

Migraine, Out—of—Body Experiences, and Lucid Dreams

Harvey J. Irwin

Department of Psychology, University of New England, Armidale, Australia

In some of the literature on out—of—body experiences (OBEs) a relationship between the experiences and migraine has been suggested. This notion seems to have its origin Lippman's¹ paper on sensations of "physical duality" evoked during various phases of a migraine attack. Several writers including Black² have implied that the link between these two states is not limited temporally to the period of the migraine; rather mi-graineurs generally are susceptible to the OBE at other times too, so that there is a relatively high frequency of migraineurs among out—of—body experimenters (OBErs). Apart from informal impressions gleaned from personal contact with OBErs there is scant published empirical evidence of a statistical association between OBEs and a history of migraineurs. Nevertheless in surveys of University St. New England psychology classes in the period 1980 to 1982, I established a significant trend in this direction for three of four independent samples. Thus for the four groups combined, 50 percent of OBErs reported a history of migraine whereas only 24 percent of nonexperients did so. The association while statistically significant is not a particularly strong one, with $\phi = .234$.

Given that OBEs statistically are associated also with the occurrence of lucid dreams it is pertinent to look at the incidence of migraine among lucid dreamers. This was one of the objectives of a study conducted last year as a supervised class project by four of my students (Carolyn Anderson, Carmen Avendano, Cathy Hackett, and Ellen Knight). The sample comprised 40 male and 49 female university students. In a questionnaire survey of this group the measure of migraine history was an item in a self—report instrument, viz. "I suffer, or have suffered, migraine headaches." The relationship between OBEs and lucid dreams [$X^2(1) = 10.39$, $\phi = .342$, $p < .005$] was again evidenced, while that between OBEs and migraine was not strong and of borderline significance [$X^2(1) 3.78$, $\phi = .206$, $p < .052$]. Most interestingly, however, lucid dreaming did exhibit a clear association with migraine, as shown below.

	Migraineurs	non-migraineurs
Lucid dreamers	28	35
Non-lucid dreamers	4	32

$X^2(1) = 14.44$, $\phi = .403$, $p < .0005$

Although, there may well have been some tendency to confuse tension headaches with mi-graine (further research to clarify this point would require the assistance of biomedical personnel) these data immediately raise two fundamental questions. First, were previous observations and informal impressions of an OBE—migraine relationship an artifact of the “lucid dreams” variable? It would seem that this largely is the case. Canonical correlation of lucid dreams and OBEs with mi-graine yields coefficients of .90 for lucid dreams and only .22 for OBEs. Evidently the association between OBEs and migraine is due almost entirely to the tendency of people who do not have lucid dreams to be both non—OBEs and free from attacks of migraine.

A second issue posed by the survey findings is the basis of the link between the lucidity of one’s dreams and a personal history of mi-graine. This relationship appears a substantial one: in a canonical correlation of lucid dreams with migraine, sex, practice of meditation, religiosity, and belief in post—mortem survival, migraine yielded a coefficient of .92. The association may be artifactual in that both lucidity and migraine may be related independently to a third variable, without there being a direct causal link between migraine history and proneness to lucid dreaming. One possibility here is that individuals with a particular personality profile are more open to both lucid dreaming and a migraine attack. This is worthy of further empirical scrutiny, although research into migraine has yet to identify a “migraine personality” (contrary to popular assumption)⁴ and to this extent such a line of investigation perhaps does not look promising. If there is a direct causal relationship between lucid dreaming and migraine it probably will best be understood in neuropsychological terms. For example perhaps migraineurs periodically are subject to certain neurophysiological disturbances which are subclinical in the sense of not evoking an actual headache with which nonetheless are responsible for increasing cerebral activation to the relatively high level necessary to initiate lucidity during a dream.⁵ In any event migraine is a variable of which cognizance might be taken in future investigations of lucid dreams.

References

¹Lippman, C.W. (1953) Hallucinations of physical duality in migraine. Journal of Nervous and Mental Disease, 117:345—350.

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³Gackenbach, J.I. (1978) A personality and cognitive style analysis of lucid dreaming. Unpublished doctoral dissertation, Virginia Commonwealth University.

⁴Adams, H.E., Feuerstein, M. & Fowler, J.L. (1980) Migraine headache: Review of parameters, etiology, and intervention. Psychological Bulletin, 87:217—237.

⁵LaBerge, S.P., Nagel, L.E., Taylor, W.B., Dement, W.C. & Zarcone, V.P. (1981) Psychophysiological correlates of the initiation of lucid dreaming. Sleep Research, 10:149.

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