

## SHORT REPORT

## Heautoscopy, epilepsy, and suicide

Peter Brugger, Reto Agosti, Marianne Regard, Heinz-Gregor Wieser, Theodor Landis

**Abstract**

**Heautoscopy (the *doppelgänger* experience), epilepsy, and suicide is a triad primarily known from literary accounts. This paper reports a patient with complex partial seizures who tried to commit suicide during the experience of heautoscopy.**

(*J Neurol Neurosurg Psychiatry* 1994;57:838-839)

Heautoscopy is the multimodal reduplicative hallucination of one's own person.<sup>1</sup> As the classic *doppelgänger* experience it combines the features of autoscopia, which is a mere visual hallucination of one's body or body parts, such as seen in a mirror reflection, and those of the out of body experience or the primarily somesthetic illusion of being physically separated from one's own body.<sup>1,2</sup> It has been described in the frame of various neurological and psychiatric disorders and may also be experienced by healthy subjects, although in traditional folklore one's double is always considered a harbinger of death.<sup>3,4</sup> Heautoscopy is a common theme in fiction and the appearance of the double often announces the hero's death—which is usually a death by suicide. Probably the most dramatic illustration is Edgar Allan Poe's "William Wilson" who, in an attempt to stab his double, kills himself. But also Oscar Wilde (*The portrait of Dorian Gray*), Franz Werfel (*Spiegelmann*) and Friedrich von Gerstäcker (*Der doppelgänger*) had their heroes commit suicide to escape the horror of being haunted by their second selves. In Fjodor Dostoyevsky's famous novel *The double*, the protagonist's first heautoscopical experience coincides with his contemplation of suicide by drowning and the hero in Guy de Maupassant's *Le horla*, after having attempted to murder his own double, reaches the conclusion: "No . . . no . . ., he is not dead. I suppose then, I have to kill myself!"

Some of these authors have not only had epilepsy but have also known heautoscopy from personal experience.<sup>5,6</sup> To what degree, however, their association of heautoscopy with suicidal thinking is based on autobiographical experience is not known. The patient we describe represents one instance of such an association.

**Case history**

A 21 year old right handed man had an uneventful medical history until age 15, when he developed complex partial seizures. He reported that up to three times a day he experienced a series of biographical events passing by very quickly, during which he would drop objects from his right hand; on rare occasions, generalisation occurred. Neurological and physical examination was normal, except for a decreased speed in performing rapid alternating movements with his right hand. Repeated interictal EEGs showed an active left temporal epileptogenic focus and some right temporal epileptiform discharges, especially during hyperventilation. During long term radiotelemetry with scalp electrodes at age 17 and with foramen ovale electrodes at age 21,<sup>7</sup> six of his typical complex partial seizures were recorded. All but one of the seizures started in the left temporal region, followed by a rapid spread of the discharges to right temporal leads. One complex partial seizure had a right mesiobasal temporal origin. This seizure was recorded during sleep, shortly after the termination of a complex partial seizure with left mesiobasal origin. The patient had been treated with anticonvulsant drugs, including carbamazepine, oxcarbazepine, and phenytoin, with only moderate success as the patient experienced episodes of déjà vu up to twice daily. CT at the age of 17 showed a hypodense, 2 cm lesion in the left mesiobasal temporal lobe, which, four years later was shown to be multicystic by MRI. PET showed a left temporal hypometabolism and comprehensive neuropsychological examination showed a severe impairment in verbal, but not in figural memory, compatible with left temporal lobe dysfunction. Subsequently, the left mesiobasal tumour was surgically removed; histologically it was classified as a dysembryoplastic neuroepithelial tumour.

The heautoscopical episode, which is of special interest to the topic of this report, occurred shortly before admission. The patient stopped his phenytoin medication, drank several glasses of beer, stayed in bed the whole of the next day, and in the evening he was found mumbling and confused below an almost completely destroyed large bush just under the window of his room on the third floor. At the local hospital, thoracic and

Department of  
Neurology, University  
Hospital Zürich,  
CH-8091 Zürich,  
Switzerland  
P Brugger  
R Agosti  
M Regard  
H-G Wieser  
T Landis

Correspondence to:  
Dr P Brugger, Department  
of Psychology, University of  
Victoria, PO Box 3050,  
Victoria, British Columbia,  
Canada V8W 3P5.

Received 7 September 1993  
Accepted 21 December 1993

pelvic contusions as well as multiple bruises were noted. The patient was in a postictal confusion state and reacted with pain to manipulation of the spine and the right foot, but radiologically there were no fractures.

The patient gave the following account of the episode: on the respective morning he got up with a dizzy feeling. Turning around, he saw himself still lying in bed. He became angry about "this guy who I knew was myself and who would not get up and thus risked being late at work". He tried to wake the body in the bed first by shouting at it; then by trying to shake it and then repeatedly jumping on his alter ego in the bed. The lying body showed no reaction. Only then did the patient begin to be puzzled about his double existence and become more and more scared by the fact that he could no longer tell which of the two he really was. Several times his bodily awareness switched from the one standing upright to the one still lying in bed; when in the lying in bed mode he felt quite awake but completely paralysed and scared by the figure of himself bending over and beating him. His only intention was to become one person again and, looking out of the window (from where he could still see his body lying in bed), he suddenly decided to jump out "in order to stop the intolerable feeling of being divided in two". At the same time, he hoped that "this really desperate action would frighten the one in bed and thus urge him to merge with me again". The next thing he remembers is waking up in pain in the hospital.

