

## PARAPSYCHOLOGY AND REPEATABILITY

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My intention in this article is to discuss the claim of repeatability within psychical research. Dr. J.B. Rhine is my example of a parapsychologist who maintains this claim. But, indeed, a vast majority of all scientific researchers in parapsychology do the same. I have chosen Dr. Rhine because he is one of the most well-known in the field and because he has frequently touched upon this topic. I can also from his institute in the United States present an example of unfortunate events that I interpret as consequences of upholding the claim in question.

Before I start my examination I wish to point out that I, in this short paper, do not give all the nuances to the problem. I see it as a pedagogical advantage to formulate the idea of duplication in a rather simple way and to limit the more speculative part of this paper to an absolute minimum.

Almost all scientists think that a serious refutation of parapsychology lies in the fact that so far it has not been possible to show one single experiment that is repeatable at will. For my part, I do not at all think this as being a serious default. My view, as will be shown here, is more or less the opposite one.

The claim of replication has been put forward over and over again by parapsychologists as well as by critics of parapsychology. It has become a 'well established truth' that parapsychology will not be considered a 'real' science until it comes up with the repeatable

experiment.

This 'truth' may be called 'truth by repetition'. When a false statement has been repeated a certain amount of times in scientific journals or text books and has reached the encyclopedias, then this statement attains the nimbus of absolute truth, i.e. a statement that should not be questioned. Such 'truths by repetitions' are very difficult to detect.

Almost every parapsychologist seems to dream of the day when parapsychology in the same way as physics, chemistry, etc. can demonstrate at will its phenomena. These parapsychologists hold that (one of) the most important tasks of their research is to establish the repeatable experiment.

My following point is of no great importance but should be stated to remind us that every science has to be evaluated after its own merits. Would it not be so that on the day we at will can demonstrate telepathy, PK, etc., they cease to be part of parapsychology? Daily replicable telepathy is not parapsychology, it is psychology. The absence of repeatable experiments in parapsychology is then, according to my opinion, not a grave deficiency with parapsychology but one of its presuppositions.

My statement may be looked upon as a negation of an 'established truth'. Therefore, it is, just as this 'established truth', neither deductively nor inductively provable. However, from a pragmatical point of view and to the benefit of psychical research, I consider my statement better than its negation. I hence claim my statement as being pragmatically true.

In the March 1974 issue of the Journal of Parapsychology, J.B. Rhine takes up for discussion, under the headline "Security versus Deception in Parapsychology", some problems of research. His article is 23 pages long. I comment only on a few of his phrases. They are taken out of their context but will, I hope, all the same in a good way mirror the basic attitude with the nestor of parapsychology, namely: The dilemma of parapsychology is the absence of repeatable experiments.

Rhine points out that deception has taken place in all sciences during all times but has become more and more unusual. Also within parapsychology it has become more difficult to cheat. The reason for this, according to Rhine, is threefold.

- a) It was mainly the paragnosts or the mediums that in former times cheated. The scientists have acquired better equipment and they are better trained today to check and reveal swindling. This kind of deception, from the paragnost, has almost disappeared.
- b) There ia more and more collaboration among the scientists. This has several good consequences among which you find an automatic control system built in, where the researchers are checking each other. An example of this is given later on in this article.
- c) The apparatus and devices are getting more and more sophisticated. Specially important is the fully automatic and objective registering of the results. Involuntary mistakes on the experimenter's part can therefore be minimized.

Talking about devices, Rhine adds that "apparatus can sometimes also be used as a screen to conceal the trickery it was intended to prevent.....Machines will not lie, but....." This view later on proved to be of precognitive character.

Rhine also says that "obviously the possibility of easy repetition of tests as a way to check up on a new claim offers the best protection against trickery in research."

Rhine believed (or at least hoped) that tests in parapsychology, if not today then in the future, can be checked by duplicating them. Then trickery would not pay, because it would sooner or later be revealed by other researchers.

