor communications, noting in detail the psychological and physical states of all researchers including even the attitudes of the subjects (e.g., the percipients, the agents, any volunteers, and control subjects), the experimenters and any observers and anyone else who may be involved (as supposedly they all could influence the experiment and its outcome and when rare events are being measured everything needs controlling).

The parapsychologist approaches research with enormous scrutiny: What kind of technology is being used? What factors such as weather and events are happening? What controls are done for the times of the day? Even measures of sidereal time may be relevant. Additionally, the most astute statistical techniques are used and probability values are set far higher than in any other area of scientific endeavour. The parapsychologist need not imagine these: He or she can be proud that this is one of the significant ongoing contributions of parapsychology to science. To train any scientist properly, in any discipline, I believe they should know parapsychological scientific method. Yet this is not generally taught even in the social sciences, or in medicine, where such lacks of controls and non-use of proper methodology may be highly relevant and negate or distort results.

Parapsychology might not have advanced as rapidly as it could have over the past century, and yet it has made great strides in rigidity of methodology and statistical analysis and awareness of confounding variables. In the future, we may see entirely different approaches from experts within parapsychology and across to other disciplines.

The areas of parapsychological scientific methodology are also extremely broad ranging from direct analytical research plus enormously large and very complex statistical analyses; to case studies including the personal and transcultural, as well as field investigations and analyses of beliefs and practices in different ethnic groups, to the theoretical model including phenomenology and mathematical modelling, to conventional experimental and laboratory research. This versatility allows broader applications of the range of this science.

Parapsychology methodology serves as a model for both the physical and humanistic sciences to adopt; and a related extension of this is the "detailed phenomenological approach". This is referred to as the subjectivity approach in parapsychology and it extends its usefulness even further in the social and medical sciences.

One of the major theoretical changes that have occurred is the awareness that one cannot scientifically "prove" most spontaneous psi experiences. This means the rise of subjective analyses and this allows for a whole new perspective on "anomalistic psychology".

Imagine: Imagine an entirely different approach. An approach to subjectivity, not trying to prove that psi phenomena indeed exist, but looking at subjective paranormal experience. This approach extends the fabric of phenomenology and the methodology of science to understand that detailed elaborations are necessary to fully differentiate phenomena. Again, we need not *imagine* as this work has been performed at least at the

pioneering level: The subjective psi approach is what I have emphasised in detail in both my Masters (Neppe, 1979) and Doctoral research work (Neppe, 1981), as well as numerous publications [e.g. (Neppe, 1983a, 1983b; Neppe, 1983c; Neppe, 1993, 1999; Neppe, 2002, 2003b; Palmer & Neppe, 2003)] and presentations (Neppe, 2003a, 2003b). Moreover, this work is ongoing and continues.

This theoretical shift from objectification to the subjective approach effectively impinges not only on that psychological portion of parapsychology that I call Anomalistic Psychology but also on what I have called Parapsichiatry—the discipline impinging on questions of psychopathology and anomalous brain function (Neppe, 1982). My term "Subjective Paranormal (Psi) Experience" (SPE) is applied to analyse reported paranormal events through their "subjective" experiences (Neppe, 1990). This allows a more non-prejudicial interpretation of these phenomena, and of research of a possibly anomalous kind-ESP and PK (Neppe, 1985). But effectively it allows such SPEs to be analysed in the same context as anomalous cognitive brain phenomena such as "hallucinations", "flashbacks" and "déjà vu" or curious other-body distortions. In all these experiences, the distinguishing characteristic is their external non-validation and their subjective nature. But experimental and control groups can be developed based on the presence or absence of a cluster of criteria such as quality and quantity of SPEs. This approach can allow analyses of specific aspects of brain physiology, anatomy or symptoms, or analyse some psychological function, such as personality or attitudes. Patients with normal or abnormal brain functioning can be analysed for such SPEs, just as they are for hallucinations or delusions, which are other kinds of subjective experiences (Neppe, 1982; Neppe & Ewart Smith, 1982). Again, this is a significant contribution to the sciences because it makes parapsychology not only relevant for what is potentially objectifiable or what may change worldviews and in terms of stringent control methodology, but it adds an extra important future tier to the humanistic and social sciences by subjective quantification, classification and phenomenology. Moreover, detailed phenomenological analyses and classification of events may compare and analyse similar experiences.

The human sciences can learn from the classificatory systems developed for parapsychology. For example, I have proposed a multi-axial classification, trying to describe and characterise the events around the anomaly and the extent of the anomaly and its certainty, the degree of verifiability and the correlating symptoms (Neppe, 1985). This is not only important from the perspective of phenomenological research, but what's relevant is being able to demonstrate link-ups with various areas of the brain. In this regard, this area allows a special approach to analysing brain

function such as temporal lobe and disease in both normal and abnormal. Moreover, it impacts on the medical sciences for example, by analysing patients with complex partial seizures. It also has enormous implications for psychology ranging from potentially examining attitudes (like sheep and goats), to personality quantification to measurements of physiological variables. Finally, it also feeds back to locating appropriate research subjects in parapsychological research as well as other research.

