



# The politics of knowledge

Reconsidering the laissez-innovate paradigm in  
regulations governing the conduct of research  
at McGill University

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**Background: The politics of science**

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In an article covering the General Assembly last fall in which students voted in favour of condemning military research on campus, the McGill Daily quoted U3 Engineering student Adam Cytrynbaum, who opposed the motion. Cytrynbaum argued that military-funded research was not necessarily objectionable.

“Military research is done to better the people of Canada and the United States,” Cytrynbaum said. “Research is independent of what it is used for.”

The notion that Cytrynbaum articulated – that technology is independent of its end use – is one that is often repeated albeit in varied forms. Joe Schwarcz, McGill chemistry professor and Director of the Office for Science and Society, for example, has a similar feeling about chemicals: “They are inanimate, they don’t make decisions, people make decisions,” he said in an interview. “The same chemical that can be used for mankind’s benefit can be used for mankind’s detriment.”

Robert Proctor, Stanford history of science professor and author of *Value-free Science?* however, finds that the distinction between the design of technologies and their end application is not that clear cut.

“Part of the truth is that anything may be used or abused but in very complex systems, often times products are very end-specific.... How do you abuse a cruise missile? How do you abuse an atom bomb? Well an atom bomb can only be used one way,” Proctor said.

But what about the chemicals used to make an atom bomb? According to Schwarcz, “You can use the ingredients in a nuclear reaction to produce an atom bomb or to produce a power station and generate electricity. It [the effect] all depends on how you use it,” he said.

In his book however, Proctor disagrees: “This supposed neutrality describes only the simplest technologies, the most abstract principles. The seven simple machines, perhaps, or the rules of arithmetic, may be neutral in this sense. But an abstract truth often conceals a concrete lie,” he writes. “‘Guns don’t kill people, people kill people.’ Yet is it surprising that a society that surrounds itself with guns will use them?... Tools, we realize, have alternative uses; the knife bought for cooking might be used for killing. Yet knives or levers are not what modern science-based technology is all about.”

The debate about use, abuse and properties innate in technologies may sound innocuous at first, but its implications are great. For one thing, if it is true that research itself is neither good nor bad and that it is only the application of technology that matters, scientists can be absolved of responsibility for how their research is applied. On the other hand, if intent is built into technologies, then researchers themselves are directly responsible for the way they are applied.

### **Science and/or activism**

The question of neutral technology is closely related to the widely held image of science as an objective discipline. Students of science are taught that they should test hypotheses in an impartial manner, and that they must remain unbiased if they are to discover truths. For this reason, many scientists fear the intrusion of partisanship in science.

McGill professor David Green has experience in a field populated by both activists, advocates, and scientists: conservation biology. He is the Director of Redpath Museum and former Chair of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). According to Green, COSEWIC—an organization that has a mandate to give an impartial assessment of how species are doing—has been successful because of its impartiality.

“I’ve come to realize that although the scientists on COSEWIC all think in terms of probability values and values of  $p$  and assessment lines and graphs and equations ... when we send that off to government ministers and managers the thing that carries the weight is that everyone on COSEWIC agrees with it. It has got that weight of consensual opinion behind the assessment and that’s what makes sense to politicians,” he said.

Although Green agreed that science is imbued in social and cultural values, he argued that there is something to be said for preserving objective science.

“There’s the question of integrity and believability that must be maintained,” Green said. “Reputation takes a long time to accumulate, it doesn’t take very long to destroy. We want science to be trusted in society, if science isn’t trustworthy in society, then there are lots of other people who would love to stand up and say ‘well trust us instead.’”

According to Proctor however, it is possible for scientists to be taken seriously and still wear their politics on their sleeves. “Advocates are often the most “objective,” meaning often the most probing, most impassioned, most able to ferret out the truth” he said. “That’s part of the myth of value-free science, this idea that if you just sit back and observe, you will land upon great truths. Generally speaking you will not, the great search requires engagement, commitment, passion, including passion for the truth.”

### **Research as a social process**

Researchers make choices about what research takes place, yet they in turn are influenced by social and cultural priorities that fund research.

Green points to the idea of natural selection, discovered at the same time by both Wallace and Darwin as evidence of social influence. “It [natural selection] is not just a product of their work out in the field, I mean why were they out in the field anyway except that it was a socially and culturally acceptable thing to do at the time,” he said.

Proctor agreed adding that society also has power to determine what research should and should not take place. “I think we all have a stake in what kinds of research get done. Research priorities are expressions of social priorities, and what a society thinks is important will shape what kind of science gets done – and kinds left undone,” he said.

## **Research Policy Review**

### **Purpose**

Constructive dialogue between students, administrators and faculty about the content of research regulations has a long and colourful history at McGill. As dialogue continues, the intent of this document is to provide faculty, students and administrators at McGill University with information about policies related to research regulations at other institutions of higher learning in Canada, that are not addressed by McGill's 5<sup>th</sup> revision of the Draft Policy on the Conduct of Research. It is hoped that by considering research regulations at other institutions, the McGill policy can be informed and amended such that it will adhere to the highest ethical standards and be the most progressive document governing the conduct of research available in Canada.

### **Methods**

The research policies of every institution of higher education accredited by the Association of Universities and Colleges Canada, along with the top-ten American College (as determined by the 2009 NewsWeek rankings) were reviewed during the period of May through August 2009 for policy content that went beyond those policies set out by the Tri-Council Policy Statement. Policies were located on institutions' websites and where they were not available online, the administration was contacted for a copy. In total, the policies of over 70 institutions were successfully reviewed. Based on policy content from other institutions, recommendations for the improvement of McGill's Draft Policy on the Conduct of Research were made.

