

## ACADEMIC FREEDOM TO TEACH INDIGENOUS SCIENCES: A Response to Root Gorelick

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One has a right to their own opinions, but not to their own facts. Teaching one's personal opinions as truth is not academic freedom – it's propaganda, and often simply false. When clear and conventional opposite views exist, academic responsibility is to present both (or all) views for peer review and debate. The Ontario science teacher Timothy Sullivan, who was found guilty of professional misconduct for telling students that vaccinations could lead to death, presents a case in point. Sullivan's claim was not a conventional view, but a contradiction of fact. A lawyer for the college (there is a publication ban on the name of the school), recommended a reprimand, a one-month suspension of his teaching certificate, and that he attend courses on professional boundaries, ethics and anger management (Sullivan was apparently disrespectful to visitors who were legally authorized to be at the school). There is no scientific evidence for the claims, made by Sullivan and others, that vaccinations are harmful in the manner he claimed.

This incident reflects Root Gorelick's article in the January SAFS Newsletter, touting the teaching of "Indigenous sciences," and Carleton University's rejection of his proposal to teach a course in "Indigenous perspectives[,] ecology and evolution" as a science course. As part of his rationale for the course, Gorelick says he could have "injected bits of Indigenous ways of knowing into routinely offered biology courses," but he wanted to initiate a "standalone biology course in this subject." In other words, he proposed to present indigenous perspectives, "ways of knowing," and other unverifiable beliefs as legitimate science. Surely indigenous knowledge (or traditional knowledge as it is often referred to), should be examined in the context of reason and critical thought—but Gorelick wants to teach it outside the discipline of the scientific method; thereby, it seems, avoiding the burden of scrutiny.

I am dismayed that Dr. Gorelick resorts to sophist arguments in support of his promotion of pseudoscience, citing the London Royal Society as founded to study the occult, especially alchemy. In fact, the Society investigated the many theses of alchemy, an endeavour that generated the conclusion that alchemy is a pseudoscience, and contributed to the basis of modern sciences like chemistry, astronomy, and physics. The Society was founded for the stated purpose of improving natural science, not legitimating the occult.

I attended a recent forum at Mount Royal University that featured not only Dr Gorelick but David Newhouse, the Chair of Indigenous Studies at Trent University, and a persistent promoter of the imposition of unsubstantiated Indigenous knowledge on university students. In the question period, I asked Professor Newhouse to define the difference between Indigenous Science and the universal science that is acknowledged globally. After some extensive prevarication, Newhouse determined the difference to be that Indigenous Science does not depend on evidence. So, Gorelick seeks to "teach" outside the most significant elements of science: evidence and critical thought. That is not teaching—it is propaganda.

Gorelick slides into postmodern doublespeak when he uses the term "science" to describe culture. He compares the modifying of the term "science" with *Indigenous* to the categories of

science used to indicate the disciplines examined through evidence. These are not different kinds of science, but the distinctions of categories of scientific enquiry—chemistry, astronomy, physics, etc. He further attempts to justify his unscientific objective by misrepresenting comparisons to historical scientific methods that, through critical review, were altered to accommodate, include or reject hypothesis determined to be false. The method of progressive science—absent in indigenous mythology—of interpreting new data, and updating knowledge according to “justified, true belief” (Plato), equates to the different prior beliefs of “Indigenous knowledge” and the prior beliefs of true science. The indigenous beliefs are unsubstantiated myths, whereas the prior beliefs of real science are evidential facts. Science does not “agree to disagree,” but logically views difference as the possibility that either one, or both, views are wrong.

Where did Gorelick get the absurd claim that “the best way to solve any problem is usually to throw a suite of methods at it, hoping that something works”? This notion was repeated at the MRU discussion, where Dr Massimo Pigliucci opposed it on the same general terms offered here. Real science methodologically rejects unreasonable, irrational and mythological premises as obstructions to scientific epistemology. The teaching of “alternative knowledge” is a setback for progressive education and the decision to reject his proposal acknowledges that. In his introductory paragraph, Gorelick correctly states that professors are hired to teach students how to think, but how to think is not learned by indiscriminate exposure to a slew of diverse ideas; it is determined through knowing how to evaluate those ideas according to scientific methodology, and discarding the nonsensical ones—the kind of examination Gorelick seeks to bypass.

Finally, Dr. Gorelick’s interpretation of academic freedom as the freedom to misrepresent fact, to present cultural mythology as alternate truth, and to pretend that opposing views can both be correct, would, if instituted, result in a setback for scientific education. It was a sound decision by Carleton academic authorities to reject Dr. Gorelick’s reactionary initiative. “There were serious concerns about creating a precedent for ‘Science’ courses based on mythological and folklore traditions,” the official report stated. Indeed.

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