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Know Thyself and Others

by Mary Pat Campbell

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Ariely, Dan. *Predictably Irrational*, 2008.
Ariely, Dan. *The Upside of Irrationality*, 2010.

Dan Ariely became aware of the danger of assumptions as a teenager.

He was a burn patient for three years, due to a magnesium explosion that covered 70 percent of his body with third-degree burns. Dealing with the excruciating pain and the practices that seemed to hurt more than they helped (which was the case), Ariely started turning over in his mind how to improve these practices, and then kept turning his gaze farther outward from that point.

The result has been a very broad body of research, much of which is accessible to the layman. Recent papers he's published:

- Dan Ariely, Uri Gneezy, George Lowenstein, and Nina Mazar (2009), "Large Stakes and Big Mistakes." With Uri Gneezy, George Loewenstein and Nina Mazar. Review of Economic Studies.
- Eduardo Andrade, Dan Ariely (2009), "The Enduring Impact of Transient Emotions on Decision Making." *Organizational Behavior and Human Decision Processes*. Vol. 109: 1-8.
- Dan Ariely, Emir Kamenica and Drazen Prelec (2008), "Man's Search for Meaning: The Case of Legos." *Journal of Economic Behavior and Organization*. Vol. 67: 671-677.
- Leonard Lee, George Lowenstein, James Hong, Jim Young and Dan Ariely (2008), "If I'm Not Hot, Are You Hot or Not? Physical-Attractiveness Evaluations and Dating Preferences as a Function of One's Own Attractiveness." *Psychological Science*. Vol. 19, No. 7.

Just reading the titles, you can tell what he is looking into, unlike much of academic research. It's difficult to characterize his research field – psychology, economics, sociology, business – other than decision-making in specific and questioning assumptions in general. In his two books, *Predictably Irrational* and *The Upside of Irrationality*, he goes over the results of some of his research in an entertaining manner. He not only explains the assumptions he is questioning, and the results he found, but also the experiments and data he considered as well as possible greater ramifications of his findings.

The two books are extremely similar, being a grab bag of a variety of topics where the common theme is that the assumption of perfect rationality, of course, fails. If that were all, this would not be interesting – the important part is in demonstrating how these assumptions fail. The second book supposedly puts a positive spin on our limited rationality, but I did not find that to be the case. Both books show positive, negative, and neutral aspects of how human cognitive biases operate.

What is interesting to me is that the first book (*Predictably Irrational*) points out where economists' assumptions fail, but where businesspeople have been savvy for ages. For example, the persuasive power of FREE(!) being exponentially stronger in differential pricing than anything else. The particular example Prof. Ariely looks at is Amazon.com and a free shipping promotion, which boosted sales tremendously all over the world – except in France. The difference was that in France, the shipping wasn't free, but was at the (pre-euro) price of 1 franc. That was enough to keep people from closing the sale. It's not just a matter of price – he also showed a phenomenal differential response between the concept of 0-calorie- and 3-calorie-beer (not that either exists). In the human mind, the difference between 0 and 1 is a far greater chasm than the one between 1 and 2. No wonder it took so long for the human race to discover the concept of zero!

The portions of both books I found the most intriguing were the ones dealing with work and motivation – how social norms will motivate volunteers to do a far superior job to paid workers, how incredible bonuses will make for worse performance, how wasted work demotivates people and how to counteract that, what makes cheating more or less likely. Yes, many times in reading these chapters one smacks one's head along with the requisite "Of course!", but the way he demonstrates some of these concepts through experimentation makes for engrossing stories.

Let's consider the case of performance bonuses. Even though there is a great deal of palaver over executive compensation in the current round of financial regulation reform, there is precious little evidence that people will behave the way assumed when various "remedies" are crafted. Policymakers are generally using what they think makes sense rationally, but also in reaction to what came before: this sort of executive pay preceded total financial meltdown; ergo, we must prevent that sort of pay again.

However, Prof. Ariely decided to try to test the effect of the size of performance bonuses directly. "That would be a bit expensive," you'd think – and you'd be right, if they used U.S. business people as their subjects. Using the perennial research subjects of college undergrads can also get a bit pricey (and it can be difficult to generalize from those who are basically still adolescents to the behavior of much older adults), if you want to make the bonuses substantial. So he and his fellow researchers outsourced the subjects, i.e., they went to rural India and used local graduate students to conduct the research.

