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# *A Preliminary Test of the Model of Pragmatic Information Using Cases of Spontaneous Anomalous Experience*[1]

***Abstract:*** *A three-year study was conducted as the first systematic test of the Model of Pragmatic Information (MPI: von Lucadou, 1994) using spontaneous reports of Anomalous Experiences (AEs) of the Recurrent Spontaneous Psychokinesis (RSPK)-type. The study, which we believe is the first of its kind, involved collaboration amongst several centres for parapsychological research and individual researchers located in Europe and elsewhere, numbering over sixty in total. Using a waiting-list design, collaborators asked members of the public who presented with AEs to participate in the web-based questionnaire study before detailed discussion about their AE. According to the MPI, it was predicted that those randomly-selected cases that were viewed and documented in detail would show a reduction or*

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*change in AEs, compared to those that were never viewed and documented. Clinicians and researchers from 16 different countries participated in a two-year period of data collection. The rate of referral was considerably slower than anticipated based on initial discussion with potential collaborators. Following 43 referrals, a total of 17 cases passed the initial screening process, and 14 completed the full study, 6 of which were in the 'documented' group. Analysis of the two formal study hypotheses did not provide support for the predictions of the MPI, and it was concluded that this aspect of the research was of limited success due to low statistical power. Debriefing revealed that some collaborators reported a dramatic drop in the frequency of contacts from the public, which they largely attributed to the burgeoning popularity of amateur 'ghost' investigation groups and the ease with which the internet allowed such groups to be located. They also reported that in cases where the callers were in distress, they felt reluctant to delay assisting the caller by referring them to the study. The study succeeded in establishing a working protocol for a large-scale collaborative psi research project, which is a model that could be applied to other topics in parapsychology.*

## Introduction

Many parapsychologists have commented upon the apparently elusive nature of psi phenomena (Kennedy, 2003). This may be seen, for instance, in the ubiquitous pattern of declining effect sizes in particular research paradigms, in the rarity of well-documented cases of Recurrent Spontaneous Psychokinesis (RSPK) (Lucadou and Zahradnik, 2004), and in Kenneth Batcheldor's observation that his sitter group phenomena could not be obtained when attempts were made to observe and record them on camera (Batcheldor, 1979).

Walter von Lucadou has proposed the Model of Pragmatic Information (MPI; von Lucadou, 1994) and its recent interpretation in terms of entanglement correlations in Generalized Quantum Theory (von Lucadou, Römer and Walach, 2007; see also Clarke, 2008) to account for these anecdotal and experimental demonstrations of the elusiveness of psi. A variant of observational theory, the MPI is a system theoretical model which states that psi phenomena are non-local correlations in psycho-physical systems instead of signals or forces. A fundamental limit on these non-local correlations is that they cannot be used to transmit meaningful or pragmatic (useful) information. In practical terms, the attempt to document in detail or observe psi effects is a form of pragmatic information, and thus violates one of the

fundamental assumptions of the MPI. This is perhaps best elaborated in von Lucadou's own words:

> This basic starting point of the observational theories can be seen in an alleged isomorphism between the structure of quantum phenomena and psi phenomena. This isomorphism is mainly seen in the non-locality of the wave function and the seemingly independence of space and time in psi phenomena. Another aspect of this isomorphism is the role of a measurement in quantum theory and the role of an observer in parapsychology.
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> The basic difference of the model of pragmatic information to the other candidates of observational theories (OT) *(e.g., Bierman, 2010; Walker, 1975)* is that it does in fact not start at the level of quantum theory but on a very general level of systems theory. This means that it does not say anything about the substratum of the psi phenomena nor does it entangle the problem of reductionism. The advantage of systems theory is that it can be applied to psychological problems as well as to physical problems simply by the fact that it does not say anything about the underlying substratum but only deals with the structure of our description language and the way we are representing and mapping information we can get from experiments on this descriptive language. The process of operationalization and interpretation describes the interface between the 'real world' (whatever this may be) and our description of it.
>
> The very basic assumption of the model says that any description of nature must have a structure, which is isomorphic to the axiomatic structure of quantum theory. However, this does not necessarily imply that we can transpose without further assumptions the detailed structure of a special quantum physical system to another field as it is done in the observational models. (Von Lucadou, personal communication; italics our addition)

The MPI therefore provides a theoretical approach to understanding phenomena such as decline effects in psi research and the elusiveness of psi. For example, it has been argued that the pattern of results obtained in a meta-analysis of homeopathy trials may be explained through this theoretical approach (von Lucadou, Römer and Walach, 2007). More broadly, the MPI and indeed all observational theories of psi, in suggesting that there is a connection between the observer and outcome, have potential relevance to studies investigating a range of distant healing, mental interaction with living systems (DMILS), and mind–matter interaction effects (Jonas and Crawford, 2003).

