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Near-death experiences

Sir—Many of the elements of the near-death experiences described by Pim van Lommel and colleagues (Dec 15, p 2039),¹ are also described by patients after episodes of awareness or unintended consciousness occurring during general anaesthesia.^{2–4}

These episodes of recovery of consciousness are invariably attributed to an insufficient supply of anaesthetic, for various reasons, and are not generally associated with hypoxia. They occur despite the fact that patients have received a cocktail of potent, centrally acting drugs—specific general anaesthetic agents, opioids (eg, fentanyl), benzodiazepines, and other psychotropic drugs (eg, droperidol)—given with the object of preventing consciousness. Many of van Lommel and colleagues' patients received a similar cocktail of drugs during resuscitation. I suggest that their patients' near-death experiences were simply an episode of consciousness modulated by drugs, hypoxia, hypercarbia, or other physiological stressors.

There does seem one element of such near-death experiences, however, that is not so commonly reported during anaesthesia, namely the out-of-body experience. Given the circumstances of their awareness, the anaesthetised patient generally has a clear insight into their situation and their role in it. Is it possible that patients with a cardiac arrest have a poorer understanding of their predicament and impose a different interpretation upon events, possibly one that the subsequent interview and the interest of the interviewer may have inadvertently moulded?

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- 1 van Lommel P, van Wees R, Meyers V, Elfferich I. Near-death experience in survivors of cardiac arrest: a prospective study in the Netherlands. *Lancet* 2001; **358**: 2039–45.
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Sir—Pim van Lommel and colleagues¹ ask, how could a clear consciousness outside the body be experienced at the moment that the brain no longer functions during a period of clinical death with flat electroencephalography?

Evidently, they assume that the brain may not function at this time. This assumption, however, is erroneous. Normal electroencephalography techniques can detect electrical activity in only one half of the area of cerebral cortex. Possible activity in the other half and deeper structures cannot be observed.

Electroencephalography is not a reliable indicator of brain death.² Before clear consciousness has been proven to occur in people without cerebral blood flow, there is no need to reconsider the nature of mind-brain relation.

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- 2 Paolin A, Manuali A, Di Paola F, et al. Reliability in diagnosis of brain death. *Intensive Care Med* 1995; **21**: 657–62.

Sir—Pim van Lommel and colleagues' study¹ reminds me of an apocryphal comment attributed to Kerry Packer, Australia's wealthiest man.

Packer had a myocardial infarction while riding a polo pony. A nearby ambulance crew resuscitated him. Packer reported his experience with the telling comment: "Mate, I tell you there is nothing there". He was obviously not keen to repeat the experience and promptly equipped the New South Wales ambulance service with defibrillators.

The most fascinating part of van Lommel and colleagues' study, which is noted by the researchers, although it subsequently attracts little attention, is the association of these events with spiritual beliefs and subsequent

strengthening of these beliefs. Taking this association further, I wonder whether some of these experiences have led to some of the myths, legends, and religious beliefs we hold today.

Paranormal phenomena such as ghosts, and religious events such as reincarnation could be explained through distortion over the ages of near-death experiences. Bruno Bettelheim² drew our attention to the importance of myth, legend, and fairytale as a roadmap to overcoming adversity on the pathway to maturity. Near-death experiences may prove to be a fountainhead for these devices and, as such, be central to spirituality rather than stemming from it.

The other element that does not attract comment is the overwhelmingly positive nature of the near-death experience. This positivity could represent the optimism of the human spirit, or maybe it ensures that the experience is subject to recall and recounting. It may also underpin one of the most quoted biblical phrases from Psalm 23: "Yea, though I walk through the shadow of the valley of death, I will fear no evil".

It is a pity that Kerry Packer, who, in his rare public utterances tells it as he sees it, could offer no further insight into the presence of the human soul.

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- 1 van Lommel P, van Wees R, Meyers V, Elfferich I. Near-death experience in survivors of cardiac arrest: a prospective study in the Netherlands. *Lancet* 2001; **358**: 2039–45.
- 2 Bettelheim B. *The uses of enchantment*. New York: Knopf, 1976.

Sir—In his Dec 15 Commentary, C C French¹ states that any report of veridical perception during out-of-body experiences would represent a strong challenge to any non-paranormal explanation of the near-death experience.

Another context in which out-of-body experiences have been described is the dissociated rapid-eye-movement (REM) sleep state, defined as sleep paralysis. Cheyne and colleagues² reported 17 cases of autoscopic experiences associated with sleep paralysis, in which the individuals viewed themselves lying on the bed, generally from a location above the bed.

I previously reported the results of a survey of people experiencing sleep paralysis.³ Of 264 participants, 28 (11%) had had some kind of out-of-body experiences. Some of them reported recurrent episodes of such experiences. I invited these people to do