ECT damage is easy to find if you look for it

Sir — The reviewer of Max Fink’s Electroshock: Restoring the Mind claims that electroconvulsive therapy (ECT) “has proved to be one of the safest procedures in medicine” and that there is a “myth, largely promoted by anti-psychotherapists, that ECT damages… brain functioning.”

One can be sympathetic to psychiatry (as I am) and still imagine that passing 150 V between the temples to evoke a grand mal seizure might cause brain damage, especially when you realize that this ‘cure’ for depression requires this procedure to be repeated 10–20 times over a week or so. And when you talk to a friend who has been so treated and discover that a year later she is still experiencing huge gaps in recall of major life events, you begin to worry. Finally, you discover that ECT’s benefit is only temporary, so that many psychiatrists administer it chronically. Hmm.

To turn to the design of ECT protocols and you discover that many practitioners now administer ECT only unilaterally to the ‘non-dominant’ — non-verbal — hemisphere. Why? To avoid damaging the verbal hemisphere. In short, although ECT is completely safe, it is even safer when applied to the non-verbal hemisphere. Of course, equal damage is done to the non-verbal hemisphere, but it tells no tales.

ECT is used as an experimental tool by neuroscientists, as it releases massive quantities of glutamate, whose release following stroke causes significant neuronal death. Indeed, observers describe people who have had ECT treatments as “punch drunk” — resembling boxers who have sustained chronic brain damage.

One reason psychiatrists are unaware that ECT is causing memory loss is that they do not test for it. Memory loss could be monitored by questioning patients before ECT and then re-questioning them following each series of ECT. When this was done 50 years ago, memory losses were marked and prolonged. However, no effort has been made since to routinely perform this simple test.

It is a good bet that history will view ECT as one of what neuroscientist and author Elliot S. Valenstein calls the “great and desperate cures” — and its promoters as kin to the promoters of lobotomy.

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Cover adds fuel to the fire in evolution battle

Sir — We would very much appreciate an explanation by the editor as to why a part (the hands of God and Adam) of Michelangelo’s painting The Creation of Adam was chosen for the cover of the 2 December 1999 issue of Nature. It was presumably meant to commemorate the elucidation of the first complete human chromosome nucleotide sequence.

However, the use of such Christian religious symbols to mark this event seems difficult to fathom. Does this harken back to the centuries old practice of natural theology? Does the elucidation of the human nucleotide sequence provide us with insights into the work of the Christian God at the creation event? Why not also use the Garden of Eden as the first event in the chronology of events leading to the revelation of the chromosome sequence in Fig. 1 of the News and Views article? We are confident that the editors are well aware of the oft quoted statement by Dobzhansky: “Nothing in biology makes sense except in the light of evolution.”

The decision to use this cover makes no sense. It is common knowledge that it continues to be a struggle in many parts of the United States to teach the principles of evolution in high schools. The recent decision by the Kansas Board of Education reveals the problem is not going to go away soon. Many letters to Nature, Science and other publications reveal the dismay felt by efforts in the United States to teach the principles of evolution in high schools. The recent decision by the Kansas Board of Education reveals the problem is not going to go away soon. Many letters to Nature, Science and other publications reveal the dismay felt by efforts in the United States to teach the principles of evolution in high schools.

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Nature replies — The editorial staff debated this issue before publication and decided, with the enthusiastic agreement of the lead authors, that the image as a whole combined iconic symbolism with the science without implying that the Bible is true or that evolution is not the key to making sense of biology. — Editor, Nature