According to Rhine, parapsychology has come far towards the reproducible experiment. As an example, he mentions the experiments with clairvoyance that he himself has done and which later have been repeated by others. Rhine adds: "There were also many who, for one reason or another, failed in their attempts to repeat the tests, a fact that means little because there are so many wrong ways to do it." This means that the ones who failed did so because they did not do exactly as Rhine had done. If they had done it correctly then their results would have been positive. This is really saying that the reproducible test exists.

Now, according to Rhine, what kind of researchers cheat? His answer is not very enlightning: The imposters are "weaker minds" or "weaker characters". Many of these "weaker minds" are "able, clever people who need not have used trickery at all; they could surely have learned to do careful, effective testing." In other words, 'clever' persons can

learn to demonstrate paranormal phenomena. Is this really true? Historical data, so far, deny this.

The introduction of the term 'weaker mind' does not explain anything. The weaker mind cheats. How do you know if a mind is weak? Well, a sign is cheating. This is begging the question.

Rhine gives several examples of discharging hoaxing staff from his institution. But, Rhine stresses, this belongs to the past. In the seventies he has been in the position to choose his staff: "Best of all, we have reached a stage at which we can actually look for and to a degree choose the people we want in the field."

Rhine is correct in saying that nowadays there are more persons than ever before who want to do research in parapsychology; but, unfortunately, there is nothing that hinders heads of departments or laboratories from selecting staff who later try trickery. Rhine even adds that "it is impossible for dishonesty to be implemented inside the well-organized psi laboratory today". Surely he is referring to his own lab. This seems more to be wishful thinking than a description of reality.

Rhine takes up two, as he says, important differences between parapsychology and natural sciences. An important difference in this context, I presume, is a difference of kind, not a difference of degree. As an example of a natural science he chooses chemistry. He asserts that it is more difficult to carry out an experiment in parapsychology than in chemistry. Rhine may be right but this is not an important difference. Some experiments both within and between the sciences are more difficult to do than others. This is, however, not a difference in types but a difference in degrees.

The second difference Rhine mentions concerns the amount of researchers. There are many times more chemists than parapsychologists. Rhine is correct again but also here it is only a question of degrees.

From these two differences Rhine concludes the following about the parapsychologist. "If from the start he recognizes independent confirmation to be an essential part of his own goal, he will be able to do much to aid and insure such replication." This is not a logical conclusion from the premisses. It is merely a repetition of what Rhine and most parapsychologists over and over again, but in different

words, come back to: The parapsychologist should strive after the replicable test.

Now, I think, we have to admit that even if it became 'easier' to perform tests in parapsychology and even if the amount of parapsychologists was raised to the same amount as that of chemists, this would, in no way, secure parapsychology to launch the at will demonstrable test.

Rhine continues:".....in parapsychology any new piece of work should be taken as almost a sort of pilot research." Further:".....it is more than ordinary important for another laboratory to repeat it with adequate success. This will then complete the project as a sufficiently effective research contribution."

In chemistry it is possible to carry on tests in an old, drafty house if you do not think that changes in temperature, dampness, smells, draft, house trembling and so forth will effect the experiment. If later on you suspect, for instance, that the moisture in the air had some effect on the result of the experiment, then you need only to do it again with this factor under control. You may, if you please to do so, call the first experiment a pilot study and the second one the final experiment.

Rhine reasons in this same manner as regards to parapsychology. I think he is wrong in doing so. A pilot study in parapsychology is for trying out new methods, equipment and material, to see that you handle the test situation or to get acquainted with it, not to evaluate its fruitfulness from the test results. This means that when you in parapsychology go to the 'real' experiment it has to be planned in every detail. Nothing can depend on chance. All possible conditions have to be under control. The experiment can neither be verified nor falsified by other tests. Rhine's and my views on this point are thus incompatible. I should add here that a test with all conditions under control automatically fulfills the claim of duplication provided the nature of the variable investigated is replicable.

