

## **Research Note: The Pro Attitude and the ‘Sheep-Goat’ Effect in the *I Ching* Database**

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The *I Ching* system of divination has featured in parapsychological experimentation in two studies by Storm and Thalbourne (1998-1999; 2001a,b), and two studies by Storm (2002a,b; 2003). In their (Storm & Thalbourne, 1998-1999) initial study, various psi effects were found, but no attempt was made to explain the theoretical principle underlying these effects. Storm (2001) addressed this omission by launching a full-scale investigation of Thalbourne’s (in press) theory of psychopraxia,<sup>1</sup> which proposes that ESP and PK are only nominally different, and are taken to be different, first (and *principally*) on philosophical grounds (see above, p. 106), and second, on the basis of experimental findings (see Storm & Thalbourne, 2000, for a review of the theory). Consequently, the so-called *I Ching* effect (i.e., hexagram-hitting—for details, see above, p. 141) was explained as a psychopractic effect of the self, manifesting exosomatically (i.e., outside the mind-body complex). The self is regarded as the first principle of the theory of psychopraxia. The *I Ching* effect begged the question of whether the distinction between ESP and PK could be maintained with absolute integrity. On the grounds that it could not, Storm and Thalbourne (2001a) accordingly explained the *I Ching* effect as an example of the unitary phenomenon of psychopraxia.

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<sup>1</sup> The theory of psychopraxia also proposes that normal and paranormal effects are similar on phenomenological grounds (Thalbourne, in press).

A second principle of the theory of psychopraxia is that a psychopractic effect cannot be achieved unless a participant holds a so-called *pro attitude*, which is a conscious or unconscious attitude towards a favourable outcome of an action. Storm (2002a) attempted to find evidence for the pro attitude by expressly asking experimental participants how much they wanted to achieve a paranormal effect. They were asked to rate their interest on a scale of 1 to 7.

(I'm not interested at all) 1 2 3 4 5 6 7 (It's very important to me)

Storm (2002a) did not find a significant relationship between the measure of pro attitude and the *I Ching* effect.

The third principle of the theory of psychopraxia is that of the so-called *necessary condition*. It is argued that a psychopractic effect cannot be achieved unless all the conditions necessary for that effect to occur are present in the situation. This ensemble of conditions constitutes the *sufficient* condition. A number of attempts have been made to identify these necessary conditions (see Storm & Thalbourne, in press, 2003a, 2003b). However, there are problems with the ways in which the above-mentioned second and third principles were investigated. The present research note takes the first steps towards rectifying those problems.

First, it has been reported in the literature that extreme scoring on variables such as “investment” and “trust in the process” creates adverse conditions for psi (see Heath, 2003, pp. 291-306). Many correlations in psi research have been found to be linear, so that extreme scores might tend to predict optimum psi-hitting (or psi-missing). However, and in particular, Heath argues that the variables ‘investment’ (feeling that achieving a psi effect is important) and ‘trust in the process’ (“not trying too hard”—Heath, 2003, p. 291) may predict psi hitting, but too much investment and insufficient trust are deleterious to that effect. In other words, the relationship of psi with either of these variables is not linear across the full range of scores.

Storm (2002a) found a non-significant negative relationship between pro attitude and hexagram-hitting,  $r(41) = -.16, p = .146$ . He hypothesized a positive relationship under the assumption that those participants who deemed the outcome to be ‘very important’ would score the greatest number of hits, but he also assumed that the hypothesised relationship was linear across the full range of scores. It is now argued that only a negative direction accords with Heath’s findings. Heath found that the “optimal situation seemed to be one of caring about what happened combined with trust that things would work out as they should” (Heath, 2003, p. 303). In other words, we might expect that the more participants

shift from 'some interest' to thinking a hit was 'very important', the less we might expect them to hit. It is hypothesised that, as long as participants have *some interest* in getting a hit, but they do not think that it is *very important* either, there is a negative relationship between pro attitude and the *I Ching* effect. That is, the strongest overall hitting effects are likely to be found in those who merely trust in the process, rather than care too much.

