

Comments on Economic Models, Economics, and Economists: Remarks on *Economics Rules* by Dani Rodrik[†]

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This essay reviews Dani Rodrik's superb book Economics Rules and argues that it can serve as an ideal platform for discussing what economists can and should accomplish. The essay comments on some of the major issues in contemporary economics examined in the book: whether economics is a science, the meaning of economic models, the nature of "facts" in economics, and others. It also touches on issues that the book overlooks, such as the sociology of the profession, the teaching curriculum in economics, and the dismal situation of publishing in economics. (JEL A11, B40, C50)

1. In-Outsiders Criticizing Economics

Behind *Economics Rules*, as well as other recent critiques of economics by economists, lies a fundamental question: what are the meaning and value of what we economists do? Any honest discussion of such a question is inevitably charged. People tend to get emotional when even the slightest doubt is raised as to the value of what they are doing with their lives.

Giving meaning to what we do in economics is largely a personal matter. It so happens that I recently wrote an essay for an Israeli newspaper about the meaning of being an Israeli. In my mind, the two issues are closely

intertwined, since they lead to the same type of questions: Are we using our lives in the right way? Are we devoting ourselves to what we believe in? Or are we just following the crowd and afraid to rock the boat?

In this marvelous book, Dani Rodrik confronts the fundamental questions of economics and presents his view clearly and eloquently. Dani and I have attributed different meanings to economic models, but we nonetheless seem to share many views. *Economic Rules* and my *Economic Fables* (2008) have a similar objective: to offer a critique of economics, but at the same time to emphasize the beauty and appeal of economic models. We have both tried to write in a way that is accessible to noneconomists and we both have a strong affection for economic models.

In *Economic Fables*, I emphasize the emotional roots of my position. Dani is a more

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private individual, but he also talks about the origins of his position and attributes his critical approach to a background in political science. Perhaps a critique like Dani's is more likely to come from an economist who started his career asking different questions and using different methods than economists "from birth." Critiques by noneconomists often leave the impression that they have misunderstood what economists do. (Dani blames us, the economists, for not explaining ourselves well.) One needs to be an outsider to criticize economics, but one needs to be an economist to do it sufficiently well so as not to be drawn astray by stereotypes. What I call "in-outsider economists" are rare and Dani is one of them.

Dani is an applied economist who belongs to the elite of the economics academic establishment. From such a comfortable position, the choice to voice criticism of the profession is not the obvious one. Dani tells us about a colleague at Harvard who used to greet him by saying "How is the revolution going?" (p. 198). It is important for Dani to emphasize that the position he has taken has not caused his career any harm: ". . . even though I reach policy conclusions that differ from prevailing academic views . . . I have never really felt discriminated against in the profession" (p. 198). And "I myself have frequently flouted conventional wisdom among economists, but with no apparent damage to my career (at least I don't think so!)" (p. 198). In my experience, economists often have mixed feelings towards criticism of their profession. In particular, I recall angry looks from some senior theorists after lectures I gave about the dilemmas facing an economic theorist (Rubinstein 2006b), which included some skeptical comments on the way that economic theory is perceived by many economists. But this is to be expected. Economists are only human after all and human beings seek a sense of identity that aligns with their own interests. People don't

like in-outsiders. But we academics also like to perceive ourselves as being open-minded. This is part of the group identity. Thus, "soft" criticism is sincerely welcomed in economics. It contributes to our "sense of self-satisfaction" (p. xiii). However, this open-mindedness often disappears once the critic is perceived as a threat to the profession. But *Economics Rules*, in spite of its occasionally harsh criticism, does not pose a real threat. It rarely criticizes a specific individual and leaves the reader with enough room to feel that at least he (though perhaps no one else) is doing good economics.

