



Experimenting with trance



Spiritualist Chris Connelly MSc CEng is a scientist with a passion for understanding how things work. Mediumship is clearly no exception, as his recent experiments show. . .

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Fascinated by the work of researchers from the Society of Psychical Research (SPR) investigating the trance mediumship of Eileen Garrett, I decided to carry out my own research.

Back in 1937 two researchers (Goldney and Soal) decided to see if it was possible to measure any physiological signs that might occur during the Spiritualist trance states. Mrs Garrett, a well-known medium to many psychical researchers in the SPR, was always eager to learn more about the workings of her unusual ability and agreed to undergo a series of tests to measure her physiological responses before, during and after a trance demonstration. A range of physiological measurements was taken from Mrs Garrett, including her pulse, respiration, blood pressure and blood samples.

After the demonstration and a lengthy period of analysis the researchers concluded that the results of the tests showed no significant difference between those samples taken before, during and after the trance demonstration.

Benefits of modern technology

Since that time, the capability of technology to measure in detail the workings of the

human body has greatly improved; and with the introduction of neuro-imaging techniques, researchers around the world – particularly in Brazil – have identified specific anomalous brain activity that occurs only during demonstrations of Spiritualist trance phenomena. It suggests that the state of consciousness involved is different to that of everyday normal states of consciousness.

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Staying within the law!

Not being a medical practitioner I felt it would be better to stay on the right side of the legal system and avoid any invasive procedures such as taking blood! In addition, my limited financial resources meant I wouldn't be able to afford my own MRI scanner – well, not this year at least! So after a little research I opted to measure the skin-conductivity, as this was both minimally invasive for the individual taking part in the research and affordable.

The measurement of skin-conductivity has been widely recognised in various medical and psychological studies as being a reliable measure of the conscious and unconscious emotional states of the individual whose skin-conductivity is being measured. In other words, the skin-conductivity can give an indication of how emotionally relaxed or aroused a person may be at a given point in time.

A purpose-built device

Because of my engineering background I was able to build a device that could measure the skin-conductivity of an individual with a 24-bit resolution taking six samples per second. Using two finger sensors, the device was able to record the measurements and store on them a memory card that could be read by a PC using Microsoft Excel or other spreadsheet application.

Over a three-month period I was fortunate to be able to measure the emotional states of a number of trance mediums whilst they were demonstrating their ability. In total the measurements of sixteen trance mediums were taken, of which ten were deemed acceptable for use in the research.

The acceptability criterion was simply whether the medium reached the point in the trance demonstration where he or she spoke, as this implied a sufficient mental attunement between the medium's state of awareness and that of the alleged spirit communicator. Of course I never mentioned this criterion to any of the participating mediums in case it prompted a pseudo-trance demonstration due to any subconscious desire to meet the experimenter's expectations.



Now to measure the pretenders. . .

Armed with the results from the trance mediums, I sought a number of individuals who would be willing to take part in the research as mediums pretending to be in trance. I found ten individuals who could be regarded as novices in their development

and understanding of Spiritualist phenomena. In some cases I even had to explain the term 'trance medium' to the participant, so I was reasonably confident that while pretending to be in trance they wouldn't inadvertently or intentionally go into a genuine trance state.

Each of the individuals pretending to be in trance was asked to sit quietly for about two minutes – the observed average time it took the trance mediums from closing their eyes to starting speaking – and after that time to just talk about anything that came to mind.

When it was noted that an individual had stopped talking, he or she was asked a number of questions so as to restart the talking. Those questions were aimed at evoking an emotional memory and the constructive thought processes of that individual. This was to try and mimic possible thoughts and psychological processes that may occur within the minds of trance mediums.

Analysing the results

When analysing the results obtained from the trance mediums, and from those pretending to be in trance, I found that the emotional arousal and relaxation measurements between the two groups followed a normal distribution pattern. This allowed us to use simple statistical methods to compare the measurements

between both groups to see if those measurements from the trance mediums were significantly different from those of the pretending mediums.

The emotional arousal between

both groups was compared and indicated that there was indeed a significant difference between the results ($t=-2.588$, $df=18$, $p<0.02$). Even when the pretending mediums were prompted with questions to deliberately evoke an emotional response, the results were still very different and suggest it is not possible to emulate the emotional arousal found in a trance medium whilst he or she is demonstrating.

Meditation may not help communication

Perhaps even more interesting was that the emotional relaxation measurements between the two groups were also significantly different ($t=-4.588$, $df=18$, $p<0.002$). This suggests that when we observe a trance medium relaxing before the process of attunement and delivering a demonstration, the relaxation being experienced is different from the general relaxation one would experience whilst in a meditation.

This may be an important note for those individuals who are seeking to develop trance and believe that maintaining a meditative state of consciousness will provide the opportunity for the spirit communicators to entrance them. According to these results the very opposite may provide more positive experiences.

Some conclusions

These results in themselves do not prove the reality of an afterlife or of a discarnate presence blending with the mind of the participant. But they do give us a clue as to the state of mind/arousal that may be needed for an individual to demonstrate Spiritualist trance, or for the attunement to the spirit world.

The results also appear to support the conclusions of other researchers who used topographic brain mapping with mediums demonstrating their trance ability. They found that the mediums' brains showed a level of hyper-arousal referred to as 'Gamma' state.

Perhaps a little more controversial, yet certainly interesting, is that the measurements obtained from the trance mediums seemed to follow a normal distribution pattern, meaning that further measurements from other trance mediums should also fall within the same parameters.

A machine to establish genuineness?

Therefore, I'll conclude with this thought: Would it be possible to devise a device that would compare the measurements already obtained in this research with that of an individual trance medium demonstrating their ability, and in so doing provide an indication of the likelihood that the medium concerned is genuinely entranced? I would suggest it's certainly feasible.

