

Experimental Study on Precognition

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Abstract—Encouraged by their previous research on telepathy, the authors of this article attempted to see if the discovered “telepathic wave” (a radio wave of 46.20 m) also has some involvement in precognitive phenomena. The experiments were performed with an original radio amplifier and were conducted in a similar manner to those experiments on telepathy (of course, with adequate modifications). We carry out two series (variants) of ESP cards tests. Very numerous control trials were also accomplished. The article is illustrated by a schematic diagram of apparatus, a three-dimensional graph and two numerical tables. The best score for precognition—not excessively high, as in the case of telepathy, but statistically significant (Chi-square test)—was noted at the same wavelength of 46.20 m (amplification gain of 220 times; same as for telepathy), suggesting that the very complex intimate mechanism of both telepathy and precognition includes a coincident radio-component. The article also includes some remarks about a possible discordance between precognition and the theory of relativity.

Keywords: precognition (premonition) — mechanism of psi phenomena — bioradio-waves — ESP (Zener) cards

Introduction

There are various cases of spontaneous or experimental precognition (premonition) described by many authors (Gurzi, 1998; MacKenzie, 1995; Melieux and Rossignol, 1977; Stowell, 1997). Precognition, like all psi phenomena, is a field of existence that is extremely difficult to handle in terms of our present understanding and possibilities of interpretation.

As Krippner (Krippner, 1995) judiciously asserts, today the parapsychologists face a difficult choice. Some of them could attempt to accommodate themselves according to the dictates of the modern sciences, focusing on lines of investigation that appear to hold promise for repeatable results. Another group of parapsychologists could abandon the experimental paradigms used in contemporary science, and for them, psi phenomena defy strict scientific analysis. Of course, these two viewpoints are rather contradictory, but fortunately there is a third solution in which parapsychology can retain the best of the current scientific methods and join with other models that imply the need for a new worldview. We agree integrally with Krippner’s idea.

In our opinion, we must first make a distinction between the nature and the mechanism of psychical manifestations. The psychic (mind), as such, is an im-

material phenomenon, the nature of which is not directly able to be investigated by objective methodology and which has to be studied by special psychological means. Contrarily, its mechanism seems to be a material one and consists of the intra- and interneuronal, biophysical and biochemical processes which take place in the brain; but these internal processes have an external expression, the psi (telepathic and precognitive) messages emitted in space that are able to affect the activity of some other brains. Of course, these last (internal and external) processes can be studied by classical and modern objective methodology.

Philosophically speaking, our idea could be incorporated into the concept of "double-aspect monism" (Nash, 1995), which postulates that mind and body are different components inextricably bound together of a single neutral entity. Practically, as supported by our previous findings on telepathy (Vasilescu and Vasilescu, 1996), which suggest the existence of a "telepathic wave" (a radio wave of 46.20 m) as a presumable component of its mechanism, we performed some experiments in order to see if this wave is also involved in the process of precognition.

Methods

The experiments were organized like those on telepathy, with adequate modifications. The same main two subjects—"B" (the first author of this paper, who acted as "agent") and "L" (his wife and coauthor, who acted as "percipient")—were investigated. Of course, the terminology "agent" and "percipient" is ordinarily used with regard to telepathy, but we allowed a derogation and appreciated that this could also be suitable for our study on precognition, a study which has a configuration similar to that used for the studies on telepathy: "agent" should designate the person who emitted (telepathic or precognitive) messages, while "percipient" is the person who received and called these messages. The subjects were located in different silent rooms that were separated by a distance of ca. 10 m, such that no reciprocal observation was facilitated.

One radio-amplifier, "Patulea's prototype," coupled with the subjects served (as for telepathy) to amplify the precognitive messages. This device was based on an original design of the first author and was then constructed, standardized, accorded and verified at the most-important Institute for Electronic Research of Romania by the radio-electronic engineer G. Patulea (Figure 1).