2. *Is Economics a Science?*

The following famous quote is taken from a letter written by John Maynard Keynes to Roy Harrod in 1938: "It seems to me that economics is a branch of logic, a way of thinking"; "Economics is a science of thinking in terms of models joined to the art of choosing models which are relevant to the contemporary world." Economists enjoy discussing this question. I sometimes wonder if the question of whether economics is a science is about the commitment of economics to certain standards or whether it is actually about gaining entry into that prestigious club called Science.

Dani takes the question seriously and declares: "Models make economics a science" (p. 45). He rejects what he describes as the most common justification given by economists for calling economics a science: "It's a science because we work with the scientific method: we build hypotheses and then test them. When a theory fails the test, we discard it and either replace it or come up with an improved version." Dani's response: "This is a nice story, but it bears little relationship to what economists do in practice. . . ." (p. 64). He also admits that ". . . [economic] methods are as much craft as they are science. Good judgment and experience are indispensable,

and training can only get you so far. Perhaps as a consequence, graduate programs in economics pay very little attention to craft” (p. 83).

Dani tries to persuade the reader that indeed “Models make economics a science.” He proposes four justifications. But these justifications work just as well in the case of, for example, literature or history.

- (1) “... models clarify the nature of hypotheses, making clear their logic and what they do and don’t depend on. This is typically a matter of refining intuition. . .” (p. 46).

A good model does indeed do that. But isn’t this also true of a good story that clarifies a certain type of human interaction and sheds light on how we view the world?

- (2) “... models enable the accumulation of knowledge, by expanding the set of plausible explanations for, and our understanding of, a variety of social phenomena. In this way, economic science advances as a library would expand: by adding to its collection.”

Isn’t this also true of history books? Good fiction also expands our library and furthermore, serves the additional function of expanding the vocabulary we use in daily conversation and natural reasoning. But do we claim that literature is a science?

- (3) “... models imply an empirical method; they suggest how specific hypotheses and explanations can be applied, in principle at least, to actual settings. They enable arguments to be judged right or wrong.”

What determines whether an argument is right or wrong? It cannot be the truth of the model. As Dani says,

“Models are never true; but there is truth in models” (p. 44). And “In Economics, context is all. What is true of one setting need not be true of another” (p. 67). So, does an economic argument’s logical consistency determine whether it is right or wrong?

- (4) “... models allow knowledge to be generated on the basis of commonly shared professional standards rather than prevailing hierarchies based on rank, personal connections, or ideology” (p.47).

I don’t have any respect for “commonly shared professional standards.” Don’t standards simply restrict us and limit our imagination? Isn’t it possible that standards confine our view of the world, rather than helping us to produce and spread new ideas?

The scientific image of economics is, to a large extent, the result of using formal models. Dani describes in detail the merits of formal models: “Math essentially plays two roles in economics, neither of which is cause for glory: clarity and consistency. First, math ensures that the elements of a model—the assumptions, behavioral mechanisms, and main results—are stated clearly and are transparent. Once a model is stated in mathematical form, what it says or does is obvious to all who can read it. This clarity is of great value and is not adequately appreciated” (p. 31). He is also aware of the risks: “... too many economists fall in love with the math and forget its instrumental nature. Excessive formalization—math for its own sake—is rampant in the discipline” (p. 35).

Almost all of my academic work involves formal models. Of course, I agree with Dani that the use of formal economic models often helps achieve clarity and consistency. However, I feel that too many economic models, and especially those currently en

vogue in economic theory, suffer from excessive use of mathematical techniques. Let me clarify: Economic theory can be divided into two parts—one consists of models and the other discusses families of models. The Nash bargaining solution, for example, is an economic model. A Nash equilibrium existence theorem is a discussion of a set of models. The analysis of formal structures is mathematical by nature and there is no escape from using mathematics, which is often nontrivial. On the other hand, economic models don't have to be mathematically complicated. As Dani writes: "Relevance does not require complexity, and complexity may impede relevance. Simple models—in the plural—are indispensable. . . . We can understand the world only by simplifying it" (p. 44). Young researchers often tell me that the only reason they make their models complicated is to impress a prospective employer and to get the paper published in a respected journal. An author showing off his mathematical skills in fact usually just obscures things. Demonstrating an aptitude for math should not be the goal of economic theory. The overuse of math is bringing economic theory to the brink of boredom.

