REVIEW

OUR FAVORITE IRRATIONALITIES

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Ariely, Dan (2010) *The Upside of Irrationality.* New York: Harper Collins. 334 pages
Ariely, Dan (2008) *Predictably Irrational. The Hidden Forces That Shape Our Decisions.* New York: Harper Perennial. 349 pages

Ariely is one of the young researchers who are at the forefront of the discipline called behavioral economics. Behavioral economics tends to question the basic assumptions of economic theory such as rationality and the infinite cognitive ability of the actor and the stability and fixed nature of our preferences. In connection with these, such general laws as supply and demand also come under scrutiny. The starting point of these researchers is that one should ask how people *actually* behave and make decisions in everyday life, not how they *should* behave according to mainstream economic theory.[2]

> *"In conventional economics, the assumption that we are all rational implies that, in everyday life, we compute the value of all the options we face and then follow the best possible path of action. What if make a*

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2 A book similar to Ariely's books both in questioning the assumptions of orthodox economic theory and in its style is *Animal Spirits* by Akerlof and Shiller, which highlights the importance of psychological factors in global capitalism in general, and in the crisis in particular. While in behavioral economics Ariely is more interested in individual decision-making (i.e. behavioral microeconomics), Akerlof and Shiller concentrate rather more on macroeconomic aspect. In this review, when there is a possible connection between Ariely's and Akerlof-Shiller's thoughts, I reflect on it in the text. (Akerlof, G. & Shiller, R. (2009) *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism.* Princeton University Press; Hungarian translation: Akerlof, G. & Shiller, R. (2011) *Animal Spirits: avagy a lelki tényezők szerepe a gazdaságban és a globális kapitalizmusban.* Budapest Corvina)

mistake and do something irrational? Here, too, traditional economics has an answer: 'market forces' will sweep down on us and swiftly set us back to the path of righteousness and rationality (...)

*...we are far less rational than standard economic theory assumes. Moreover, these irrational behaviors of ours are neither random nor senseless. They are systematic, and since we repeat them again and again, predictable (*Ariely*, 2008 p. XX)."*

Focusing on behavioral patterns and influences, behavioral economists therefore are a strange crossbreed of (at least) two species: the economist and the psychologist. What do we find if we focus on the overlap between these two disciplines? An interesting, oftentimes entertaining study based mainly on experiments about economic behavior in particular, and human nature in general. Ariely's two books are a perfect first introduction for the wider public who wants to know more about this field, which now seems to be reaching the height of its popularity. Both of these books are written in a light, personal style, which does not mean that the author does not take into account the richness of the results of all the experiments on economic behavior conducted by him and his colleagues. If somebody is interested in the details of such experiments, most of Ariely scientific papers can be downloaded from his website *(http://danariely.com/the-research/)*. The papers on his website are organized as they occur in the books and there are some thematically sorted articles on money, vision and cheating.

PREDICTABLY IRRATIONAL

The first of Ariely's books mainly focuses how irrationality influences our decisions at every turn. However, the basic assumption of the author is not that we are irrational but our irrationality is predictable; in other words, our behavior tends to deviate from rationality in predictable ways. The book contains 15 thematically organized chapters out of which I would like to highlight two themes touched upon which may be particularly interesting for social scientists who are more on the sociology than on the psychology side. These two topics are the *interrelationship of market and social norms* and *dishonesty and cheating*.

