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**Homo Anomalous:**

**Richard Thaler's Kuhnian Adventure**

Review of 'Misbehaving:

The making of behavioral economics.'

by Richard H. Thaler

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“It is precisely the abandonment of critical discourse that marks the transition of science.” (Kuhn, 1970, pp. 6-7)

It has become a cliché to say that economics is a dismal science. Thomas Carlyle (1849) appears to have coined the term in response to the claim that labor markets will function efficiently – and no slavery will be necessary in the West Indies to compel idle black men to work (Dixon, 2010). In today’s climate, the trope of the dismal science flourishes as an indictment of laissez-fair economics; the flagrant failures of economic forecasts during the last decade give it credence. Economists, as a group, share more in common with the Monday-morning quarterback than with the quarterback on the field. The disillusioned feel that the field of economics has been playing an epic con game with the rest of working society. Economists are paid handsomely for their advice, consultations, forecasts and hindcasts. Professors in economics departments profit doubly: they enjoy attractive consulting fees and can therefore command above-average pay from their teaching and research institutions. They can point to the ‘fact’ that their ‘market value’ is higher than their faculty salaries. Tuition-paying families and less-generously compensated faculty foot the bill to close that gap. Yet, if economists didn’t play this game, then by the lights of their own theory, they would be “leaving money on the table.” In a moralizing twist, economists might even claim that they are doing the rest of us a favor by not defecting whole hog to the world of consulting, forecasting, and *ex post* rationalizing. If they did not curb their self-interest and followed the money, who would teach the next generation of economists? So why should economists abandon this game? Any

change in attitude or behavior, they will remind us, must be incentivized. And there ain't no such incentive.

Hence we have a riddle: why is it that economists, as a caste, have done so well for themselves while doing so poorly if judged by quaint criteria such as 'predictive accuracy?' How can the trope of the dismal science have so much currency, while at the same time the profession of economics flourishes comfortably? Trying to answer these questions, one might don the hat of a (traditional, neo-liberal) economist, or the cap of an experimental psychologist versed in the fine arts of judgment and decision-making. From the traditional, neo-liberal point of view (the juxtaposition of these three words is linguistically bold), there is no problem. There cannot be, by definition, any problem.

We, the reviewers, have not studied economics, but we have read Richard Thaler's 2015 illuminating book *Misbehaving*. Thaler makes it clear – and we believe him – that economics, in its pure form, is an exercise in *planglossianism* (Voltaire, 1950/1759). Of the various assumptions, axioms, and theorems, the *Efficient Market Hypothesis* (EMH) stands out as the echo of God's voice. In a grumpy deontological mood, God might have said: "There shall be no inefficient market!" or, more Mosaically, "Thou shalt not believe in or make inefficient markets." The god of economics is a jealous god. He condemns all psychological ideas as false idols. So neo-liberalism is not really neo, it is an old orthodoxy; and it is not really liberal, it tolerates no challenges. Thaler notes that the ability to dismiss challenges to the EMH as specious is a refined art of dissonance reduction that would make Leon Festinger blanch – or indulge in wisecracks and frequent tobacco breaks (page 178).

If to economists everything is as it should be and yet the future is unpredictable (this was Dr. Pangloss's view), they should concede that their profession is just a twig of historical scholarship, and not a logico-empirical science. That won't happen though because *this* dissonance would be too great to reduce. A science with axioms, theorems, and mathematical sophistication must get into the game of prediction. When predictions fail, some other information usually becomes available, since reality is complex and multivariate, giving economists opportunity to explain away their failures of forecasting. And so it continues – and it continues successfully because most participants in society are, like the economists themselves, better attuned to *post-hoc* explanation than to *pre-hoc* prognostication. They cannot quite see or understand (beyond having a general sense of dismalness) how poorly economics is doing. We submit that economics as a profession exploits this relative ignorance of the public to its own advantage. The irony is sublime. A science staked on the idea of the omniscient and rational being (the *Econ* as Thaler puts it), thrives in large part *because of* the falsity of this idea and not *in spite of* it.

Richard Thaler is an economist and he has been pissed off (his words) by the empty pretensions of his field. He has taken it upon himself to study broadly beyond the confines of his discipline, and especially in the field of judgment and decision-making (JDM) as shaped by the psychologists Amos Tversky and Daniel Kahneman and their friends and students. How might a JDM perspective help answer the question of how the trope of the dismal science can have so much currency, while at the same time the profession of economics flourishes pleasantly? The field of JDM is

