

Do PSI-phenomena suggest Radical Dualism?

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Abstract

It has been suggested that so-called psychokinesis or 'mind over matter' phenomena would support a dualistic perspective on the relation between consciousness and the material world. At first sight these psi-phenomena, if real, seem to indicate that mental states may play an independent *causal* role in nature and thus falsify the commonly held mechanistic world view which holds that consciousness is a mere product of neurological processes in the brain. According to this latter view the experience of 'free will' is an illusion because it is a brain state and thus the experience of free will is 'caused' by the preceding brain states (partially driven by the input of sensory signals).

It will be argued that, even if the reported empirical 'mind over matter' data are not due to some yet undiscovered artefact, the conclusion that they would support a dualistic perspective is not warranted. The reasoning leading to the conclusion that consciousness may play an independent causal role is based upon the assumption that the correlations found between mental ('will') states and subsequent (remote) material states are to be explained in terms of cause-effect sequences mediated by some mechanistic (sic!) form of 'signal' transfer.

However a closer look at the empirical data reveals that the putative information channel involved has to be of an extremely strange nature allowing for e.g. the apparent 'reversal of time' which of course breaks down the whole reasoning in terms of cause-effect sequences. A meta analysis of all 'mind-over-matter' experiments where the material states to be influenced were recorded BEFORE the intention was determined shows very significant correlation between the behavior of these random physical systems and the subsequent intentional state. Therefore we should seriously consider the hypothesis that the reported correlations are not due to any classical form of 'signal' transfer .

The view emerging from that hypothesis suggests that the correlations found in psi phenomena are metaphorically comparable to the non-local EPR correlations found in matter. In that latter case the 'connectedness' is simply there and not amenable to further analysis in terms of (faster than light) signals. It could be that for psi phenomena the anomalous correlations are just there and not due to any underlying *mechanism*.

Thus the question of the tenability of a mechanistic monistic world view versus a dualistic type of world view that gives primacy to the role of consciousness may be an incorrect question in itself since both world views are framed in terms of cause-effect sequences. Rather, and here we are completely in the area of speculation, further research into the structure of psi-correlations may indicate that mental 'laws' as well as material 'laws' arise from a common underlying framework.

INTRODUCTION

Near the end of the previous century, the founding fathers of psychical research were driven by the idea that there should be something more than matter alone and that the successful western scientific method could be used to prove that belief (Beloff, 1977). Furthermore the founder of empirical parapsychology, Dr. J.B. Rhine, who started to explore these psychic phenomena in the laboratory in the thirties, was a dualist and considered these apparent phenomena to support his world view.

More recently the physicist Wigner suggested that in order to solve the measurement problem in Quantum Physics one had to give a special status to the measuring entity (Wigner, 1967). Consciousness should therefore be different from matter. This in essence dualistic notion was taken as a starting point of a whole family of theories to deal with paranormal phenomena labelled as Observational Theories.

And finally, the psychologist/philosopher John Beloff wrote in the very first issue of the Journal of Consciousness Studies (Beloff, 1994) a defence for the radical dualist position and I quote from that article:

... results [of meta-analyses of parapsychological experiments] show that the over-all significance of [psi] phenomena is astronomical.... The relevance of parapsychology to the problem at issue [i.e. dualism vs. epiphenomenalism] should now become apparent.... if it is the case that mind can influence intentionally the behavior of an object other than its own brain it would be futile to doubt that a mind can interact with its own brain....

It becomes clear that throughout the history of research of paranormal phenomena the status of human consciousness has played a crucial role. Although many present day researchers are attracted to this field out of curiosity rather than driven by some dualistic world view, many from the outside and some from the inside still consider Parapsychology a quest for the proof of the transcendence of mind over the material world.

The question that we have to ask ourselves is: assuming that the reported phenomena are not due to deception or to some hitherto undetected methodological flaw, suppose in other words that these phenomena are 'real' anomalies; *Does that really lend support to the idea that consciousness is in part or completely different from matter and can never be reduced to it?* And implicitly: Can those (immaterial) mental states be a cause of change in material systems?

EMPIRICAL DATA

At first sight the meta-analytical findings to which Beloff refers, like those reported by Radin and Nelson in Foundations of Physics (Radin & Nelson, 1989), seem to confirm this idea: Intentional states of the subject in the experiments are manipulated by the experimenter according to some random decision, and subsequently, more often than can be expected by chance, a material state will be observed corresponding to the subject's mental intention (see figure 1).