The MPI makes several predictions about enhancing or extinguishing psi effects, both in the laboratory and in field situations. For instance, if a person experiencing RSPK phenomena is asked to make a thorough documentation of future phenomena (such as setting up

video cameras or making a diary of experiences), the MPI predicts that the phenomena will decline or be extinguished. Von Lucadou reports anecdotally that in cases where individuals have approached him distressed about their anomalous experiences, he has successfully applied this model to lead to the termination of the AEs (von Lucadou and Zahradnik, 2004). However, this prediction has not yet been formally tested.

The present study conducted such a test by systematically varying the degree of documentation of information given by experients on spontaneous cases of AEs (reported to European parapsychology units), and monitoring the influence of the documentation on the subsequent occurrence of AEs. AE cases should include all available RSPK/GESP cases which fulfil a predetermined criterion of recurrence rate, i.e. that the AE occurs at least once a week on average. The MPI predicts that AEs will decrease or terminate in highly-documented cases (HIGH group), compared to minimally-documented cases (LOW group). MPI also predicts that there will be greater change in AE description for the HIGH group compared to the LOW group. It is important to stress that the amount of information given by experients is the same in both conditions, cases would be randomly assigned to the different testing conditions, and participants would be blind to their condition allocation. Therefore the sceptical hypothesis that any reduction in AE is the result of differential reflection, recollection, etc. is controlled for.

At von Lucadou's suggestion the documentation process used by the registrar to evaluate and comment on the data received was the Global Observables Scale[2] (Zahradnik, 2007; English language translation). This assesses an individual's report of anomalous experience on a number of scales developed by Zahradnik from the Basic Limiting Principles of Broad (1953).

As an exploratory measure, the study would also obtain information about changes in the experient's understanding of their AEs. The MPI predicts that greater understanding at the end of the trial period will be associated with a reduction in the frequency of AEs, irrespective of condition allocation.

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[2] For the purposes of the experimental design, any consistently applied structured assessment or judgments could have been employed. According to MPI, the actual intervention is immaterial, it is the process of observation and judgment, the implied promotion of entanglement that is the necessary component. This GOS scale, suggested by von Lucadou, measures (on numeric scales appropriate to the observations): significance for experient, significance for observer, degree of authenticity, degree of anomalousness, impact of experience on experient's life, emotional impact on the observer, and intolerance of the experient's group or society for the nature of the anomalous experience.

*Study Objectives*

This study had two principal objectives. Firstly, it aimed to test the prediction of MPI that there will be a decline or extinction of anomalous experiences in highly-documented cases, and a greater change in AE description in these cases, compared to poorly-documented cases. In addition to addressing this important theoretical issue for parapsychology (with implications both for laboratory and field psi investigations), the study could provide an evidential foundation for parapsychologists' attempts to assist members of the public who are distressed by their anomalous experiences in that it could provide empirical support for von Lucadou's observation that documentation of cases leads to their extinction. Secondly, in the process of planning and conducting the study, it aimed to foster a pan-European collaboration that would fruitfully pool resources and experiences while strengthening links between European parapsychology research units and individual researchers.

## Method

*Design*

A between-subjects two-group waiting-list design was used, with participants being randomly allocated to a group. Both groups experienced the same two- to three-week waiting period, after having provided the same amount of information on their AEs. The independent variable is the amount of AE information that is viewed and recorded by the trial registrar (Ian Tierney), which has two levels — HIGH and LOW information. There are two dependent variables: 1. the assessment (by the contact individual/experient) of the frequency of the AE during the waiting period; and 2. the assessment by the same individual of the degree to which the AE has changed during the waiting period. Based on the MPI (von Lucadou, 1994): HYPOTHESIS 1 predicted that there would be a reduction in AE for the HIGH information group, compared to the LOW information group; HYPOTHESIS 2 predicted that there would be greater change in AE for the HIGH information group compared to the LOW information group.

Furthermore, there was one exploratory question, again based on the MPI (*ibid.*): participants in the HIGH information group would report improved understanding of their AEs, compared to the LOW information group.

