

Equity Research

Mind Matters

I'm lying when I say trust me!

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Recent events lead me to ponder the way in which people twist rules and regulations. To some extent we shouldn't be surprised by the emergence of dishonesty, as malfeasance is a feature of the end game of bubbles. However, it is also prevalent in everyday life. The psychological evidence provides a clear (if saddening) picture of human behaviour. Given the opportunity to cheat or lie, people will do so. The fuzzier the moral boundaries of a situation, the greater the temptation to be dishonest. How many lies will you be told today?

■ Dishonesty has been witnessed in the tail end of just about every bubble ever recorded. In the 1840s UK railroad bubble, George Hudson created a Ponzi scheme by paying dividends out of capital. In the Japanese bubble of the late 1980s, there was the Recruit Cosmos scandal and the Bubble lady. In the most recent bubble, Enron, WorldCom and Tyco were all convicted of widespread fraud.

■ However, such behaviour is not purely a feature of bubbles. It crops up with alarming regularity in everyday life. For instance, 88% of children aged between 8-18 said they knew that peer-to-peer music downloading was illegal. Yet 56% of those same children admitted to continued use of such downloading!

■ Economic theory predicts we will lie or cheat when the benefits of doing so outweigh the costs of being caught. However, the evidence suggests that lying and cheating aren't the result of a 'rational' cost-benefit analysis. In fact, the evidence shows that such behaviours essentially creep under the self-monitoring radar.

■ Dan Ariely and colleagues have conducted some fascinating work on cheating. They find that, when given the opportunity to cheat, people will do so. However, the degree of cheating is relatively immune to the ease of cheating (in direct contradiction of the economic model). The cheating was widespread and not the result of a few 'bad apples'.

■ In their experiments, Ariely et al found that cheating could be reduced by reminding people of the importance of honesty. That is to say, when mindful of the value of truth people are markedly less inclined to behave badly.

■ However, the reverse is also true. When the boundaries of behaviour are made fuzzier, then a dramatic increase in the likelihood and scale of cheating is observed. Just think about this in the context of vagaries such as mark to model.

■ The bottom line is that, when given the chance to cheat, people will do so. The good news is that they tend to cheat far less than the dismal science would predict. This has implications not just for risk managers, but also for analysts when dealing with company management, fund managers when dealing with clients, and in fact, for all of us in our daily dealings.

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I'm lying when I say trust me!

Recent events got me wondering about the nature of honesty (and more importantly dishonesty). To a large extent we really shouldn't be surprised by the emergence of malfeasance at this stage of a bubble.

As I have documented before, during the bursting of bubbles the discovery of dishonesty and bad behaviour is common place. For instance, in the first British railway bubble of the 1840s, George Hudson paid dividends out of capital, effectively creating a Ponzi scheme. In the Japanese bubble of the late 1980s, there was the Recruit Cosmos scandal and the bubble lady. The most recent bubble resulted in Enron, WorldCom and Tyco, of course (more details on this topic can be found in Chapter 38 of *Behavioural Investing*).

However, the desire to cheat and lie sadly seems all too prevalent amongst us humans; it isn't just a phenomenon associated with bubbles. For instance, a survey conducted by Accenture found that 25% of people approved of overstating the value of insurance claims. 88% of children aged between 8 and 18 knew that peer-to-peer music downloading was illegal, yet 56% of those children admitted to continued use of such downloading. How many of us have post-it notes at home that started life in the office?

The economic theory of cheating argues that people will weigh up the costs and benefits of their actions and then behave in an optimal fashion. Thus every time I pull into a gas station I am meant to weigh up the benefits of robbing it, against the costs of being caught and the penalty of going to jail.

However, we don't behave in this fashion at all. The psychological evidence strongly suggests that cheating and lying aren't the result of a rational analysis; rather they are behaviours that simply creep under the radar of our self-monitoring.

Psychological evidence on cheating/lying

To better understand the nature of bad behaviour I turned to the psychological literature (as is ever the case). In particular the work of Dan Ariely and colleagues is most insightful on this subject¹. Mazar, Amir and Ariely² use a series of experiments to see if, by how much, and, when people will engage in lying and cheating behaviour.

In their first experiment, Mazar et al ask students to complete a 50 multiple choice question general knowledge test (featuring questions such as How deep is a fathom? How many degrees does a triangle contain? What does 3! equal?). They have 15 minutes to answer as many of these questions as they can.

