

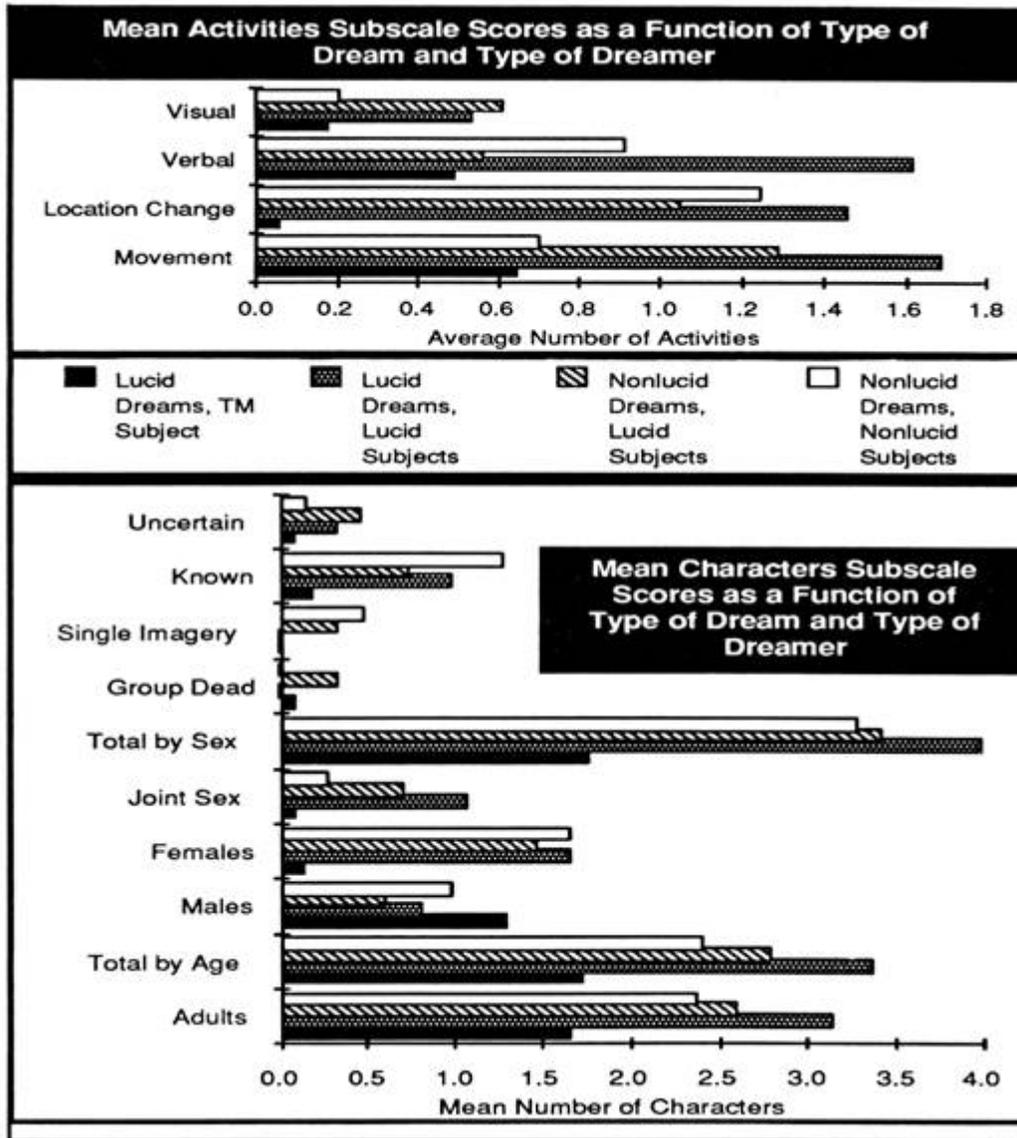
**Research Reports and an at Home Research Project**