The participants were unaware of their condition allocation, and the trial registrar and the PI had no access to the data concerning the

study's dependent variables during the period of data collection. We attempted to control for any additional documentation or discussion by the experients of the events happening to them by asking them not to discuss these further during the waiting period. In any case any such discussion would occur randomly across the two study conditions so would not introduce systematic bias. The data collection phase was pre-planned to end after two years, or 60 completed cases, whichever occurred first. The study obtained ethical approval from the University of Edinburgh Psychology Department ethics committee.

*Recruitment and Briefing of Collaborators*

The project staff worked to recruit over 50 study collaborators from amongst clinicians, researchers, parapsychology laboratories, and societies across Europe. As the project entered its final year, we sought to increase the referral rate by widening the base of study collaborators to other non-European English-speaking countries. Four additional parapsychology research centres with 12 individual researchers were recruited, bringing the total number of collaborators to 64. In total, 16 countries were represented: Australia, Austria, Canada, Denmark, France, Germany, Great Britain, Holland, Hungary, Italy, Norway, Portugal, Spain, Sweden, Switzerland, USA. All collaborators were briefed about the rationale and methodology of the study, and were also sent regular updates reminding them about the study method and updating them on its progress.

*Study Website*

A professional programmer was commissioned to create a website that would automatically send participants a one-time key for completion of the study questionnaires online. The website automatically contacted participants at the required times, and also was programmed to collect the data and to assign the data to the two conditions. The website was designed to cater for 11 different languages, as indicated by flags on the home page (English, Danish, Dutch, French, German, Hungarian, Italian, Norwegian, Portuguese, Spanish, and Swedish). Participants could choose which language they wanted to use. For the parts of the questionnaire responses that were free-response, translators were used to translate non-English responses into English. A professional translation bureau was employed in order to ensure high quality translations, to European Quality Standard EN-15038.

*Materials*

Six online documents were created for use with participants in this study, as summarized below. The authors are happy to supply copies of the study materials on request.

**Document 1: Screening questionnaire.** This document consists of a checklist of 18 items, 7 of which were designed to identify participants who were judged for ethical, mental health, or practical reasons to be unsuitable for participation in the study. The exclusion of individuals who reported beliefs associated with psychotic symptoms, particularly paranoia, was undertaken to reduce reporting difficulties associated with these beliefs (not a judgment on their AEs). Participants were *not* invited to proceed with the study if they checked any *one* of the following 7 items: 'I am sure I am being controlled by someone or something else'; 'I think people direct thoughts at me telling me what to do'; 'I am worried that people or organizations want to harm me'; Occurrence: 'about once a year'; Occurrence: 'about once a month': Occurrence: 'all the time'; Age: 'My age is less than 16 years.'

**Document 2: Early exit.** This document was sent to any participants who did not pass the screening questionnaire. It thanked participants for volunteering, and suggested they might like to re-contact the parapsychology unit for further advice on their unusual experiences.

**Document 3: Participant information and consent form.** This document was sent to those participants who passed the screening questionnaire. It described what participation in the study would involve, and invited them to indicate whether they wished to proceed with the study or exit it at that point. If they chose to exit then they were encouraged to re-contact the parapsychology unit for further advice on their unusual experiences. If they chose to proceed then they were sent the next document.

**Document 4: Experience questionnaire.** In this document, participants were asked to complete a number of items that were descriptive of their experience and their reaction to it. This is the document that, for the HIGH information group, would be viewed and judged by the trial registrar. For those participants who completed this document in a language other than English, a translated version was used by the trial registrar.

**Document 5: Interim follow-up questionnaire.** This short questionnaire was sent to participants seven days after they completed document 4. It simply asked participants to indicate how many

unusual experiences they had had in the past seven days, and whether there had been any change in the nature of these experiences.

**Document 6: Final questionnaire.** This brief questionnaire was sent to participants seven days after they completed document 5. It included questions on the key dependent variables of the study: 1. change in frequency of experience ('How often have the unusual events occurred in the last two weeks compared to how often they were occurring before you first contacted us?', answered on a 1–10 scale where 1 = Very much less, 10 = Very much more); 2. change in description of experience ('Apart from any changes in how often they occur, has your description of the unusual events changed in the last 2 weeks?', answered on a 1–10 scale where 1 = Very little, 10 = Very much). The document also asked a question about changes in the experient's understanding of their AE ('Do your unusual experiences now make sense to you?', answered Yes or No and with invitation to provide further explanation for 'Yes' answers). No analysis was made of any qualitative information provided for this question. Experients were also asked about their emotional response to the events reported, as follows: 'How do you feel about these events? (please click on the descriptions that apply to you): Indifferent, Worried, Happy, Afraid, Curious, Special, Terrified, Ecstatic.' The document ended by thanking the respondent for taking part in the study, and suggested they might like to re-contact the parapsychology unit for further advice on their unusual experiences.