¹ Dan has a new book out "Predictably Irrational" which I suspect will be a best seller along the lines of Freakonomics. Dan is one of the most careful observers of human nature that I know, not to mention a creative experiment designer and endowed with a great sense of humour. Long-term readers of my work may recall Dan's name from his insightful work on the perverse impact of incentives. See Chapter 52 of *Behavioural Investing* for more details

² Mazar, Amir and Ariely 2005 The Dishonesty of Honest People: A theory of self-concept maintenance available from <http://web.mit.edu/ariely/www/MIT/papers.shtml>

At the end of the time, they are given a ‘bubble’ sheet with circles marked a, b, c, d, and are asked to transcribe their answers on this sheet. In the control condition, having done this the test sheet and the bubble sheet were handed to an experimenter who checked the answers, summed up the total score and then paid participants 10c for each correct answer.

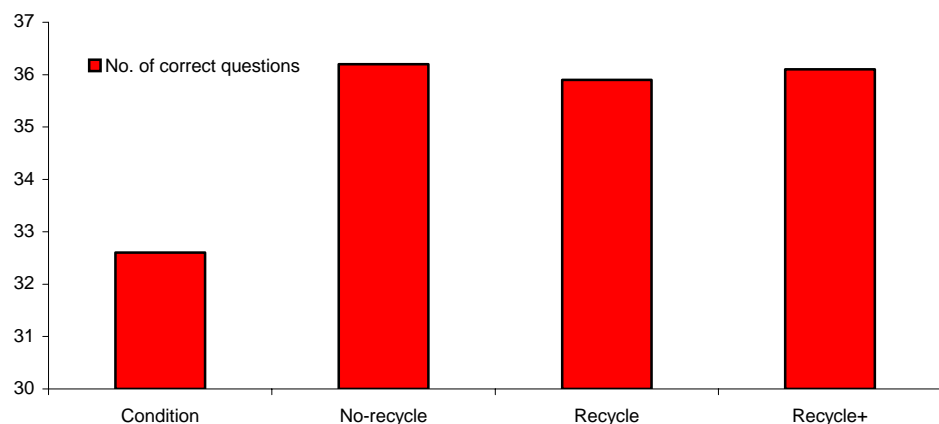
In the no-recycle condition (the first of the cheating opportunities), the bubble sheet had the correct answers pre-marked, such that the right answer was shaded in grey. This design created the opportunity for cheating as participants were able to select either to use their original answer or to pretend that they got the answer right and tick the shaded bubble. Having transcribed the results, they summed their own results, and then handed both their test sheet and the bubble sheet to an experimenter. This, of course, opened the possibility of detection as the experimenter might compare the test sheet with the bubble sheet.

In the recycle condition, participants marked their own work as above, but before giving the bubble sheet to the experimenter, they were told to shred their test sheet, and only to hand in their bubble sheets. This, of course, decreased the likelihood of any cheating being detected.

In the final condition, (recycle+), participants not only marked their own answers and shredded the test answers, but also got to pay themselves from a jar according to their performance, without any experimenter involved in any way, shape, or form.

The chart below shows the results that Mazar et al discovered. When given the opportunity to cheat, people did exactly that. However, the degree of cheating was relatively immune to the ease of cheating, in direct contradiction of the economic model. The ‘good’ news is that the degree of cheating was relatively low (only around 3-4 questions) at around 20% of maximum possible level.

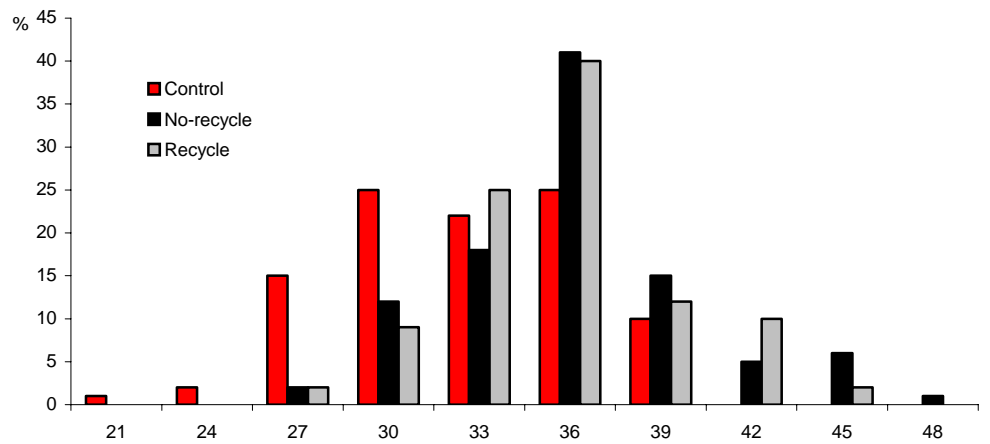
Number of ‘correctly’ answered questions



Source: Mazar et al

Of course, it could be that the cheating result was driven by just a few ‘bad apples’. Other experiments in psychology suggest that this is unlikely. ‘Good’ people often turn bad when placed in bad situations (see Chapter 50 of Behavioural Investing for more on this). To explore this hypothesis, Mazar et al examined the distribution of ‘correct’ questions across the various conditions. As the chart below shows, as the ease of cheating was increased, so the distribution generally drifts to the right. That is to say, people *generally* lied, rather than the result being driven by a few outliers.

