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The body unbound: Vestibular “motor hallucinations and out-of-body experiences

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Abstract

Among the varied hallucinations associated with sleep paralysis (SP), out-of-body experiences (OBEs) and vestibular “motor (V “M) sensations represent a distinct factor. Recent studies of direct stimulation of vestibular cortex report a virtually identical set of bodily-self hallucinations. Both programs of research agree on numerous details of OBEs and V “M experiences and suggest similar hypotheses concerning their association. In the present study, self-report data from two on-line surveys of SP-related experiences were employed to assess hypotheses concerning the causal structure of relations among V “M experiences and OBEs during SP episodes. The results complement neurophysiological evidence and are consistent with the hypothesis that OBEs represent a breakdown in the normal binding of bodily-self sensations and suggest that out-of-body *feelings* (OBFs) are consequences of anomalous V “M

experiences and precursors to a particular form of autoscopic experience, out-of-body *autoscopy* (OBA). An additional finding was that vestibular and motor experiences make relatively independent contributions to OBE variance. Although OBEs are superficially consistent with universal dualistic and supernatural intuitions about the nature of the soul and its relation to the body, recent research increasingly offers plausible alternative naturalistic explanations of the relevant phenomenology.



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Keywords

Out-of-body experiences; Sleep paralysis; Vestibular–motor; Binding; Neuromatrix; Efference copy; Forward model

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