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Volume 42  March 2019  Number 1

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Teaching for Intellectual Virtue in Logic and Critical Thinking Classes: Why and How

T. RYAN BYERLY  
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*Abstract:* Introductory-level undergraduate classes in Logic or Critical Thinking are a staple in the portfolio of many Philosophy programs. A standard approach to these classes is to include teaching and learning activities focused on formal deductive and inductive logic, sometimes accompanied by teaching and learning activities focused on informal fallacies or argument construction. In this article, I discuss a proposal to include an additional element within these classes—namely, teaching and learning activities focused on intellectual virtues. After clarifying the proposal, I identify three reasons in favor of implementing it and I discuss how to implement it, focusing on questions about pedagogical strategies and pedagogical resources.

Introductory-level undergraduate classes in Logic or Critical Thinking are a staple in the portfolio of many Philosophy programs, especially in the United States. A standard approach to these classes is to include teaching and learning activities focused on formal deductive and inductive logic, sometimes accompanied by teaching and learning activities focused on informal fallacies or argument construction. In this article, I discuss a proposal to include an additional element within these classes—namely, teaching and learning activities focused on intellectual virtues. After clarifying the proposal in section 1, I go on to identify three reasons in favor of implementing it in section 2. I then discuss how to implement it in section 3, focusing on questions about pedagogical strategies and pedagogical resources.

1. *Teaching for Intellectual Virtue: The Proposal*

The project of this article involves comparing what I called in the Introduction a “standard” approach to teaching Logic and Critical Thinking classes with an approach that includes an additional element focused on intellectual virtues education. Some clarifying comments regarding
Virtual Reality as Experiential Learning: A Case Study in Anxiety and Walking the Plank

DANIEL COLLETTE
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Abstract: While the pedagogical benefits of experiential learning are well known, classroom technology is a more contentious topic. In my experience, philosophy instructors are hesitant to embrace technology in their pedagogy. A great deal of this trepidation is justified: when technology serves only to replicate existing methods without contributing to course objectives, it unnecessarily adds extra work for the instructor and can even be a distraction from learning. However, I believe, if applied appropriately, technology can be used to positively enhance the philosophy classroom experience in ways that are not possible in traditional classroom settings—including new ways of experiential learning. To demonstrate this, I offer a case study of implementing virtual reality (VR) as a tool for experiential learning of philosophy. I show how having students “walk a plank” off a skyscraper in VR allowed me to exceed my course objectives for my Existentialism course in particularly effective ways that I could not have done without this technology.

Introduction

While the pedagogical benefits of experiential learning are well known, classroom technology is a more contentious topic. In my experience, humanities instructors, especially those who teach philosophy, are hesitant to embrace technology in their pedagogy. A great deal of this trepidation is justified: when technology serves only to replicate existing methods without contributing to course objectives, it unnecessarily adds extra work for the instructor and can even be a distraction from learning. However, I believe, if used appropriately, technology can be used to enhance the philosophy classroom experience and even exceed course objectives. Additionally, this can be done in ways that create new learning methods that were not imaginable in traditional classroom settings, including new ways of experiential learning. To demonstrate
Two-Sided Trees for Sentential Logic, Predicate Logic, and Sentential Modal Logic

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DAVID BEISECKER
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Abstract: This paper will present two contributions to teaching introductory logic. The first contribution is an alternative tree proof method that differs from the traditional one-sided tree method. The second contribution combines this tree system with an index system to produce a user-friendly tree method for sentential modal logic.

1. Introduction

This paper will present two contributions to teaching introductory logic. The first contribution is an alternative tree proof method that differs from the traditional one-sided tree method from Smullyan 1968 and popularized in Jeffrey 1967. Jeffrey initially presents the tree method as a more efficient means of searching for counterexamples, which is a semantic endeavor. The tree system properly understood, however, is not merely a more efficient semantic mechanism for producing counterexamples but rather a fully sound and complete syntactic proof system for sentential logic (SL) and predicate logic (PL).

Trees, both traditional and the alternative we present below, differ from other popular proof systems such as natural deduction in various ways, some of which may be advantageous depending on the professor’s aims. With trees, there are not different proof strategies, for example direct or indirect. At least in the sentential setting, the order of rule application doesn’t matter to the success of the proof, though in some cases it may count for or against its elegance. There is only one rule to deploy on each well-formed formula (wff). The tree system doesn’t require the student to build a strategic sense to look ahead in the proof to craft a strategy. If a professor is interested in building such a strategic sense, then natural deduction would be a natural proof system. The tree system might seem “mindless,” but if the instructor is