Also, on the basis of the findings reported by Heath, extreme scores should be trimmed so that only mid-range scores are correlated with hexagram-hitting (i.e., the *I Ching* effect). For the purposes of the present study, the author trimmed off scores of 1, 2, 6, and 7, so that only scores of 3, 4, and 5 remained. The Pearson *r* test (again a one-tailed test) was re-run on the truncated pro attitude variable and hexagram-hitting, and the relationship was found not only to be significant, but also to be stronger,  $r(30) = -.31, p = .042$ . As hypothesised, the more participants tended to shift from 'some interest', to thinking a hit was 'important', the less they tended to hit. This finding is exactly what we would expect.

Second, if the above-mentioned third principle is to be followed to the letter, a truly psychopractic approach to parapsychological investigation requires that an ensemble of necessary conditions be built up in an accumulative way, so that, by the theory, the psychopractic effect should be activated as the ensemble becomes complete. At the early stages of a psychopractic investigation, first attempts should be made to identify specific necessary conditions. Subsequent investigations, however, should see the experimenter attempt to build up an ensemble of necessary conditions. The experimenter should see sub-samples of participants grow increasingly smaller as unsuitable participants are removed.

The well-documented sheep-goat effect<sup>2</sup> has proved to be a consistent finding throughout parapsychological research, and measures of psi belief have proved reliable in predicting psi scores. In terms of the theory of psychopraxia, belief is regarded as a necessary condition, and was tested as such in another study by Storm and Thalbourne (in press). A small sub-sample of skeptics were converted to believers (so-called converts) as measured by the question "Do you believe that a score, which deviates significantly from chance, might indicate the presence of ESP?" Before conversion, hitting in a card-identifying task was at chance,  $P_{\text{Before}} = .20, p = .465$  ( $P_{\text{MCE}} = .20$ ). However, converts produced a significant hit-rate,  $P_{\text{After}} = .30, p = .047$ .

Storm (2002a) combined his sample ( $N = 43$ ) with the pooled sample ( $N = 200$ ) used in the study mentioned above (Storm & Thalbourne,

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<sup>2</sup> Sheep are believers in psi, and goats are disbelievers or skeptics (Thalbourne, 1982).

2001b), thus forming a database of 243 participants. He found the proportion of hexagram hits was significantly greater than chance,  $P = .32$ ,  $p = .007$  (where  $P_{MCE} = .25$ ), but he did not test the hit-rate for psi believers. For the purposes of the present study, the author considered believers to be those participants who said ‘Yes’ to either one, or both, belief questions asked of them at the time they completed the *I Ching* Hexagram Descriptor Form.<sup>3</sup> Of the 243 participants, 189 were believers. The proportion of hexagram hits was significantly greater than chance,  $P = .34$ ,  $p < .001$ . (Note that the hit-rate for skeptics was at chance,  $P = .26$ ,  $p = .489$ .)

In conclusion, the psychopractic approach seems to require that extreme scoring on measures of pro attitude, and similar variables, be treated with care. Currently, testing of such variables (i.e., pro attitude, self-esteem, insight [into others’ thoughts and behaviours], and degree of trauma) is underway in a replication study of the *I Ching* experiment. Typically, these variables measure motivational and/or emotional investment, and therefore they can indicate participants who are highly ‘charged’ in affect (either positive or negative). Whenever and wherever motivation and/or emotion are found with extreme affect (low or high), we may expect unpredictable affects on psi (even no psi effect). The experimenter is advised to proceed (and hypothesise) with caution.

Regarding necessary conditions in general, the experimenter should attempt to identify possible necessary conditions that help bring about paranormal effects, make hypotheses about them, and test accordingly. If a condition really is necessary, and the sufficient condition is assembled, a paranormal effect is to be expected. To be on the safe side, the experimenter should also test groups where the necessary condition in question is not present (no paranormal effect should be expected). Such dual-testing procedures might include performance comparisons between treatment and non-treatment groups, median-split analyses, sheep-goat analyses, analyses of variance, partial bi-variate analyses, etc. Groups formed from sub-samples that elicit paranormal effects should then become the focus of attention for testing of the next necessary condition, and so on.