In addition, a final 'debriefing questionnaire' was sent to all study collaborators at the end of the project. This asked respondents: 1. 'Have contacts with you or your unit from members of the public declined in the last 5 years?' (Y/N); 2. 'Were you contacted by people with this type of experience who you were not able to refer?' (Y/N). In each case, respondents who answered 'Yes' were asked to provide further explanation for their answer. Finally, respondents were asked whether they would be agreeable to continuing as a collaborator if the study were to continue collecting data.

### *Procedure*

If a collaborating parapsychology unit or practitioner was contacted by a member of the public reporting RSPK-type experiences, they were asked not to discuss the experience in detail with the experient but instead to invite the experient to participate in the research project. If the experient indicated some interest in participation, then the collaborating unit obtained the experient's email address, logged on to

the study website, and entered the experient's email address. This was the end of the collaborator's involvement in the process for that particular caller. The study website then took over administration of the study materials to the experient.

The experient was first sent the screening questionnaire and, if they did not pass the screening, they were sent a brief 'thank you'. If they did pass the screening, they were sent further details about the study and were invited to indicate whether they wished to proceed with the study or to opt out. Those who opted out were sent a brief 'thank you' message. Those who chose to proceed were immediately sent document 4, in order to gather a description of the anomalous experience and its impact on the experient. One week later, the experient was sent a brief follow-up questionnaire (document 5), and one week after that the experient was sent the final questionnaire (document 6) and was then thanked for their participation in the study.

The total time elapsed between the experient contacting the collaborating unit and being sent the final questionnaire was 2–3 weeks, though it could be longer if the participant did not complete the questionnaire promptly. Participants were automatically sent reminders to complete the questionnaires if they had not done so within 24 hours of receipt. On completion of the final questionnaire, the experient was encouraged to contact the collaborating parapsychology unit or practitioner again if they wished further assistance or advice about their unusual experience.

If the website allocated the experient to the LOW group, then that individual's completed documents were automatically deleted by the study program. Therefore the LOW group responses (except for their responses to the final questionnaire) were never viewed by anyone.

If the experience was allocated to the HIGH group, then the trial registrar was notified and, if necessary, the document 4 responses were translated to English before being judged by the trial registrar. So, the operationalization of the MPI was particularly focused on the handling of document 4. For a random half of the experients, their description of their experience was never viewed by anyone. For the other half, the trial registrar viewed and judged their experience description using the Global Observables Scales (Zahradnik, 2007; English language translation).

Once the designated end date of the data collection period had been reached, the study collaborators were sent a questionnaire asking for further information about the contacts they had received from members of the public, and about their involvement in the project as a whole.

## Results

*Referrals*

At the closure of the two-year period of data collection there had been a total of 43 referrals to the project site. The referrals came from 9 countries: UK (16), Italy (2), Norway (1), Sweden (1), Germany (9), France (6), Hungary (5), Canada (2), and USA (1). Of these, 17 passed the initial 'criteria' questionnaire, 14 of which completed the whole programme. Three referrals only completed the first two questionnaires leaving the crucial last one not completed. Therefore 26/43 (60%) did not pass the initial screening questionnaire because they described symptoms or beliefs which indicated either concurrent psychopathology, they were too young to be ethically included in the study, or the experience occurred too infrequently for measurement.

In the documented (HIGH: n = 8) group the average age was 42 years (30–56), there were 3 women, 5 men. Emotion: negative (n = 4), positive (n = 4). Three people lived alone. No physical problems were reported. Two had minor psychological problems (anxiety).

The data were independently checked for accuracy prior to analysis. Tables 1 and 2 give the raw data and descriptive statistics for the principal outcome measures of this study. The tables show that both groups reported a slight drop in frequency of experiences (5 = no change), and that the LOW information group experienced a greater reduction in the frequency of AEs than the HIGH information group. Conversely, the HIGH information group reported a smaller change in the description of AEs than the LOW group. Mann-Whitney comparisons were made to test the significance of these group differences.

