

## **Comparing Conscious and Physiological Measurements in a Cognitive DMILS Study in Bali**

### **Results:**

This project aimed at enquiring whether physiological responses (heart rate variability) is a more reliable indicator of psi influence than conscious responses (button presses) in a cross-cultural setting. It continued and extended the research program that we developed in Bali for the previous four years. The problems with the traditional cognitive DMILS methodology are two fold: the button press may not be reliable as an indicator of loss of focus, and the number of button presses in Bali have been significantly fewer than in experiments in the US and Scotland. Through comparing heart rate variability (HRV) as an alternate measure of lack of attention, and through extensive interviews on the phenomenology of the button presses, we aimed to improve and make more consistent the cognitive DMILS protocol.

HRV did not yield a more sensitive measure of psi influence. Although on average HRV tended to be slightly lower in the Help condition in Study 1, this difference was not statistically significant, Control ( $M = 5.84$ ,  $SD = 1.64$ ), Help ( $M = 5.79$ ,  $SD = 1.64$ ),  $t(59) = 0.46$ ,  $p = .32$ , one-tail, Cohen's  $d = .06$ , power = .07. In the Study 2, there was no statistically significant difference in the HRV between the two conditions, Control ( $M = 8.74$ ,  $SD = 4.11$ ), Help ( $M = 8.96$ ,  $SD = 4.56$ ),  $t(42) = 0.65$ ,  $p = .26$ , one-tail, Cohen's  $d = .09$ , power = .16 .

The interviews yielded significant phenomenal data, from which we concluded that the Balinese see falling out of focus as a state; that is, the time from the instant of losing focus until they regain it is viewed as one state and is responded to as one event. Thus, they tend to press the button only once during this time. Although we do not have comparable data on this, it seems that EuroAmericans might view the time from losing focus to regaining it as potentially a series of events, where they might try to regain focus but not achieve it, and thus they may press the button multiple times during this period, thus increasing the button presses in EuroAmerican cultures. We believe, however, that other cultural factors may be at work, particularly the importance of ritual prayer in Bali.

### **Published Work:**

None to date

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