

## **Psychophysiology of Transliminality**

### **Results:**

*Transliminality* refers to the tendency of psychological material to cross thresholds into and out of consciousness. This study examined transliminality in several contexts. It was shown that major correlates of the construct are syncretic cognitions (the fusion of perceptual qualities in subjective experience), so the author presented a *hyperconnectivity hypothesis* that specifies transliminality as enhanced interconnectedness between brain hemispheres, as well as among frontal cortical loops, temporal-limbic structures, and primary or secondary sensory areas and/or sensory association cortices.

Study 1 showed that Revised Transliminality Scale (RTS) scores tap the same boundary construct as Hartmann's Boundary Questionnaire (BQ) and that the BQ factors concerning experiential-syncretic phenomena are most predictive of RTS scores.

Study 2 established that the boundary construct is significantly related to the apparitional experience, a phenomenon that likely derives from syncretic and somatization processes. However, a relationship between bilaterality and the boundary construct was not confirmed.

Study 3 corroborated and extended these basic findings by replicating positive associations among apparitional experiences, transliminality, and paranormal belief, as well as establishing that these variables positively correlate with measures of somatic-hypochondriacal tendencies.

Study 4 tested the predictive validity of these relationships *in vivo* by studying participants' experiences at an alleged 'haunted' site. Patterns of participants' haunt experiences and their scores on psychological measures hinted that syncretic and symbolic cognition were operating. Transliminality was positively associated with both types of cognition, which parallel established attentional mechanisms. These results suggest that transliminality involves cognitive disinhibition involving lower sensory thresholds.

Study 5 tested this idea via a quasi-experimental test of vibratactile sensitivity. High- and low-transliminality groups (HT & LT) completed threshold testing while listening to competing auditory stimuli of varying intensity and complexity. The HT group compared to the LT group exhibited lower sensory thresholds and quicker performance times. Further, introducing a high-intensity stimulus increased the thresholds of the HT group. The HT group also reported more aberrations in memory.

These findings indicate that high transliminality reflects disrupted attentional processes and/or screening functions. It was consequently concluded that the hyperconnectivity hypothesis is a parsimonious explanation for the cumulative pattern of results in the literature and in the original research constituting this research program.

## **Published Work:**

Houran, J., Hughes, L. F., Thalbourne, M. A., & Delin, P. S. (2006). "Quasi-experimental study of transliminality, vibrotactile thresholds and performance speed". *Australian Journal of Parapsychology*, 6, 54-80.

Houran, J., Kumar, V. K., Thalbourne, M. A., & Lavertue, N. E. (2002). "Haunted by somatic tendencies: spirit infestation as psychogenic illness". *Mental Health, Religion & Culture*, 5, 119-133.

Houran, J., & Thalbourne, M. A. (2003). "Transliminality correlates positively with self-reported aberrations in memory". *Psychological Reports*, 96, 1300-1304.

Houran, J., Thalbourne, M.A., & Hartmann, E. (2003). "Comparison of two alternative measures of the boundary construct". *Psychological Reports*, 96, 311-323.

Houran, J., Thalbourne, M. A., & Lange, R. (2003). "Methodological note: erratum and comment on the use of the Revised Transliminality Scale". *Consciousness and Cognition*, 12, 140-144.

Houran, J., Wiseman, R., & Thalbourne, M. A. (2002). "Perceptual-personality characteristics associated with naturalistic haunt experiences". *European Journal of Parapsychology*, 17, 17-44.

Thalbourne, M.A., Crawley, S. E., & Houran, J. (2003). "Temporal lobe lability in the highly transliminal mind". *Personality and Individual Differences*, 35, 1965-1974.

Thalbourne, M. A., & Houran, J. (2003). "Transliminality as an index of the sheep-goat variable". *European Journal of Parapsychology*, 18, 3-14.

Thalbourne, M.A., Houran, J., Alias, A.G., & Brugger, P. (2001). "Transliminality, brain function, and synesthesia". *Journal of Nervous and Mental Disease*, 189, 190-192.

Houran, J., Navick, S., & Zerrusend, K. (2005). Boundary functioning in celebrity worshippers. *Personality and Individual Differences*, 38(1), 237-248. doi: 10.1016/j.paid.2004.04.014

Thalbourne, M. A., & Houran, J. (2005). Patterns of self-reported happiness and substance use in the context of transliminality. *Personality and Individual Differences*, 38(2), 327-336. doi: 10.1016/j.paid.2004.04.011

Thalbourne, M. A., Houran, J., & Crawley, S. (2003). Childhood trauma as a possible antecedent of transliminality. *Psychological reports*, 93(3), 687-694. doi: 10.2466/pr0.2003.93.3.687

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Houran, J., Ashe, D., & Thalbourne, M. A. (2003). Encounter experiences in the context of mental boundaries and bilaterality. *Society for Psychical Research*, 67(4), 260-279.

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