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THE PRACTICAL REPORT AND ANALYSIS OF THE UNDERGRADUATE EVOLUTIONARY ECONOMICS COURSE

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Abstract

This paper details a two-year experiment with an evolutionary economics lecture for undergraduate students at Kanazawa University's School of Economics in the 2019–2020 academic year. The primary goal was to introduce the material of the two-year lectures to spark conversations on evolutionary economics teaching. Furthermore, in light of current discussions on the prospects of evolutionary economics, this article offers our views of the trial experiment as well as our opinions on the lessons gained and reflections from the trial regarding the future possibilities of evolutionary economics teaching.

Keywords: Evolutionary Economics, Economics Education, Outlines of Lectures, Undergraduate Students

Introduction

This paper aims to report on my experience teaching evolutionary economics to undergraduate students on my own throughout the 2019 and 2020 academic years. It also shares the obstacles and lessons learnt from this experience. The evolutionary economics lecture described in this study was given twice a year in the academic years 2019 and 2020 to undergraduate students at Kanazawa University's Faculty of Economics. Evolutionary economics might be covered in courses like seminars and spot lectures that are taught at the instructor's discretion.

Setting up a lecture course, where a lecture plan is created, assessment standards are established, and the syllabus is made available to the public, appears to be fairly challenging, nevertheless, since organizational consensus and the instructor's drive and expertise are essential. In light of this, the trial was held in the previous curricular course.

Consequently, the course was titled "Contemporary Economic Theory" rather than "Evolutionary Economics," and it was an unusual instance where a single lecturer was in charge of an evolutionary economics-only lecture course rather than one with an omnibus structure. There are sixteen lectures in this course, and two report assignments—a midterm and a final report are used to assess the students. Those who pass the tasks receive two credits.

The Faculty of Economics uses the quarter system and allots 16 lectures every quarter. Since there are two 90-minute sessions offered twice a week, the lecture period is eight weeks long. Advanced undergraduate students who have completed foundational courses in contemporary mainstream economics, such as microeconomics and macroeconomics, are required by the syllabus. In the academic years 2019 and 2020, there were around 20 and 50 students enrolled in the course, respectively.

In Section 2, I provide the details of the lectures I delivered during two years. In addition to summarizing the trial's lessons, Section 3 addresses concerns about the administration and subject matter of upcoming evolutionary economics courses. I summarize my trial experiment in this section by going over potential problems with teaching evolutionary economics in the future from a wider angle and taking into account current scholarly debates about the field's future.

Lecture Schedule for 2019 Academic Year

Week	Outline
1.	What is Evolutionary Economics
2.	Economics Evo.and Biological Evo.
3.	Evolutionary Micro
4.	Evolutionary Meso
5.	Evolutionary Macro
6.	Evolutionary Analytical Tools: Part1
7.	Evolutionary Analytical Tools: Part2
8.	A Special Lecture Meeting by Yoshinori Shiozawa

Academic Year 2019

Eight subjects were covered in sixteen lectures during the course of two consecutive ninety-minute courses for the academic year 2019.Utilizing the "micro-meso-macro" analytical paradigm of evolutionary economics is one of the lecture framework's unique features. The first week's two sessions serve as an introduction to the topic of "What is Evolutionary Economics?" Most undergraduate economics students are probably not familiar with evolutionary economics. Darwinian evolutionary aspects, such as mutation, are included in the artificial development of Pokémon for game players.

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I gave a talk about the parallels and discrepancies between biological and economic evolution during the second week of classes. Consequently, we began the lectures by introducing the "conditions under which evolution occurs," or "variation in heritable fitness."In the second part of the talk, I go into economic development. Since there are many facets to economic development and no universal definition.

The three-week lecture was structured from the third to the fifth week using evolutionary economics' "micro-meso-macro" analytical framework. The third week was devoted to evolutionary microanalysis, which included a review of the fundamental concepts of neoclassical economics and an explanation of alternative evolutionary economics theories. He then expounded on its counterbalance-theoretic nature, wherein performance is evaluated through the interplay between individual differences and the market environment.

The lecture in the fourth week was structured around the idea of institutions as a meso study of evolution. One of the main points of contention in the field of evolutionary economics is still how to interpret "meso" as an analytical technique and where to place it within the analytical framework. I gave a talk on national innovation systems as an evolutionary macro analysis during the fifth week. My area of expertise is the capitalist system's metamorphosis or its structure, which is a topic easily shown with specific instances. Whether or whether the national innovation system is an evolutionary macro analysis may be a topic of disagreement. We shifted the focus of the prior lectures in weeks six and seven to simulation, one of the most significant analytical tools in evolutionary economics, through lectures and student-led practical activities.

Week	Outline
1.	What is Evolutionary Economics?
2.	Commodity: mainstream and heterodox economics
3.	Technology: mainstream and heterodox economics
4.	Behavior: mainstream and heterodox economics
5.	Institution: mainstream and heterodox economics
6.	Organization: mainstream and heterodox eco.
7.	System: mainstream and heterodox economics
8.	Knowledge: mainstream and heterodox economics

Lecture Schedule for 2020

I gave a talk on national innovation systems as an evolutionary macro analysis during the fifth week. My area of expertise is the capitalist system's metamorphosis or its structure, which is a topic easily shown with specific instances. Whether or whether the national innovation system is an evolutionary macro analysis may be a topic of disagreement. We shifted the focus of the prior lectures in weeks six and seven to simulation, one of the most significant analytical tools in evolutionary economics, through lectures and student-led practical activities.