The apparatus is a 45–48-metre-wavelength, high-gain, low-noise, narrow-band, solid-state amplifier. By using two front panel buttons, the tuning wavelength could be varied between 45 and 48 metres, and the voltage gain could be varied between zero and 300 times. Power was supplied via a main outlet by means of a 12-v DC transformer and rectifier. The device was connected by coaxial cable to two ordinary copper antennae (70 cm in length and 3 mm in diameter), interposed between the "input" of device and agent, respectively, the "output" and the percipient. Each antenna was supported by the hand of

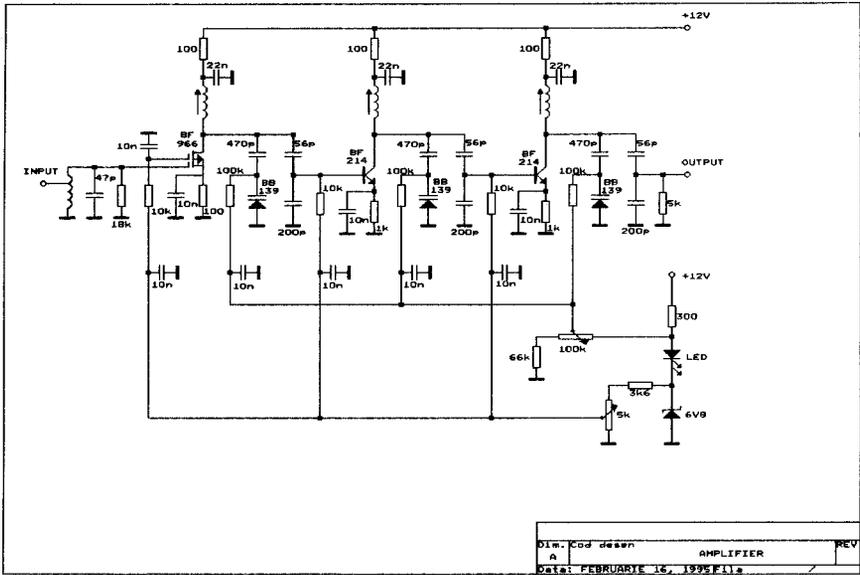


Fig. 1. Schematic diagram of Patulea's prototype.

the subject (agent or percipient) and touched with its extremity the subject's forehead. The radio-amplifier was placed midway between the subjects in a little hall located outside the agent's and percipient's view.

Naturally, our article not being technical in nature, the characteristics of the device were summarily presented, but they were sufficiently clear for a radio-electronic specialist to comprehend, reproduce and even to improve this radio-amplifier, which was, in fact, a very simple one.

"Patulea's prototype" was silently manipulated only by a neutral person (blind judge) who stayed in the same hall, without any kind of intervention on the part of the subjects. The eventual psychological intrusion of the neutral person in our experiments must be excluded, because, to the contrary, such an intrusion should contaminate all, or the majority, of our experiments, or, in reality, positive results were obtained selectively only on 46.20 m (see following).

We carried out tests with ESP (Zener) cards, inspired by the methodology of J. B. Rhine (Rhine and Pratt, 1967). In the pack were five cards, thicker than the usual ones, each with one well-known figure (square, star, circle, cross, wavy lines). In order to conserve a "symmetry" with our study on telepathy, one run in the present research on precognition consisted of 50 trials. But, in contrast with the telepathy investigation, the order of operations was sometimes modified and even inverted. First, both the agent and the percipient were plunged into a deep state of psychic relaxation. This was voluntarily induced; it was not produced by some artificial procedure. Simply, the subjects threw out as many of their thoughts, stresses, etc., as they possibly could, attempting

by their own efforts to achieve a full mind quietness. Within this environment, the percipient tried to “see,” mentally, the image of an ESP card, and after 20–25 seconds, the percipient announced it to the agent. Only afterwards did the agent shuffle the cards meticulously (8–10 times) and cut the cards with the thumbnail; the agent next placed the pack on the table face down and removed the top card (the target). This card was then turned face up and the agent looked at the geometric figure. If this was exactly the same card that was mentally sought by the percipient, we appreciated that the percipient anticipated precognitorily that card that would subsequently be extracted by the agent. After that, the target card was reintroduced into the pack, which was again carefully shuffled and cut, and the procedure described above was repeated until some 50 trials had been accomplished.