3. *On the Sociology of Economics*

One of Dani's most astonishing statements compares the "profession of Economics" to a guild. "Because economists go through a similar training and share a common method of analysis, they act very much like a guild" (p. 171). And ". . . the guild mentality renders the profession insular and immune to outside criticism" (p. 171). Some might consider this to be a sensational comment, since it comes from a professor at Harvard. But as economists, we shouldn't be surprised by the statement. Why should we expect economists to behave differently than any other group seeking to protect its territory by constructing barriers to entry?

Neither should we be surprised that an elite has developed among economists, thus making life harder for those outside of it. But Dani ignores the existence of such an elite in economics: "The status of an economist's work depends, by and large, on its quality, not on his or her identity" (p. 47). And later: "Ultimately, what determines the standing of a piece of research is not the affiliation, status, or network of the author; it is how well it stacks up to the research criteria of the profession itself. The authority of the work derives from its internal properties—how well it is put together, how convincing the evidence is—not from the identity, connections, or ideology of the researcher" (p. 78). Well, I imagine that at least some readers are not convinced. Take, for example, Colander (2015), who concludes his study of the inbreeding in economics with the following statement: "The mainstream profession seems to be following the path of the Spanish Habsburgs and not controlling inbreeding of close intellectual relatives." The job market for junior economists is an illustration of the unfairness associated with the power of the elite. Where one studied plays a decisive role in one's success in the job market. An examination of the list of high flyers in "top departments" shows that an amazingly high proportion of them graduated from a small number of "top schools." I cannot believe that the hundreds of departments outside the elite do not produce a significant number of students who deserve a closer look. It is ironic that we economists, who are experts in the optimal design of markets, have been unsuccessful in designing a fairer job market for economists.

This is an opportunity to mention the Booth Initiative on Global Markets (IGM) panel, a new institution that perpetuates the elite of the economics profession. The panel consists of several dozen professors of economics who are occasionally asked for their opinion on economic policy. Each member

of the panel expresses his level of agreement or disagreement with a particular policy and is allowed to add a brief comment. The IGM website (<http://www.igmchicago.org>) claims that "... our panel was chosen to include distinguished experts with a keen interest in public policy from the major areas of economics, to be geographically diverse. . . ." And it continues: "[The selection process] has the advantage of not only providing a set of panelists whose names will be familiar to other economists and the media, but also delivers a group with impeccable qualifications to speak on public policy matters." The credibility of the last statement is put into doubt when one looks "a little closer" at the geographic diversity of the panelists: apparently, all fifty-one experts (yes, *all of them*) come from six universities (and you guessed them correctly: Harvard, MIT, Stanford, Yale, Princeton, and Chicago).

4. *Economic Models or Economic Fables*

The main theme of the book is the meaning of economic models. Dani approaches economic models with humility. Here is a selection of quotes from the book: "[A model is supposed] to shed light on some aspect of social reality" (p. 10). "Models do more than warn us that results could go either way. They are useful because they tell us precisely what the likely outcomes depend on" (p. 17). "An architect might build one model to present the landscape around a house, and another one to display the layout of the interior of the home. Economists' models are similar, except that they are not physical constructs but operate symbolically, using words and mathematics" (p. 13). "Models build mental environments to test hypotheses" (p. 22). "One model is not always better than another. Remember: it is *a* model, not *the* model" (p. 43). "At their best, economists' models provide some of that refinement [of everything thinking] and not much more"

(p. 81). "[Economics] becomes a useful science when those models are deployed to enhance our understanding of how the world works and how it can be improved" (p. 83).