Dishonesty cannot be explained by 'weaker minds'. Instead the experimental atmosphere plays an important role. One way of diminishing cheating, therefore, would be to change the research atmosphere for the parapsychologists. When they are not obliged to hand in positive results or come up with the repeatable experiment in order to have their findings published (and here we touch upon

publishing policy) or their contracts prolonged, then they are not lured into diddling any longer.

Shortly after Rhine wrote that it was impossible (sic) for dishonesty to be implemented inside a well-organized lab of his own type one of his fulltime researchers was disclosed as an imposter.

Levy was a young, very successful researcher in parapsychology. From 1971 to 1974 he published about a dozen articles and became during that time the most productive in one of the most well-known and respected journals of parapsychology in the world. He seemed to be on his way to find the replicable experiment within anpsi.

While Levy was carrying on with his animal precognition and PK experiments one of his assistants noticed that Levy unnecessarily often checked the registration device, which automatically filed the results. Three of the assistants of the lab decided to check what Levy was doing and parallel to Levy's device, without him noticing it, they introduced their own registration apparatus. The assistants only reached results in accordance with chance expectancy on their equipment while Levy got positive, highly significant results on his.

Levy, without any fuss, admitted to Rhine that he had been cheating and he was forced to resign. Hence, Levy became a new example of a researcher that had been fired by Rhine.

Why did Levy, a highly respected man who got his medical doctor's degree from the Medical College of Georgia in 1973, get involved in this unwise manipulation? Unwise, because Rhine's second reason (see above) for the diminishing of deception in sciences, the built in control system with researchers checking each other, really worked beautifully in this case. He himself has given an answer and I am ready to accept it. After close to fifteen successful experiments the positive results dropped. The longer it took for positive results to reappear the more he felt the pressure to do something radical. Everyone, including himself, expected positive results. He was the one who seemed to, finally, be near the repeatable test.

After the unmasking of Levy Rhine declared that all the experiments by Levy must be considered invalid until they had be verified by later experiments. Rhine's line of reasoning would have been correct if it had been a question of chemistry. But when it comes to parapsychology every test has to be deemed by its own merits. Of course, you may

still come to the same verdict as Rhine.

For my part, I think Rhine's conclusion that Levy cheated in all his experimenting was premature. That Levy used trickery in his latest tests does not necessarily mean that he did so in his earlier ones. Paragnosts have sometimes admitted that they, in order to get the participants in a favorable mood, use trickery at the beginning of an experimental situation. From the fact that a paragnost, in cases where he himself decides the test circumstances, sometimes is hoaxing, it does not follow that he always does so.

In the Levy case, it is even, considering psychological circumstances, more probable that the earlier results were genuine. If a medical student (as Levy during the sixties) with an interest for parapsychology gets negative results in his experimenting, then he hardly would continue to put in all his spare time in dishonest experimenting. Had it shown that he belonged to the group of experimenters (and there seems to be such ones) that hardly ever gets positive results, then he most likely would have shrugged his shoulders and put in more time on his medical studies. He would certainly not have tried to make experimental parapsychology his career.

On the other hand, after becoming the chief researcher at the most famous parapsychological lab in the world and the man who most likely would succeed Rhine there was quite a pressure on him to produce positive results.

The demand that a researcher continuously should show new and good results is damaging to parapsychology. The consequence, among others, is a higher degree of deception than otherwise. Upholding the claim of test duplication will lead to new Levy cases. If you instead reckon that paranormal ability is cyclic, coming and going, then the researcher expects positive results to stop soon. To put all the burden for what happened in the Levy case on Levy alone almost looks like a way of freeing other culprits.

Instead of applauding when a researcher is getting an unusually long series of successful trials one should begin to be suspicious. Then there may be something else than a paranormal phenomena involved. In principle this means that you have to be on guard already at the first positive result and that the suspicion is of an additive type, i.e. that it becomes stronger the longer the sequence with positive results

gets. The suspicion does not mean that the experimenter is fraudulent, but that something else, whatever it may be, not paranormal, effects the experiment.

