

Crockett et al (2010)

This study was about the effect of serotonin on prosocial behaviour. Serotonin is an inhibitory neurotransmitter that is involved in behaviours such as sustaining mood and regulating sleep cycles. What may be considered surprising is that generally serotonin's effect on mood or fatigue are understandable and believable since they are biological processes, however prosocial behaviour seems to be a conscious action on the part of the subject. A sample of healthy subjects was chosen whose mean age was 26 years old. The experiment followed a repeated measures design with two conditions.

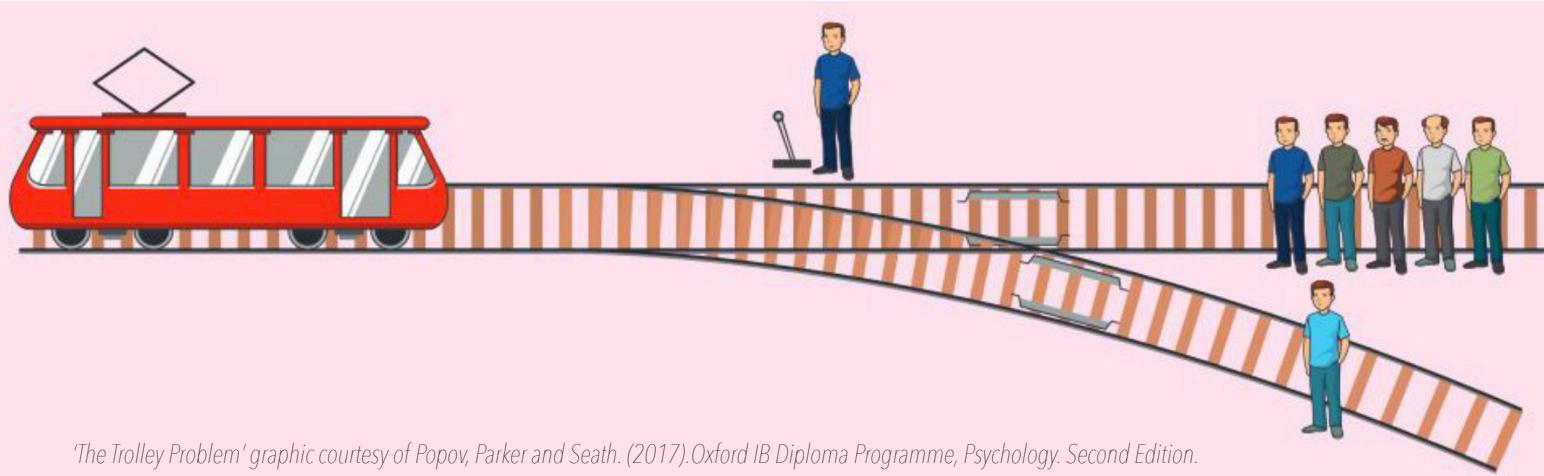
Condition 1

Participants were given a dose of citalopram, a highly selective serotonin reuptake inhibitor (SSRI). This drug is a chemical that blocks the reuptake of serotonin from the synapse – and so boosting its concentration and prolonging its effects.

Condition 2

This was the control group, and they were given a placebo, a harmless substance with no active effect. The study was counter-balanced and was double blind.

After taking the drug the participants were given a moral dilemma that involved choosing a utilitarian action (saving five lives) or an aversive harmful (personal) action such as pushing someone off a bridge and killing them or (impersonal) by diverting a train.



'The Trolley Problem' graphic courtesy of Popov, Parker and Seath. (2017). Oxford IB Diploma Programme, Psychology. Second Edition.

Results showed that 'impersonal' responses were unaffected by citalopram but not in a personal situation: here they were much less likely to push a man off a bridge than in the placebo position. Researchers concluded that serotonin reduces the acceptability of personal harm and so promotes prosocial behaviour. It moderates reactions of the brain to emotionally salient situations.

A limitation of the study was that the authors accepted that citalopram induced slight nausea and so some people might work out the condition they were on in the trial. How important might this have been?

This concern may have been the tip of the iceberg.