

Book Review

Michael Lewis: The undoing project: a friendship that changed the world

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Book details

The undoing project:
a friendship that changed the world
Michael Lewis

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The book tells a thrilling story of how two outstanding minds, Daniel Kahneman and Amos Tversky, combined to produce a revolution in the way we understand and perceive the human mind.

Daniel Kahneman, the 'Outsider', was born in 1934 and spent his childhood in Paris. Virtually all his early memories were about the horrifying things he experienced during the Nazi occupation of France. His father was arrested in the round-up of French Jews, but soon released due to the intervention of his employer. Later on he died due to diabetes, being unable to take medical advice. Kahneman's family was on the run for the whole period of the occupation, and the major skill Daniel had acquired during his childhood was the skill to survive. After the World War II, the family emigrated to what would shortly become the state of Israel, but the childhood experiences obviously left their mark on the future Nobel Prize winner. Reserved, unsociable, physically unfit and emotionally unconnected to any specific place on earth, he almost did not have friends and doubted his own thoughts, decisions and actions, even when everyone surrounding him was eager to listen to his opinion and to rely on his authority.

Amos Tversky, the 'Insider', was born in 1937 in Israel and was always perceived by the people who knew him as a "quintessential Israeli". His parents were among the pioneers who had fled from Europe in the early 1920s to build a new Jewish state. His mother was a member of the first Israeli Parliament. Tversky himself served with distinction in the Israel Defense Forces being decorated for bravery. Strong, fearless, extremely sociable, cheerful and patriotic, he was always sure of himself and always surrounded by people who

loved, respected and admired him.

The two opposites for different reasons chose to study psychology, and met in the 1960s as Psychological Department's members at the Hebrew University of Jerusalem, and became more than just collaborators or even friends. In fact, they became soul mates. They were so different that the people who knew both of them could not imagine how this chemistry worked, but it probably was the difference between them that allowed them to supplement each other and made their collaboration so fruitful. They simply enjoyed their joined work, and that was the key to success.

The research project that Kahneman and Tversky started with great enthusiasm was dealing with how people make judgments under uncertainty. Both psychologists assumed that people were not exactly well-functioning statistical and mathematical machines designed for correctly judging things and making rational decisions (and the evidence supporting this assumption was quite abundant), and were looking for the ways of systematically explaining and predicting various behavioral biases. They came up with a series of studies whose results had been more or less systematized in the paper published in 1974 in the *Science*. The central notion of these studies was the one of heuristics.

According to Kahneman and Tversky, heuristics are a part of the human nature and represent simplifying rules of decision making that all of us employ when we do not have enough information and/or time for making well-grounded rational decisions. On the one hand, these rules of thumb may be very useful, since they allow us to make quick, and in most cases correct, decisions –otherwise, they probably would have

disappeared during the course of evolution—. Yet, on the other hand, in quite a lot of instances, they may result in systematic (and predictable) deviations from rationality.

The first heuristic they explored was what they called "representativeness". Our lives are games of chance, and Kahneman and Tversky argued that when people calculate the odds in any life situation, they often make judgments about similarity, or representativeness, or in other words, compare whatever they judge to some model in their minds. For example, how much do these clouds resemble my mental model of an approaching storm? If I am a doctor, how closely does this ulcer resemble my mental model of a malignant cancer? If I am a basketball scout, does this relatively short and not athletic guy named Stephen Curry, who had gone unnoticed by major colleges match my mental picture of a future NBA superstar? If I am a political analyst, does that belligerent German political leader resemble my idea of a man capable of orchestrating genocide? The higher the degree of resemblance, the more probable that the answers to these questions would be positive. Yet, though the representativeness usually serves as a useful tool for making decisions, if we exclusively rely on it and ignore other relevant information, we might end up making serious and even fatal errors.

The second heuristic for judging frequencies and probabilities explored and discussed by Kahneman and Tversky was the one they dubbed "availability heuristic". The more easily people can call some scenario to mind, or in other words, the more available it is, the more probable they find it to be. Any fact or incident that is especially vivid, or recent, or common—or anything that happened to preoccupy a person—is likely to be recalled with special ease, and so disproportionately weighted in any judgment. For example, one may assess the risk of heart attack among middle-aged people by recalling such occurrences among one's acquaintances, or evaluate the probability that a given business venture will fail by imagining various difficulties it could encounter. Similarly to the representativeness, this approach may also prove to be useful in many situations, since usually, the events that are more likely to occur are indeed easier to imagine or to recall. However, availability may be affected by factors other than actual frequency or probability, so the exclusive reliance on availability may lead to systematic behavioral biases.

