The Economist

Psychology

Malice aforethought

Pain is enhanced if deliberately inflicted

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IF SOMEONE accidentally steps on your toe, it hurts. But does it hurt more if you think he did it deliberately? That, in essence, is the question Kurt Gray and Daniel Wegner of Harvard University asked in a study they have just published in *Psychological Science*. And their answer is that it probably does.

Dr Gray and Dr Wegner did not actually tread on people's toes as part of their experiments. But they did arrange for them to receive electric shocks. Altogether, they induced a group of 43 students to participate with offers of academic credits or, failing that, cold cash.

On the day of the experiment, each participant was introduced to a study partner, whom he was told was another student participant but who was in fact an accomplice of the two researchers. The students were then told about a number of tasks, which included matching colours, estimating numbers, judging musical pitches and assessing levels of discomfort. They were later asked to perform each of these tasks during a series of trials.

In truth, Dr Gray and Dr Wegner were interested only in the assessments of discomfort; the rest were mere blinds. In this task, a participant received an electric shock and was asked to evaluate the experience on a scale ranging from one (not at all uncomfortable) to seven (extremely uncomfortable).

During each trial, the participant saw a computer screen which displayed two potential tasks for that session. When assessing discomfort was one of these, the other was always evaluating the relative pitches of two tones. In this, as in the other trials, the participant was told that his partner in the next room would select which task he had to complete.

In fact, participants received an electric shock whenever assessment discomfort was one of the options displayed. But how they thought it had been administered had a crucial effect on their perception of pain. Half the time, the participants were told that their partner had chosen to shock them. The other half they were told that their partner had chosen not to shock them, but that the experimental protocol meant this decision had been reversed.

On the one-to-seven scale that Dr Gray and Dr Wegner asked the participants to use to assess their pain, the students rated the strength of shocks they thought had been intentionally administered at 3.62, on average; those they thought unintentional averaged 3.00. The researchers also found the apparently unintentional shocks hurt progressively less as the experiment went on, whereas those perceived as deliberate continued to hurt as much.

It would seem, therefore, that malice not only carries a sting of its own. Compared with accidental pain, the sting also lasts longer.

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