Distribution of 'correct' answers



Source: Mazar et al

The causes of cheating

What is the cause of this cheating? It is possible that people were cheating simply because they thought the average score would be say 36 questions, and they might have got 33, so 3 extra 'correct' answers would go unnoticed. It is also possible that people thought that 36 correct answers would be about right, and didn't want to appear stupid (a challenge to self-esteem), and thus lied to protect their own self-image.

To investigate these explanations, Mazar et al designed another experiment in which they could manipulate the perceived average number of correct answers. This time the challenge was to tackle matrices such as the one shown below. The aim is to find the two cells that sum 10.

Matrix

1.69	1.82	2.91
4.67	4.81	3.05
5.82	5.06	4.28
6.36	5.19	4.57

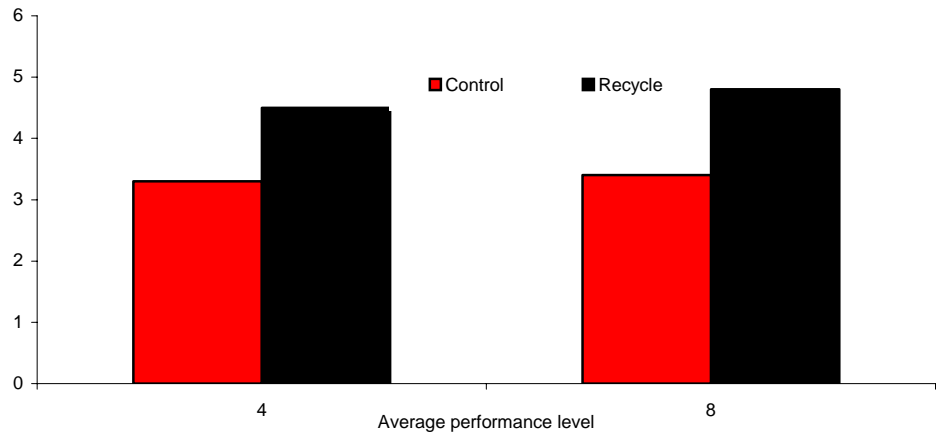
Source: SG Equity Research

Participants were told that the average number of such matrices solved in five minutes was either four or eight depending upon the experiment. If either of the aforementioned explanations for cheating is correct then the number of questions that people claim to have solved should be influenced by the averages.

If the cheating mechanism is happening under the radar of self-monitoring then the number of claimed correctly answered questions should be independent of the average. As before, the ability to cheat was introduced by self-marking and only handing in the final score not the actual answers.

The chart below shows the results. Regardless of the 'average' number of matrices people were told had been solved in previous tests, they claimed to have solved equal numbers of puzzles when cheating was allowed. This is clearly supportive of the idea that cheating is essentially a form of moral creep which happens at a level below our self-monitoring.

Number of matrices solved



Source: Mazar et al

This is not to say that people were unaware of their cheating, but rather they didn't feel the urge to update their beliefs about themselves as the scale of cheating was relatively minor.

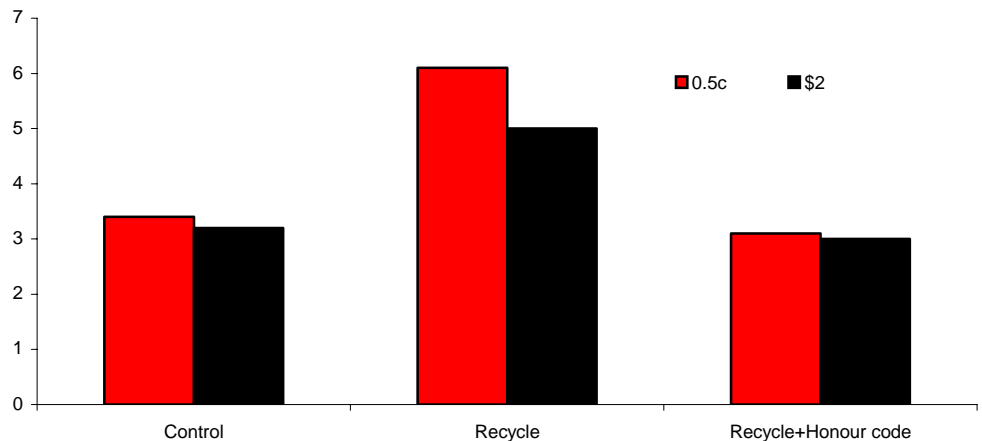
Reducing cheating

The good news is that it is relatively easy to encourage people not to cheat and lie (at least in the lab). Most universities operate an honour code which students are required to abide by. This code lays out the expectations that students will not engage in plagiarism, cheating etc.

