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# The Ganzfeld: Suggested Improvements of an Apparently Successful Method for Psi Research

**Adrian Parker**
**Department of Psychology, University of Gothenburg**

**Abstract:** The ganzfeld method is a laboratory analogue of spontaneous psi-experiences. Meta-analyses show the ganzfeld to have a promising track record of success in psi-research. Our current research has the goal of improving its effect size from the present level to reach an effect size where rapid progress can be made in terms of theory development. To achieve this goal we make use of audio-recordings of the ongoing verbal report of ganzfeld imagery which are fed onto a copy being simultaneously made in real-time of the video-clip. The video-material is currently being recording digitally and the procedure is run from the computer's hard disc. Some progress has already been made and suggests psi-imagery is directly perceived but subject to top-down processes.

My research contribution to parapsychology has been for many years linked to the Ganzfeld technique. While a doctoral student I helped pioneer one of the first applications of this technique to study of telepathic type experiences in the laboratory. However for many of the interviewing years I became rather sceptical and as an armchair critic my main contribution during this period was in helping to discredit the more extravagant claims being made for this technique by a then well-known Cambridge University researcher (Parker & Wiklund, 1987).

During the last four years, thanks to the generous support of the Bank of Sweden and some small additional support from the Perrott-Warrick fund at Cambridge, I have been in the position of being able to try to unite the two sides of myself which I suspect are well represented amongst the psychology profession: One side says that these phenomena are cognitive illusions due to confirmation bias, selective memory, or even in some cases schizotypal thinking, and that research has only succeeded in replicating methodological errors. The other side is impressed by the way parapsychology has been subject to constant critical evaluation and methodological refinement and yet the phenomena have persisted both in real life and in the laboratory. To dismiss this area would leave little faith in psychological research in general. So what have we been doing with this project and what have we found?

The aims of the project can summarised by three "Rs" which were the remit for the first project:

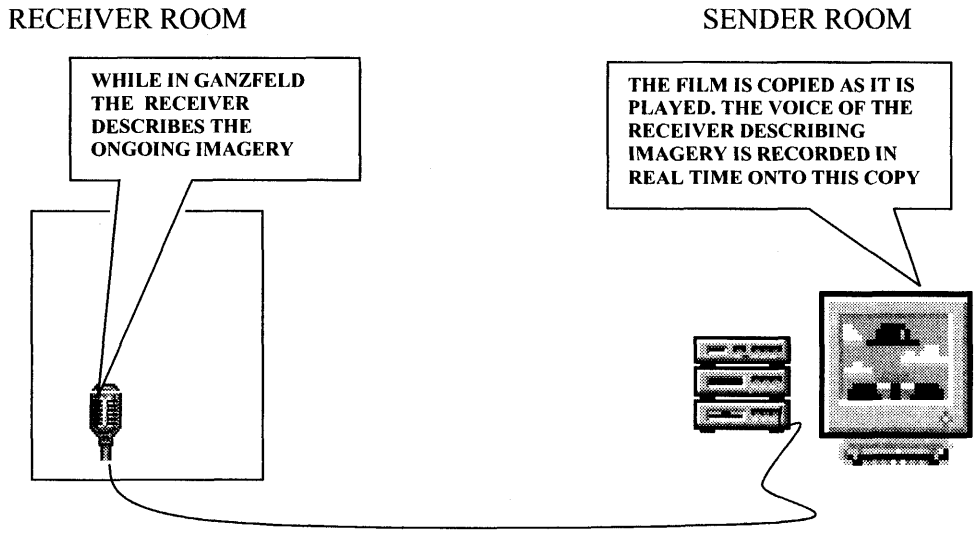
- Replication at a high level
- Research towards a theory
- Recipe for success

We are now primarily preoccupied in our contemporary work with a fourth:

- Renewal of the ganzfeld technique by digitising the procedure.

But I will return to this aspect later. The basic set up is shown in figure 1.

