

# INTERACTION BETWEEN MIND AND MATTER

**This experiment was designed to instrumentally verify the possibility of mental influence over matter and determine the optimal conditions under which it occurs.**

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*English translation by C. Evangelista (Melbourne, Australia).*

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## INTRODUCTION

On the 29th of December 2012 at the official opening of the EvanLab laboratory, we attempted for the first time a bidirectional OBE while under hypnosis (See UNIDIRECTIONAL OR BIDIRECTIONAL OBE? in Articles section under **BIDIRECTIONAL CONTROL OF AN HYPNOTICALLY-INDUCED OBE**). Although the electronic equipment worked perfectly during the hypnotic induction, the devices suddenly stopped when the request to “exit the body” was given, apparently due to the strong emotions brought on by this pioneering event.

We were already aware of the effect of strong emotions on electronic devices (and sometimes electrical equipment too) from previous occasions, but this time we decided to take a good look at whether or not the human mind was in fact able to influence electronic devices.

The most common current theory and explanation of the human mind is strictly reductionist and excludes the possibility that it is able to influence physical objects at a distance, given that – according to this theory – mental activity is dependent on the brain’s interaction with the environment through its physiological/biochemical functions.

With an alternative view in mind, therefore, a possible scientific demonstration of the interaction at a distance between the human mind and electronic devices would inevitably encounter strong opposition.

To carry out credible research on such a thorny subject and avoid criticisms on technical grounds required a well-known and proven device that was officially recognized scientifically.

We were encouraged by the successes of Radin et al (2012, 2013), who had repeatedly demonstrated that human observers could influence the results of the classic double-slit experiment. In this set-up a single photon emitted from a source can act as a particle and travel through either slit, hitting the sensor behind the slits and producing a corresponding pattern. Due to their undeniably dual nature, photons can also behave as waves and travel through both openings simultaneously, giving rise to the classic interference pattern of light and dark lines with gradual transitions between them.

In Radin’s experiment participants were asked to intentionally make single photons pass through one slit only instead of both.

Results repeatedly showed a change in the interference pattern indicating a preference for a particular slit over the other. The best results were obtained from participants with meditation experience, even when situated far from the equipment and the experiment was performed via internet.

Nonetheless the idea of investigating the human mind’s ability to act at a distance using physical apparatus wasn’t new. Since the 1960s there have been investigations into the mind’s ability to influence devices which throw up random events (using the REG – Random Event Generators), an example being the famous PEAR program (Princeton Engineering Anomalies Research - <http://www.princeton.edu/~pear/>).

The following is quoted from the website:

*“The Princeton Engineering Anomalies Research (PEAR) program, which flourished for nearly three decades under the aegis of Princeton University’s School of Engineering and Applied Science, has completed its experimental agenda of studying the interaction of human consciousness with sensitive physical devices, systems, and processes, and developing complementary theoretical models to enable better understanding of the role of consciousness in the establishment of physical reality. PEAR has now incorporated its present and future operations into the broader venue of the ICRL, a 501(c)(3) not-for-profit research organization, in addition to Psyleron—a company that provides Random Event Generator devices to enable the continued exploration of PEAR’s findings by the general public and research communities.”*

Since this is a common, well-tested and affordable electronic device, Psyleron’s REG-1 seemed to be the best choice for our needs and certainly much easier to use than the double-slit apparatus.

### THE PSYLERON REG-1



Psyleron states:

*“The Psyleron REG-1 is based on the MicroREG devices designed and used at the Princeton Engineering Anomalies Research lab, with a few technical enhancements to increase the quality of its random output and allow it to be interfaced with USB-based computers. The key goal of the REG-1 is to produce bits which are derived from fundamental physical randomness, but in such a way as to minimize the susceptibility of its output to known physical processes.”*

It is by now beyond a shadow of a doubt that the REG-1 is able to generate strings of bits (either 1 or 0) in a totally random manner independent of known physical causes. In a sample of 200 bits there are on average 100 which are 1 (i.e. 50%) and 100 which are 0. The deviation from this 50% average becomes less probable the greater the gap between the states: for example, the probability of 114 x 1 (or equally 86 x 1 instead of 100 x 1) is much less than the probability of 107 x 1 (or 93 x 1). Small deviations from 50% are considered normal, but larger sudden deviations are extremely unlikely; if they do occur, the cause is almost certainly something physical officially unknown to us.