It is well known that the old randomization procedure of shuffling of cards, which we used, is not the most rigorous procedure, but this method was sufficiently satisfactory in our experiments. Indeed, in the contrary case, this procedure should influence the results in the same way (ie, the precognition would have been obvious for all the wavelengths explored or would have had a chaotic repartition). But, in reality (see following), by shuffling the cards, positive results were obtained selectively, in the majority of the trials, only of wavelength of 46.20 m.

Our findings were statistically analyzed using the Chi-square test with a confidence rating of at least $p = 0.05$. With repeated experiments, the number of successful trials from each experiment was summed and the overall significance computed.

Briefly, our experiments on precognition were supported by a hypothetical model that relied on some peculiarity of telepathy¹: the agent (a common man, without apparent paranormal abilities) emits in space, unconsciously, precognitive messages of very low intensity, which are unperceivable by another human being; the radio-amplifier (Patulea’s prototype) interposed between agent and percipient and accorded (in conformity with our supposition) on a wavelength of 46.20 m, receives, amplifies and transmits to the percipient (also a common person) these precognitive pieces of information; so “activated,” the percipient’s brain becomes able to express, consciously (to put into words), the received signals; finally, the presence or absence of precognition is confirmed by the agent, which process takes into account the concordance (or lack of concordance) between the card called out by percipient and the card removed by himself later.

Results

The experiments were performed in the interval between 1992 and 1997, always (during the workday) beginning at about 9:00 a.m. In the following, we shall report the results with “B”–“L” couple.

Numerous preliminary control tests (almost 3500 trials) revealed two situations: (a) positive results failed to manifest or were inconclusive if the device

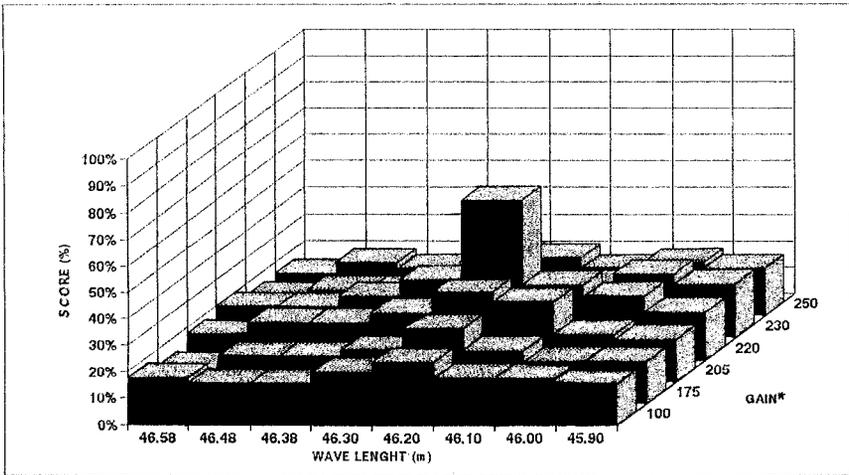


Fig. 2. Amplitude of premonition events with various wavelengths and gains, in agent “B”—perceptant “L” couple, performed with Zener cards, using the Patulea’s amplifier.
*Gain from amplifier output is adimensional (function of the input intensity, unknown in our experiments).

was in “off” position or even in “on” position, but some wavelengths other than 46.00–46.50 m were used; this proof attests to the presence of no special (apparent) spontaneous precognitive ability on the part of subjects; (b) on the contrary, at 46.00–46.50 m, many results were positive; this result suggests that a narrow band of wavelengths is related with the precognition and also that the subjects dispose of a kind of “sublatent” (inapparent) precognitive capacity, amplifiable in corresponding conditions.

In order to clarify the situation, we carried out two experimental series:

The first series attempted to systematically establish the optimal wavelength (“the spike”) for precognition in the context of the above-mentioned narrow band of wavelengths. The radio-amplifier was always in the “on” position. Each day, one experiment was performed in order to test only one wavelength at only a single gain of amplification. The experiment comprised three runs (every run with 50 trials) that were reciprocally separated by one-hour intervals. The medium (average) of the three runs (150 trials) was noted and served to allow for the construction of a future graph. The series continued in the same manner and finished when all the wavelengths and gains of the explored band had been exhausted. Each time, the relevant parameters were randomly selected by the neutral person. The optimal wavelength that yielded a score of 60% correct was 46.20 m, and its gain of amplification was $\cdot 220$ (Figure 2).