Market and social norms

As far as *market and social norms* are concerned, there are a number of experiments presented which were designed with inventiveness and ingenuity to show how and under what circumstances we switch from social norms to market norms. We all know the situation when we meet with friends for a meal and the last bite of something, for example a piece of sushi (olive/tune sandwich/cookie, you name it) remains because nobody would like to take it. The explanation for that 'social fact' is that we are all aware of the social norm that we should share things with others on such social occasions. We can say that the social cost of eating the last piece of '*x*' is higher than its marginal utility. So Ariely asks:

> *"What is this sushi magic? Simply put, the communal plate transforms the food into a shared resource, and once something is part of the social good it leads us into the realm of social norms, and with that the rules for sharing with others (*Ariely*, 2008, p. 111)."*

While such a social phenomenon is interesting and familiar, its discovery is not groundbreaking in itself. The interesting thing about it is what would happen if the last item left was for money. Yes, the answer is that we do not care about others if the given treat has a price. Ariely and his colleagues demonstrate the fact through experiments that if something is for free then demand increases, but the number of units taken decreases because people interpret the situation differently (even if they do not know the others involved) and instead of market norms, social norms influence their behavior. Moreover, the reader also learns that it is easy to move from social to market norms but once market norms are established it is much more difficult to shift back to social norms.[3]

While in an experimental setting it is a lot easier to define a situation, there is a lot of ambiguity in the world of work, healthcare, education and personal relationships. This ambiguity between different forms of norms and how people deal with them, in addition to the structural conditions which help people to interpret settings could be an interesting research topic not just for

3 The classic and much quoted example is the Israeli nursery school where the director decides that parents who are late when coming to pick up their children should pay a fine. To the horror of the organizers of such a 'social experiment', it turned out the number of parents who were late increased instead of decreasing. The explanation is that the social norm regulating parental behavior was transformed into a market norm (a price was attached to being late) thus more parents allowed themselves to be late. Reversing this situation turned out to be much more difficult than the original switch from social to market norm was (Ariely, 2008, p. 84-85).

psychologists or behavioral economists but for sociologists as well.

Stressing the importance of social norms is also in line with Akerlof-Shiller's ideas about the social norm of fairness and how it affects the economy. Norms of fairness and what is considered fair by actors deeply affects all human relationships - market relationships being just one example. People's behavior follows norms; they feel comfortable if they act according to them and they are annoyed if someone violates these norms (pp. 46-48). To follow the train of thought started above, it could also be an interesting piece of research under which conditions issues of fairness enter into a market situation and when it remains 'purely' market norm based.

Dishonesty and cheating

The best and most intriguing part of the book is about dishonesty and cheating. Standard thinking about cheating is that it is a cost-benefit analysis based on the risk of being caught and the benefits of cheating. Just like in a written exam if the stakes of the exam (i.e. it is a very last opportunity) are very high, plus if there is only one invigilator for a big auditorium (risk is considered low) students are more likely to cheat. Ariely devised several experiments to test this in which participant are tempted to cheat in simple tasks. They were paid according to how many problems they solved in a given time frame. In one condition (the control condition), participants were not allowed to cheat because their tests were corrected by the research assistant. In other conditions the risk of being caught decreased - participants only had to state how many problems they had solved without showing proof. In another condition, they were permitted to shred the paper and put it away, and in the last condition they could even help themselves from the money jar. We would expect that more and more problems were 'solved'; in other words, the amount of cheating would increase dramatically if there was a decreasing level of risk inherent in the situation.

The results were quite fascinating, because the risk of being caught did not really change the level of cheating. Of course, cheating emerged when there was an opportunity, meaning that most people cheated but the risk did not affect the level of dishonesty in general. Moreover, the pattern showed, writes Ariely, that "rather than finding that a few bad apples weighted the averages, we discovered that the majority of people cheated, and that they cheated just a little bit (Ariely, 2008, p. 277)". In other experiments Ariely's team found that invoking the Ten Commandments (nobody could remember all ten) lead to a decrease in cheating, while substituting money with tokens (which were

exchanged for money at the end of the experiment) dramatically increased the level of cheating.[4] Moreover, social group norms can also affect cheating in both directions.