When the REG-1 is connected to a computer with Psyleron’s software installed, under control conditions (i.e. when left to itself with no attempts at influence) the graph shown below or one

very similar appears on the screen. On the zero axis 50% of the states are 1, and the black line represents the REG's output, showing the small expected variations from 50% obtained from each reading (in this case 2 per second). The axis at the bottom is the number of readings. The horizontal parabola above and below the 50% line marks a threshold (probability <5%) where an external influence acting on the REG is extremely likely. If the parabola's line is quite obviously exceeded, the relative probability falls to below 1 in 1000, and if prolonged, it's virtually certain to be caused by something external.



This seemed to be the ideal device, but before making a decision we wanted to be sure it could respond to the strong emotional reactions of an individual. In order to obtain genuine emotion, we deliberately provoked an unsuspecting person to anger while the device was nearby, then afterwards confessed to the trick. The response was immediate and pronounced – a strong positive spike at the very moment of anger, followed by an almost equal negative spike when the trick was revealed. Both spikes reached well beyond the parabola's limits, indicating an extremely high probability of an external influence on the REG. It wasn't a rigorous scientific test, but enough for us to choose the Psyleron REG-1 for our mind to matter interaction experiments.

### THE PRELIMINARY STAGE

Once the device was chosen we had to figure out how to influence it without using the trick described above, because this works only once for each person.

I placed an REG on my desk between me and my computer monitor, to which it was connected. I would then often try to influence it through intention, but without a definitive result. I eventually realized that it was my doubts which prevented my intention from having an effect; evidently society's conditioning was playing a part here. It was the work of Jahn et al (1997) and Radin et al (2012; 2013) that convinced me that some sort of influence was indeed possible, and to start believing that *if others can do it, so can I*.

I tried different techniques to *focus my intention*, as it were, and after almost three months of attempts results began to appear sporadically. I was spurred on and eventually found a technique that gave me consistent results. It probably wasn't the best one, only the first, but it worked: I would imagine leaving my body and going inside the REG, right where the signals originate (which are then changed to a 1 or 0), and once there relax in a peaceful state and concentrate on influencing the signals. The results were good and consistent, at least until I got tired, but I

couldn't get a reading outside the parabola's limits at will; I could get a reading outside of it (above or below) even for a prolonged period, but I was unable to influence which side it would be. For me it was enough and shortly after I did a demonstration in the lab for the other researchers in the team, explaining my technique so they too could try it on the REG. To me it was clear that a belief in one's abilities was of utmost importance and I could help that along through their belief in me and by making them witness it with their own eyes. Soon after they were all able to influence the REG themselves. We then developed variations of the technique which ensured individual researchers were better able to focus their intentions.