The second series was performed using only the optimal wavelength of 46.20 m, with its optimal amplification gain of $\cdot 220$ but with the device randomly placed in “on” or “off” positions by the neutral person. As for telepathy, one experiment consisted of two paired runs, one “on” and one “off,” which

TABLE 1
 Percentages of Premonition Events, in Agent "B"—Percipient "L" Couple, Performed With Zener Cards, in Three Different Experiments With the Apparatus "On" (the Wave Length of 46.20 m and Amplification of 220) and "Off" (SD)

The apparatus state	1st Experiment	2nd Experiment	3rd Experiment	Total means
On	66%	72%	54%	64 ± 7%
Off	20%	12%	22%	18 ± 4%
<i>p</i>				< .01

were carried out on the same day with a one-hour interval of separation. As usual, the run is a composite of 50 trials. In all, we realized six such runs (three "on" and three "off" runs), totaling 300 trials. The mean score for "on" position was 64% (statistically significant) and for "off" position only 18% (statistically not significant) (see Table 1). Schematically, the results are shown in Table 2.

We can see that our experiments on "B"—"L" couple totaled 219 runs, respectively, more than 10000 trials. The total hits comprised almost 5000 trials (ie, about 45% of all trials). The discrepancy between the number of hits so obtained and the rate of success noted above (60%–64%) is the result of a great number of different kind of accomplished controls: with the device absent or present but in the "off" position, or even with the device in the "on" position but accorded on some radio wavelengths other than 46.20 m or just on 46.20 m but with an amplification gain inferior to the 100 times. These various controls, which were usually negative or inconclusive, calculated together with precognition amplified on 46.20 m—a statistically positive value and, in fact, one that mirrors our original discovery—distorted the reality, and the final mean appears to be more modest than the rate of the authentic success of our experiments.

Aside from the "B"—"L" couple we analyzed, we were curious to test, supplementarily, another one, the couple "L" (agent)—"O" (percipient, the sister of "L"), but performing only the technique from the first series with ESP cards. The same optimal wavelength of 46.20 m, at the amplification gain of 220 times, was found, but the best score obtained was only 42%.

Discussion

The interpretation of these data is of maximum difficulty. First, it must be noted that the best score for precognition was recorded at the wavelength of 46.20 m, the same wavelength used for telepathy, which in all probability attests to the fact that the very complex intimate mechanism of both telepathy and precognition includes this radio-wave component. Even the optimal am-

TABLE 2
Schematic Representation of Experimental Results

	Runs	Trials	Hits	Percentage
Controls:	69	3450	750	22%
I Series:	144	7200	4020	56%
II Series:	3 ("on")	150	96	64%
	3 ("off")	150	27	18%
Total:	219	10950	4893	45%

plification gain (in our experimental conditions) was the same (ie, of 220 times; see the first experimental series).

As for telepathy, a clarification is necessary: It is known that a message (information) involves the appearance of something new in the internal or ambient medium. But the wavelength of 46.20 m, with its uniform, sinusoidal form, can't be considered to have informative properties. Consequently, this is rather a carrier wave-packet, modulated in frequency, amplitude or phase by the actual precognitive information, which is, unfortunately, as yet unknown. However, the presence of the wavelength of 46.20 m seems to be a basic component of precognition's mechanism. Naturally, Patulea's prototype has the capacity to amplify the wavelength of 46.20 m in his integrality (ie, including its modulation).

As in the classical experiments, our findings prove the reproducibility of precognitive manifestations, and so was their authenticity, when adequate circumstances were achieved (ie, when wavelength of 46.20 m was amplified; see the second experimental series). Our results seem also to suggest the frequent presence of precognition among the human beings (see the tests with "L"-"O" couple).