In a similar manner, Akerlof and Shiller mentions that in the 1920s when alcohol was banned in the US people did not care about the regulations and this was detrimental for norm-abiding behavior in general. When people violated the laws they did not consider the risk of being caught but they were more influenced by the fact that a significant proportion of people ignored these rules. Social pressures therefore can really exert an influence on people's law and norm-abiding behavior and that influence can be even stronger than the perception of the risk (pp. 63-66).

I think, however, there is another moral to the story which is particularly significant in the Hungarian and Central-Eastern European contexts. If there are many laws which can not be followed (or can only be followed at high cost) it can lead to a general decline of norm-abiding tendencies in a society.

While reproducing such experimental conditions as Ariely devised might be hard in everyday natural settings (for example, the Akerlof-Shiller example on the ban on alcohol), further sociological research can be based on these ideas in order to investigate how such forces and influences shape the decisions of people in everyday life context or in organizational settings.

THE UPSIDE OF IRRATIONALITY

Ariely's second book The Upside of Irrationality , as its title shows, is less about the negative aspects of our irrationality in economic behavior and more about how irrationality influences us positively in how we work, love, help others and such similar topics. The book is divided into two major sections. In the first section the author deals with the world of work, discussing topics such as salaries and motivation, relationships with our bosses and with all the things we produce, be they material or immaterial. The second section is about interpersonal relations, so in this respect there is more emphasis on social psychological aspects - asking questions about adaptation, pro-social behavior, the influence of emotions on decision-making and the imperfect market of online dating.

Comparing the two books, The Upside of Irrationality appears to be a lighter reading than Predictably Irrational and there are more personal stories

4 Who would not take home a pencil from his workplace? At the same time, 'stealing' one Euro from the desk of the boss is out of the question.

and anecdotes about the author's life.[5] Otherwise, this book is as rich in detail and its results draw upon as wide a variety of experimental settings as the first one. Therefore, I will highlight a few topics covered in the book which might be of interest for readers and can give a foretaste of Ariely's style. These are the meaning of labor, the IKEA effect and the example of online dating.

Meaning of labor

In the chapter Meaning of labor Ariely attempts to find some evidence of the assumption that we work not just for money, or to put it in another way, the meaning (in this case with small m, not with a capital M) or the lack of meaning of our activities, influences our motivation and the willingness to work harder and/or longer. In one experiment participants had to assemble Lego (Bionicle robots to be precise) according to its assembly instructions. For each complete piece assembled they got less and less money; that is, the financial motivation decreased each time. While it is interesting in itself to see how many Lego pieces the participants assembled on average under such conditions, those who planned the experiment also tried 'sucking out the meaning' from this activity for some participants. So, in one condition, immediately after that the participants assembled a Lego robot, the research assistant started to disassemble it, saying that this was part of the procedure to prepare the floor for the next participant. This group worked 30% less and therefore earned less than the group without these 'Sisyphusean' conditions. This shows that we are highly sensitive to how much our work contributes to something meaningful; that is, whether we can we see any meaning at all in what we are doing.

In another experiment, participants had to find instances when the letter 'S' was followed by another letter 'S' on a sheet of paper with a random sequence of letters on it. They had to find 10 such instances in order to complete a sheet and here there was a similar payment scheme to the Lego experiment. So for each page they completed they received a lesser financial reward than for the one before. One group's work was 'acknowledged', because they could write their names on the paper. There was another group where the accomplishments were not attached to anyone (ignored condition) because they could not write

5 Ariely suffered serious burn injuries after secondary school in Israel, for which he was hospitalized for three years. According to him, this trauma and all the negative side effects which are still with him have significantly changed how he looks on human behavior. In his books he reflects on how his injuries and life experiences affected his interests and the types of research questions he raises.

their names on the sheets. But in the last case, after the participant finished a sheet, the experimenter, without even looking at it, immediately fed the paper into a shredder with a bored expression. As Ariely emphasizes in relation to the results:

> *"The participants in the shredded conditions quickly realized that they could cheat, because no one bothered to look at their work. In fact, if these participants were rational, upon realizing that their work was not checked, those in the shredded condition group should have cheated, persisted in the task the longest, and made the most money. The fact that the acknowledged group worked longer and the shredded group worked the least further suggests that when it comes to labor, human motivation is complex. It can't be reduced to a simple 'work for money' trade-off (Ariely, 2010 p. 76)."*

Furthermore, the performance of the group in the ignored condition (anonymous sheets) was much closer to the performance of the group in the shredded condition than to the performance of the group in the acknowledged condition showed. This illustrates the point that even small changes in working conditions can alter employees' motivation and their attitudes toward their tasks. Ariely writes that although he is not a Marxist (although some think all academics are) there is a clear connection here with Marxian ideas like how division of labor can deskill people and lead to alienation by killing all the meaning and joy one can find in his or her work. As far as I could see, this is the only part of the book when Ariely reflects on sociology in a direct way.

Akerlof and Shiller also emphasize the fact that the employer-employee relationship is more complex than a simple monetary transaction between two parties. People want to feel that their work is considered valuable and that they are themselves respected by their employers. In turn, they are loyal to their companies and they work harder and with more dedication than if their salary was the only motivational factor. In a similar manner, most of the time employers do not regard the lowest possible salary for which they could find an employee on the labor market a valid option, but fairness also plays a role in these considerations. Employers not only want employees who do their jobs but they want employees whom they can trust, who are loyal and do their tasks with care and with a conscientious attitude. On the one hand, this can explain why wage are higher on the labor market than would be 'rational' from a standard economic point of view (leading to higher unemployment rates), and it can also highlight the fact that even what seems to be a simple monetary transaction is laden with issues such as 'fairness' and 'acknowledgement' (pp. 138-140).

The IKEA effect

The IKEA effect is closely related to the question of the meaning of labor. It is a funny name for the phenomenon that demonstrates that people attach higher value to something (things, ideas, music etc.) they have made by themselves. So if we go to IKEA, (which can be regarded, by the way, as a giant Lego store for adults) buy some furniture in pieces and take it home by ourselves, it is not only the cost of the assembly process that IKEA saves on the whole business. We are the ones who assemble it, perhaps by starting over and over again because the assembly instructions are not always clear. And because we put it together with the sweat of our brow we overestimate its value and we tend to be more attached to it. In one experiment, participants had to make origami frogs and bid for them against others (noncreators). Although some frogs were closer in shape to some genetically modified sea monsters than to frogs, all participants who created the origami pieces tended to bid a much higher amount for their own creation than the noncreators. This mechanism also works in the case of ideas - even in such conditions when the solution for a given problem is already given, with its words out of order such as in the following example:

> *"Proposed solution: Water lawns using recycled gray water recovered from household drains. (...)*
>
> *Words for the proposed solution: lawns drains using gray recycled recovered water household water from ([emphasis in the original] Ariely, 2010, p. 116)."*

Even under these conditions, when the solution was not completely 'theirs' but participants had to work for it to become meaningful (just like with a chair from the IKEA), participants were willing to sacrifice more time, energy and money for the realization of such a solution than in the control condition (when the solution was presented with words in a meaningful order).

Because we tend to overvalue and grow attached to things or ideas because we have created them, we are quite susceptible to the 'Not-Invented-Here' bias. The 'Not-Invented-Here' bias means that a group, a department or a company overvalues its own ideas, plans and innovations while frowning upon anything that comes from outside. Many examples of this bias could be found in history of technology - like Edison and Tesla's quarrel about direct current (DC) and alternating current (AC) electricity (Tesla and AC won). To highlight more recent cases, one could reflect on Sony, which made products incompatible with the most widespread forms of standards, just because their

engineers viewed every technical solution derived from outside their working environment as inferior. Of course, scientists also tend to show such bias, as Ariely points out, reflecting on the 'toothbrush theory':