known not so much for its overarching theory (it has none) but for a list of effects, or rather, biases (Dawes, 1988; Krueger & Funder, 2004). Some of these biases are consistent with the elements of the riddle we are facing, although there is no guarantee that they provide a sufficient basis for a valid explanation or prediction. Incidentally, one JDM bias is to confuse phenomenal consistency with causal explanation. More specifically, there is the bias of gullibility, the homely sister of trust. People tend to believe what they are told, especially when the word comes from authorities and experts, even self-anointed ones (Gilbert, 1991). When a claim is repeated time and again it gains further credence (Hasher, Goldstein, & Toppino, 1977). The psychological mechanism at work is a general property of heuristics and biases: *the reverse inference* (Krueger, in press). If it is true that what is true will be often repeated, it might also be true (but does not have to be true) that what is often repeated is also true. Another bias is representativeness (Tversky & Kahneman, 1974). For the case of economics, Thaler explains that mostly thanks to the efforts of a young Paul Samuelson, economics turned from a qualitative, story-telling discipline into a branch of applied mathematics. This is where the judgment by representativeness kicks in: A mature (non-dismal) science uses impressive math. Economics uses impressive math. Therefore, economics is a mature science.

Richard Thaler's life project is to make economics less dismal. His book project in *Misbehaving* is to tell the story of how he tried. Thaler partially succeeds and he deserves credit for that. The task he set before himself was monumental and the headwind has been strong. A lesser man might have given up. But here he is, telling the tale in an academic autobiography. Thaler let's us know that he will tell the

story by telling stories; it's a Jewish tradition and Amos (Tversky) and Danny (Kahneman) have been fond of it. A good life story begins with a creation myth. How did it all begin? For Thaler, "In the beginning was the list." He, the lazy (p. XVI) graduate student of whom his advisor said "We did not expect much of him" (p. 12 and again p. 357), stumbled upon weird types of behavior that flew in the face of economic theory. Of these anomalies, the gem was what would become Thaler's beloved "endowment effect." People get attached to what they own, and therefore undertrade, which in turn leaves markets in a state of inefficiency. Other now famous anomalies include respect for sunk costs, tipping and gift giving, and overvaluing the present, to name a few. The list grew and in time Thaler and colleagues conducted behavioral experiments to challenge the "show-me" economists and their orthodoxies.

This taking up the axe (pen/keyboard) to do battle with giants leads us into the plot of Thaler's autobiographic narrative. The giants are the well-endowed guardians of the Chicago paradigm. Thaler leaves no doubt that these men wield tautologies like Ragnar Lothbrok wields the Ulfberht sword. Milton Friedman's dismissal of psychology is emblematic of this self-confidence. No psychology is needed in economics, so "Uncle Miltie" (p. 51), because economic theory is not designed to explain how humans think; it only needs to predict (if only!) what they do. The derivations of economics' applied math need not be performed in human skulls; human behavior is sufficiently described "as if" it were the result of such derivations. Friedman and his boys boldly take a pass on psychology, but Thaler won't let them off the hook. Too much human behavior does not fit economic theory,

not even in an as-if sort of way. The meme of doing battle with giants is “The hero’s journey” or what Joseph Campbell (1949) called “the monomyth.” It is the story of stories. It is the only story. Having recognized this, we can ask if Thaler tells it well.

In our view, he does not; at least not well enough to be regarded as a master. There are two problems. First, Thaler comes across as self-conscious and unconvinced by his own narrative. Second, he has reason to be worried because the Kuhnian revolution he “had secretly spent idle moments” (p. 169) hoping to achieve did not occur. Let us briefly consider these two issues in turn, beginning with the second.

The young Thaler noticed that standard economic theory is psychologically barren and that it often fails in its predictions. He also noticed the dark shadow of tautology and “invisible hand-waving,” which sucks the blood out of any hope to achieve empirical success. His professional life plan took shape. He wanted to “be part of a revolution” (p. 169). He had read Kuhn (1962) and knew that scientific revolutions are great but rare things. Hence, he cautiously notes that his “goal was much more modest: just get a few more papers published and begin to establish the case that adding some psychology to economics was an activity worth pursuing” (p. 169). Was this goal more modest than the goal of achieving a real revolution? Not really, as Thaler goes on to say that “to create a real paradigm shift, I felt we would require a whole series of anomalies, each calling for its own ad hoc explanation” (p. 170). But therein lies the problem. Collecting a series of anomalies (which he did), each with a customized, *post-hoc* explanation, does not make a new, alternative, and better paradigm, which can replace the old. Instead, the listing of anomalies and

the selective borrowing from a neighboring discipline (psychology) to make sense of them, devolves into repair work (Gigerenzer, 2015). Repair work adds life to the old system and protects it with auxiliary assumptions and ancillary hypotheses.

Eventually, the research program degenerates into the infertility of untestability (Lakatos, 1976).

