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Presentations

An Instinct for Truth, Knowledge, and Discovery: Darwin and the Scientific Mindset

Dr. Robert T. Pennock, University Distinguished Professor
Michigan State University



Dr. Robert T. Pennock is University Distinguished Professor at Michigan State University, where he is on the faculty of Lyman Briggs College, the Departments of Philosophy and Computer Science & Engineering, and the Ecology, Evolution and Behavior program. His research involves both empirical and philosophical questions that relate to evolutionary biology, cognitive science, and the scientific character virtues. He was an expert witness in the *Kitzmiller v. Dover Area School Board* Intelligent Design creationism case, and he develops software to help students learn about evolution and the nature of science using digital organisms. He is a co-founder of BEACON, an NSF Center for the Study of Evolution in Action and also directs the Vocational Virtues Project, which develops a virtue-based approach to understanding integrity and responsible conduct. He is PI of the VERITIES initiative, which aims to demonstrate how to implement this approach to RCR training at scale and is also PI of the largest national study of the scientific ethical mindset, investigating scientists' views of values in science and how these are learned and passed on. Pennock is the Immediate Past President of Sigma Xi, The Scientific Research Honor Society, a Fellow of the American Association for the Advancement of Science, and a National Associate of the National Academies of Science. The author of over a hundred articles in philosophy, science, and education, his book *Tower of Babel: The Evidence against the New Creationism* was nominated for the Pulitzer Prize and the National Book Award. His latest book is *An Instinct for Truth: Curiosity and the Moral Structure of Science*.

Charles Darwin's Historical Impact and Curricular Depiction

Dr. John H. Bickford, Professor of social studies/history education, College of Education, Eastern Illinois University

Dr. J. Bickford was a Mid-Prairie (Iowa) Middle School social studies teacher for a decade and has been a professor of social studies/history education in Eastern Illinois University's College of Education for the last 14 years. His research focuses on curriculum, white supremacy, and African American history. He can be contacted at:

jbickford@eiu.edu



Speech Summary: Charles Darwin shaped science and history. His natural selection pathway enabled common descent, yet threatened American White, Christian, conservatives' views of racial and religious superiority. Though an anti-slavery advocate, Darwin's language reflected assimilationist racism and settler-colonialism. His scientific insights and complicated history with racism elicited startlingly different responses from the empowered regulators atop America's social hierarchy. White, Christian, conservatives—whether socioeconomically privileged or marginalized—collaboratively resisted evolution instruction differently over time and context, melding evolutionary iterations and racist ideas to justify colonialism, segregation, social Darwinism, eugenics, and racialized pseudoscience. This speech is grounded on research featuring every biology curricular text—textbook, trade-book, supplement—published since 1990 and all Darwin-based children's and young adult biographies ever published in order to fully explore the resistance to evolution instruction in America even in modern time when evolution has become the overarching theme of biological sciences.