### Discussion

Heautoscopy in association with seizures is well documented.<sup>8</sup> It is seen most often in patients with parietal or deep temporal foci. It may be the main content of a complex partial seizure or precede a major fit. As in our patient the localisation of the ego may be unstable during the experience<sup>8,9</sup>: at one moment it is confined to one's own body, at the next moment it is dissociated in a way that the patient will not report having seen his double, but rather his own body from outside. Heautoscopy, in particular in its association with seizures, is commonly accompanied by intense feelings of horror or despair.<sup>10</sup> Presumably, some form of limbic hyperactivation is also causally related to suicide attempts in non-epileptic forms of heautoscopy.

The first non-fictional account of suicide as a consequence of heautoscopy may be the case of a man who day and night felt persecuted by his *doppelgänger* until he shot himself to get rid of it.<sup>11</sup> In the more recent clinical reports of an association of heautoscopy and suicide, some epileptic disorder is often apparent. One intriguing example is that of a young man who, apart from heautoscopy, described sensory and mental phenomena strongly reminiscent of a temporal lobe epileptic process.<sup>12</sup> In one particular heautoscopy episode he saw and at the same time

felt himself falling from a mountain during an attempt to commit suicide. Four years later he was found dead at the foot of a high rock.<sup>13</sup> A patient of Lukianowicz's was less scared by his epileptic fits than by the frequent appearance of his double. He was afraid of going mad and had repeatedly compared himself with the hero in Maupassant's *Le horla*. One day he walked straight into an electric street-car and was killed on the spot.<sup>14</sup> A 40 year old nurse had tonic-clonic seizures since her schooldays. Her attacks were regularly preceded by heautoscopy and a steadily increasing feeling of futility and misery that led her to think about suicide. She later killed herself.<sup>10</sup>

Although heautoscopy, epilepsy, and suicide may be a more common triad than previously recognised, we know very little about the mutual relations between its components. As depression and epilepsy are commonly associated and suicide attempts are not infrequent,<sup>15-17</sup> it could be argued that, given the rarity of heautoscopy, the triad merely represents a coincidence. The vivid descriptions of the few survivors, such as our patient, however, would rather favour a causal relation between the *doppelgänger* experience and the impulse to kill oneself. The clinical experience of all these cases seems to confirm the understanding of the double as a "harbinger of death", as known from folklore.<sup>3,4,8</sup>

This study has been supported by SNF grants 32-31260-91 and 823A-030702. We thank Dr Orrin Devinsky for helpful comments on an early draft of this paper.

- Grüsser O-J, Landis T. Visual agnosia and other disturbances of visual perception and cognition. In: Cronly-Dillon J, ed. *Vision and visual dysfunction*. London: McMillan, 1991;12:297-303.
- Damas Mora JMR, Jenner FA, Eacott SE. On heautoscopy or the phenomenon of the double: case presentation and review of the literature. *Br J Med Psychol* 1980;53:75-83.
- Todd J, Dewhurst K. The significance of the *doppelgänger* (hallucinatory double) in folk-lore and neuro-psychiatry. *Practitioner* 1962;188:377-82.
- Maack LH, Mullen PE. The *doppelgänger*, disintegration and death: a case report. *Psychol Med* 1983;13:651-4.
- Menninger-Lerchenthal E. *Der eigene Doppelgänger*. Bern: Huber; 1964.
- Pauly R. Le double en littérature et en médecine. *Journal de Médecine de Bordeaux et du Sud-Ouest* 1949;126:309-23.
- Wieser HG, Moser S. Improved multipolar foramen ovale electrode monitoring. *J Epilepsy* 1988;1:13-22.
- Devinsky O, Feldmann E, Burrows K, Bromfield E. Autoscopy phenomena with seizures. *Arch Neurol* 1989;46:1080-8.
- Kamiya S, Okamoto S. Double consciousness in epileptics: a clinical picture and minor hemisphere specialization. In: Akimoto H, Seino M, Ward A, eds. *Advances in epileptology: XIIIth epilepsy international symposium*. New York: Raven Press; 1982.
- Williams D. The structure of emotions reflected in epileptic experiences. *Brain* 1956;79:29-67.
- Wigan AL. *A new view of insanity: the duality of mind*. Reprint. Malibu, CA: Joseph Simon, 1985; 96 (originally published in 1844).
- Lemaitre A. Hallucinations autoscopiques chez des écoliers. *Arch Psychiatr Suisse Romande* 1901;1:357-79.
- Lemaitre A. Un accident mortel imputable à l'autoscopie. *Arch Psychiatr Suisse Romande* 1904;4:84-6.
- Lukianowicz N. Autoscopy phenomena. *Arch Neurol Psychiatry* 1958;80:199-220.
- Mendez MF, Cummings JL, Benson DF. Depression in epilepsy. Significance and phenomenology. *Arch Neurol* 1986;43:766-70.
- Devinsky O, Bear DM. Varieties of depression in epilepsy. *Neuropsychiat Neuropsychol Behav Neurol* 1991;4:49-61.
- Robertson MM. Ictal and interictal depression in patients with epilepsy. In: Trimble MR, Bolwig TG, eds. *Aspects of epilepsy and psychiatry*. Chichester: John Wiley, 1986: 213-34.