

Towards a reduction of experimenter control in the study of special subjects

Dick J. Bierman¹ & Johan L.F. Gerding²

Abstract

In this paper it is proposed that, in dealing with special subjects, it is *not* necessary to have control over all factors that might allow for a normal explanation of ostensible paranormal data. It is argued that strong emphasis on this issue has hindered progress in parapsychological research. An alternative approach is advocated where 'sloppy' conditions are allowed as long as the experimenter has control over at least one theoretically relevant condition. This approach is illustrated with an exceptional case of GESP in the Netherlands. It is shown that even with moderate experimenter control decisive conclusions might be drawn for the majority of the possible outcomes.

Introduction

In a major textbook on Parapsychology a whole chapter is devoted to the factors that might give alternative explanations of ostensible paranormal data (Morris, 1986). Although the primary goal of this chapter might be to show the sceptics that parapsychologists are no fools, it might easily scare away new researchers because the implicit message is that as an experimenter we need more control and should be aware all the time of potential fraud. The title of the chapter is 'What psi is not: the necessity for experiments' but the chapter is filled with numerous examples of trickery but nowhere is the link with (laboratory) experiments explicitly treated.

Discussions with the sceptical community, when productive, do result in an improvement of the controls and procedures but simultaneously indicate that there seems to be no end to this process. And indeed, one of us has argued elsewhere (Bierman, 1981) that for any experimental set-up, whatever the controls imposed, there is an alternative, normal, explanation for apparent psi-results. Even with the retro-PK experiments with a sceptic as an outside observer, which have been proposed as being fool-proof (Schmidt et al, 1986), there are often possibilities to fraudulently produce ostensible psi-effects using technology and loopholes in the protocol (Bierman, 1991). An enormous amount of time and energy has been spent to satisfy the needs of the sceptics while hardly any progress has been made in understanding psi phenomena.

Proof oriented versus process oriented research

Although most researchers nowadays pay lip-service to the idea that theory driven process-oriented research is more important than proof-oriented research, it is obvious from inspection of the above-mentioned and other textbooks that most attention is devoted to proof-oriented research. There is hardly any reference to major theoretical frameworks like the observational theories and there is no reference at all to research programs based upon a theoretical framework such as the checker effect research (Weiner & Zingrone, 1989). The exception to this rule is the theoretical notion that internal attention states might be important for psi to be detected. The fact, however, that resulting research over 15 years, with one or two exceptions, did never formally manipulate these internal attention states is illustrative.

Process-oriented research needs power

It is assumed that laboratory experiments generally allow only for small effect sizes by comparison to (field) research or research with special subjects. That seems to be the price we have to pay for having this so called 'total' control. It can be argued that the

¹ Chair of Parapsychology, University of Utrecht, Postbus 80125, 3508 TC Utrecht, The Netherlands.

² Parapsychological Institute. Springweg 5-7, 3511 VH Utrecht, The Netherlands.

typical single lab. experiment has not enough power to establish theory relevant differential effects. It has been proposed that meta-analyses will take care of that problem.

We think that, apart from using meta-analyses to attain enough power for establishing theory relevant differential effects, there is another way: the use of selected extremely gifted subjects. The use of these subjects, with effect sizes which are claimed to be orders of magnitude larger than found in the lab., not only increases power but also might give more insight into the psycho-dynamics of the paranormal (because no averaging over subjects is required).

Selected subjects and fraud

Parapsychologists have become extremely wary of using selected subjects. Rhine was the first to explicitly abandon any research with exceptional subjects because of the fact that he had not enough control. It is a pity that Rhine's attitude resulted also in a policy of rejecting every non-significant study as non-relevant. If that hadn't been the case we probably would have a much larger database on which to base our current meta-analyses. Rhine's attitude has been reinforced by the Philips affair where the sceptical community implanted two frauds in his laboratory with the explicit goal to fool the researcher. It seems that this has brought about a kind of paranoia with regard to the use of selected subjects.

Invisible manipulation instead of total control

Instead of forcing an indefinite number of controls upon a exceptional subject so that no alternative explanation for the observed data is possible we propose to manipulate the experimental context in a theory relevant way and study the data as a function of this manipulation. Obviously it is much more convenient to manipulate only one context variable than trying to control many unknown factors. Also by stressing the importance of theory testing the emphasis on fraud prevention is relaxed and a better inter-human relation might develop. (It has been argued elsewhere that excessive control over the subject might be justified to the subject by telling him that this would protect him from accusations by sceptics; we think that the current approach is more effective in this respect.)

There are two constraints to this approach.

- a) the manipulation should be known only to the experimenter.
- b) the manipulation should not interact with the possibility of fraud.

ad a) The possibility of fulfilling condition a) is, of course, dependent upon a theoretical framework. In the context of observational theories it is very often possible to introduce a manipulation which is meaningful yet not obvious to the subject. To some degree this also is true for the PMIR model (eg. manipulation of the system lability). Also, in attempting to fulfil this condition care must be taken not to change too radically the normal context in which the subject habitually performs..

ad b) The effect of the hidden manipulation on fraud can only be predicted if the conceivable ways of fraud are known. Of course this is not the case. As long as magicians have to buy each others tricks even the use of a magician does not yield an exhaustive list of all potential tricks. So some caution would be necessary when evaluating differential effects. However this problem is largely compensated for by the fact that the researcher does not have to worry excluding all possibilities of fraud (which is impossible anyway).

