

failure on their part must necessarily be a failure on ours, and so adults, parents, teachers, society in general must look to themselves to take responsibility for our children's healthy physical and emotional development. Raising the spectre of some demonic force at work is regressive and destructive, and encourages a shameful denial of this responsibility.

Perhaps if the Government and the public more readily acknowledged the expertise and advice of those professionals who understand the emotional development and needs of young people, society as a whole might begin to own that responsibility and save future generations from the misery of becoming both perpetrators and victims of crime.

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SIR: As one has come to expect of Prins, complex and often divergent theories, such as the origin of evil, are presented and critically examined. From a theological perspective, however, any notion that evil may take its origin from a beneficent God has to be strictly ruled out, either as a contradiction or a paradox. If, from a Christian point of view, a metaphysical explication is also denied, then the most probable origin of evil falls neatly within the ambit of human volition. At this level, psychiatric expertise may afford descriptions of mental states, on which others may express value judgements as to culpability. When, however, such medical assessments draw a blank, it is tempting (but no professionally commendable) to enter the philosophical field of explanation and putative causality.

The term 'evil' ought to be left as a convenient coin in the currency of those who see it as in some way external to the human situation. On the other hand, the term 'wicked' brings such offensive behaviour closer to societal norms and the regulative of natural law. Finally, as a species, we must be guarded in looking at historical atrocities, particularly if they generate the comforting delusion that all such events are clearly in the past. Sadly, this I seriously doubt. Is it not a truism that the one thing man never learns from is history?

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SIR: Prins' editorial and Jones' comments on the subject of evil are helpful. There emerges a

pragmatic solution; that psychiatrists restrict themselves to diagnosing 'madness' while courts determine 'responsibility'. But 'responsibility' may prove problematic; it is already undermined by neuroscience.

The authors assume that a subject's conscious mind (in the absence of psychopathology) is responsible for his actions. This has face validity, but is it so?

There are two problems: the timing of an action, and awareness of its ownership.

1. The authors' concept of responsibility demands that 'mind' act upon brain or, that mind and brain 'think' and 'decide' (absolutely) synchronously. Only dualism allows a mind to be responsible for the actions of the organism. But neuroscience points the other way. If 'mind' is equated with 'awareness' then it follows, and is thus secondary to, neural activity. A finite period, 'neuronal adequacy', is required for conscious awareness of a neural event (500 milliseconds; Libet, 1993). Neurophysiological events predictive of action, e.g. the readiness potential, precede even the subjective 'decision' to act (by about 350 ms; Libet, 1993).

These findings appear consistent with examples of creative insights arising spontaneously while an individual is otherwise distracted (Boden, 1992).

The first question is: can a 'mind' be said to be responsible for an action initiated prior to the former's awareness of the latter?

2. A mental act is subject to meta-representations of its origin. That these are separate from the act itself is clear from clinical practice. Schizophrenic passivity phenomena attributed to external sources indicate a failure of internal monitoring (Frith, 1992). Acts which appear purposeful may be initiated without awareness; for example, in the alien hand syndrome the subject experiences the hand as having a 'mind of its own' (Goldberg *et al*, 1981).

The second question is: if the generation of an act and its 'ownership' are separate neural events, then is 'willed' action itself an illusion?

Reductionist neuroscience challenges subjective experience: when 'we' feel 'we' are initiating action we are aware only retrospectively. The act and our thoughts relating to it arise prior to our knowledge of them. So 'who' or 'what' is responsible?

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