The sooner the parapsychologist in his thinking can get away from believing that the repeatable test is benefiting and starts to realize its disadvantages, the better off parapsychology as a science will be. It then might be easier to work out a suitable frame-work for psychical research. As it looks now, parapsychologists are blocked. They will never master the repeatable experiment and do not understand how to go on in the field without it.

Is it not the opponents of parapsychology who are always reprimanding parapsychologists for not being able to come up with the at will demonstrative paranormal phenomenon, that have lured the parapsychologist into the swamp where they now are sitting fast? Better would be if parapsychologists did not listen to persons unfamiliar with the field and instead began to develop the science after its own prerogatives.

Now, before ending this article I want to, very briefly, touch upon two problem complexes.

I. What is science and does hypothesis testing imply repeatability?

II. Is it even thinkable that there are sporadic events and, in case of 'yes', how come?

There is, to start with question I, no consensus among scientists as to what the meaning of science is and as, for instance, Feyerabend ('Against Method') has pointed out there are no generally accepted principles to decide if an experiment is to be considered scientific or not. There are criteria for distinguishing non-scientific activities. None of those are connected with repeatability.

Researchers in established sciences try to uphold the claim of hypothesis testing or testability. Of course, it is not easy to do so in social sciences as psychology, antropology or political sciences. There is no simple experiment to be carried out to test the hypothesis of the Neanderthal-man and the Peking-man having the same ancestors.



My question is: Does the claim of testability imply experiment duplication at will? To answer that question we have to realize that we can distinguish among four different kinds of testability (see figure 1).

FIGURE 1

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Testability types	Verification	Falsification
Practical	Type A	Type B
Theoretical	Type C	Type D

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Pro primo, we have the orthodox claim that a hypothesis must be testable in reality and the modern claim that it is enough for the scientist that he in theory can give instructions for the testing of a hypothesis. In this latter case it virtually means that there is no actual possibility to put the test into practice.

Pro secundo, the testing may be carried out as a verification or as a falsification of hypotheses. The latter kind can be regarded as the stronger (or more challenging) type of testing a hypothesis.

Testability of types A and B imply repeatability. In other words, phenomena which are not demonstrable do not fulfil testability of types A and B. One could even say that reproducibility at will and testability of type A are one and the same.

Testability of types C and D does not imply duplicability. According to these types it is sufficient to outline a method which in principle could be used for testing the hypothesis. Thus, hypothesis testing in principle is of no objection to psychical research.

To clarify matters, I will give an example of a testability case of type C. In a test situation Lapp children aged seven from the village

V1 learned the multiplication tables 50% faster than the seven year old Lapps in V2, *mutatis mutandis*. A hypothesis stating that this difference depends on the death of the mathematics teacher a few days preceding the test can not be tested according to testability A or B. Testability C and D remain for us. Even if it is far fetched, we could imagine that the test situation was built up anew. I leave it to the reader to do this reconstruction in theory.

I should add here, and my example with the Lapps illustrates it, that it sometimes is debatable if a certain experiment fulfills the claim of testability C or D. This means that the notion 'testability' is, as so many scientific terms, somewhat vague.

Testability in theory, and here we pass over to my question II, discloses the real sore part of parapsychology: the lack of a general theory or even frame-work.

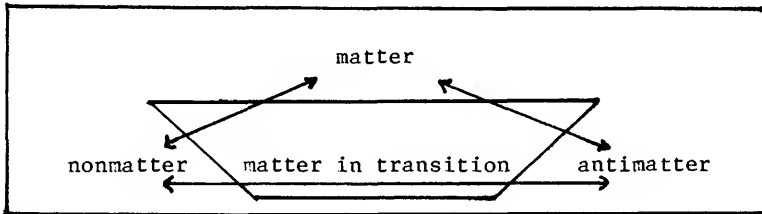
If one suggests that there are phenomena, which are not repeatable at will, sporadic phenomena which are less stable, less categorical than normal phenomena, i.e. the ones we meet in daily life and study in physics and chemistry then one should also be able to point out the direction where to find the theory for such a claim. I conclude my paper by giving an outline of such a theory.