**Psychological Content of "Consciousness" During Sleep in a TM Subject**

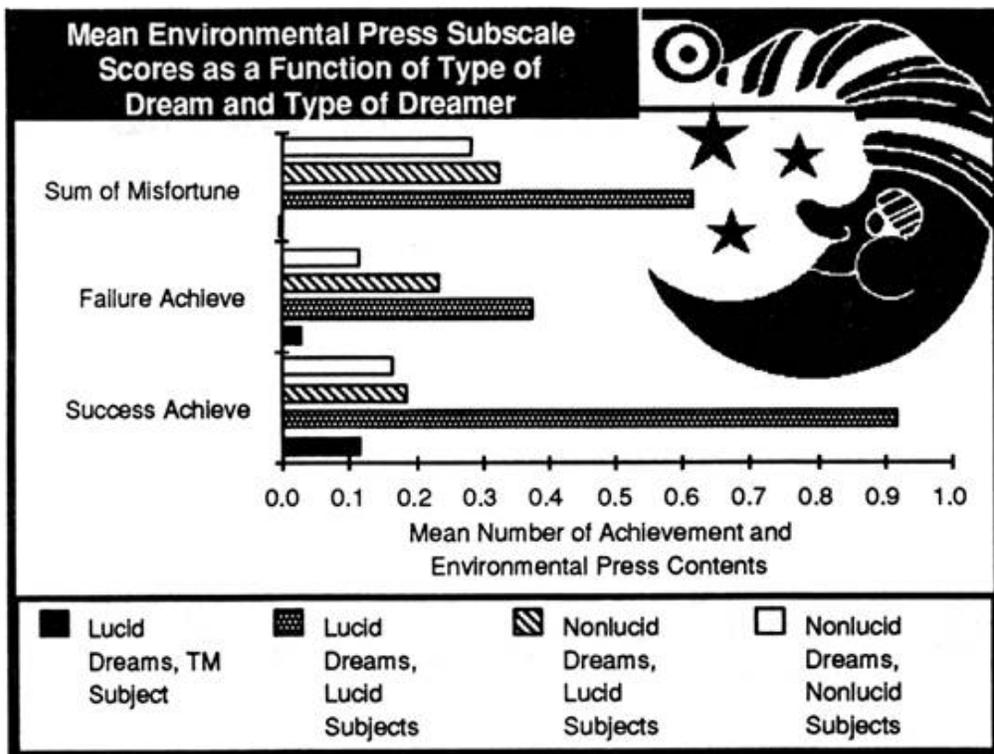
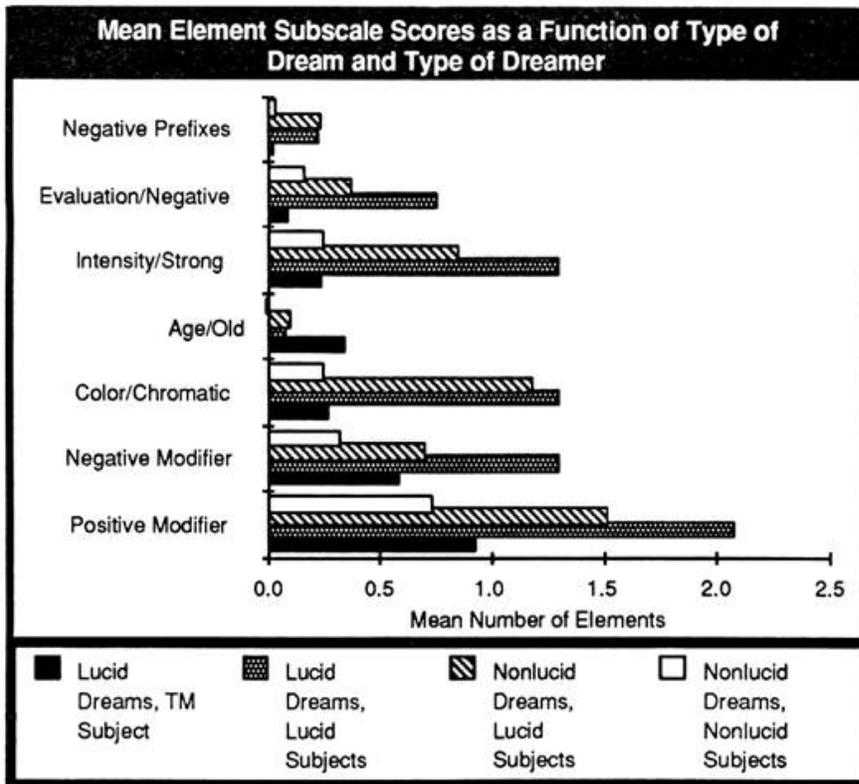
**Jayne Gackenbach and William Moorecroft  
University of Northern Iowa, Luther College**