**Figure 1 Video Ganzfeld**




The results of the first project are summarised in table 1.

**Table 1 Overall Results**

| Study | Trials | Hits | Frequency | z score | Effect size |
|---|---|---|---|---|---|
| Study I | 30 | 6 | 20% | - 0.84 | -.15 |
| Study II | 30 | 11 | 37% | 1.26 | .23 |
| Study III | 30 | 11 | 37% | 1.26 | .23 |
| Study IV | 30 | 14 | 47% | 2.53 | .46 |
| Study V | 30 | 12 | 40% | 1.69 | .32 |
| Data Base 1-V: all studies $p$ = .0012 one-tailed | 150 | 54 | 36% | 3.02 | .25 |
| Data Base II-V: monitored studies $p$ = .0005 one-tailed | 120 | 48 | 40% | 3.69 | .34 |

Whatever caused these findings it is clearly consistent and is not chance. There are good reasons not entirely post-hoc ones for considering the so-called monitoring studies separately. In these studies the sender could hear and follow ongoing the verbal report of the person in the ganzfeld state (through a one-way only communication) – a form of feedback for efforts. How did we do it? It is clearly important to know when there are still so many replication difficulties in parapsychology. There is undoubtedly an experimenter effect and although some of our results were not dependent on one experimenter, they did show clear differences between experimenters (Parker 2000b). Some of these differences appear to relate to choosing the right sort of participants to work with (Parker, Frederiksen, Johansson, 1997). From various measures and observations, we arrived at a rough receipe for success:

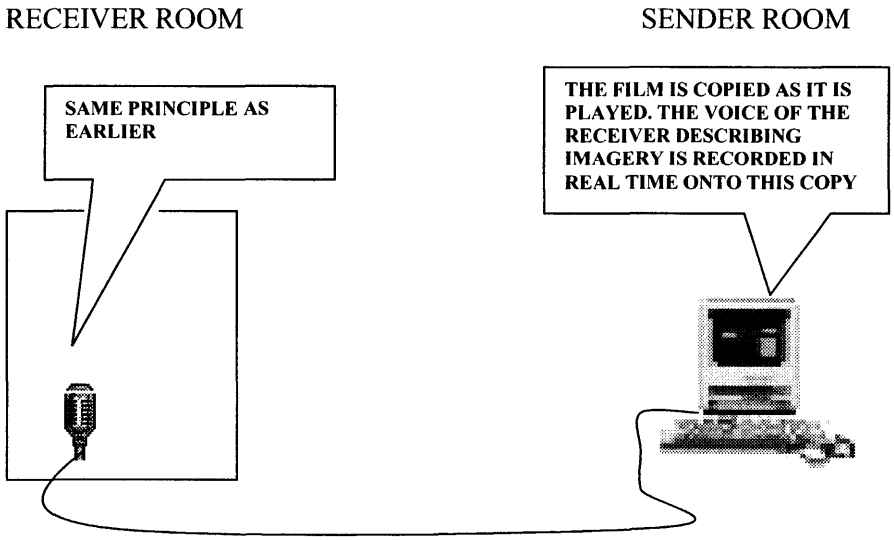
- Use individuals or groups who report spontaneous ESP type experiences
- Use individuals with a strong belief in ESP (for example high scores on the *Magical Ideation Scale* and the *Australian Sheep-Goat Scale*).
- Use individuals with high scores on *Myers-Briggs Feeling* (in need of replication).
- Create an expectancy of success and good relationships between all involved in the experiment.

But are we merely replicating ESP in its more derogatory form: *"Error Some Place"?* Could sensory leakage, faulty randomisation, or even fraud explain the results? Of course this is still possible even if it is unlikely given the size of the effect. It should be made clear that although this was not proof orientated research, we took the elementary precautions which are now obligatory in serious parapsychological work. (The receiver was a sound attenuated room distanced about 30 metres from the sender room, film clips were selected randomly, duplicate target films were used for judging).