My own views of economic models are not far from Dani's. But I would go a bit further. I often draw an analogy between an economic model and a story or fable (see Rubinstein 2006b, 2012). A good model is, for me, a good story about an interaction between human beings (not computers and not bees). To emphasize this point, I start my undergraduate micro course by reading a short story by Anton Chekhov entitled "The Ninny." The story is about a man who plays a trick on his nanny in order to teach her to stand up to a different employer who is trying to exploit her. When I come to the last and very moving paragraph, my voice is always quivering. I imagine that in a few years the only thing that most of the students will remember from the course is the story by Chekhov.

My voice doesn't quiver with emotion when I read a paper in *Econometrica*, though I do get excited when an interesting story emerges from the equations of a formal model. I judge a story according to criteria like beauty, originality, and cleverness. However, not every beautiful, original, and clever story is an interesting one. It has to somehow touch our lives. The same is true of economic models. I like a formal model when a beautiful, original, and clever story about life miraculously emerges from the symbols.

I have often heard colleagues say that we already have the models and tools and all we need to do is apply them. This is analogous to saying that we have enough books in the library and all we need to do is read them. There are many books with the same subject. There are many paintings of the same scene. And there can be many models with the same theme. I always refer to a model of mine as "a model" rather than "the model."

A story is not a tool for making predictions. At best, it can help us realize that a particular outcome is possible or that some element might be critical in obtaining a particular result. This is how I view a model in economic theory. Personally, I don't have any urge to predict anything. I dread the moment (which will hopefully never arrive) when academics, and therefore also governments and corporations, will be able to predict human behavior with any accuracy. The world will then be a very different place, though I am not sure it will be a better one.

A story is not meant to be "useful" in the sense that most people use the word. I view economics as useful in the sense that Chekhov's stories are useful—it inspires new ideas and clarifies situations and concepts. During my forty years in the profession, I have not encountered a single model that could persuade me that economic theory might have direct practical use. In particular, I don't believe that a game theorist is more entitled than anyone else to give advice in strategic situations. His advice will be no more useful than that of any clever individual who, though he may know nothing about game theory, has in-depth knowledge of the situation. I am alarmed by the overuse of models by economists and game theorists. Dani is aware of this risk. "Mischief occurs when economists begin to treat a model as the model. Then the narrative takes on a life of its own and becomes dislodged from the setting that produced it. It turns into an all-purpose explanation that obscures alternative, and potentially more useful, story lines" (p. 174).

Confusion exists among the general public in differentiating between the abilities of theorists and the power of the theory itself. Our community includes many brilliant individuals and some of them even have "both feet on the ground." This is a rare combination and such individuals are able to come up with interesting and original ideas that sometimes

make sense as well. (To quote Keynes, "Good economists are scarce because the gift for using "vigilant observation" to choose good models, although it does not require a highly specialized intellectual technique, appears to be a very rare one.") But I am not convinced that their advice would be less valuable if it were based less on economic theory and more on expert knowledge of the relevant problem.

A story is not testable. But when we read a story, we ask ourselves whether it has any connection to reality. In doing so, we are essentially trying to assess whether the basic scenario of the story is a reasonable one, rather than whether the end of the story rings true. For example, I can imagine an interesting love story about a Jewish man and a Palestinian woman who meet as students at the Hebrew University, get married and raise a family, even if this has never happened and even if "being a Jewish man's wife" and "being a Palestinian woman" are almost mutually exclusive. On the other hand, I would not find any interest in a story about an Israeli man meeting an Arab woman while both are serving in the army, since that is implausible from the start. Similarly, I think that testing an economic model should be focused on its assumptions, rather than its predictions. On this point, I am in agreement with *Economics Rules*: ". . . what matters to the empirical relevance of a model is the realism of its *critical* assumptions" (p. 94).