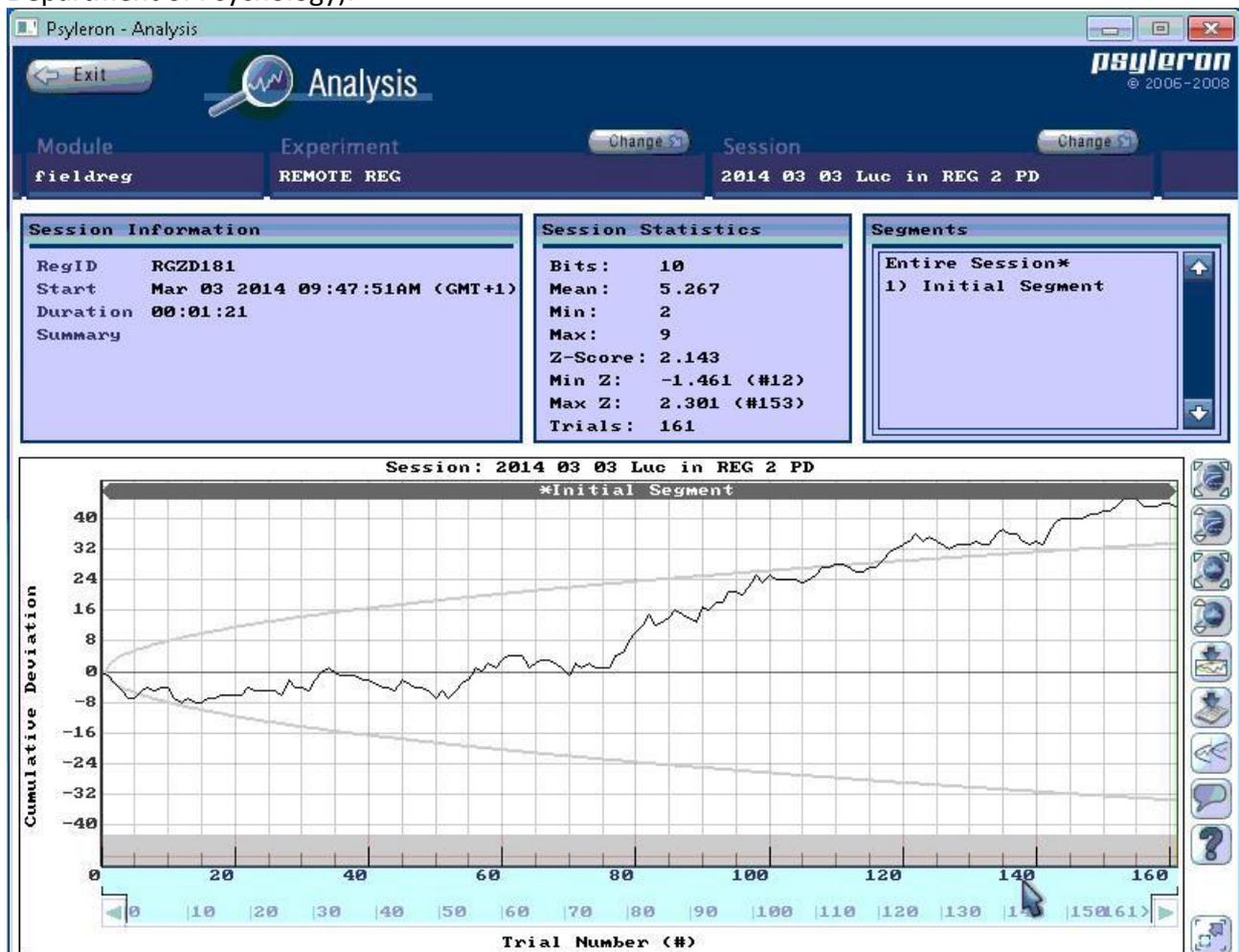
Everyone noted though that anxiety had a detrimental effect on results; even a slight subconscious doubt could cancel any effect.

Briefly the key points for success seemed to be:

- 1) A belief that it's possible to influence an electronic device remotely.
- 2) A belief in being able to reach a goal through simple intention.
- 3) A belief in one's personal ability.
- 4) Command of an efficient method for focusing intention.

The attempts made by the group as a whole produced a greater chance of success because at least one participant was able to effectively project his or her intention.

From Florence I also tried influencing an REG situated in an electromagnetically sealed basement (similar to a Faraday cage) in Padova, convinced that whether the device was 1 metre or 200 kilometres away made no difference, and almost immediately was successful (see image below). This gave us the opportunity to prove that it was possible to influence the REG even from a long distance away (190 km in a straight line from EvanLab in Florence to the University of Padova's Department of Psychology).



We now had enough at our disposal to draw up the protocol for the first experiment.

## THE FIRST EXPERIMENT

The protocol we created for the first experiment, based on the experience acquired from the experimental stage and from other information in our possession, was original and innovative, and called for selecting participants who were strongly motivated and able to control their mental activity with whom to conduct 50 experimental group sessions in Evanlab (Florence), with each session lasting an average of 90 seconds.

The sessions (which in reality lasted from 60 to 196 seconds with an average of 87s) were aimed at attempting to influence a Psyleron REG-1 placed in an electromagnetically sealed laboratory in the Department of General Psychology at the University of Padova (190 km away), making it cross the parabola's threshold on the graph (Min  $Z < -1.65$  or Max  $Z > +1.65$  of the expected average).