About two years ago I had a discussion James Alcock, one of the most well-known critics of parapsychology (Alcock 1987). We found ourselves surprisingly agreed as to how we should resolve this dilemma of not being able to dismiss all the evidence but not being able to accept its implications. The way forward was to abandon the search for proof in a test tube and go for finding clear causal relationships with psychological events. If psychic phenomena are real and not illusory they will show these relationships.

In order to do this the first step is to identify periods of what appear to be pure psi and study how the material comes into consciousness. Here qualitative studies of the imagery formation during such periods can have an initial role. We are able to find such periods by recording the ganzfeld imagery in ***real time*** with the film imagery. We do this as shown earlier in figure 1 but also in our new set up in as shown in figure 2 where we have digitised the whole procedure so as to steer all events from and record all events on the computer. The audio-recordings of the ongoing verbal report of ganzfeld imagery are fed onto a copy being simultaneously made in real-time of the video-clip. The clips are short about 3 minutes in our older set up and 2 in our new set-up.

**Figure 2 Digitised Ganzfeld**




Major advantages of this technique include not only portability and safeguards but the actual judging procedure is also facilitated. The verbal report is heard and matched against both the real target films and the decoys shown together (displayed two at a time) on separate parts of the large 22 inch computer screen. This simultaneous viewing and comparison with the verbal report should facilitate the discrimination of which is decoy and which is real.

Some of our qualitative material appears at first face to be rather impressive. The "girl in the forest film clip" is consisted one of our best. Thew recording shows quite clearly how the ganzfeld imagery appears to follow the changing and unexpected imagery of the film clip about a girl being chased in the forest to the point at which there is an exact synchronicity between when the film sequence shows and the recipient describes that "the girl falls and hits her face on stony ground". The film itself is a very rare one and has little or no sound (cutting out the possibility of any remote auditory cues). The verbal description given in ganzfeld not only contains sequentially correct descriptions but these are correctly given in real time with a strange content that is not easily guessed: the "boomerang" shaped stick, the coloured effects of the wigs worn by the women, and the snowing effect in the film.

The same subject was able to repeat her performance with another film clip. This shows a man staring at greenish rocks in which an imp-like figure is hidden. At this point in time she responded: "Ivy covered rocks. There is something lying in them". What is also interesting here is that the participant apparently goes on to focus on the

improbable sequence of events that occur after this in the clip: a boy getting up from a blanket or sleeping bag to which she responds: "blanket or sleeping bag".

Could such effects occur by chance? Are the hits merely reflecting popular themes in human imagery relating to for example nightmares of being chased in the forest and dreams of flying, etc?

To get a correct perspective on this question, it should emphasised that:

- 1 in every 5 or 6 of hits shows a remarkable degree of correspondence in content.
- Participants had no prior knowledge of the films being used and some good quality hits were obtained with rare films.
- Control recordings do occasionally show correspondences of the receiver's imagery with popular themes (such as water, cars, nature scenes, and people) but not the specificity that occurs here.
- The receiver's imagery in real-time recordings appears to follow the sudden changes in the content of the film. We have not found this is to be the case in control recordings.

These results were recently presented at the Perrott-Warrick Conference held in Cambridge (Parker 2000b) Some critics there suggested that so-called the concept of **"subjective validity"** – that is a confirmation bias in seeking sufficiently far until matching sequences appear by chance - would explain these effects. This ignores of course the fact that the results are overall statistically significant and therefore this justifies looking for the source of the significance. Moreover, we had already looked at some sample control recordings in order to see how easy it is to get such matches in a row in the same film. In these the external judge looked for matches between the participants statements about the film clip while viewing all four films without knowledge of which of these was a real time recording. Looking at one of these hits, we see that the participant correctly describes several features in the short clip about the releasing a wounded bird that has been held in captivity. She describes in real time "the feeling of flying", " having raised arms", "the breast of a bird", and then "flying towards the blue sky". This hit was actually not considered to be one of our best and was not one of those we have included in our collection of best hits (Parker et al 2000). One reason for this was there seemed to be a lot of "noise" - that is also a mass of vague statements - in the record until suddenly it seemed to match the target film. Nevertheless separating all the utterances into separate meaningful descriptive units, we found that some10% of such units were rated by the judge at 8 or 9 on the 0-9 rating scale measuring the degree of correspondence. By way of contrast all the three control decoy films received only matches that lay between 0 and 2 on the scale with the exception of one single unit with a rating of 6.

