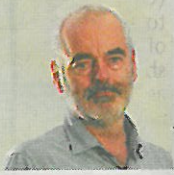




**David Spiegelhalter**  
on the agony  
and Ecstasy  
of risk-taking



After the chairman of the Advisory Council on the Misuse of Drugs suggested that taking Ecstasy is no more dangerous than horse riding, can we expect horse-mad Fionas to sadly hang up their jodhpurs and start to pop disco-biscuits on health and safety grounds? It's an interesting image but unlikely to occur: even if Professor David Nutt's sums do add up, the calls for his resignation suggest that comparing risks involves a lot more than just counting bodies.

Let's start by taking a cold-hearted look at the statistics. There are claimed to be 500,000 weekly users of Ecstasy, and so with 30 Ecstasy-related deaths per year that's around

## 230 miles in a car equates to one micromort

one death per million uses. Is that a lot or not? To make comparisons we need a friendly unit of deadly risk — fortunately, risk analysts have given the wonderful name of micromort to a one-in-a-million chance of dying. So people taking Ecstasy are exposing themselves to one extra micromort.

But how does this compare with daily living? Each day 50 people are killed by accidents and violence in England and Wales, so we face around one extra micromort a day. But this is just an average: we can choose our own micromorts. According to the Rail Safety and Standards Board, an average person experiences a micromort by driving 230 miles in a car, riding six miles on a motorbike, travelling 6,000 miles in a train or by taking three flights.

If we really want to splash out we could go hang gliding (eight micromorts every trip) or scuba diving (five). Horse riding is more difficult to judge. Professor Nutt reports ten rider deaths and 100 extra road traffic accidents each year, say 25 deaths in total: if a million people rode horses each week this would mean around half a micromort each ride. So less than taking Ecstasy but not hugely different.

So why the indignation at Professor Nutt's remarks? Certainly those who take the risks don't seem to mind: in both cases there's a simple trade-off between risk and enjoyment. But other (generally older) people feel the need to take a moral stance; this may be as much about young people being irresponsible as about Ecstasy being illegal. In a similar way moral outrage leads society to spend vast sums in trying to prevent train crashes, although saving very few micromorts in the process.

It would be nice if statisticians could just do the sums and tell people what is safer than what. But comparing risks involves people's emotions as well as arithmetic. Professor Nutt should not be surprised at the fuss he has caused.

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