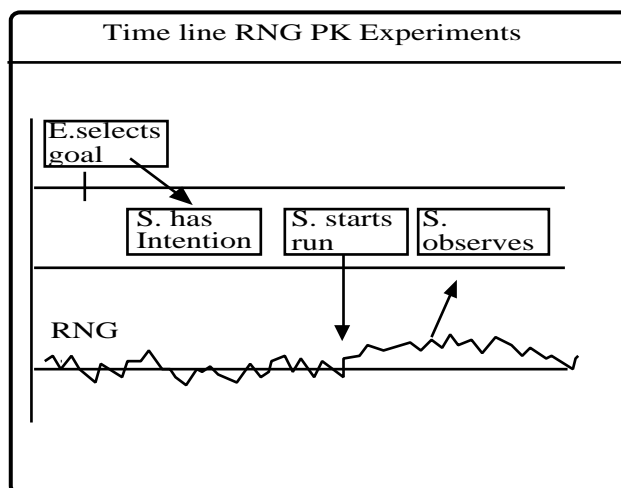


Figure 1

It seems straightforward to claim that the mental state (and/or its corresponding physical brain state) 'caused' a bias in the observed material states corresponding to the intention of the subject.

In principle the results still allows for an explanation where the brain states 'influence' the random physical system through some physical field.

However, it is generally assumed, (though not well tested,) that the distance between the subject and the 'affected' material system does not matter and therefore physical fields may be ruled out as an explanatory vehicle for the observed effects. Hence the idea that consciousness has properties that transcend space and time.

However even if one is willing to accept that these parapsychological data reflect some underlying reality, the interpretation as given by Beloff is premature because of his selective use of the data from Parapsychology.

In the early seventies E.H. Walker proposed the first Observational Theory (Walker, 1975) which essentially was an extension of the original idea put forward by Wigner that consciousness was involved in the 'collapse' of the state vector. Assuming that Consciousness (C) was instrumental in bringing about the singular state that we observe then, according to Walker, it would follow that C. should be considered to be the 'hidden variable' that other theoretical physicists had postulated to get rid of this measurement problem. However it had been shown that such a 'hidden' variable should have non-local properties. Walker argued that due to the constraint of Lorentz-invariance there should be non-locality in time too. If a conscious observation could 'result' in the biasing of a random physical system then it would follow that it shouldn't matter if such observations were to be postponed. This idea was tested by an arrangement which differs from the original psychokinesis test arrangements in that the behavior of the random physical systems is stored BEFORE an intention corresponding to a wished-for outcome is formulated. At a later time the hitherto unobserved data are fed back to the subject (Figure 2)

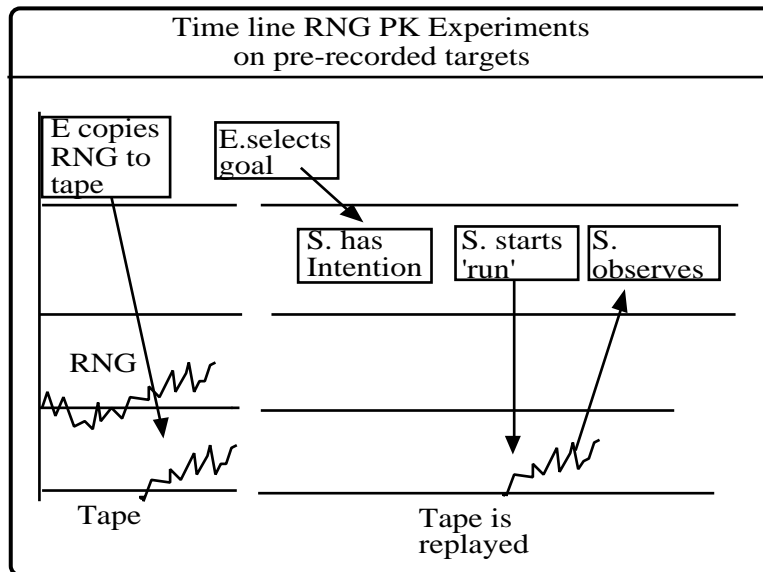


Figure 2

These types of experiments have been done and have also resulted in significant correlations between the behavior of the RNG and the intention of an observer *at a later time!*

These results, if real, should also be taken into account if one wants to discuss the relevance of parapsychological data for a radical dualistic perspective.