There is however one difficulty in drawing conclusions from the use of such control recordings. There is can be a dependency between meaningful units: having correctly described a forest or city scene then a lot of things might follow. Even the example here of the flying bird may show some of this kind of dependency - having correctly identified with a bird much of the rest might easily follow. Obviously it is not birds, trees or cars that we find to be impressive, but the correct description of unusual events which are actually an important criterion for selecting films into our film library. Thes can serve as parapsychological markers of psi.

We need a method of dealing with this quantitatively. Recently my co-worker, Dr Joakim Westerlund, has found an ingenious method which a least to some extent resolves the issue of, so to speak, " how to quantify the qualitative". The method involves collecting a complete record of time recordings from a whole experiment which includes both the real time recordings on to the target films and the same recordings made on to the three control decoy clips. All of these recordings are then systematically looked through by an independent judge who tries to find close matches between verbal descriptions and film content. By selecting, say, the best ten of these, we should find a clear pattern of good matches favouring those taken from real-time target recordings rather than the decoys. While this method, in its present form does not give specific weights to individual real time matches in each protocol, it is a start.

If we leave this aside for the moment and regard psi in these studies as a working hypothesis, which I think the above quantitative data entitles us now to do, then I believe we have the opportunity of actually learning something new about psi from the extant material. If we look at how psi mediated information enters consciousness, it becomes apparent that misperceptions occur like in those normal perception. One of our best examples is when a participant describes jumping white correctly even to the lemurs but as jumping white lambs.

Preliminary findings suggest a hypothesis that psi shows the same form of top down processes as occur in normal perception during non-optimal conditions:

- Sometimes entirely accurate perceptions occur
- Sometimes misperceptions occur
- Expectancy and memory associations play a determining role
- Overall characteristics such as form and movement are identified first and details filled in later.

The real time recording of hits will enable us to look further at this hypothesis. In particular we will be interested in looking for specific parapsychological markers in the data in the form of top down or other processes. If psi is mediated by top down processes, then we should be able improve facilitate psi by using film material selected specifically to facilitate top down processes (although I will keep quite for the moment about the exact content of this material). When we have come so far we can also begin to apply psychophysiological recording in order to illuminate how psi relates to brain processes.

## References

Alcock, J (1987) Parapsychology: Science of the anomalous or search for the soul? *Behavioral and Brain Sciences, 10,* 553-643

Parker, A. (2000a) A review of the ganzfeld work at Gothenburg University. *Journal of the Society for Psychical Research, 64, 1-15.*

Parker, A (2000b) Progress in parapsychology with the ganzfeld. *Rational Perspectives on the Paranormal, Proceeding the Perrott-Warrick Conference,* Trinity College Cambridge.

Parker, A. & Wiklund, N. (1987) The Ganzfeld: Towards an assessment. *Journal of the Society for Psychical Research*, *54*, 261-265.

Parker, A., Frederiksen, A., Johansson, H. (1997) Towards specifying the recipe for success with the Ganzfeld. *European Journal of Parapsychology*, *13*, 15-27.

Parker, A., Grams, D., & Pettersson, C. (1998). Some further variables to psi in the ganzfeld. *Journal of Parapsychology*, *62*, 27-45.

Parker, A., Persson, A., & Haller, A. (2000) Parker, A. (2000B Using qualitative ganzfeld research for theory development: top down processes in psi-mediation. *Journal of the Society for Psychical Research, 64,65-81.*