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## **Psychology**

## Damping bad memories to live without concerns

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People usually want to be moral, but they sometimes break taboos for earnings. In such a moral dilemma, selective forgetting of bad memories helps us maintain a good self-image. But what causes this memory selection? Our study highlights that individuals mainly forget bad deeds to clean their minds and avoid making upcoming immoral decisions.



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Ask yourself – how honest can you be? Have you ever lied in your life? In criminal matters, accused people often claim that they do not remember some details of a crime to mitigate their responsibility. Ethically speaking, people usually wish to be moral but they are often tempted to break the rules to gain benefits such as money and dignity. As a result, they may take unethical actions. Importantly, people tend to easily forget such unethical behaviors in the past, or perhaps 'unpleasant memories'.

Such 'memory rearrangement' is our trait – we are able to selectively forget our bad deeds to defend ourselves and maintain a good self-image in society. Indeed, many people remember much more their generous behaviors than selfish actions. Our ability

to forget immoral actions can help us maintain a clean mind in the future.

However, little is known about what motivates our memories that are highly selective. Do we forget unethical behaviors in the past only for hedonic or affective reasons, for example, the maintenance of a good self-image? Or, do we so for forward-looking strategic reasons not to engage in future moral decisions?

We set out the study to address this question by examining over 1300 participants in an online experiment over two sessions. The first session involved 20 repetitions of a simple lottery game that we referred to as the 'wheel game'. Each participant





was asked to choose in their mind one of six boxes displayed in a wheel. Each box hid a number between 1 and 6, associated with a monetary payoff (the higher the number, the higher the payoff). Afterward, the participants learned the numbers hidden in all the boxes, and then were asked to report the number of the box they had in mind. Participants could thus technically 'cheat' and report a high number they didn't actually choose to earn more money. Each report was not obvious if it was a truth or a lie, but data collections from the 20 repetitions allowed us to identify 'cheaters'.

During the second session, three weeks later, the same participants were asked to recall the number (that is, the monetary payoff) they had reported in each repetition during the first session as accurately as possible. They were paid for accurate recalls. Before the recalling task, participants were informed that randomly assigned half people were allowed to voluntarily return some of their earned money, which provided the strategic condition. They were encouraged to give the unethical gain back if they earned extra money by cheating during the first session. On the other hand, the other half of participants had no such a chance to return their money, which provided the hedonic condition. The hypothesis was that, in the strategic condition, participants should forget their memories to avoid feeling morally obliged to return the money. In the hedonic condition, they do so not to recall themselves liars.

If participants don't lie in the lottery game, their outcomes over the 20 repetitions should give more or less a uniform distribution – where each number between 1 and 6 appears with the same frequency. Such a uniform distribution should be easier to remember than a scattered distribution. For this reason, we carried out another experiment in which new participants – who had a scattered distribution of numbers in the lottery game – were not allowed to cheat when reporting their outcomes. By comparing the accuracy of the recalls of these participants three weeks later with that of the cheaters in the two conditions described above, we were able to identify their selective memories and their motives.

We found that the cheaters had a less accurate memory than the non-cheaters. But this difference was significant only when considering the participants who could choose to give back their unethical earnings. In other words, the cheaters remembered their behavior less accurately when they knew they would have to make a new moral decision. This suggests that forgetting is used as a self-excuse not to take responsibility for a moral decision in the future. By contrast, purely affective reasons were not sufficient to trigger such an unethical forgetting. Together, our study highlights the motive of memory selection – forgetting is our ability to live without concerns and conflicts in society.