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Attention: Daniel Bessa

FINAL REPORT TO THE BIAL FOUNDATION, APRIL 2008

GRANT No. 07/06

**PROJECT: "FURTHER INVESTIGATIONS OF THE *I CHING*: RELIABILITY
AND REPLICATION STUDIES"**

PROJECT LEADER: DR. LANCE STORM

The Bial Foundation has financially supported me, Dr. Lance Storm, as project leader over the course of the study from March 1, 2007 to March 31, 2008. The project is now completed. The following is a report on the experimental and analytical work carried out for the project. A financial statement is also included.

The Replication Study

The first part of the study involved tests of the *I Ching*. It was hypothesised that the user triggers a paranormal process during the use of the *I Ching* by which veridical information about the user (past, present, or future) is produced in the form of so-called hexagram readings. Storm (2006) theorised that hexagram targeting may be in accord with the participant's time perspective (see Zimbardo & Boyd, 1999)—a person who has a *present time perspective* (the PTP-type) may prefer present-oriented first-hexagram readings, whereas a person with a *future time perspective* (the FTP-type) may prefer future-oriented second-hexagram readings. Storm (2006) found suggestive evidence for these effects. The present replication study sought to find further statistical evidence for these and other effects.

A total of 150 participants were tested. The project leader Dr. Lance Storm was the sole experimenter. On an individual basis, he administered the questionnaire to all participants, and supervised the *I Ching* procedure. The two kinds of hexagram hit-rates showed an increase compared to Storm's (2006) previous findings, but these did not deviate significantly from chance (where $P_{MCE} = 25\%$)—first-hexagram hit-rate ($N = 150$), $P = 25.3\%$; second-hexagram hit-rate ($n = 122$), $P = 24.6\%$. As hypothesised, hit-rates for PTP types on first-hexagram hitting (27%) exceeded hit-rates for FTP types (24%), but hit-rates for FTP types on second-hexagram hitting (22%) did not exceed hit-rates for PTP types (27%). The differences were not significant. First-hexagram hitters rated their readings significantly higher on meaningfulness than first-hexagram missers. This effect is interpreted as fulfilling a theoretical condition that defines "meaningful coincidence" or synchronicity (Jung, 1960).

The Reliability Tests

The second component of the study involved reliability and validity testing. The project leader Dr. Lance Storm was the sole researcher. Using a two-judge procedure, the researcher sought to test the inter-rater reliability and the content validity of Storm and Thalbourne's (2001) *I Ching* Hexagram Descriptor Form. Judging material was posted out to the judges in September 2007 and returned by both judges in March 2008. The material consisted of:

- a specially prepared complete set of *I Ching* hexagram readings from two sources: Wilhelm (1989) and Hazel (1990);
- Storm and Thalbourne's (2001) Descriptor Form (contains 64 *I Ching* 2-word descriptors, which encapsulate the fundamental meanings of the *I Ching* readings. The *I Ching* user pre-selects 16 of 64 descriptor pairs, and then tries to target one of the 16 by throwing coins to generate an *I Ching* hexagram and associated reading).
- Crowne and Marlowe's (1960) Social Desirability Scale (SDS);
- Haney's (1954) Uncritical Inference Test (UIT).

The judges were required to rate the suitability of the descriptor pairs against the hexagram readings. The SDS and UIT were administered to the judges to ascertain the degree to which the judges' subjective cognitive and/or social biases (if any) might affect the matching task. Judges did not show significant evidence of bias on these two scales, but their ratings were significantly different. It was concluded that the judges must be using different rating criteria, which can be expected of judges. Nevertheless, 75% of descriptor-pairs were rated at or above the mean rating of 71%. More importantly, hexagram hit-rate outcomes were not significantly different between descriptor pairs whether they had 'high' or 'low' ratings. Though the inter-rater reliability is doubtful, the content validity of the Descriptor Form was sufficiently high for tests of paranormal effects using that form. It was deemed advisable to test a variant of the Descriptor Form in a future study for comparative purposes.

Three control methods used to test first- and second-hexagram hitting were also tested against the preferred method used in the *I Ching* studies. These control methods produced no evidence of artifacts or displacements in the form of hit-rates above chance.

This final progress report is submitted as a partial requirement made of me, Dr. Lance Storm, the fund recipient, as requested by the Bial Foundation. I trust that this report is satisfactory. Should any further information be required please feel free to contact me.

Lance Storm Ph.D.
Anomalistic Psychology Research Unit
School of Psychology
University of Adelaide
South Australia, 5005
AUSTRALIA

E-mail: lance.storm@adelaide.edu.au

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