This means a probability of 10% (or much less if the deviation is large: Max  $Z = 2.301$  indicates a probability  $< 2.14\%$ ) that the graph randomly exceeds the parabola's limits on either side.

Choosing to do group sessions was designed to guarantee that at least one participant would succeed in influencing the REG.

The REG would also have to undergo control sessions – using the same settings and average duration – with no mental influence whatsoever so that results can be compared. These sessions were also performed in Padova by Patrizio Tressoldi.

With Tressoldi running the experiment in Padova, the participants chosen in Florence were myself, [Patrizio Caini](#), [Alessandro Ferrini](#), [Simone Melloni](#), [Diana Richeldi](#) and [Florentina Richeldi](#), ranging in age from 26 to 67 years.

The experimental sessions were conducted with a varying number of participants in the groups (at least three), depending on their availability, and were completed over a number of days to minimize the effects of mental fatigue and ensure maximum concentration.

In the 50 experimental sessions the success rate was 78% (with periods above the threshold lasting from 5 to 95 seconds), compared to 48% from the 50 control sessions during which, due to the nature of the REG itself, the complete absence of some sort of influence (either external or subconscious) could not be guaranteed.

The first experiment's success proved that the human mind is able to influence electronic devices such as the REG by altering its normal functioning, even from a significant distance, certainly when working in a small group of highly motivated people experienced in controlling their mental activity, and probably also by an individual working alone.

We were therefore confident of being able to overcome the limitations of the group sessions and eventually reach the stage when a single individual would be able to exert the same significant influence as that of a group.

## CONFIRMATORY EXPERIMENT

To verify the first experiment's results we needed to repeat it and, if possible, improve on it with a second confirmatory experiment. We had also previously drafted (i.e. published before beginning the experiment) procedures, equipment used and expected results.

With grateful thanks to our collaborator Gian Marco Duma who, as well as assisting us in our research, also enabled us to recruit more participants, now making a total of 34 people (20

females and 14 males) with ages ranging from 20 to 68 years, all possessing the pre-requisites of motivation and ability to control their mental activity.

They worked from their own homes, using either the same approach as the previous study or one of their own, in an attempt to influence the REG situated in Padova and which was also used in the first experiment. The participants' physical distance from the REG varied from 4 to 1512 kilometres and each of them had taken part in three sessions over three days, totaling 102 sessions with an average duration of 62 seconds per session, aiming to minimize the time and maintain total concentration. A control session was performed on the same day as each session but at a different time, with a total of 204 sessions. The sessions when influence was deliberate passed the threshold in 82.3% of cases compared to 78% from the first experiment, therefore producing a very similar result. In the control experiments however the threshold was only reached in 13.7% of times, compared to the first experiment's 48%.

We now need to explain the significant difference in results obtained from the control sessions (13.7% and 48% respectively). We believe it was due to an improvement in procedure: in the first experiment, the research assistant in charge of the control sessions had the controls carried out on a different day to the influence sessions and was in the same room as the REG, manually operating the recordings. In the second experiment though, the REG's output was recorded via internet and the research assistant was at home. We see that in the first situation it was far more likely that the assistant was thinking about the REG during the control session and therefore exerting some sort of influence on it (probably because it was a preview of an experiment and the result was as yet uncertain), while in the second situation we were more certain of the expected result and the assistant's approach was very probably more emotionally detached during both the control and influence sessions.

## CONCLUSIONS

This is only the beginning: we will continue with our analysis of the human mind's ability to act on matter and investigate the potential of using this or another protocol to achieve a *system of mental telecommunication* independent of current physical devices used for communication at a distance.

We were able to develop a method that enables a very short duration for single influencing attempts, a threshold value which distinguishes effective attempts from those ineffective, and a recognition efficiency of over 80% for both states 1 and 0; although not perfect, it is nonetheless acceptable for a binary type of communication system.

Furthermore the possibility in the near future of installing REGs in smartphones brings this idea within practical reach (see the Collective Consciousness App project - <http://www.consciousness-app.com> ).

We encourage other research groups to also follow our protocol and successfully replicate our experiences, trusting that our results will therefore be confirmed.