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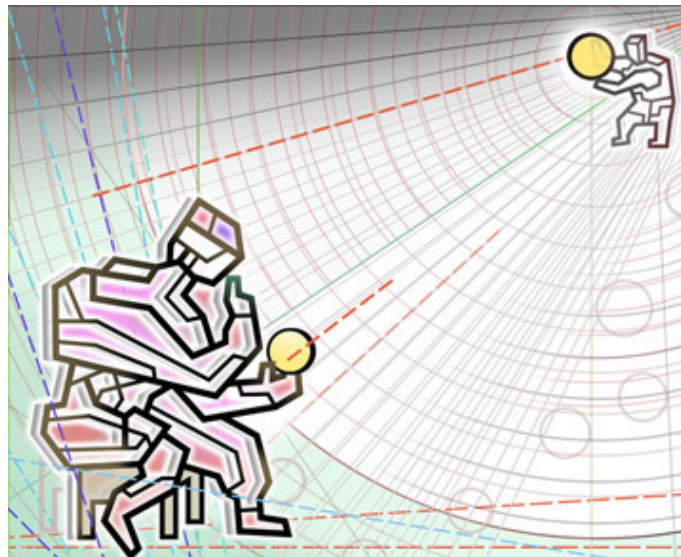
New-year irresolution

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How to combat the natural tendency to procrastinate

Illustration by Jac Depczyk



EACH New Year's Day lots of people make plans to do more exercise or give up smoking. But by January 2nd many of them have not moved from the sofa or are lighting another cigarette. Such triumphs of optimism over experience are common enough. But like other examples of repeated procrastination, they are hard to explain using standard economic models.

These models recognise that people prefer to put off unpleasant things until the future rather than do them today. Asked on January 1st to pick a date for that first session in the gym, say, you may well choose to start in two weeks' time rather than tomorrow. But the standard models also assume that your choices about future actions are "time-consistent"—they do not depend on when you are asked to make the choice. By January 14th, in other words, you should still be committed to going to the gym the next day. In the real world, however, you may well choose to delay your start-date again.

In a 1999 paper* on the economics of procrastination, Ted O'Donoghue and Matthew Rabin pointed out that people are often unrealistically optimistic about their own future likelihood of doing things—such as exercise or saving—that involve costs at the time they are done, but whose benefits lie even further ahead. Mr O'Donoghue and Mr Rabin showed that this sort of behaviour can be explained if people are time-inconsistent. "Present-biased" preferences mean that people will always tend to put off unpleasant things until tomorrow, even if the immediate cost involved is tiny. As long as they are unsure of the precise extent of this bias, they believe (incorrectly) that they will in fact "do it tomorrow". But since they feel this way at each point in time, tomorrow never quite comes. Such a model can therefore explain endless procrastination.

It can also suggest ways to change behaviour. A recent NBER paper by Esther Duflo, Michael Kremer and Jonathan Robinson argues that a tendency to procrastinate may explain why so few African farmers use fertiliser, despite knowing that it raises yields and profits. In trials on the farms of maize farmers in western Kenya, the three economists found that using half a teaspoon of fertiliser per plant increased seasonal profits by an average of 36% per acre, even if farmers made no other changes to their farming techniques. Doing so after it was clear that the seeds had sprouted eliminated most of the risk of paying for fertiliser in a year of poor weather. Only 9% of the farmers believed fertiliser would not increase their profits. Yet only 29% had used any in either of the two preceding seasons.

When asked why, almost four-fifths of farmers said that they did not have enough money to buy fertiliser for the land they farmed. Yet fertiliser was readily available in multiples of a kilogram, so even poor farmers earned enough to buy fertiliser for at least a fraction of their fields. Better intentions made little difference: virtually all farmers said they planned to use fertiliser the following season, but only 37% actually did so.

The reason for this gap between intent and action, the economists argue, is that many farmers are present-biased and procrastinate repeatedly. Right after the harvest, when farmers are cash-rich, most can afford to buy fertiliser. But going to town to buy it imposes a small cost: a half-hour walk, say, or a bus ticket. So farmers postpone the purchase, believing they will make it later. But they overestimate their ability to put aside enough money to do that, ensuring that their plans to buy fertiliser meet much the same fate as a typical new-year resolution.

A model of such preferences generates several interesting predictions. It suggests that a tiny discount—enough to make up for the small costs associated with buying fertiliser—should induce present-biased farmers to make the purchase. The model also suggests that a given discount would be more effective if offered immediately after the harvest rather than just before the next planting period, by which time it would be useful only for those farmers who had no problems with saving money.

Solving St Augustine

The economists devised a scheme in which farmers paid the full market price for fertiliser, but had it delivered to their homes by a non-governmental organisation at no additional cost. A subset received this “discount” at harvest time, while another group were also offered free delivery, but only when planting time was imminent. Still others were offered a 50% subsidy on the market price, an approach commonly taken by governments to encourage fertiliser use. As the model of time-inconsistent preferences predicted, the offer of free delivery early in the season pushed up usage of fertiliser by 11 percentage points over a control group who were not offered anything. The same discount late in the season, however, had a statistically insignificant effect. A 50% subsidy later in the season, a much costlier policy than free delivery, pushed up usage by about as much as the early discount.

Interestingly, nearly half of a group of farmers who were offered a choice picked early rather than late free delivery. Early delivery means advance payment, with any interest that might have been earned in the interim being forgone. Many farmers, it seemed, were well aware of their own tendency to procrastinate and were looking for a way to force themselves to buy fertiliser.

Such devices can help other procrastinators, too. In recent field trials in the Philippines some smokers who wanted to quit were offered a “commitment contract”. Those who signed up put money into a zero-interest bank account. If they passed a test certifying that they were nicotine-free six months later, they got their money back. If not, it went to charity. The contract increased the likelihood of quitting by over 30% over a control group. Those new-year resolutions need not turn to ash.

* See papers referred to in this article at www.economist.com/procrastination