There is no doubt that information may be lost if non-psi groups are marginalised, perhaps never to be tested again. For example, it is indeed possible that a group of skeptics might psi-hit if it was high on a given necessary condition other than belief in psi. Of course the experimenter is

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<sup>3</sup> The two questions are “Do you think it is possible for at least some people to exhibit paranormal effects in this experiment . . .” and “Do you believe *in your own abilities* to exhibit paranormal effects in this experiment . . .” (Storm, 2001, pp. 101-102).

always free to undertake some exploratory analyses of such groups if the situation warrants it.

Ultimately, however, the logical consequence of the accumulative approach (or put simply, the psychopractic approach) is that the parapsychologist will end up with a sub-sample that has an ensemble of conditions sufficient for bringing about hypothesised paranormal effects. Naturally, this ensemble of conditions may only be 'complete', and therefore sufficient, at the *group* (i.e., subsample) level, but not at the *participant* level (for the participant, the attainment of the sufficient condition is an all-or-none affair: Either it is attained and psi is effected, or not, and one is left with an incomplete set of necessary conditions). Consequently the psychopractic effect may not be demonstrated by 100% of the participants in the sub-sample. However, it is expected that the accumulated psychopractic effect of having more than one necessary condition in the ensemble, will be greater than the effect of having only one necessary condition *in situ*. As we approach the entire ensemble, effects are expected to grow stronger as more and more participants elicit the relevant effect. The psychopractic approach is predicted to be a fruitful way to proceed for parapsychologists who are interested in the dynamics that underlie the paranormal process.

#### REFERENCES

- Heath, P. R. (2003). *The PK zone: A cross-cultural review of psychokinesis (PK)*. New York: iUniverse.
- Storm, L. (2001). *A parapsychological investigation of the theory of psychopraxia: Experimental and theoretical researches into an alternative theory explaining normal and paranormal phenomena*. <<http://thesis.library.adelaide.edu.au/public/adt-SUA20020816.184437>> [December 8, 2003].
- Storm, L. (2002a). A parapsychological investigation of the *I Ching*: Seeking psi in an ancient Chinese system of divination. *Australian Journal of Parapsychology*, 2, 44-62.
- Storm, L. (2002b). Errata. *Australian Journal of Parapsychology*, 2, 170-171.
- Storm, L., (2003). The *I Ching* and the Lotto game: Trying to beat the odds using an ancient Chinese system of divination. *Australian Journal of Parapsychology*, 3, 140-145.
- Storm, L., & Thalbourne, M. A. (1998-1999). The transliminal connection between personality and paranormal effects in an experiment with the *I Ching*. *European Journal of Parapsychology*, 14, 100-124.

- Storm, L., & Thalbourne, M. A. (2000). A paradigm shift away from the ESP-PK dichotomy: The theory of psychopraxia. *Journal of Parapsychology*, 64, 279-300.
- Storm, L., & Thalbourne, M. A. (2001a). Studies of the *I Ching*: I. A replication. *Journal of Parapsychology*, 65, 105-124.
- Storm, L., & Thalbourne, M. A. (2001b). Studies of the *I Ching*: II. Additional analyses. *Journal of Parapsychology*, 65, 291-309.
- Storm, L., & Thalbourne, M. A. (2003a). The effects of intuition and attitudes towards gambling on ESP performance during a gambling task. Submitted for publication.
- Storm, L., & Thalbourne, M. A. (2003b). Perceived complexity, perceived task difficulty, and other states of mind: The influence of mental states on psi outcomes. Submitted for publication.
- Storm, L., & Thalbourne, M. A. (in press). The effect of a change in pro attitude on paranormal performance: A pilot study using naïve and sophisticated skeptics. *Journal of Scientific Exploration*.
- Thalbourne, M. A. (1982). *A glossary of terms used in parapsychology*. London: Heinemann.
- Thalbourne, M. A. (in press). *The common thread between ESP and PK*. New York: The Parapsychology Foundation.

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