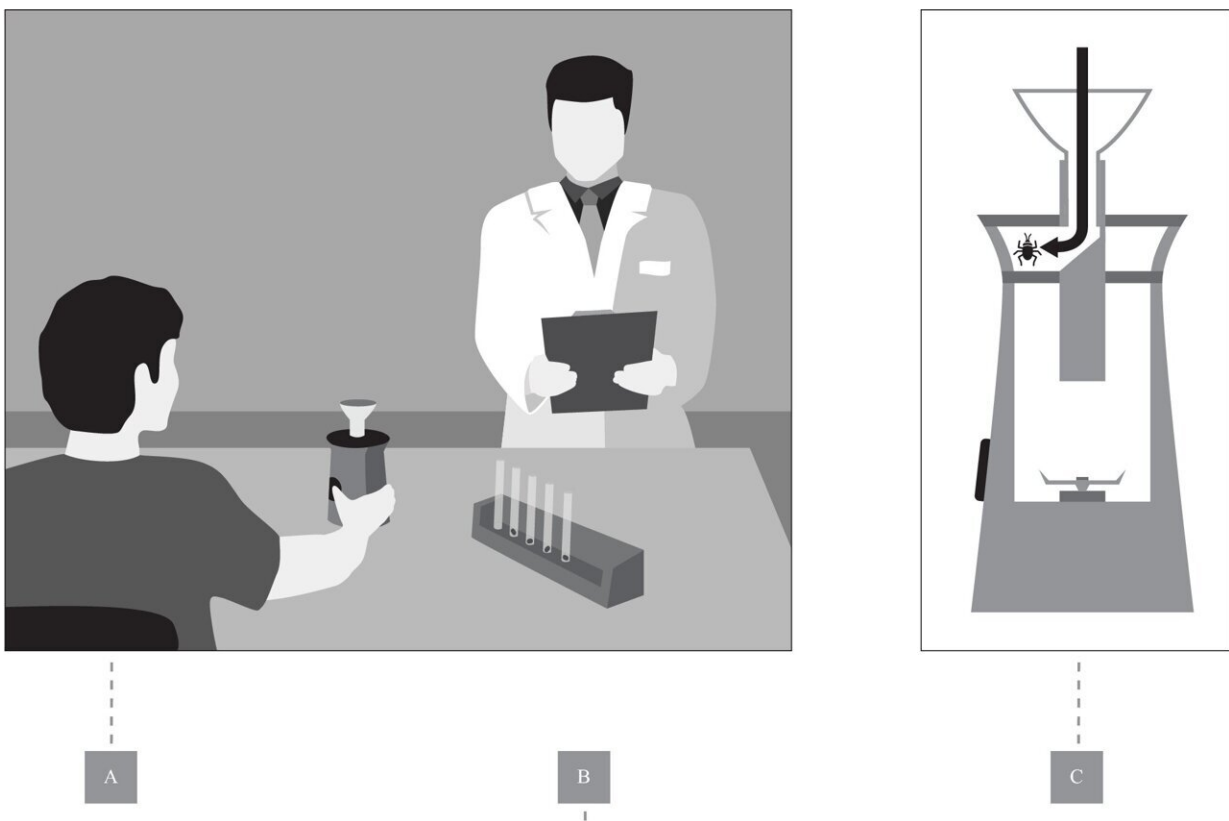


# Psychological 'bug destruction' experiment investigates conflict experience of obedient participants

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Panel (A) shows the experimental situation with the participant sitting in front and the experimenter standing behind the desk. Panel (B) visualizes the three destruction tasks of Experiments 1 and 2, including the following self-report measures. Panel (C) shows a cross-section of the 'Destruction Machine' to visualize the double-bottom manipulation. Credit: *Scientific Reports* (2023). DOI: 10.1038/s41598-023-38067-z

Conflict experience and resolution underlying obedience to authority: A group of researchers from Regensburg, Göttingen and Würzburg took up this challenge and investigated the conflict experience of obedient participants using the so-called "bug destruction task." Their findings have been published in the journal *Scientific Reports*.

Almost all people reject violence against other people or other living beings. At the same time, the fact that people are urged to commit such acts in the context of obedience situations presents modern psychological research with an almost insurmountable ethical challenge. A group of researchers from Regensburg, Göttingen and Würzburg took up this challenge and investigated the conflict experience of obedient participants using the so-called "bug destruction task."

An experimenter instructed the participants to grind live bugs in a manipulated electric coffee grinder. No bugs were harmed, of course. The research group built on the findings of others who have shown that people have far fewer qualms about violence against animals, and especially insects, than they do about violence against other people. Nevertheless, the senseless killing of bugs raises a (comparatively minor) moral conflict for many people.

## Obedience and destruction

In psychology, obedience is the willingness to comply with the demands of an authority figure, even if they conflict with one's own values and norms. In the 1960s, for example, the social psychologist Stanley Milgram showed that a large majority of participants were willing to administer (supposedly) life-threatening [electric shocks](#) to another person as long as they were acting on the instructions of a legitimate authority. No one was hurt, of course. Yet the tension between many

participants' experiences of conflict on the one hand and their submission to authority on the other makes obedience one of the most fascinating phenomena in psychology.

In order to make the conflict experience underlying obedience visible, the researchers carried out two experiments. Each consisted of three destruction tasks in which, in addition to the live bugs, other objects (including coffee beans) were to be destroyed. In the experimental group, participants were demanded to "destroy" the objects as well as the bugs in the coffee grinder; in the control group, participants were repeatedly reminded that the final decision (to destroy or not to destroy?) was up to them. The results show that more participants in the experimental condition were willing to (supposedly) kill the bugs. In addition, all participants reported more arousal and discomfort after the bug-destruction task as compared to the others.

## **Conflict resolution**

In Experiment 2, the researchers also looked at the [conflict](#) resolution process. As a physiological measure of arousal, the participants' skin conductance was measured. Obedient participants showed an increase in skin conductance after the supposed destruction of the bugs; disobedient subjects showed no such increase, indicating ongoing tension in the former group. The subjects' sense of control and responsibility over their actions was also assessed. However, contrary to one of the most prominent obedience theories in psychology, the obedient subjects admitted responsibility for the alleged death of the bugs. This ruled out diffusion or ambiguity of responsibility as an explanation for obedience.

Although the question of why people are obedient remains unanswered, the researchers offered a new explanation. This is based on the hypothesis that people always tend to cooperate with others, even when they are in a subordinate role. According to them, people struggle with a

dual sense of duty: On the one hand, they feel morally obliged to the bugs; on the other hand, they do not want to break their promises to the experimenter. In the [control group](#), when the experimenter pointed out the individual choice of the subject, the [moral obligation](#) to the bugs seemed to dominate and the subjects refused to obey. When he did not, the sense of duty to the experimenter dominated and the subjects reluctantly destroyed the beetles.

The researchers also formulated two take-home messages for their readers: First, people seem to be committed to an initial agreement, even if the consequences are detrimental to their own interests (if not their well-being). Second, the lack of defiance in others should not be confused with an expression of their individual "free will."

**More information:** Felix J. Götz et al, Conflict experience and resolution underlying obedience to authority, *Scientific Reports* (2023). DOI: [10.1038/s41598-023-38067-z](https://doi.org/10.1038/s41598-023-38067-z)

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