A concrete example

One of us (H.G.) is involved as remote teacher in distance education on Parapsychology. Part of the material consists of a self-administered forced choice (p=0.50) card colour guessing test. In the fall of 1991 the student A.K. returned the

results of this test. The scores were extremely high so the remote teacher wrote to A.K. if he had understood properly the task. A.K. then submitted further results of home performed GESP experiments on a self developed scoring sheet (figure 1). The scoring rates again were exceptional (table I).

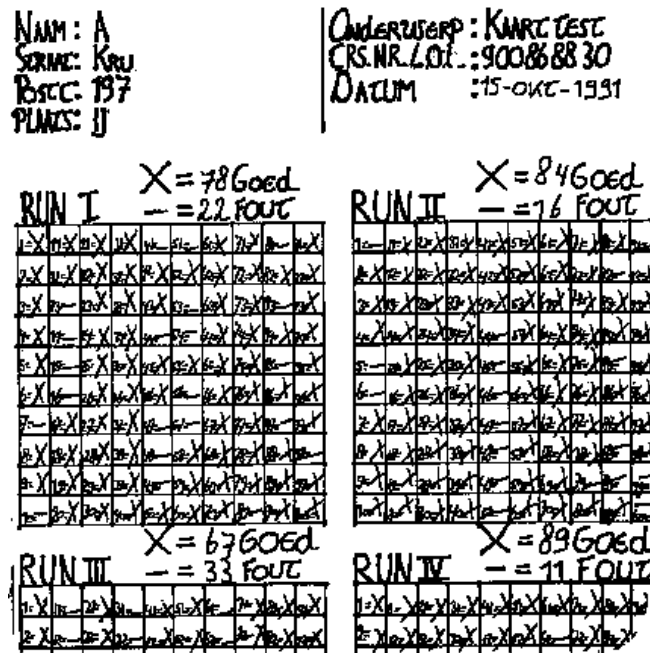


figure 1: the self developed scoring sheet with 4 runs of 78, 84, 67 and 89 hits resp.

The data are given in table 1 (N=100 per run. Expected hitrate= 50%).

Runnumber	Percentage hit	Runnumber	Percentage hit
1	77	2	77
3	73	4	80
5	78	6	84
7	67	8	89
9	81	10	77
11	54	12	86
13	76	14	43
15	54	16	67
17	14!!!	18	15!!!
19	91	20	75
21	80	22	82
23	76	24	60
25	64	26	78
27	75	28	57

It was obvious that if these data were not due to conscious or unconscious fraud (error could hardly explain them) we had run into the best scoring subject ever. A.K. explained that he was doing the runs with his girl-friend as co-experimenter. What would have been the standard reaction to these results of a parapsychologist who had read the chapter in the textbook? He would have started to tighten the controls in order to exclude the possibility of fraud. By the time he was satisfied, the sceptics would arrive and come up with new even more clever controls and by the time all this was

settled the whole phenomena would probably have disappeared (to the satisfaction of the sceptics). We would have learned nothing.

We decided that we should go ahead designing a procedure which would fit on A.K.'s normal procedure of unattended testing and which would give us the potential of scientific discovery. Our attitude was largely reinforced after one of the three personal lectures in this course whereby A.K. participated in an informal free-response trial and produced a remarkable correspondence between his response and the target (figure 2). (It should be remarked however that the target had been left in an unattended briefcase for some time before the trial).

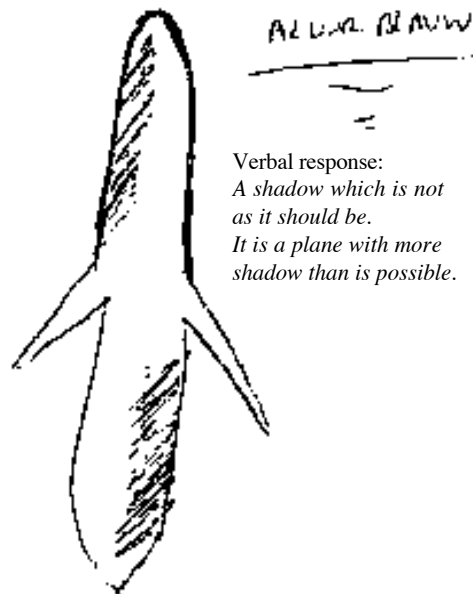


Figure 2
Subject AA response and target (a shadow of a plane)

A.K. said that he continued to experiment because it was still a challenge to get a 100% scoring in a run. He also said that he did not like to do formal experiments because he had promised this his recently deceased grandfather. Therefore it was considered essential to establish a very good interpersonal relation before we could proceed.

Hidden conditions.

