

Commencement Address  
McGill University  
May 28, 2007

I thank the Chancellor and the Principal, and the Faculty, and you, the graduates, for this opportunity to speak briefly about why I am here today. You are here because you have amassed a fair mountain of achievements that have been duly recognized, and I congratulate you on reaching this pinnacle. Well done! But why should a *philosopher* be invited to speak at a graduation ceremony for science students? It is unlikely that any of you graduates are intent on a career as a professional philosopher, but—as I will try to explain—if you hope to contribute to the cutting edge of science, you will have to be at least an amateur philosopher.

I am often asked why philosophers spend so much time and energy poring over the texts and arguments of their intellectual ancestors—Plato and Aristotle and Kant and Descartes and Hume and the rest. Scientists learn a smattering of potted history about Boyle and Newton, Harvey and Curie, and Darwin, of course, but then they get on with it, leaving the history of science to the historians. Why don't philosophers do likewise?

Here is my answer: the history of philosophy is largely the history of very tempting *mistakes* made by very smart people. If you don't work through those mistakes and understand why they are mistakes—which is not at all an easy task—you are doomed to repeat them. At first glance, and even second glance, these mistakes are *very* attractive and reasonable ideas. Many of today's philosophers who do turn their back on the history of the field—there are quite a few—end up unwittingly reinventing the defective wheels of earlier generations of philosophers and then disputing oh so cleverly about why they won't roll smoothly. All this wasted effort could be averted by a little more attention to the history of efforts to solve these problems. As McGill's own Donald Hebb once said, "If it's not worth doing, it's not worth doing well."

Think of the devastation that would be wreaked on academia if Hebb's rule was ruthlessly applied!

But it is not just philosophers who stumble when they are innocent of such scholarship. I point to the recent track record of distinguished scientists, including even a few Nobel laureates, who have ventured to 'solve' some ancient philosophical problems themselves—and have plunged headfirst into Plato's swamp, or Kant's pitfall, or Descartes's fiasco. Now if these brilliant folks had asked their local philosopher for a little help, they might have averted this embarrassment, but only a few of them have seen the wisdom of this. (For instance, Antonio Damasio has written two important books attempting to enlighten cognitive neuroscience with philosophy, *Descartes's Error* and *Looking for Spinoza*.) Aside from a few such exceptions, however, there has long been a tradition of ignoring philosophers as relatively harmless fussbudgets who couldn't give you directions to the corner store, let alone clarify your thinking on some important topic of scientific perplexity.

The British philosopher Jeremy Bentham was once described by James Mill as "an empiricist with no experience." Ouch. More recently, philosophers have been described by scientists as armchair dreamers, parasites clinging to the body of science, know-nothing busy-bodies, and even worse. Philosophers are to science, one scientist has joked, what pigeons are to statues. Sadly, this dismal reputation is somewhat deserved, but times are changing, and a new variety of thinker is repopulating philosophy departments around the world—experts who are not just experts *in philosophy*. They are also deeply familiar with the methods and problems of biology, or physics, or anthropology, or psychology, or linguistics, or neuroscience—or music! In my own specialties of philosophy of mind and brain, and evolutionary theory, I am delighted to report that there are now two academic generations of philosophers who are vastly better trained in the relevant sciences than I was when I ventured into this interdisciplinary exploration. I'm a well-

informed amateur, but some of my students and grand-students are truly professional, some of them scientists with considerable philosophical training rather than philosophers with a long-standing interest in the science. The disciplinary lines are being blurred, and this is a very good development.

The reason why scientists are being tempted to tackle philosophical problems these days is also very exciting: they are *ready* to tackle them, and indeed are *obliged* to tackle them. For me, *philosophy is what you have to do until you figure out just what questions need to be asked.* (Once you've got clear about the questions, you can set about answering them, and the methods you then use are the methods of some other discipline, science or history or whatever. The methods of philosophy are systematically unsystematic—always a matter of thrashing about hopefully, trying to keep your feet under you as you explore one or another family of questions to see if any headway might be made on them. Some students *hate* that degree of freedom; they want the tasks laid out neatly for them, with clear goals and clear milestones. If you rather relish the puzzlement of not knowing, for sure, if you're asking the right questions, you are a philosopher at heart, whatever your training.)

The behavioral and brain sciences have answered a lot of large, important questions in recent years, and now stand on the brink of addressing the age-old questions about what consciousness is, how the activities in brains constitute *thinking*, what a *self* might be, and how we make up our minds when we make responsible choices. But these questions need further refinement and clarification, and that's where a philosopher has a valuable role to play.

When I started my graduate studies on the mind in the early 1960s, I spent many days hunting through the Radcliffe Science Library at Oxford for books and articles on the brain that might cast some light on my philosophical puzzles about the mind. For the most part, the

researchers I read were content to work on the brain's wiring and plumbing and postpone grand theory indefinitely, but I encountered a few brilliant pioneers who boldly tackled the big questions with the tools at their disposal—Norbert Wiener, Alan Turing, McCulloch and Pitts, D. M. MacKay, and Kenneth Craik, for instance. But especially McGill's own great Wilder Penfield and Donald Hebb. They were my beacons and my inspiration.

Today, in a few undergraduate courses, as many of you know, you can become intimately familiar with details of the brain's functioning that Penfield and Hebb could scarcely imagine, and the quest that they began is nearing the finish line. These are exciting times indeed, and to be honored by McGill University for my role in this quest is thus for me one of the highlights of my career, and I am deeply grateful.