Mazar et al effectively use this honour code as a pre-commitment device to honesty. They give the participants a matrix test like the one outlined above, however, there is a clear statement that this test falls under the University honour code in one of the experiment conditions. This experiment was run using two varying monetary stakes to see if this had any impact on cheating.

The results obtained are shown in the chart below. The monetary reward had no significant effect on the level to which people cheated. However, simply getting them to remember the honour code eliminated any desire to cheat or lie.

Number of matrices solved



Source: Mazar et al

Inducing bad behaviour

Perhaps the most disturbing finding from the perspective of our industry from the work of Mazar et al concerns their final experiment. They reasoned that if making people mindful by increasing their awareness of honesty curbed the desire to cheat, then making the boundaries more fuzzy would increase the likelihood and scale of cheating (a symmetric effect).

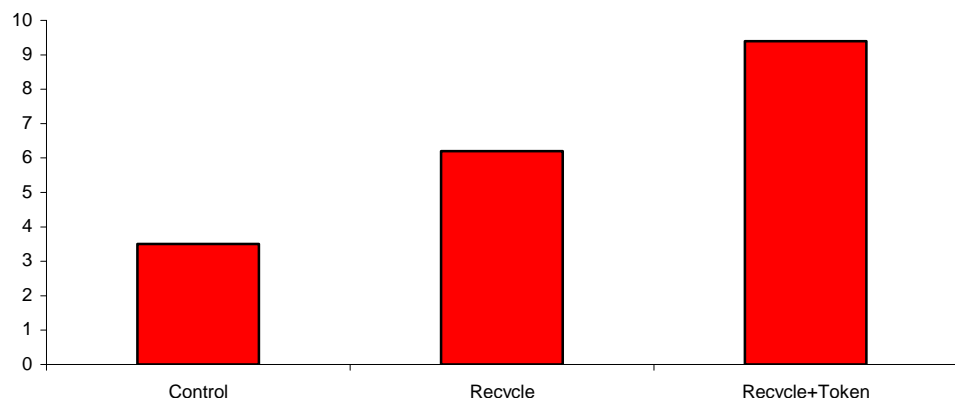
As before, a matrix search test was deployed, with each correct matrix solved worth 50c, and with five minutes to solve as many matrices as possible. Behaviour was monitored across three different conditions. As above, one was a control condition in which the experimenter marked the results. One was a recycle condition where participants just handed in their results (but not the answers). The final condition involved self-scoring as in the recycle condition, but this time participants were told to take tokens from a jar (one token per 'correct' answer), and then take the tokens to a cashier who would exchange them for their monetary value (50c per token).

As ever, the chart below shows the results. As has become depressingly familiar by now, when faced with the opportunity to cheat (the recycle condition) people did exactly that. Participants claimed to have 'solved' nearly twice as many matrices as those in the control condition did.

However, the most alarming results are found when we look at the final condition where participants collected tokens for 'solved' problems and then exchanged those tokens for cash. Participants in this condition claimed to solved almost 3 times as many matrices as people in the control condition.

As Mazar et al conclude "This finding suggests that tokens made it easier for participants to convince themselves that over-claiming on the test simply meant getting more tokens, not that they were stealing money, which reduced the negative self-signal that they would otherwise receive from their dishonest behaviour".

Number of matrices solved



Source: Mazar et al

The more fuzzy the situation, the more likely people are to lie and cheat. Think about this in the context of vagaries of such devices as mark to model!

Conclusions

The sad conclusion is that this research applies to all of us in the vast majority of our dealings. Company managements are likely to misguide you; they will tell you everything is fine, right up until the very moment when they miss their numbers. Investors will tell you that they are long-term holders of your fund, right up until your first run of underperformance (although this might just be time inconsistent unstable preferences).

The bottom line is that when given the chance people will cheat. The good news is that they tend to cheat far less than the dismal scientists would predict, but cheat they will. Getting people to think about honesty seems to reduce the degree of cheating. However, extra latitude in terms of fuzziness of interpretation radically increases the likelihood and scale of deception. How many lies will you be told today?

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