In order to assess the reality of the results a meta-analysis of all published experiments with pre-recorded targets was performed. In total 26 experiments could be located in the literature (table I; see for a detailed review Bierman & Utts, 1997).

Table I
Meta-analysis of all published PK experiments with pre-recorded targets

| AUTHORS | YEAR | JOURNAL | Z-score |
|-----------------|-------------|----------------|----------------|
| Bierman et al | 1975 | EJP,1-1 | 0.89 |
| Schmidt | 1976 | JASPR,70 | 3.14 |
| Schmidt | „ | „ | 4.22 |
| Schmidt | „ | „ | 2.90 |
| Millar et al | 1976 | RIP 1976 | 0.00 |
| Houtkooper | 1977 | EJP,1-4 | 1.15 |
| Houtkooper | „ | „ | -0.28 |
| Broughton et al | 1977 | RIP 1977 | 0.00 |
| Terry et al | 1977 | RIP 1977 | -3.07 |
| Terry et al | „ | „ | -1.60 |
| Braud et al | 1979 | JSPR | -0.10 |
| Gruber | 1980 | EJP, 3-2 | 1.90 |
| Gruber | 1980 | „ | 3.08 |
| Houtkooper | 1980 | EJP,3-3 | 3.23 |
| Houtkooper | „ | „ | 0.37 |
| Houtkooper | „ | „ | -2.45 |
| Schmidt | 1985 | JoP,49 | 1.82 |
| Schmidt | „ | „ | 1.96 |
| Bierman | 1985 | EJP,5 | -1.90 |
| Bierman | „ | „ | 1.54 |
| Schmidt et al | 1986 | JoP,50 | 2.71 |
| Schmidt et al | 1988 | RIP, 1988 | 1.66 |
| Schmidt et al | 1990 | RIP, 1991 | 0.62 |
| Schmidt et al | 1992 | JoP,57 | 1.88 |
| Michels | 1993 | Skepsis, 6 | 1.64 |
| Schmidt&Stapp | 1993 | JoP,57 | 1.23 |
| | | | |
| | | TOTAL | 5.31 |

There were 9 different main experimenters from 7 different institutions involved. Several target-systems with different a priori probabilities were used, which precludes an analysis at the level of individual trials or samples. However, at the level of the experiments it turned out that 18 out of 26 experiments gave results that corresponded to the intentions of the participants. The combined z-score (Stouffer-z) was 5.3. The probability therefore that these data are due to chance is smaller than 1 in 10000). Given the limited number of studies, these odds are certainly as impressive as the odds reported by Radin and Nelson (1989).

If PK on pre-recorded targets is a real phenomenon, then the apparent support of PK for an interactionist dualist position becomes rather confusing. Because to maintain the position that mental states may have causal effects on matter one has to accept that effects may precede causes.

The most cautious way to describe the data of all PK studies is by avoiding any causal reasoning and merely state that within some system constraints

anomalous correlations are found between mental states and the behavior of random physical systems.

CONCLUSION

If psi phenomena as referred to by Beloff in his defence of radical dualism (Bem, Radin & Nelson) are real, then the answer to the question of whether they support a dualistic perspective on the relation between mind and matter may need to be reconsidered because of the data presented in this paper. The reason is that these latter data most prominently reflect the retro-causal character of psi phenomena. This complicates considerably the naive picture of mental states driving material states as is proposed in the radical dualist perspective. Of course these data do not fit in any mechanistic framework either. In fact both the dualist and the mechanist perspective are based upon traditional cause and effect sequences which do not apply for phenomenon of PK on pre-recorded targets.

The central role of 'time reversal' or independency in all theoretical approaches to psi phenomena (e.g. see Stokes, 1977) seems not coincidental but rather supports the idea that parapsychological data do require a level of understanding that transcends traditional materialistic and certain dualistic perspectives, both of which assume that effects follow from causes and are mediated by some form of a classical 'signal'.

It may be preferred to interpret the anomalous parapsychological data as correlations without a cause much like the (EPR) non local correlations in physics . These latter correlations do not allow for an explanation in terms of signals travelling from one part to another part of the system.

von Lucadou (1994) has explicitly proposed that *psi correlations are an emergent property of macroscopic complex self-referential systems which are phenomenologically equivalent to non-local correlations in Quantum Physics*. Such a view where Quantum Physics and a theory of Mind may arise out of an underlying unified theoretical framework would support identity theories rather than dualistic theories on the relation between mind and matter .

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