5. What Is an Economic Fact?

Economics Rules recognizes that facts are not abundant in economics: "Occasionally, empirical evidence will accumulate to the point where the profession's preference for one set of models over another will become overwhelming" (p. 75). And later: "Beyond trite generalities such as 'incentives matter' or 'beware unintended consequences,' there are few immutable truths in economics" (p. 148).

The methods to establish facts in economics are diverse and include “nonscientific methods”: “Economists employ a wide a range of strategies to verify whether the immediate implications of different models are confirmed in the real world, from the informal and anecdotal to the sophisticated and quantitative” (p. 108). One would expect the book to give us examples of the most useful and surprising facts recently derived from real-world data. Therefore, I found it puzzling that one of the few examples provided describes “... placing cameras in the classroom, so that the presence of teachers could be recorded, reduced teacher absenteeism by 21 percent in rural India” (p. 107). Is this meant to persuade a noneconomist of the usefulness of economics? The idea that “incentives work” (which appears in the title of the cited paper) is known to every parent. There are several reports on the web written by police researchers who present no less interesting findings, including the observation that surveillance cameras sometimes do not work (see, for example, La Vigne et al. 2011). I doubt that there are any leading articles in the hard sciences whose conclusions are so obvious.

Dani, like the rest of the profession, often uses terms like “such and such a paper shows that ...” The big “problem” with interpreting data collected from experiments, whether in the field or in the lab, is that the researchers themselves are subject to the profession’s incentive system. The standard statistical tests capture some aspects of randomness in the results, but not the uncertainty regarding such things as the purity of the experiment, the procedure used to collect the data, the reliability of the researchers, and the differences in how the experiment was perceived between the researcher and the subjects. These problems, whether they are the result of intentional sleight of hand or the natural tendency of researchers to ignore inconvenient data, make me somewhat skeptical about “economic facts.”

6. Teaching

Dani briefly discusses the recent critiques of economic education, which call for a major overhaul of the syllabus at the undergraduate level. I am one of those who have long felt uncomfortable with the current curriculum. To quote myself, “Students who come to us to study economics instead become experts in mathematical manipulations. I suspect that their views on economic issues are influenced by the way we teach, perhaps without them even realizing it” (Rubinstein 2006a). I have always believed that even the teaching of game theory, which is one of my fields of specialization, “is not helpful and is even harmful because it can potentially encourage selfishness and deviousness” (Rubinstein 2012). Nonetheless, I share Dani’s discomfort with the direction of the latest criticism of the teaching of economics, though probably for different reasons. Allow me to elaborate.

The critiques of the teaching of economics bring up a number of issues. First, many students and lecturers complain that the teaching of economics is not practical enough. My impression is that the problem lies in the unrealistic expectations students have of economics, rather than whether economics is taught in a practical way. Many students choose to study economics in the expectation that it will be a springboard toward a prestigious job or will help them become successful businessmen. Those students fail to understand that academic studies are not intended to be practical, nor are they an alternative to political activism.

The competition for students pushes departments of economics to reinforce students’ illusions. A typical department of economics advertised itself as follows: “The study of economics is an excellent way to acquire problem-solving skills and develop a logical, ordered way of looking at problems. It leads naturally to careers in business, law,

and in economics research and consulting.” Conventional textbooks are designed to look like brochures for investment firms. Anecdotes and newspaper quotes are used to stimulate the student’s interest and convince him that the textbook’s contents are indeed relevant. Teachers find it difficult to come up with practical applications of what they are teaching, so they inflate the importance of trivial messages. Some take pride in the fact that all of the main messages of economics appear already in the Intro course. Casting doubt on the predictive ability of economic models is viewed as an attempt to sabotage the myth that economics is a practical field of study.