We now sketch three issues that in our view keep the behavioral economics approach, as presented by Thaler, from becoming the dominant paradigm. First, there is a neglected distinction between risk and uncertainty. Decision problems involving uncertainty are very hard because the probabilities of the outcomes are unknown, whereas they are known in the context of risk (Ellsberg, 1961). Other problems are hard because the number of parameters to be estimated or the number of ways in which events may combine is too large to be contemplated by a person or computed by a machine. Neither standard economic theory nor the fruit basket of behavioral-economic hypotheses deals well with uncertainty or so-called NP-hardness (Cheeseman, Kanefsky, & Taylor, 1991). Thaler's exposition would have been stronger if he had provided examples of how some contemporary behavioral economics has begun to address uncertainty and NP-hardness (cf. Gigerenzer, 2015).

Second, overthrowing a ruling paradigm itself is "a really hard problem" (Cheeseman et al., 1991), especially if that paradigm is a moving target, that is, if that paradigm is already in the process of repairing itself. Thaler notes how over generations of economists, the assumptions regarding the rational capacities of the idealized agent in the market place have grown ever more complex and

sophisticated, in part because it was successively recognized that the problems facing this agent are more complex than formerly believed. For example, it is only now believed that rational agents consider the material welfare of their descendants and make financial decisions accordingly, whereas former assumptions about utility were simpler. In other words, a paradigm on the defensive will mutate to absorb, explain, or explain away anomalies. Would-be revolutionaries have to produce stronger anomalies and outpace the within-paradigm repair work.

Third, and critically, revolutionaries must provide their own theories, which are simpler than the bloated theories they seek to overcome. The new theories need to explain the anomalies and chart a course for future research and discovery. Most importantly, these new theories must show a record of predictive success. It is true that JDM work does reasonably well in reproducing (i.e., predicting) systematic irrationalities in the laboratories, but it was failed, it seems, in predicting the kinds of macro-events (e.g., bubbles) that make conventional economics look dismal. Part of the problem is that behavioral economics has not emancipated itself from the neo-classical paradigm because it continues to define itself and its findings with reference to the rational standard as traditionally defined. The very notion of “anomaly” enshrines this view. Thaler’s “Human” is recognized as human only through the contrast with the ideal of the Econ.

Although Thaler has succeeded in some local theaters of engagement by proposing positive (i.e., descriptive) theories of economic behavior, he and the enterprise of behavioral economics have not achieved the hoped-for paradigm shift. Thaler bemoans the reluctance of psychologists to come on board and notes that

“we behavioral economists have not been particularly successful in generating new psychology of our own” (p. 180). Like many fellow JDM scholars, Thaler seems to think that the two-systems framework of cognition has potential as a paradigm, but many psychologists worry that it might be little more than a list of opposites (conscious vs unconscious, controlled vs. automatic, etc.; Keren & Schul, 2009). Kahneman (2011) himself, who was a late adopter and popularizer of this scheme (the pioneers were Plato, Thomas Aquinas, Sigmund Freud, *inter alii*, Dawes, 1976), regarded it as a set of metaphors, not a paradigm.

We close – with mixed feelings – by pointing to Thaler’s self-conscious and ill-at-ease treatment of his own biography. Thaler is a great economist, who can look back on a host of sustained and significant contributions to his academic field and the public. Yet, he seems plagued by self-doubt. His narrative oscillates between grandiose visions of scientific revolution and proud moments of discovery on the one side, and a crippling awe and respect for famous friends and opponents on the other side. He opens up the preface with the confession that he was “striving to please Amos [Tversky]” (p. xiii), goes on to reveal that Amos and Danny were “my idols” (p. 35), and blushes when Kahneman insinuates that he “can no longer be considered ‘promising’” (p. 155) due to his reaching the age of 40. He walks among “all-star psychologists [and] luminaries” (p. 179), fellow recipients of “a so-called ‘genius award’ from the MacArthur Foundation” (p. 184). He and his friends are “renegades” (p. 227) facing down “the high priest of efficient markets, Eugene Fama” (p. 227). And then there is the irrepressible Cass Sunstein, the “rock star” and “Lionel Messi” of the academic world (p. 258). Thaler, the self-avowed “radical, troublemaker,

rabble-rouser, nuisance [and object of] other terms unsuitable for the printed page” (p. 330) has trouble standing tall in this company. When he is introduced to Sir Gus O’Donnell in London, he learns that Sir Gus is “the Cabinet Secretary, the top civil servant in the U. K. [and he later learns] that people would often refer to him as GOD” (p. 332). The play on Sir Gus’s initials is obvious, as is visiting Little Richard’s sense of sheepishness.

This is not the prose of a hero who is at peace with his life’s work. But then again, Richard Thaler is only Human, has animal spirits, bounded psychological powers, and fragile preferences. We could not not point this out, because we too are bounded creatures. And we all wait for the revolution in the social sciences that will make it all good, at least for a while.

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