Moreover, this subjective approach can diminish the threatening elements of parapsychology substantially. It is more credible: By contrast, an objectively researched psi event necessarily constitutes a threat to the universality of currently accepted scientific theories, introducing entirely different philosophical frameworks.

Finally, in part a synthesis of the above, parapsychology should be accepted as a major legitimate scientific endeavour because it potentially impacts extremely broadly on almost every other discipline, and so has properties generalisable to other sciences. Its implications for generalisation of its findings are because the methodology and consequences are so fundamental. This makes the findings ubiquitous and versatile for almost all our sciences: Parapsychology is not a narrow endeavour.

A medical example illustrates how the perspectives are different, allowing broadening of attitudes as phenomena are often narrowly perceived from within the framework of one's scientific training: A man describes finding himself outside his body such that he "could see his physical body from the outside, and could not move it." He would be described by the parapsychologist as having had an "out-of-body experience." The psychiatrist could record the experience as pathological "ego-splitting with sleep paralysis" (Neppe & Ewart Smith, 1982). Both these specialists have described a single experience within the perspective of their own discipline. From the parapsychological standpoint, frequent "out-of-body experiences" would be described as normal; the psychiatrist may delve deeper into such frequent episodes: He will generally regard this as a 'symptom' of underlying abnormality and may explain ego-boundary disturbance possibly as due to a defence against anxiety. Thus, basic terminology in psychiatry often labels SPEs psychopathologically, using an all-encompassing medical model. Parapsychological education reconciles these poles. Science should educate psychiatrists.

Similarly, psychologists and neurophysiologists will extend their perspectives, for example, on consciousness research, memory and perception. Biologists may understand more about perceiving and

responding to our world. Physicists will appreciate space, time, energy, mass and information transfer differently. And health care professionals, and social scientists particularly, can apply the basic approaches to parapsychology to their disciplines, allowing us to re-establish diagnostic nomenclature, narrow what is regarded as abnormal, and appreciate that ostensibly double-blind studies may be subject to influences of outcome that were previously unappreciated. Once parapsychology becomes part of a routine teaching curriculum in other scientific endeavours such as psychiatry and undergraduate psychology, the potential for others to research their disciplines will increase by an order of magnitude because appreciation of the limits of human potential could change dramatically.

SO WHY IS PARAPSYCHOLOGY AMONGST THE MOST IMPORTANT OF THE SCIENCES?

It is because parapsychology has significant implications for modifying or totally altering our worldview and philosophical perspectives and has developed a methodological infrastructure, both objectively and using subjective experiences, that allows its application to many other scientific areas.

What may currently be lacking, however, is a pragmatic direction. How can parapsychology be applied to better the sciences? Such a question will be answered in its due course: I could posit many hypothetical applications, but only solid funding and dedicated research will demonstrate the utility of parapsychology in understanding and applying its data to practical life. We need to see to visualise. We need to hear to appreciate sound; we smell to protect us from burning; and ultimately, our prescience may assist in understanding our world. We will appreciate commonalities and differences.

The reaction of many modern-day parapsychologists has been to move toward the minimalistic parapsychological approach. Exploration of anomalous or ostensibly anomalous phenomena explained potentially as an extension of physics ("paraphysics"), or more literally an extension of psychology ("parapsychology"), is less threatening in broader science. Some parapsychologists regard themselves as more likely to join the community of scientists that way.

But if they ignore the broader frameworks of super-ESP and, even more so, of survival, they are in danger of throwing the baby out with the bath water. The iconoclasts try directly to marry the physics connection and the extension of psychology instead of moving away. And yet even at that minimalist level, the implications of parapsychological research are enormous, and when keeping the "baby" and moving to the area of radical

parapsychology, the implications are profound. Add in the methodological contributions at an experimental level, and the phenomenological elements of subjective paranormal experience, and parapsychology's essential role in teaching such methodology and broadening understanding in the social and medical sciences, and parapsychology indeed joins the ranks amongst the most important of the sciences.

We should recognise Arthur Koestler's remarks:

"Innovation is a two-fold threat to academic mediocrities: it endangers their oracular authority; and it evokes the deeper fear that their whole laboriously constructed intellectual edifice may collapse. (Koestler, 1959)

We began this paper with Plato and we end it with Plato. We should understand our limitations: "Behold human beings living in an underground den...like ourselves...they see only their shadows and the shadows of one another which the fire throws on the opposite wall of the cave. (Plato, 1998 version of the original ancient Greek). Is it possible that what the shadow human beings see is their physical reality alone? This is what the discipline of parapsychology sets out to establish. This is what makes it such a prime science—and one of the foremost areas of scientific endeavour.

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