In fact, an undergraduate degree in economics is *not* essential to becoming an economist in the same way that a degree in engineering or medicine is essential to becoming an engineer or doctor. The head of a successful investment fund once told me that he prefers graduates of mathematics or physics to economists. “I can teach them the necessary economics in a few days, and talent and originality are not acquired at the university.” In the same spirit, a large group of senior Israeli businesspeople believe that a graduate in history or philosophy is no less qualified to work for them than a graduate in management or economics. The members of this group announced that they will not favor graduates of economics or management over graduates of history and philosophy.

A second issue is the excessive assignment of exercises that train the student in mathematical manipulations. The economic content gets drowned in a sea of derivatives. The formal language creates an illusion of “scientificness” and makes economics easy for mathematicians and a nightmare for students originating from the humanities. The mathematical complexity is unnecessary, but like Dani, I think that the solution does not involve abandoning formalism entirely. One can teach simple formal models without becoming

mired in excessive manipulations. Formal language can help to educate for caution in moving from assumptions to conclusions, in both theoretical and empirical studies.

A third issue is the claim that the current curriculum in economics serves the interests of the economic right wing. In Rubinstein (2006a), I myself tried to argue that studying economics has an effect on students’ ethical positions. However, the evidence for this effect appears to be quite weak.

Finally, there is the related criticism that the teaching of economics is too narrow and that greater pluralism should be introduced. Dani’s response: “Pluralism with respect to conclusions is one thing; pluralism with respect to methods is something else. No academic discipline is permissive of approaches that diverge too much from prevailing practices, and economics is unforgiving of those who violate the way work in the discipline is done” (p. 199). I disagree on this point. I don’t have any respect for rules in economics and view them as a barrier to entry created by the “guild.”

Nevertheless, I am somewhat sympathetic towards students who demand a revolution in the curriculum of economics. It would be a good idea to add works by both Adam Smith and Karl Marx to reading lists. However, we should be careful to ensure that such material is not taught superficially, particularly since few professors of economics are capable of teaching it properly.

But universities do not encourage revolutions in their curriculum and “incentives (sometimes) work. . . .” Academic economists focus their attention on their graduate students, while teaching undergraduates is viewed by too many of them as “paying one’s dues” to the department. The cure does not lie in the establishment of national committees to determine what will appear in curricula. The current uniformity of teaching material in economics should not be replaced by a different kind of uniformity.

Any alternative should promote the autonomy of the individual lecturer and encourage diversity and ongoing change.

Economics should be taught in universities with a large dose of skepticism and in a more pluralistic way. We should get rid of the term “correct solutions.” Like Dani, I believe in the value of being precise in definitions and arguments, but this can be taught without turning the student into a mathematical machine. Many students might not relate to an approach that does not maintain the illusion that economics has immediate practical applications and as a result, the popularity of economics as a major may decline. On the other hand, a more abstract approach would attract the kind of individual who is more capable of grappling with important economic and social issues. This is important especially when we consider that many of the students in economics today will become the political, economic, and social leaders of tomorrow. Exposing students to the complexity and beauty of economics, instilling academic humility in them, and emphasizing that there are no right answers would have a profound effect on future leaders and would eventually make the study of economics far more beneficial to society.

7. *Publications*

One critical issue that the book ignores is the undesirable equilibrium we are stuck in with respect to academic publications in economics. I will confine my comments to economic theory, but I imagine that the situation is not much different in other fields of economics.

Some of the changes in the standard of publications during the last few decades have already been documented in Ellison (2002), though there has been no real response in the profession. However, one doesn't need statistics to understand the undesirable equilibrium we are stuck in.

I commonly ask theorists, both young and old, how many articles they actually read last year in *Econometrica*, the leading journal in economic theory, excluding those they read as referees. All the answers are either zero or one (with a mode of zero). Reading papers in economic theory has become an ordeal. The substance is lost in a sea of symbols and math. Like Dani, I “... get the sense that many among them would get rather more joy out of toying with those mathematical contraptions than hanging out with the runway prancers of the real world” (p. 10).