In picking several small Indian villages, they would be able to offer bonuses for their tasks that would be substantial for the participants – up to several months' worth of the average salary there. The tasks were essentially games of skill that one could improve with some practice, like the memory-game Simon. The amount they'd be paid would be determined by their scores, and the payouts ranged from one day's worth of pay to about five months' worth. (For more details on the experiment's design, read *The Upside of Irrationality*). After compiling the data, they found that the result from the low and medium bonus situation were about the same as each other, but the high bonus resulted in much lower performance.

After reviewing other research on the same sort of set-up (involving tasks that involved more physical effort, like hitting a keyboard very quickly, versus tasks that involve thinking), Prof. Ariely states:

> "The conclusion was clear: paying people high bonuses can result in high performance when it comes to simple mechanical tasks, but the opposite can happen when you ask them to use their brains – which is usually what companies try to do when they pay executives very high bonuses. If senior vice presidents were paid to lay bricks, motivating them through high bonuses would make sense. But people who receive bonus-based incentives for thinking about those mergers and acquisitions or coming up with complicated financial instruments could be far less effective than we tend to think—and there may even be negative consequences to really large bonuses"

This is quite at odds with what many of us have been taught with regards to management. Given the landscape that companies are competing on when trying to attract executives, removing the large bonuses

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… they found that the result from the low and medium bonus situation were about the same as each other, but the high bonus resulted in much lower performance.

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may cause problems in having anybody working for you in the first place. But it helps to know that what is considered common knowledge may be entirely false, especially when a great deal of self-interest is wrapped up in that common knowledge.

There was one passage that impinges directly upon actuarial work, and that took me aback. At the end of a chapter on market failures, being illustrated by the dynamics of online dating sites, Prof. Ariely then turns to larger market failures:

> "Then there's that wonderful insurance product called an annuity, which is supposed to protect you against running out of money should you live to be a hundred. Theoretically, buying an annuity means that you will be repaid in the form of a fixed salary for life […] In principle, annuities make a lot of sense, but sadly, it's very difficult to compute how much they are worth to us. Worse, the people who sell them are the insurance industry's equivalent of sleazy used-car salesmen. […] They use the difficulty of determining how much annuities are really worth to overcharge their customers. The result is that most annuities are a rip-off and this very important market doesn't work well at all."

It was a chuckle when considering how the online dating market fails… not so much when it's your own profession or product. As an aside, my assumptions about what "rational" (or, at least, educated) people thought changed greatly when I worked at TIAA-CREF and read letters from their core customers: university professors. Even in that population, there was a great amount of confusion as to the value of TIAA's core annuity products; I believe the main reason that TIAA had such fabulous annuitization rates all these years is simply because a life annuity is the default option.

Unlike many of the other pop economics/psychology books in the vein of *Freakonomics* or Malcolm Gladwell, I found several items in here that I could see had direct, immediate application to how I went about my daily work. The particular experiments described may be "toy" versions of reality, but like Einstein's thought experiments, they give us a chance to rethink our assumptions as to how people actually think and behave, as opposed to how we think it's supposed to be.

While in particular I'm reviewing these two books by Prof. Ariely, if you are of the online ilk, you ought to check out the following:

- Prof Ariely's website at MIT: *http://web.mit.edu/ariely/www/MIT/*
- Prof. Ariely's TED talks: http://www.ted.com/speakers/dan_ariely.html
- Prof. Ariely's personal site, which sometimes has invites to participate in studies: http://danariely.com/
- The Predictably Irrational Podcast: (you can also look it up on iTunes U) *http://deimos3.apple.com/WebObjects/Core.woa/Browse/new.duke.edu.1441813513.01441813519*
- Just search for him on YouTube – plenty of interviews and lectures by Prof. Ariely to be found: *http://www.youtube.com/results?search_query=Dan+Ariely&aq=f*

There is so much in these books – I focused on management-related items, obviously, but there is so much more: influence of sex in non-sexual contexts, anchoring in pricing, the effect of salary disclosures (to wit: everyone ends up unhappy), scheduled procrastination, overvaluing what we own, overvaluing what we create, keeping options even when it hurts us, the effect of expectations (and how this makes placebos work), what ordering beer tells about people, how people adapt to their situation even if it's horrid (or fabulous), and on and on. I've been trying to get the SOA to book Prof. Ariely as a keynote speaker for one of our meetings, but the question is…what exactly would we ask him to talk about? There's so much to choose from! (There's that bias of trying not to make a choice….)

The danger, of course, in listening to Prof. Ariely is that certain upsides of irrationality may no longer work for you after reading his books – in particular, placebos. But the short-term pains will be worth the long-term wisdom.