

## **A test of thermodynamic entropy effects in Anomalous Cognition**

### **ABSTRACT:**

#### **Background**

Previous research demonstrated relationship between gradients of entropy of the target stimuli and the resulting quality of the anomalous cognition (AC).

#### **Aim**

To verify the above using liquid (LN) nitrogen as an entropy beacon.

#### **Method**

After an AC session, randomly select one of 22, entropy neutral, natural sites as a stimulus. Randomly dispense 3 L of LN at half of the trials. AC metric was computational figure of merit based on fuzzy sets.

#### **Results**

Conducted 72 formal trials using the difference between sessions during which LN was dispensed at the site compared to no liquid nitrogen dispensed at the site. The effect size for the observed distribution difference was  $0.251 \pm 0.167$  leading to a z-score of 1.503 and an associated p-value of .066. We observed a decline effect in that the first half produced a significant result supporting the test hypothesis ( $z_{diff} = 1.80$ ,  $p = .036$ ,  $ES = 0.425 \pm 0.236$ ). One of three participants produced a significant finding ( $z_{diff} = 2.23$ ,  $p = .013$ ,  $ES = 0.909 \pm 0.408$ ).

#### **Conclusion**

It is likely, but not statistically supported, that changes of thermodynamic entropy at a target stimulus site enhance the AC of that site. There were extensive physical and psychological circumstances that might have accounted in the second half decline.

#### **Keywords**

Entropy, Remote Viewing, Liquid nitrogen

### **Published Work:**

Marwaha, S. B., & May, E. C. (in press). Precognition: The only form of psi? *Journal of Consciousness Studies*.

May, E. C., Hawley, L., Chaganti, V. K., & Ratra, N. (2014). Natural anomalous cognition targets: A fuzzy set application. *Journal of Parapsychology*, 78(2), 195-208.

Os textos são da exclusiva responsabilidade dos autores  
All texts are of the exclusive responsibility of the authors

**Researcher's Contact:**

Edwin C. May, Ph.D.  
Laboratories for Fundamental Research  
22754 Peak Street  
Hayward, California US 94541  
Phone: +1 (650) 283-3892  
E-mail: [may@LFR.org](mailto:may@LFR.org)