Let us assume that there is matter, antimatter and nonmatter. Antimatter is just a term that I have borrowed from modern physics and which I leave undefined here. With nonmatter I simply mean emptiness, nothingness. Let us also assume that, in contrary to the ideas of classical physics, matter is not constant, not eternal, but that bits of it can be created out of nothing and be destroyed to vanish into nothing.

Now, in the world of stable matter all events will be stable and within certain limits repeatable. Unstable events occur in the world outside the stable matter, in the worlds where matter is in transition from one kind to another (see figure 2).

From the assumption that matter can change from one form into another form there follows that some kind of connection between matter and nonmatter, between matter and antimatter, and between antimatter and nonmatter exists. Hence, there must be some kind of connection between events in matter and in matter-in-transition. The sporadic events then could in very rare cases influence the normal events and

FIGURE 2



Processes:

- from nonmatter to matter
- from matter to nonmatter
- from nonmatter to antimatter
- from antimatter to nonmatter
- from matter to antimatter
- from antimatter to matter

Phenomena:

- in the matter area: normal
  - in the antimatter area: normal?
  - in the matter-in-transition area: paranormal
  - in the nonmatter area: none
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make the latter look less normal. This could be the mechanics behind the observed paranormality in our world.

Maybe it is not necessary, but for all eventualities, I will admit that I do not think my model is the one that will be accepted by science sometime in the future. The purpose of my sketching it is only to show that there are ways of including paranormal events of all types in a scientific paradigm.

## SUMMARY AND CONCLUSION

Parapsychology is a science in which one applies means and methods used in natural and humanistic sciences. It can however never be a question of having a duplication method in parapsychology as one has it in let us say chemistry and physics. If parapsychological experiments were reproducible at will then there would be no science called parapsychology. The very day all parapsychological experiments were repeatable with highly significant results, that day the different parts of psychical research would disappear into physics, psychology, sociology, and so on.

If the repeatable experiment does not exist in parapsychology this in no way can be regarded as a disadvantage or a lack or a misfortunate, but one of the very fundamentals for parapsychology and something we have to live with. Once this simple fact is grasped it inevitably has to influence the planning, the screening, the setting up and the carrying out of parapsychological experiments. Pilot studies then exist only in so far as trying out new techniques are concerned. When it comes to the results and evaluation of parapsychological experiments there are no pilot studies what so ever. This means that carelessness and lack of planning and thought never can be rectified or corrected afterwards. This indeed makes experimenting in parapsychology a most difficult task.

Curing parapsychology from the duplication stigma would help to clean up the fraudulent tendencies in psychical research. No one would any longer feel compelled to come up with the repeatable test.

Provided there are paranormal events we have to draw some conclusions about the world and world order. Certainly the world is not 'that' orderly as scientists of all kinds choose to think. The world is maybe not at all 'that' fixed, stable or regular as we hope for or as we make it seem to be when we, mainly for pedagogical reasons, set up rules and formulate natural laws. This way of handling facts instead of helping us many times perhaps hinders us and makes us blind for what there really is. Not knowing exactly what we are looking for in parapsychology and applying methods from physics, maybe has taken us into stray ways. Perhaps today we are not setting up experiments that are revealing but concealing paranormal events.

Psychical research points towards the direction that there are

events of different degrees of reality: Those we learn about in school and that can be demonstrated at will; those that parapsychology has started to trace and which are of a 'lower' degree of existence. It is possible (see figure 2) to draw a model in which these two kinds of events interact.

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