Gackenbach (in press) recently concluded a review of the research examining differences in content between lucid and nonlucid dreams. It covered two types of data, self-evaluations of the content by the dreamer, as well as content evaluations by independent judges. Both approaches were largely descriptive of the manifest level of content, although the self-evaluations involve some part of the latent content through the subjects need to describe their own experience.

She concluded that although there were differences between lucid and



non-lucid dreams, lucid dreams were more like non-lucid dreams than different. However, she also noted that although the differences were few they were not due to chance variations but were consistent across a variety of studies. Specifically, consistent differences from the self-evaluations research on content involve auditory and kinesthetic dream sensations and dream control as particularly characteristic of the lucid dream. Consistent with these self-observations are the findings from independent judges of dream lucidity as having more auditory and cognitive activities. Not evaluated in the self-observation studies, Gackenbach pointed out, was the role of characters. In the judge's evaluations across samples, sex, and dream collection method, lucid dreams had fewer characters. Although other dreamer type differences emerged in the various studies, the most compelling differences are clearly in the auditory/cognitive domain.

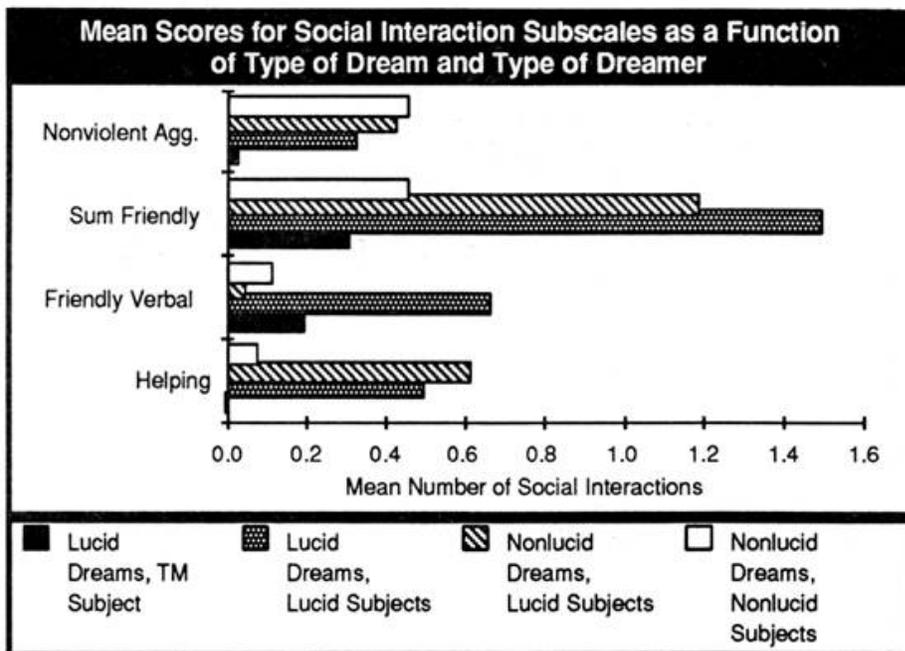
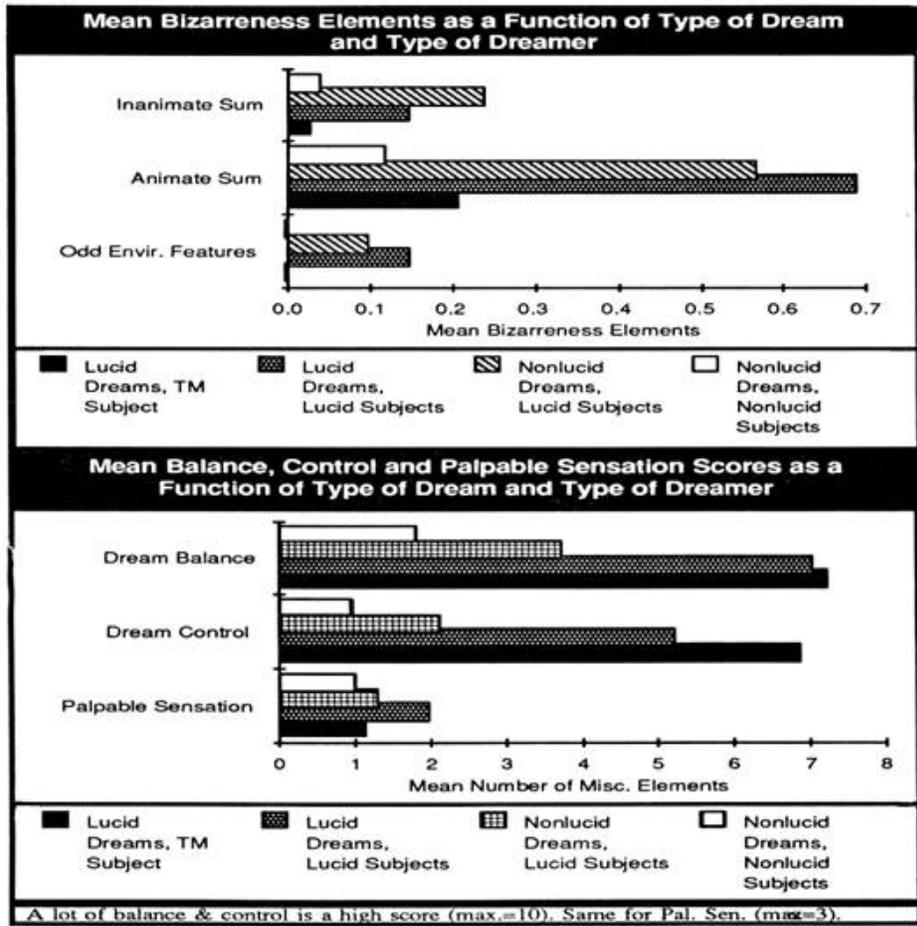


Related to the lucid dream experience is a continuation of consciousness from the waking state into the sleep state claimed to be a key aspect of the experience of "Transcendental Consciousness", which is developed by the practice of Transcendental Meditation (TM; Banquet & Sailhan, 1974). This study investigated the psychological content of this dream experiences of a single advanced practitioner of TM who reported maintaining experience of "Transcendental Consciousness" throughout the 24 hour cycle.

The state produced by TM practice is characterized by low levels of autonomic arousal and TM practitioners are discouraged from attending to their dreams. Since the possibly related state of "lucid dreaming" (i.e., both states claim "consciousness" during dreaming) is associated with increased autonomic arousal (LaBerge, Levitan & Dement, 1986) and, as noted, meaningfully differs from non-lucid dreams, we addressed the question of whether experiences of "Transcendental Consciousness" would show dream content distinct from lucid or non-lucid dreaming.