> *"After all, we like to think that scientists care more about evidence and data and that they all work collectively, without pride or prejudice, toward a joint goal of advancing knowledge. This would be nice, but the reality is that science is carried out by human beings (...) In the scientific world, the Not-Invented-Here bias is fondly called the 'toothbrush theory.' The idea is that everyone wants a toothbrush, everyone needs one, everyone has one, but no one wants to use anyone else's* (Ariely, 2010 p. 117)*."*

The Question of Online dating

Ever since Becker in his well-known 'theory of marriage'[6] used market analysis to analyze the issues of partner selection, the questions of whom, when and why we marry has been an interesting research topic for both sociologists and economists. Becker presupposed that marriages must be profitable for both parties involved, so people establish and maintain marriage relationships taking into consideration the profit and loss each relationship represents respectively. All in all, his starting point was that mate selection is a market.

But if it is a market it is truly an imperfect market in the sense that the most recent Noble laureates (Diamond, Mortensen, Pissiarides) in economic sciences use the expression.[7] Although online partner search can increase the visibility and 'accessibility' of partners, Ariely shows that looking for potential partners is indeed a search with high costs, as all who are or were engaged in such activity can testify. Ariely found that, on average, people involved in his study spent 12 hours a week on the screening stage alone (searching profiles and e-mailing potential partners) and spending merely 1.8 hours a week actually meeting any prospective partners. Furthermore,

6 Becker, G. S. (1974) Theory of marriage II. *Journal of Political Economy.* **82** (2); pp. 11-26. Retrieved on 06/03/2011 from: *http://ideas.repec.org/a/ucp/jpolec/v81y1973i4p813-46.html* Becker, G. S. (1973) Theory of marriage I. *Journal of Political Economy.* **81** (4); pp. 813-46. Retrieved on 06/03/2011 from: http://ideas.repec.org/a/ucp/jpolec/v81y1973i4p813-46.html

7 They showed that labor and housing markets are markets with high search costs where the process of finding the rights solution is laden with frictions.

most of these meetings did not continue after a few awkward, semi-frustrating minutes of holding coffee cups.

One problem arises from the fact that information revealed about prospective mates is not what really counts. What kind of pieces of information can we usually find on an online dating site? Weight, height, age, salary and so on. All kinds of quantified information which is easily searchable and can be stored in a database in a systematic way. But are these details very useful in this market?

The answer is not really. According to Ariely, the market for prospective mates is not like the market for digital cameras where just by comparing megapixels one can choose the 'right' option. It is closer to the market of concerts or recreation events (experience goods) in which the 'value' of an item cannot be quantified as readily.

As it is, by providing only a few vital statistics online, dating sites give no significant information about what it is actually like to spend time with a person. Using the Ariely example:

> *"In the same way that the chemical composition of broccoli or pecan pie is not going to help us better understand what the real thing tastes like, breaking people up into their individual attributes is not very helpful in figuring out what it might be like to spend time with them (Ariely, 2010 p. 229-230)."*

But Ariely and his colleagues not only claim that partner search is similar to other imperfect markets and that information does not help the actors of such a market but they also attempted to devise an online dating site which would increase the success ratio of this process. Their starting point was the assumption that dating in real life...

> *"...is about experiencing something together: two people watching a movie, enjoying a meal, meeting at a dinner party or a museum, and so on. In other words, dating is about experiencing something with another person in an environment that is a catalyst for the interaction. By meeting someone at an art opening, a sporting event, or a zoo, we can see how that person interacts with the world around us – are they the type to treat a waitress badly and not tip or are they patient and considerate? We make observations that reveal information about what life in the real world might be like with the other person (Ariely, 2010 p. 224-225)."*

In line with the ideas in this quotation, Ariely and his colleagues created an 'online virtual dating site' where daters can not only screen each others' profiles but they can share an experience (a Monty Python sketch, a painting

or sculpture) found on the site using instant messaging. By bringing the online setting closer to the offline experience, they could double the likelihood of a real-world date. This example shows that by taking into account the limitations of the actors involved in a market, it is possible to change the market conditions (in this case the properties of the online dating site) for the better. Moreover, it also highlights the fact that many market mechanisms which can be found in interpersonal relationships tend to be imperfect markets with high search costs.

