

## **Single-Mindedness and Self-Reflectiveness: Laboratory Studies**

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Rechtschaffen (1978) has suggested that dreams are categorically single-minded and isolated. The phenomenon of lucid dreaming, however, suggests that his conclusion is overstated. Furthermore, the empirical status of Rechtschaffen's claim is uncertain. The data on which his claim is based are personal and impressionistic. We view single-mindedness and lucidity as related along a continuum of self-reflectiveness, as suggested by Rossi (1972) and as operationalized in a scale of self-reflectiveness we derived from his work. In order to examine his assertion we conducted two laboratory experimental studies to examine the distribution of self-reflectiveness and single-mindedness in the dream reports of high and low frequency dream recallers awakened from stages REM, 2 and 4. Self-reflectiveness of dream reports was quantified using the 9-step scale presented below.

In study one 16 male subjects slept in our laboratory for 3 nights, with experimental awakenings occurring on nights 1 and 3. On the experimental nights, Ss were awakened from stage k at the beginning of the night and from counterbalanced early and late REM and stage 2 awakenings in addition to morning awakenings. In study 2 the same awakening protocol was followed (initial stage 4 awakening followed by counterbalanced early and late REM and stage 2

### **Self-reflectiveness Scale in Abbreviated Form**

#### CATEGORY PROCESS LEVEL

1. Dreamer not in dream; objects unfamiliar; no people;
2. Dreamer not in dream: people or familiar objects present;
3. Dreamer completely involved in dream drama; no other perspective;
4. Dreamer present predominantly as observer;
5. Dreamer thinks over an idea or has definite communication with someone;
6. Dreamer undergoes a transformation of body, role, emotion, age etc.
7. Dreamer has multiple levels of awareness: simultaneous participating and observing: dream within a dream; false awakening etc.;

8. Dreamer has significant control in, or control over dream story; can wake up deliberately;
9. Dreamer can consciously reflect on the fact that he is dreaming.

awakenings prior to the morning awakening), except that Ss slept 4 nights in the laboratory and awakenings occurred on each night. There were 24 Ss in this study, 12 males and 12 females, half of whom were self-reported high frequency dream recallers and half low frequency recallers.

Results indicated that Rechtschaffen's claim is correct if it is interpreted distributionally rather than categorically. In both studies reports from stage REM were significantly more self-reflective than from stages 2 and 4 which did not differ. The reports of high frequency recallers were significantly more self-reflective than low frequency recallers across all stages. The interaction of stage and subject type was not significant single-minded dreams, falling at or below level 6 on the scale of self-reflectiveness accounted for 80-90% of all reports. Higher levels of self-reflectiveness, up to and including spontaneous lucidity accounted for 10-15% of the dream reports. The correlation of self-reflectiveness with length of the dream report was significant and positive for both groups, but much stronger in the high recallers than in the low recallers. Frequency of recall from experimental awakenings did not differ among the self-reported high and low frequency of recall Ss.

We suggest that Rechtschaffen (1978) and others (Hartmann, 1973; Koukkou & Lehman, 1983) have overstated the single-mindedness of dreams by ignoring the distributional character of the organization of consciousness during the dream state and focusing on only one end of a self-reflectiveness continuum. Stage effects appear to truncate the upper end of the continuum, primarily in stage 4. Low frequency recallers show lower average levels of self-reflectiveness, including spontaneous lucidity. These data imply a dynamic but inertial organization of consciousness during dreaming.

### References

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Original source: *Lucidity Letter Back Issues*, Vol. 4, No. 1, June, 1985, page 121.