The third heuristic Kahneman and Tversky were dealing with they called "anchoring and adjustment". The idea of this clearly irrational but widespread decision-making technique is that in many instances, people make estimates by starting from an initial value (anchor) that is adjusted to yield the final answer. This initial value may be suggested by the formulation of the problem or come up as the result of a partial computation. In either case, adjustments are usually insufficient, suggesting that different anchor values may lead to different final estimates for the same question or problem. The obvious drawback is that people can be anchored even with information that is totally irrelevant to the problem they are asked to solve. For example, Kahneman and Tversky

asked a group of subjects to spin a wheel of fortune with slots on it that were numbered 0 through 100. Then they asked the subjects to estimate the percentage of African countries in the United Nations. The people who spun a higher number on the wheel tended to guess that the percentage was higher. Unlike the first two heuristics, anchoring seems to have nothing to do with rational decision-making and may cause non-negligible problems, since it provides clear and simple opportunities to manipulate people's judgments.

The collaboration of the two brilliant minds continued and became even more intense. As far as they could afford (and their life circumstances were not always simple), they were spending all of their time together. They just were finding each other more interesting than any other person, and gradually "became a single mind", as they themselves put it. They proceeded to the next major field of research – decision-making under risk. Their work crystallized in what they dubbed "the prospect theory", which was first presented to the wide public in the paper that had been published in 1979 in the *Econometrica*, and produced a revolution in various fields of knowledge, especially in economics, being by now the second most cited paper in the field.

The prospect theory appeared as a critique of the dominating expected utility theory, suggesting explanations for a number of phenomena that the latter failed to adequately explain. The authors employed a novel approach to analyzing the issue of how people perceive monetary outcomes with predetermined probabilities and choose between them, and introduced a number of innovations with important practical implications:

- People refer to monetary outcomes not as welfare levels, but rather as "gains" or "losses", which are defined with respect to a specific subjective starting (reference) point. Furthermore, on the one hand, people are risk averse with respect to gains, explaining why they prefer certain gains to risky affairs with the same or even higher expected values, while on the other hand, they become risk seekers when it comes to losses, which is a reason why, for example, many stock market investors are reluctant to sell a stock after registering a loss on it.

- People are loss averse, that is, when it comes to changes in their welfare, losses loom larger than gains. For example, people are very reluctant to change their current state of matters (status quo), when they know that the change may result in either improvement or deterioration of the current state.

- People's subjective perceptions of probabilities differ from the objective probabilities. For example, on the one hand, people tend to overestimate low probabilities, and that is why they buy lottery tickets even when they understand that the expected value of the prize is negative, while on the other hand, they tend to underestimate high probabilities, and so they purchase insurance even if they know that the premium they pay for it is significantly higher than the expected value of the damages they might incur.

Over years, the relationship between the two main char-

acters of the book experienced upturns and downfalls. They moved from one university to another, not always being together. They continued to collaborate and to develop the ideas of their joint research, especially by promoting them to more and more spheres of life. Their works made a practical impact not only on psychology and economics, but also on politics, law, medicine, sports, to name just a few. In fact, it is practically impossible to think of a sphere that remained unaffected—no matter what we do, in our life we need to make decisions—, and it is crucially important to understand how we make them. The two geniuses remained friends and deeply respected and admired each other until Amos Tversky's premature death in 1996, which probably prevented him from deservedly winning the Nobel Prize in economics together with Daniel Kahneman in 2002.

The book is thrilling and holds the reader's attention all the way along by realistically showing behind the scenes of the real intellectual creation. It contains a lot of examples allowing even the readers who are not directly related to the field of behavioral economics to understand the novel ideas developed by the two men who had actually founded the field, and their practical implications. Moreover, the book makes the reader curious to learn more about behavioral economics in order to contribute to the process of changing the world that was started by Kahneman and Tversky.

References

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