Introduction

As a new graduate student, you are at the beginning of a new stage of your life. In a few months you will be overloaded with definitions, concepts, and models. Your teachers will be guiding you into the wonders of economics and will rarely have the time to stop to raise fundamental questions about what these models are supposed to mean. It is not unlikely that you will be brainwashed by the professional-sounding language and hidden assumptions. I am afraid I am about to initiate you into this inevitable process. Still, I want to use this opportunity to pause for a moment and alert you to the fact that many economists have strong and conflicting views about what economic theory is. Some see it as a *set of theories* that can (or should) be tested. Others see it as a *bag of tools* to be used by economic agents. Many see it as a *framework* through which professional and academic economists view the world.

My own view may disappoint those of you who have come to this course with practical motivations. In my view, economic theory is no more than an arena for the *investigation of concepts* we use in thinking about economics in real life. What makes a theoretical model "economics" is that the concepts we are analyzing are taken from real-life reasoning about economic issues. Through the investigation of these concepts, we indeed try to understand reality better, and the models provide a language that enables us to think about economic interactions in a systematic way. But I do not view economic models as an attempt to describe the world or to provide tools for predicting the future. I object to looking for an ultimate truth in economic theory, and I do not expect it to be the foundation for any policy recommendation. Nothing is "holy" in economic theory and everything is the creation of people like yourself.

Basically, this course is about a certain class of economic *concepts* and *models*. Although we will be studying formal concepts and models, they will always be given an interpretation. An economic model differs substantially from a purely mathematical model in that it is a *combination* of a mathematical model and its *interpretation*. The names of the mathematical objects are an integral part of an economic model. When mathematicians use terms such as "field" or "ring" that are in everyday use, it is only for the sake of convenience. When they name a collection of sets a "filter", they are doing so in an associative manner; in principle, they could call it "ice cream cone". When they use the term "good ordering", they are not making an ethical judgment. In contrast to mathematics, interpretation is an essential ingredient of any economic model.

The word "model" sounds more scientific than "fable" or "fairy tale", but I don't see much difference between them. The author of a fable draws a parallel to a situation in real life and has some moral he wishes to impart to the reader. The fable is an imaginary situation that is somewhere between fantasy and reality. Any fable can be dismissed as being unrealistic or simplistic, but this is also the fable's advantage. Being something between fantasy and reality, a fable is free of extraneous details and annoying diversions. In this unencumbered state, we can clearly discern what cannot always be seen from the real world. On our return to reality, we are in possession of some sound advice or a relevant argument that can be used in the real world. We do exactly the same thing in economic theory. Thus, a good model in economic theory, like a good fable, identifies a number of themes and elucidates them. We perform thought exercises that are only loosely connected to reality and have been stripped of most of their real-life characteristics. However, in a good model, as in a good fable, something significant remains. One can think about this book as an attempt to introduce the characters that inhabit economic fables. Here, we observe the characters in isolation. In models of markets and games, we further investigate the interactions between the characters.

It is my hope that some of you will react and attempt to change what is currently called economic theory and that you will acquire alternative ways of thinking about economic and social interactions. At the very least, this course should teach you to ask hard questions about economic models and the sense in which they are relevant to real-life economics. I hope that you walk away from this course with the recognition that the answers are not as obvious as they might appear.

Microeconomics

In this course we deal only with microeconomics, a collection of models in which the primitives are details about the behavior of units called *economic agents*. Microeconomic models investigate assumptions about economic agents' activities and about interactions between these agents. An economic agent is the basic unit operating in the model. When we construct a model with a particular economic scenario in mind, we might have some degree of freedom regarding whom we take to be the economic agents. Most often, we do have in mind that the economic agent is an individual, a person with one head, one heart, two eyes, and two ears. However, in some economic models, an economic agent is taken to be a nation, a family, or a parliament. At other times, the "individual" is broken down into a collection of economic agents, each operating in distinct circumstances, and each regarded as an economic agent.

We should not be too cheerful about the statement that an economic agent in microeconomics is not constrained to being an individual. The facade of generality in economic theory might be misleading. We have to be careful and aware that when we take an economic agent to be a group of individuals, the reasonable assumptions we might impose on it are distinct from those we might want to impose on a single individual. For example, although it is quite natural to talk about the will of a person, it is not clear what is meant by the will of a group when the members of the group differ in their preferences.

An economic agent is described in our models as a unit that responds to a scenario called a *choice problem*, where the agent must make a choice from a set of available alternatives. The economic agent appears in the microeconomic model with a specified deliberation process he uses to make a decision. In most of current economic theory, the deliberation process is what is called *rational* choice. The agent decides what action to take through a three-step process:

1. He asks himself, what is desirable?
2. He asks himself, what is feasible?
3. He chooses the most desirable from among the feasible alternatives.

Note the order of the stages. In particular, the stage in which desires are shaped precedes the stage in which feasible alternatives are recognized, and therefore the rational economic agent's desires are independent of the set of alternatives. Note that rationality in economics does not contain judgments about desires. A rational agent can have preferences that the entire world views as being against the agent's interest.

Furthermore, economists are fully aware that almost all people, almost all the time, do not practice this kind of deliberation. Nevertheless, until recently the practice of most economists was to make further assumptions that emphasize the materialist desires of the economic agent and minimize the role of the psychological motives. This practice has been somewhat changed in the past few years with the development of the "Economics and Psychology" approach. Still, we find the investigation of economic agents who follow the rational process to be important, because we often refer to rational decision making in life as an ideal process. It is meaningful to talk about the concept of "being good" even in a society where all people are evil; similarly, it is meaningful to talk about the concept of a "rational man" and about the interactions between rational economic agents even if all people systematically behave in a nonrational manner.

Bibliographic Notes

For an extended discussion of my views about economic theory, see Rubinstein (2006).