CONCLUSION

This paper is a little long for a review but I wanted to show the variety and ingenuity of Ariely's works. In the concluding section I would like to reflect on the common issues in the two books in general, rather than on the details of the experiments in particular.

First of all, as far as the 'personal side' of the books is concerned, both books are structured in a way that the description of experiments is underpinned by real world examples mostly using the life experiences of the authors. While this makes the books more subjective, all the anecdotes about Ariely's life show that the strong need in all of us to understand social life is strongly intertwined with the joys and traumas in one's life. This drive, which is rooted in the ups and downs of our lives, is an essential component in research, even if it sometimes makes us 'predictably irrational' in our own scientific endeavors.

Secondly, Ariely's whole approach and his findings are based on experimentation. Most of his experiments, which are described in his books, are related either directly or indirectly to economic and market behavior. Ariely describes experiments in the following way:

> *"For social scientists, experiments are like microscopes or strobe lights, magnifying and illuminating the complex, multiple forces that simultaneously exert their influence on us. They help us slow down behavior to a frame-by-frame narration of events, isolate individual forces, and examine them carefully and in more detail (Ariely, 2010, p. 10)."*

This methodological choice can be accepted as valid or can be criticized as one which leads only to partially true findings. However, an interesting crossing point between behavioral economics and sociology could be the question of how to 'translate' the findings of experiments to the social level.

Just as Latour showed in his famous book The Pasteurization of France[8], Pasteur could change or restructure French farms and in turn the rest of society by ensuring that the same conditions apply in the outside world as inside the laboratory. These 'restructuring by translating' experimental findings are obvious in the online dating example but can be analyzed and explored in other cases as well.

Thirdly, both books contain parts where the author extrapolates his findings to the social level. This extrapolation exercise at the end of each chapter can be regarded both in a positive and in a negative light. From a sociological perspective, one can say that to be able extrapolate results of the experimental method much more empirical evidence is needed in order to test whether these forces work in a similar way in real-life contexts. On the other hand, while these thought experiments are not strictly scientific, these parts make the books more interesting and can also lead to new ideas in other fields of research. In Ariely's opinion, however, his results can be extrapolated much more easily to the social realm. His viewpoint is that

> *"...if the lessons learned in any experiment were limited to the constrained environment of that particular study, their value would be limited. Instead, I invite you to think about experiments as an illustration of general principles, providing insight into how we think and how we make decisions in life's various situations. (Ariely, 2010, p. 11)."*

All the same, I cannot help but be skeptical about such optimism because when we translate micro phenomena to the macro level, important aspects tend to be 'lost in translation'. However, this is an additional issue where a successful partner search between sociology and behavioral economics can be fruitful.

As closing comments, I would recommend these two interesting, cleverly written, 'popular science' books to all those who are interested in behavioral economics, economic behavior, experimentation in social science and in human nature in general. They are excellent books for students who have just started their scientific careers because they prove that social science can be a fun, intriguing and fascinating endeavor which can be (and in my opinion had better be) done with passion and determination. On the other hand, teachers can find a rich collection of experiments in various fields which they can use in their lectures to discuss the relation of the findings of experiments with social processes and the findings of methods used more often in sociology survey or fieldwork. And last but not least, I would also recommend the book

8 Latour, B. (1988) *The Pasteurization of France*. Cambridge Mass: Harvard University Press

to researchers, although strictly speaking these books do not fall into the category of scientific literature. However, they could give valuable insights, starting points for research plans and ideas for operationalizing fuzzy concepts (such as trust, emotion and motivation) by translating them into measurable factors.