A Very Simple Test for Psi:
A Pilot Study

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Motivation: Something is Going On

• (Psychokinesis: macro- versus micro-PK)
• Dice tossing (148 studies, $10^{96}:1$ that results not due to chance)
• Schmitt experiments, 1970s – 1980s
  – Quantum-mechanical random sources
• PEAR Lab
  – Large studies with random event generators
  – Random mechanical cascade
  – Double-slit interference pattern
  – Others: pendulum, robot
• Many others
• Data supporting existence of micro-PK is overwhelming, but statistical
Motivation: But it is Still Controversial

• E.g., Bösch, Steinkamp & Boller, Psych Bulletin, 2006, conclude that results due to publication bias
• Per-sample effect is small
  – ~1 part per 10,000
  – Not apparent to an observer
• “Other people” have done experiment
  – Possible fraud
  – Poor experimental technique
  – Selective reporting
Motivation: Need for a Simple Experiment

- Transparent: easy to see process
- No specialized equipment: any lab can do it
- Access to each part of data to allow analysis of trends
- So...
The Experiment

- Reflection of light from glass
  - A binary random process at a fundamental level
- Use intention to change reflected intensity

Diagram:
- Incandescent light source
- Glass slide
- Transmitted light (92%)
- Reflected light (8%)
- Detector #1
- Detector #2
- Digital current meter #1
- Digital current meter #2
- Computer
**Experimental Procedure in Pilot Study**

- 26 subjects: mostly students, no special background in meditation or PK
- Subjects sat next to optical table supporting apparatus
- Experimenter out of room
- Look at apparatus (preferred this to looking at display)
- Directed by computer to apply intention to reflected beam to:
  1) Increase reflection for 30 seconds
  2) Leave unchanged for 30 seconds
  3) Decrease reflection for 30 seconds
  4) Leave unchanged for 30 seconds
- Set of 4 repeated 3 times
- Data tabulated by computer (total of 21,561 measurements)
Applying Intention
Results

Reflection (arb. units)

- Statistics: SAS analysis (variations within subject, between subjects & across trials)
- Effect of high intention compared low: $p = 0.052$ ($z = 1.63$)
- Change is in direction of intention
  - Two-tailed statistics applied
  - Using one-tailed, $p = 0.026$
Interpretation of Data: Effect Size & “Force”

• Number of “bits” per sample: $10^{15}$ photons

• Effect size:
  – $N$ is number of bits
  ~ $21,561 \times 10^{15}$
  ~ $10^{19}$
  – Here, $e \sim 10^{-10}$
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  - Here, $e \sim 10^{-10}$
  - Inconsistent with “force” per bit concept

- Magnitude of effect: 6 parts per thousand (is larger than other micro-PK)

from *Entangled Minds*, by Dean Radin
Implications

• Invasion of the subjective into physics
  – Science of the subjective (Jahn & Dunne) whether you like it or not
  – Wherever we look, we see ourselves
• Physics-like models may not apply to psi (or physics)
Conclusions

• Even the reflection of light from glass shows evidence of being subject to intention
• Effect appears to be significant
  – $p \sim 0.05$ (two-tailed) in pilot study
  – Magnitude of effect: 6 parts per thousand (is light special?)
• Simple, easily carried out experiment
  – Doubters can try it for themselves
  – Likely to be subject to experimenter effect
• Worth exploring further

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