

Physiological Characteristics of Three Types of Lucid Dream

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In a previous report² we proposed a classification of modes of lucid dream (LD) initiation into three distinct types. This preliminary analysis suggested that lucid dreams occured either a) within two minutes of the onset of REM periods (Onset or 0—LDs); b) after an awakening briefly interrupting a REM period (wake initiated or W—LDs); or c) in association with elevated REM activity (Phasic— P—LDs). Here we report further characteristics of these three types of REM lucid dreams.

Sixty-one signal verified^{3'4} lucid dreams derived from seven subjects provided the data base. Analysis of the polysomnograms revealed 30% W—LDs, and 49% P—LDs. P—LDs occurred significantly later in REM periods than W-Lds and (obviously) 0—LDs. 0—LDs occurred significantly earlier in the night than P-LDs. W—LDs showed no significant time of night effect.

For all three types of LD, the initiation of lucidity was frequently marked by indications orientation responses including respirations, skin potential responses (SPR) and biphasic heart rate responses. For the P-Lds, REM burst time, SPR rate, and respiration rate

showed significant elevations in the 30 seconds immediately before the initiation of lucidity (as marked by the signals) compared to the preceding portions of the REM periods. The same was true for the 30 seconds immediately before the transitory arousals preceding W-LDs.

The foregoing results are all in accord with our original impression that the initiation of lucid dreams is dependent upon a suffi-ciently high level of cerebral activation, attained only in REM sleep and under the three conditions described above.

¹These results will be presented as part of a paper, "The Psychophysiology of Lucid Dream-ing," to be read by Stephen LaBerge at a symposium on "Mental Processes During Sleep" at the 4th International Congress of Sleep Research, Bologna, Italy, July, 1983.

²S.P. LaBerge, L.E. Nagel, W.B. Taylor, W.C. Dement and V.P. Zarcone, "Physiological correlates of the initiation of lucid dream-ing." <u>Sleep Research</u>, 1981, <u>10</u>, 149.
³S.P. LaBerge, L.E. Nagel, W.C. Dement and V.P. Zarcone, "Lucid dreaming verified by volitional communication during REM sleep." <u>Perceptual and Motor Skills</u>, 1981, <u>52</u>, 727—732.

⁴S.P. Lafierge, L.E. Nagel, W.C. Dement and Zarcone, "Evidence for lucid dreaming during REM sleep." <u>Sleep Research</u>, 1981, 10, 148.

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