The recently adopted convention of relegating proofs to an appendix is a disaster. First, it sends the wrong message to the reader. Second, it leads authors (should I remind you that they themselves are economic agents ...) to devote less attention to simplifying and validating proofs. It is felt that in any case, nobody is going to read the proofs. Third, and most importantly, part of the story of an economic model often lies in the proofs. Proofs are the only device for really understanding a model and appreciating the scope and meaning of the propositions.

Most disturbing is the unbearable length of papers. Card and DellaVigna (2013) noted that the average paper in the top-five journals almost tripled in length between 1970 and 2012. I (still) don't believe that there is a paper in economic theory that requires more than fifteen pages, including proofs and references.

Why are papers so long? The attempt to generalize their models (even though any model is a “special case”) leads authors to overcomplicate them. It has become very difficult to publish a paper whose idea can essentially be demonstrated using an example and thus authors have no alternative but to develop that example into a complicated model. Insisting on extensive robustness checks is another reason for the length of papers. Would you expect Chekhov to check

whether “The Ninny” rings true both in a diner in Oklahoma and at a gas station in Pakistan?

Another problem with the current style in economic theory is the concluding sections. Stories don’t have a concluding section. Can you imagine a Chekhov story that ends with a summary of its message and suggestions for further stories? I feel the same about concluding sections in economic theory. A typical concluding section contains a plethora of questionable statements about the world, fanciful suggestions for applying the model, and suggestions for further research that are usually either trivial or meant to take credit for any future extension of the model. The concluding section is a convention that is often forced on authors by referees and editors. During the last few years, I have conducted a campaign against concluding sections in economic theory by ending each of my seminars with two “no-conclusion” slides. One has the title “Conclusion ...” and is completely blank. The other presents a photo I took in Iceland of a stile. I would like to see conclusion sections phased out, or at least not forced on authors.

Many people with whom I have discussed the state of publications in economic theory agree with me. Nevertheless, they still produce papers that suffer from all of the problems mentioned above. As I said, we are stuck in an undesirable equilibrium and, as we economists know, it is difficult to move from one equilibrium to another. Young economists are afraid to go against convention. And we cannot expect much from most of the older economists who achieved their success within the current system.

The current situation is a test for the economics community. The “guild” has to find ways to initiate dramatic change—to move from our current style of papers to shorter and more readable papers with less mathematical sophistication. Papers should be required to focus on presenting an original

idea. Journals should stop demanding phony “applications,” which in the best case are anecdotal and certainly do not rely on any intimate knowledge of the proposed application. If theorists would invent new stories instead of revisiting the same ones again and again, then economic theory would flourish. If theorists keep producing 140-page papers that study the same types of models over and over again, then economic theory will fade.

8. *Final Comments on the Book and My Affection for Economic Models*

In the last few years, we have seen a flood of popular books about economics. Many of them are aimed at entertaining the reader and glorifying economics. I have not come across another book that is as enjoyable to read as *Economics Rules* and at the same time, it critically examines the methodology of economics. The book demonstrates not only scholarship, but also a superb writing ability.

Economics Rules can serve as the basis for discussing what economists want to accomplish with their graduate students and advanced undergraduates. Dani has written the book so as to appeal to noneconomists as well and I imagine that it will succeed in dissipating some of the myths about economics and correct some of the “... misinformation about what economists really do” (p. xiii). Some noneconomists will probably take some spicy quotes from the book. However, I am not sure that the book can be fully appreciated by readers who lack advanced knowledge in economics.

Like Dani, I am interested in the real world and especially the way that people reason about social interactions. Unlike Dani, my personal attraction to economic theory did not originate from a desire to solve the problems of the world, but rather from a fascination with formal models that become real-life stories.

I share with Dani a deep affection for economic models and a concern that models may be misunderstood and misused, as well as the recognition that our role as academic economists includes raising doubts and sometimes being skeptical. This is what academic discourse should be about. In the long run, economics can only benefit from such critiques.

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