HYPOTHESIS 1 predicted that the HIGH information group would report less frequent AEs than the LOW group. Analysis showed a non-significant trend in the direction opposite to that predicted, therefore Hypothesis 1 was not supported ($U = 12.50$, $Z = -1.53$, $p(2\text{-t}) = .142$, not corrected for ties).

HYPOTHESIS 2 predicted that the HIGH information group would report greater change in AE description than the LOW group. Analysis showed a non-significant trend in the direction opposite to that predicted, therefore Hypothesis 2 was not supported ($U = 17.50$, $Z = -.885$, $p(2\text{-t}) = .414$, not corrected for ties).

The exploratory hypothesis concerned MPI's prediction that participants in the HIGH information group would report improved understanding of their AEs, while those in the LOW group would not report improved understanding. As Table 3 shows, there was partial support for this suggestion, with the majority of participants in the LOW

group reporting that their understanding did not improve (7 out of 8). This trend was, however, non-significant [Fisher's Exact Test Phi = 0.41 (8 x 6), p = 0.25 (2-t)].

| **LOW group case number** | **Frequency change** | **HIGH group case number** | **Frequency change** |
|---|---|---|---|
| 1B | 1 | 4A | See note 2 |
| 2B | See note 1 | 5A | See note 3 |
| 3B | 2 | 8A | 1 |
| 6B | 2 | 9A | 6 |
| 7B | 3 | 12A | 3 |
| 10B | 6 | 13A | 3 |
| 11B | 1 | 16A | 6 |
| 14B | 2 | 17A | 6 |
| 15B | | | |
| **MEAN** | **2.50 (SD = 1.60)** | | **4.17 (SD = 2.14)** |

*Table 1.* Raw data and descriptive statistics for outcome measure Change in Frequency of AEs. (Frequency change, 1–10, Very much less to Very much more.) Note 1: No data at all (removed from analysis). Note 2: No data, but 6 at the end of first week compared with 4 prior. Note 3: No data, but 4 at the end of first week compared with 4 prior.

| **LOW group case number** | **Description change** | **HIGH group case number** | **Description change** |
|---|---|---|---|
| 1B | 1 | 4A | No data |
| 2B | No data | 5A | No data |
| 3B | 5 | 8A | 1 |
| 6Bs | 2 | 9A | 2 |
| 7B | 1 | 12A | 2 |
| 10B | 2 | 13A | 3 |
| 11B | 1 | 16A | 1 |
| 14B | 6 | 17A | 1 |
| 15B | 6 | | |
| **MEAN** | **3.00 (SD = 2.27)** | | **1.67 (SD = 0.82)** |

*Table 2.* Raw data and descriptive statistics for outcome measure Change in Description of AEs. (Description change, 1–10, Very little to Very much.)

| LOW group case number | Understanding improved | HIGH group case number | Understanding improved |
|---|---|---|---|
| 1B | Yes | 4A | No data |
| 2B | No data | 5A | No data |
| 3B | No | 8A | Yes |
| 6Bs | No | 9A | Yes |
| 7B | No | 12A | No |
| 10B | No | 13A | Yes |
| 11B | No | 16A | No |
| 14B | No | 17A | No |
| 15B | No | | |

*Table 3.* Raw data for exploratory outcome measure Improved Understanding of AEs (Yes or No).

## Discussion

To a non-significant degree the subjective frequency of AE scores during the 2-week trial period compared with the 2 weeks before the trial period increased for the HIGH group (n = 6: whose data had been viewed and judged by the trial registrar) and decreased for the LOW (n = 8: non-viewed) group whose data, apart from the final assessment, had been deleted before even being collated by the computer. This non-significant trend is inverse to the Hypothesis 1 which suggested that according to the MPI the HIGH group scores should have declined more than the LOW group. This trend is maintained if incomplete data is considered and logical extrapolations to possible scores are made. There were three incomplete cases where the final questionnaire was not completed, one case in the LOW group (where all data was therefore unavailable resulting in this case being deleted from analysis) and two cases in the HIGH group where interim data (from the end of the first week of the trial fortnight) were available. In the first of these two cases the number of AEs in the 2 weeks prior to the 2-week trial was 4, and the number occurring during the first week of the trial was 6. In the second case the same two relevant measures were 4 and 4 respectively. These results suggest that it might be worthwhile continuing to collect cases (and data) to ascertain whether the obtained trend on the frequency statistic is a chance finding or represents a reliable effect.