## **Method**

This TM subject (TMS) was a 28 year old male who had been meditating for 5.8 years and received one of the highest scores thus far recorded on an inventory designed to assess self reports of the attainment of higher states of consciousness (Stage of Consciousness Inventory (SCI); Alexander, Davis, Dillbeck, Dixon, Oetzel & Muehlman, in press). Further, he received low scores on the SCI scales which assess psychopathology and tendency to endorse misleading, grandiose sounding statements. During TM practice he displayed exceptionally high amplitude alpha spindles across all EEG channels and periods of respiratory suspension (Kesterson, 1985). The TM subject (TMS) and three others, two who reported frequent lucid dreams and one who had never had a lucid dream, were studied in a sleep laboratory for 2 to 7 nights. Standard polysomnograms (EEG, EOG, and EMG as well as pulse and respiration) were recorded. Prior to coming to the sleep laboratory all subjects kept dream diaries at home for a two week period. Midway through this period they were instructed to attempt the eye movement signaling task at home. Both lucid dreamers and the TM subject were able to do this task at home while the non-lucid subject could not.



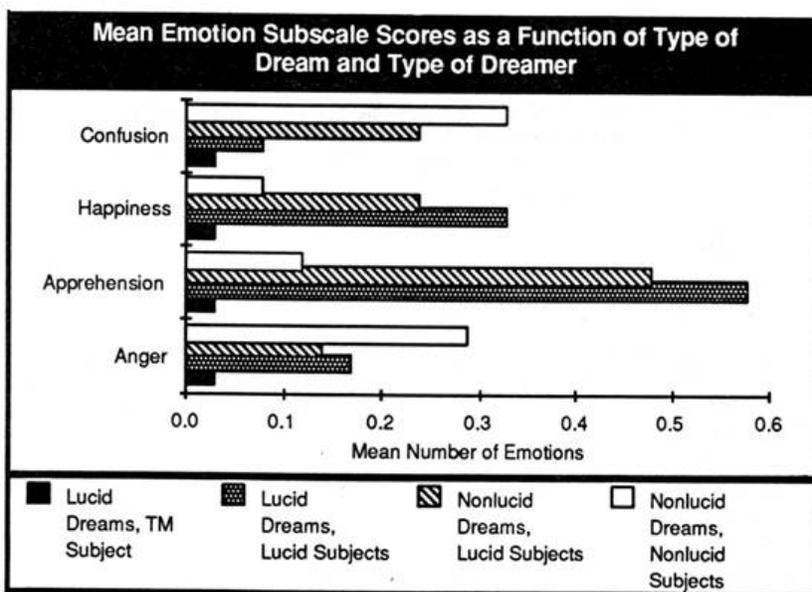
During the sleep laboratory experience, which was a two night experience for all subjects except the TMS, who slept for 7 nights in the lab, dreams were collected after each REM episode. As in Gackenbach's work diary and laboratory dreams were then content analyzed using the Hall and Van de Castle (1966) system and a few additional scales (i.e., bizarreness, palpable sensations, balance and control). The TMS had 35 diary and laboratory collected "lucid" dreams to be analyzed (Group 1) while the two lucid dreamers had 12 diary collected lucid dreams (Group 2) and 21 diary and laboratory collected non-lucid dreams for analyses (Group 3). The non-lucid dreamer had 24 diary and laboratory collected non-lucid dreams (Group 4).

### Results and Conclusion

One-way analyses of covariance were computed on 140 content scales from Hall and Van de Castle with number of words in the dream transcript as the covariate. The four groups of dreams compared were as noted above. All significant findings (means and F-Ratios) are portrayed in Tables 1 to 4.

As with Gackenbach, the content analysis of lucid vs. non-lucid dreams for these four groups of dreams (2 lucid groups and 2 non-lucid groups) were more alike than different. That is, only 27% of the analyses showed significant differences. However, this figure (38 significant differences) is considerably higher than what one would expect by chance alone. Consequently, although there are few differences they can not be accounted for by chance factors alone.

As to the nature of the differences, in 27 of the 38 significant findings the TMS had the lowest incidence. He had the highest incidence in only 4 scales (i.e., male characters; "old" modifiers; references to dream control; and sense of intellectual, emotional and body balance).



Consistent with the electrophysiological findings with this same TM subject (Gackenbach, Moorecroft, Alexander & LaBerge, 1987), he demonstrated both lower physiological arousal, even though he was able to signal with prearranged eye movements and lower psychological "arousal". That is, there were fewer thought elements in his sleep mentation experiences.

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