The best score for precognition, although it was the "good" score, was nevertheless less impressive than the corresponding score for telepathy, but this result is not surprising if we take into account the probable huge complexity of the first phenomenon.

As with telepathy, the precognition raises a lot of questions referring to its postulated radio mechanism and the incompatibility between this idea and the classical (conventional) laws of physics (see also our article on telepathy). Indeed, there is a large body of experimental literature (including even our findings, especially those on telepathy) that indicates that psi effects do not drop off with distance or with shielding, as would be expected if psi was associated with EM waves. The antennas held by the subjects would have been too short (70 cm in length) to pick up or transmit a wavelength of 46.20 m. Weak signals on this wavelength are best received and emitted by antennas that are exactly tuned to the respective wavelength (or half-wavelength) of the signal. This

represents a mismatch with conventional EM theory. Further, because the subjects manually held the antennas, the amplifier presumably would have been saturated with 50-Hz power-line noise. And the list could continue.

Consequently, it seems that our experimental findings do not submit themselves, at least partially, to the classical EM theory. Nevertheless, we used a radio-amplifier (ie, a device specially designed to amplify EM [radio] waves). Logically, the outcome of our experiments strongly suggests that the amplified phenomena, namely telepathy and precognition, are also an EM (radio) phenomena. Additionally, the normal functioning of the device obligatorily requires the proper functioning of all the equipment, including the two suspected antennas. In keeping with this line of thought, we should consider taking account of the fact that living matter is qualitatively different from inorganic matter (even the most complicated computers). It follows that EM phenomena produced by the brain, as may happen with telepathy or precognition, could have an altogether different pattern in relation, for example, to the machine's pattern. It is well known that in the biological field, information may comprise a strong affective charge with a decisive role despite its weak physical intensity. We think, by the way, of the familiar case of the tired mother who can sleep through an intense physical background noise but who wakes immediately at the smallest whimper of her child. It is also not impossible (in our opinion) that psi phenomena propagate as a coherent and very penetrable fascicle, a kind of laser (maser) one.

But, precognition raises a very peculiar characteristic. At least in our present understanding, this psi manifestation seems to violate the relativity theory. Indeed, this agrees with the concept that the time flows invariably from the past to the future and that the inversion of the sense of time's flux would correspond to an exceeding of light speed (300000 km/s in vacuum, depending on the propagation's medium), which is physically an absurdity. Or, in precognition, the sense of temporal connection between different events appears to be inverted, the subject being able to predict the appearance of some future events.

It is true that a lot of future phenomena can be also ordinarily predicted, but such knowledge is of a rational type. For example, an oncologist can anticipate that his patient will be dead after two weeks. In precognition, the prediction has a fortuitous characteristic, being that these are anticipated unexpected events, rationally unpredictable.

This question of inverted time is nevertheless a very delicate one, even with a science-fiction connotation. If we look over some modern literature data concerning physical research, especially Hawking's work (Hawking, 1988), we could find interesting physical discoveries or theoretical remarks, but the idea of inverted time is very prudently approached. Nevertheless, this possibility is not excluded.

Conclusion

Our article is only a modest essay in order to clarify the problem of intrinsic mechanism of precognition, maybe the strangest natural manifestation known. Moreover, once again, in our present understanding, precognition and retrocognition are the phenomena that suggest the inversion of time.

Certainly, the question is far from being elucidated. Future research (deeply conducted) is necessary in order to fully clarify this crucial problem. As rightly remarked by Beloff (Beloff, 1994), if the problem of paranormal (including precognition) will be decoded by the physics, such the physics of the future would be so far removed from physics as it is currently understood, that physicalism itself would mean something quite different from the present definition. For the time being, we will ask ourselves: “Is indeed the precognition an «ultrarelativistic» phenomenon?”

Acknowledgments

The authors would like to express their gratitude to the Editor-in-Chief and the members of the editorial staff of *JSE* and also to the anonymous referees for their constructive criticism and valuable suggestions in preparing the manuscript.

Endnotes

¹ Unpublished personal results attest the possibility of telepathic transmission not only of conscious, but also of the unconscious, signals.

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