A License to Think

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“... Daniel remarked - referring to me - that [Crow Lake] seemed an unlikely environment to have produced an academic. That irritated me. Surely the most unlikely place to produce an academic is a city, with its noise and confusion and lack of time for thought and contemplation.”


I remember, as a graduate student, visiting my Grandmother and getting the inevitable question, “What are you working on?” After my eye-glazing explanation, this was followed by the dreaded, “And what are you going to be able to do with this degree?”

Most of our compatriots in other areas have clear paths from training to a job. Medical students are awarded a license to treat patients; law students, to practice law; teachers, to teach; etc. What sort of license do you get with a Ph.D.? A license to think.

No matter what job or profession we end up in, we have the training, and the responsibility, to be the source of contemplation, the ability to evaluate facts and data and come up with explanations and objective suggestions for action; in short, to be the voice of reason in an emotional, stress-filled situation. However, just having earned a Ph.D. does not in itself make us more intelligent, or even better thinkers than others. Like any other skill, it has to be practiced and kept active to be at its peak. Athletes have to “work out” in order to be at the top of their skill. They also have to have the right conditions to produce their peak performance.

So how do we practice our skill? We do so every day when analyzing data and designing experiments. However, there are many other opportunities. We often feel it is a waste of time to go to seminars, for example, especially if they are not directly in our area of research. However, this is a great way to practice thinking. Next time you are sitting in a student seminar, think constantly about questions you might ask. It’s a great way to keep yourself concentrating on the speaker, it’s fun, and it makes the time seem to go faster. You can also stretch your thinking skills by applying them to varied areas, such as the arts, music or literature. Athletes are familiar with the benefits of cross training. But all this practice is not really the type of intense, big picture thinking we need for our research.

The quote from Crow Lake (a great read, by the way) points out two important aspects of the optimal conditions we need to do our best thinking: isolation from distraction, and time. These are precious commodities, especially with all the meetings, courses and other distractions we encounter as part of our jobs. As Lawson points out, a busy, active environment such as a University or Institute can, by its nature, be suboptimal for thinking. However, such an environment is essential for high quality laboratory research because of the infrastructure and, perhaps more importantly, the interactions with colleagues and visitors. This doesn’t mean a city is a bad place to be an academic, or that we need to go to the wilderness in order to find the conditions that we need for contemplation. It is possible to be just as distracted at a cottage or campsite as in the city. It means we have to constantly strive to make those conditions optimal wherever we are, to find the places where we can avoid distractions, to find the time to think. We have to find our own internal Crow Lake whatever our environment.

It is very easy for the modern academic (and graduate student for that matter) to get caught
up in all the duties and activities, important though they may be, that are peripheral to what we are supposed to be doing. It seems to be so complicated to run a Department, a University or an Institute, or even a laboratory, that there is never enough time for everything. An average laboratory is expected to have two to three active grants at any time, and this can in itself be a full time job. Priorities can be difficult to maintain under outside pressures, to say nothing of family responsibilities. Even writing up papers and fighting with referees are, in many ways, distractions. When I hear of the giants of science of the past and how they made their discoveries, one thing that seems consistent is that they had the ability, and made the opportunity, to think. They didn’t worry about being in the laboratory or their offices early in the morning or late at night, or for 70-80 hours a week. Their first priority, their job, was to think. I sometimes wonder whether the proliferation of internet-based journals and scientific information, incredibly valuable as they are, has robbed us of something important with the loss of time spent in real libraries. There is nothing like browsing through journals in a quiet room or sitting in the stacks surrounded by books. These collections are the manifestation of man’s ability to think and reason, and to sit in their midst is as inspiring as any Crow Lake.

Photo by Caroline Pantofaru