The foundation of contemporary evolutionary economics is Nelson and Winter's business evolution model, which we describe in week six. I started by showing the students the quotes from Nelson and Winter (1982) that illustrate the general features of the model. I asked them to focus in particular on the italics portions of the quotes. Knowing the evolutionary process is the main goal of evolutionary theory. We gave the students practical experience in week 7 by simulating the Nelson–Winter model.

We asked Yoshinori Shiozawa, the former president of JAFEE and professor emeritus at Osaka City University, to appear as a guest speaker in week eight. Under the heading "What Is the Goal of Evolutionary Economics? In his speech, "Current Issues and Prospects," he covered the following subjects: Evolutionary economics: what is it? contemporary classical value theory, quantitative modification, Technology selection, and advancement.

Academic Year 2020

I rearranged the topics and structure of the lecture material, based on the experiences and reflections of the prior year as well as the reports and comments that the students had submitted. The lecture materials were kept since the first week's instruction was well-received by the students the year before. This time, Yoshinori Shiozawa mentions it in the "Overview." In the field of economics, there are seven common situations of evolution that center on commodities, technology, behavior, institutions, organizations, systems, and knowledge. In each of these instances, the course material was arranged to compare and contrast evolutionary economic theory with the conventional wisdom in economics.

The second week was devoted to products. Since the focus of neoclassical microeconomics is on products rather than "commodities," An overview is given of the distinctions between the features of evolutionary economics' pricing theory and the fundamentals of neoclassical price theory, with a special emphasis on price theory. Here, we're referring to a talk given by Shiozawa at the last class of the prior year.

Technology is the focus of the third week. Technology is represented in the mainstream economic theory's production function as a particular mix of capital and labor, the two basic elements of production. The fourth week's theme was conduct. First, we went over the fundamental neoclassical microeconomics maximizing behavior of families and firms. The Nelson-Winter model for evolutionary economics is then discussed; it was already introduced in the previous year.

These institutions receive attention during the fifth week. This lecture's format was mostly based on that of the "Evolutionary Meso" fourth week presentation from the previous year. The sixth week's theme was organization.

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Neoclassical economics uses firms to represent organizations, and bases its theory of behavior on the production function, which chooses the most productive production technology given known factor prices in order to produce goods and services.

The system was the focus of the seventh week. A systems lecture can be approached in a variety of ways, and students might envision a wide range of specific instances, from well-known to extensive. A system is made up of several interrelated parts arranged logically to accomplish a certain goal. A system may self-repair or self-organize in response to outside disruptions and has a set of processes to preserve its integrity and wholeness. This year's lecture will concentrate on system dynamics as students utilized a simulation model of the Nelson-Winter model, which is accessible online, during the seventh week of last year's session and gave it a favorable review.

The concept of knowledge was the emphasis of the eighth and final session. Because this topic addresses the environment that students genuinely experience in the modern knowledge and information society, the students were engaged in it. The presentation began with a broad explanation of the differences between knowledge and information. It also covered the formal and tacit knowledge distinctions, as well as the SECI model put out by Ikujiro Nonaka12.

Possibilities of Evolutionary Economics From the Experience of Lecturing

A number of publications that project evolutionary economics' reasonably near future have been published in recent years. Taking these discussions into consideration, we revisit the two-year evolutionary economics lectures that were introduced in the previous section. We also talk about how lectures on evolutionary economics can be positioned as a way to find future researchers and increase the number of students who are interested in the field.

First, the trial experiment was unique as it was carried out on its own. Considering that evolutionary economics is an interdisciplinary field, it would likely be more effective to offer an omnibus format covering a wide range of subjects, from the speakers' experiences to those of undergraduate students learning specialized economics expertise. the omnibus format presents the issue of inadequate lecturer personnel for evolutionary economics courses to continue as official lecture courses.

Subsequently, I experimented with different lecture topic structures for each of the two years. The lectures in the academic year 2020, in my opinion, seemed to be somewhat better structured.

It is feasible to suggest or highlight content configurations from several perspectives. In order to explore the prospect of offering an official course in evolutionary economics in the future, it appears that professional discussions regarding the course's organization and content, as well as the sharing of ideas and materials to be taught, are important.

Ultimately, the articles in the aforementioned special issue of JIE cover the field of evolutionary economics' current position academically and point out issues and challenges; yet, each study suggests certain paths and directives for the field's future. In comparison to modern mainstream economics, this indicates that modern evolutionary economics is still an emerging field of study. In order to generate broad interest in evolutionary economics and support the next generation of researchers who will shape the field's future, a framework that captures the essence of evolutionary economics while leveraging its interdisciplinary features must be developed. It appears that the conversations that have been had for this reason have resulted in the official teaching of evolutionary economics.

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