Before the experiment four new packs of playing cards were randomized in colour according to the output of a RNG. Three of those packs were sealed into an opaque envelope. The sealed envelopes were sent to the subject. A fourth envelope was prepared in the same way but filled with a dummy pack of non-coloured cards. It was explained to A.K. that he would have to guess the colours of each of the packs in the sealed envelopes and enter the guesses on the same scoring form that he always used. It was also explained that he would later receive feedback for 3 of the 4 packs. Finally, it was explained that from a theoretical perspective, it was important that he wouldn't get feedback concerning one of those packs.

The conditions were:

- | | |
|---------------|---|
| pack A: | correct feedback |
| pack B: | incorrect feedback |
| pack C: | no feedback |
| dummy pack D: | real pack D stored at a distance; correct feedback. |

After the subject had filled in the scoring sheet the sheet is returned together with the packs still in the sealed envelopes to the experimenters. Then pack B was reshuffled and

pack A, B, and D were sent in an open envelope to the subject and he was asked to check the packs against his calls.

Potential outcomes

In the following we will discuss the potential outcomes of this experiment. A plus-sign indicates that there was significant hitting on a specific pack.

First outcome: A: +; B:+; C:+; D+

This outcome would fit with the traditional (third eye) psi models. A smaller score on D would indicate that it is more difficult to guess a pack on a distance. Fraud is highly improbable because pack D is stored safely at a place unknown to the subject. A theoretically meaningful result is obtained.

Second outcome: A+, B-, C-, D+

This outcome would fit with observational models (Millar, 1978) which stress the relevance of (correct) feedback. Fraud is quite improbable but a theoretically meaningful result is obtained. If B-scoring is positive when compared to the incorrect feedback it would very much support the OT's.

Third outcome: A+, B+; C+; D-

This outcome would fit with traditional local models of psi. Fraud is not excluded.

Any other outcome with one or more of the packs positive is difficult to explain in terms of current psi models *but can hardly be attributed to fraud!*

Results

The experiment is in progress and results will be presented at the convention. We adhere with this approach to the so well received publication policy of the European Journal of Parapsychology: having the paper accepted before the results are known. We think that the current issues raised in this paper are important even without the actual data known.

Discussion

One could ask if the advocated loosening of controls and focussing on invisible conditions might be harmful for the field. The background for our approach is the idea that current scientific methodology does not adequately deal with N=1 data. No one can deny that singular data carry meaning and information. However in the experimental approach this meaning is mostly averaged away. The roots of psi research are in individual cases and we hope to bring back the study of exceptional subjects as a legitimate way to advance our understanding of psi. The prerequisite is that the researcher has to specify a theoretical framework. This can hardly be called a drawback.

The approach obviously does not exclude that impostors of the sceptic community might guess or deduce our hypotheses and willfully seek to fraudulently produce differential effects. In our concrete example, one of the unspecified outcomes (with no effect on pack D) might be produced in this way thus frustrating the progress of psi research. We believe however that as long as the data are presented in a theoretical context, and not (only) as proof of an alternate reality the risks are rather small.

Another question concerns the deviation from the original context under which the large effect sizes occurred. In our experiment the major difference is the delay of feed-back. This delay can be reduced by technological means. For instance it is possible to develop a computerized approach which simulates the original context completely. Of course this is a simulation and not the real thing (of actually holding the target-packs in your hand). The proposed scheme therefore has to be seen as a possibility to react fast to situations where more or less strong effect sizes occur spontaneously in the field.

This way to approach phenomena can be also applied to eg. Poltergeist cases. It has been proposed some years ago (Bierman, 1979) to film poltergeist cases with the camera on or off according to a random number generator. Of course also in this case the condition (on or off) should be hidden to the people involved. It was shown that here too, the majority of potential findings would be theoretically interesting.

References

- Bierman, D.J. (1979). *A methodological hint for research in RSPK cases*. EJP, **3**-1, 111.
- Bierman, D.J. (1981). *An open letter to Julian Isaacs*. JSPR, **51**-789, pp. 183-184.
- Bierman, D.J. (1991). A method to fraudulently produce effects in a conceptual replication of the Schmidt-Morris-Rudolf retro-PK by the SRU (Eindhoven) and the dutch sceptical community (Skepsis) was communicated by letter of May 17, 1991 to R.Nanninga of Skepsis. The method was based upon a date-sensitive computer virus.
- Millar, B. (1978) *The Observational Theories: A primer*. EJP, **2**-3, 304-332.
- Morris, R.L. (1986). *What psi is not: The necessity for experiments*. In (H.L. Edge, R.L. Morris, J.H. Rush and J.Palmer, Eds.) *Foundations of Parapsychology*, pp. 70-110. Routledge & Kegan Paul, London.
- Schmidt, H. , Morris. R., Rudolph,L. (1986). *Channeling evidence for a PK effect to independent observers*. JoP., **50**, 1-17.
- Weiner, D.H. & Zingrone, N.L. (1989). *In the eye of the beholder: further research on the "checker effect"*. JoP, **53**, 203-233.