At the point at which formal data collection ended, neither of the two formal study hypotheses was supported, therefore this study did

not provide evidence supporting the MPI. The analysis was hampered by low statistical power, due to the low rate of referral to the project by collaborating units. The direction of the effect for both tests was in the direction opposite to that predicted by MPI, therefore the lack of support for MPI in this case is not attributable simply to low power. However, owing to the small numbers in each group, clearly it would be premature to conclude that this study undermines the MPI. Replication with greater numbers of cases would be needed to confirm these results. The same recommendation applies to our exploratory analysis, which found a trend supportive of the MPI's prediction that experients whose cases were reviewed and judged would report improved understanding of their AEs, compared to before the trial.

*Analysis of Referral Rate*

Both Tierney *et al.* (2007) and Belz (2009) have presented evidence that 50% of experients reporting anomalous experience who are referred to clinicians attached to parapsychology units describe significant evidence of psychopathology other than the AE. On this basis alone one would expect 21–22 of the referrals to date to fail this initial 'selection' questionnaire. Also, it is known that one underage individual and more than one experient with very infrequent anomalous experience were referred to the site and therefore did not meet the inclusion criteria. Therefore we can conclude that the design of the site worked as planned. The study was simply receiving fewer referrals than anticipated based on initial contacts with collaborators.

*Debriefing Questionnaire*

In order to obtain further information from collaborating units about their referrals to the project, at the conclusion of the case collection period a debriefing questionnaire was sent to all collaborators. The questionnaire posed three questions: 1. Had there been any decline in contacts from members of the public?; 2. Had the collaborator been contacted by people with RSPK-type experiences who they felt unable to refer to the study? Those who responded 'yes' to these questions were asked to elaborate. 18 collaborators gave feedback (33% response rate). For the first question, 13 reported no decline in approaches from the public, but said they had had very few approaches. Only 5 reported a decline in contacts from the public, and they primarily attributed this to the increase in alternative websites and paranormal 'groups' that could be found via the internet, though one respondent said that he thought RSPK cases were decreasing in

frequency. For the second question, 7 respondents said they sometimes found themselves unable to refer cases, and the most common reason given was that the experient was in distress and needed help urgently, so it was considered unethical to delay helping them. Many of the others said that they had received very few RSPK cases, and it was clear that in some cases the collaborator was making the judgment on whether or not a case was suitable for referral (rather than allowing the study screening questionnaire to be applied.) Three respondents stated that they felt the study exclusion criteria were too stringent, however we continue to feel that these exclusion criteria had to be applied both for ethical and reporting reasons.

The third debriefing question asked whether the respondent would be willing to continue to collaborate in referring cases to the study website. All respondents said Yes to this question.

*Conclusion*

The study had two principal objectives: 1. To conduct the first systematic test of the prediction made by von Lucadou's Model of Pragmatic Information that observation and documentation of RSPK-type cases will lead to the extinction and change of the phenomena reported; 2. To create a pan-European collaboration of parapsychology research units and individuals, and to strengthen links between this scattered community.

There was partial success in meeting the first study objective. The study design worked as planned: a network of European collaborators was recruited and they did indeed refer experients to the study. Experients progressed through the study via the study website. The website properly rejected those experients who did not meet the study inclusion criteria, and this was at the approximate rate expected on the basis of previous research (50%). The website also functioned as designed in order to automatically collect the data while keeping the participants and the investigators blind to the condition allocation. However, the referral rate was lower than had been predicted on the basis of initial estimations from potential collaborators. This meant that the formal analysis of the study predictions was of low statistical power. The results did not support the predictions made by the MPI. However, we consider that due to the small N in the present study, this work needs to be replicated before any conclusions can be drawn about the Model of Pragmatic Information. Given the wider relevance of the MPI and related observational theories to other examples of mind–matter interaction, including distant healing and distant mental

interaction with living systems, we would encourage further systematic investigations of these models.

The second study objective was successfully met: a total of 65 collaborators, mostly European, were recruited. The referrals to the study came from 9 different countries. The network of collaborators was kept informed and involved via regular newsletters. In debriefing at the end of the study, we learned much about the contacts that the collaborating units are now having with members of the public distressed by their anomalous experiences. We also circulated the contact details of all collaborators in Europsi, thereby helping those actively involved in parapsychology to 'find' one another. In conclusion, we hope that this project has provided a model that other researchers might adopt to conduct large-scale collaborative parapsychological research.

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