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## Summary of Recommendations

1. Clarify that academic freedom does not dissolve a researcher's responsibility to defend his or her research to the public and to colleagues should the need arise. Also keep part of current policy that refers to weighing the harms and benefits of research as this is in line with Tri-Council Policy requirements.
2. In defining the role of McGill research, include its international role. Also include part of the current policy which states that research should be used in ways that do not harm society.
3. Affirm the guidelines outlined by the Association of Canadian Universities for Northern Studies to ensure that research conducted in the North, including research that does not immediately involve humans, adheres to the highest ethical standards.
4. Recognizing that those most able to report on misconduct are also those most vulnerable to retribution, adopt a whistleblowing policy to protect those members of the university who report on misconduct.
5. Adopt a policy that requires considering the needs of women in an international context.
6. Increase transparency in reporting on sources of funding by making the value of each award, the source of the award, and the conditions of the grant available in a centralized, easily assessable format online. Also make reports on trends in sources of funding publicly available.
7. Keep the policy on harmful research but amend it to require substantive reporting, real checks and balances and continued reporting on all military-related research.
8. In order to promote awareness and to facilitate compliance with federal regulations, facilitate access to an online research ethics tutorial for students and faculty. Also made links to federal regulations on certain types of research readily accessible.

## Preamble

### i. Researcher responsibility

The research policies of many universities in Canada begin in the same general way, by stressing the importance of academic freedom. Most then continue by considering researchers' individual responsibilities. The McGill policy has framed the responsibilities of researchers in the following way: "It [the policy] is premised on individual responsibility for the selection and conduct of research and scholarship as individual members of the University community are best positioned, through special knowledge, to be aware of both the manner in which their Research and scholarly activity is being conducted and the consequences of such activity."<sup>1</sup> It is important to stress, as the McGill draft policy states, that researchers are best positioned to be aware of the manner in which their research is being conducted and the consequences of such activity, but the policy should go further to describe to whom researchers are accountable. The Harvard University Principles on the Conduct of Research for example, state that, "Guaranteeing scholars the right to conduct research that may not meet with the approval of colleagues does not absolve them of the obligation to defend their research to the community should the occasion arise. Scholars have a responsibility to make their case and to listen to reasonable criticism."<sup>2</sup> Furthermore, McGill's current policy encourages researchers to weigh the potential benefits and harms of their research: "A serious responsibility rests on the individual members of the community who are best equipped through special knowledge to remain aware of the consequences of their research activity; the researcher must balance the possibility of harmful

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<sup>1</sup> McGill University. (2009, February). *Draft Policy on the Conduct of Research, Rev 5*.

<sup>2</sup> Harvard University. *Harvard Principles on the Conduct of Research*. Retrieved August 23, 2009, from <http://www.fas.harvard.edu/~research/greybook/principles.html>

application against potential benefits.”<sup>3</sup> As the Tri-Council Policy Statement which governs the ethics of research involving human subjects in Canada does require researchers to weigh the potential harms with the potential benefits of their research, it is unclear why this sentence was removed from McGill’s policy. Weighing harms and benefits in all research, including that involving humans is extremely important and should not be removed from the new policy.

## ii. Purpose of research

Most research regulation preambles also make reference to the purpose of research at the institution. Whereas McGill’s former preamble read, “Research in the University is relevant for the general benefits of society, as well as for specific intellectual purposes. It should be used to increase knowledge in ways that do not harm society,”<sup>4</sup> the new policy makes no reference to potential negative implications of research. It reads, “It [research] directly contributes to social well-being, health, culture and economic development,”<sup>5</sup> but makes no reference to what research should and should not do. It is suggested that the purpose of McGill’s research be more clearly stated, that is, that McGill research should contribute to social well-being, health, culture and should be used in ways that do not harm society. Additionally, preambles at some Canadian Universities go one step further, by acknowledging the place of the institution’s research in the global community. The University of Guelph’s policy preamble for example states:

University research also has an international role. The university knowledge-oriented basic research is expected to contribute its share to the growth of the world knowledge base to advance the understanding of humanity and the natural universe. Important as well is mission-oriented research undertaken in

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<sup>3</sup> McGill University. *Regulations on Research Policy*. Retrieved June 11, 2009, from <http://www.mcgill.ca/files/secretariat/Research-Policy-Regulations-on.pdf>

<sup>4</sup> *ibid*

<sup>5</sup> McGill University. (2009, February). *Draft Policy on the Conduct of Research, Rev 5*.

collaboration with developing country universities and national or international research units to assist in meeting the needs of developing countries.<sup>6</sup>

As McGill is a very international university and has many cross-cultural ties, it should consider broadening its research mandate to include the international role of research.

### **Northern Research**

The Association of Canadian Universities for Northern Studies (ACUNS), of which McGill University is a member, has developed a set of policies to guide the conduct of Northern research, which are designed to complement institutions' regulations on the ethical conduct of research involving humans. This policy is unique as it applies to all research conducted in the North (defined as the Yukon Territory, the Northwest Territories and its successors, Nunavut and the currently unnamed Western Territory, Northern-Quebec, Labrador, and the Northern parts of the provinces from Ontario to British Columbia), irrespective of whether this research involves human participants. While most of the tenets in this policy are covered in a general way under the Tri-Council Policy Statement, the ACUNS policy applies to research in the broadest sense including fundamental and applied research in the physical, biological or social sciences. This is important, because, as the policy states, "Even where research does not involve local people in an obvious way, it may still have effects on the land, water or wildlife of the region, and may thus affect the people indirectly."<sup>7</sup> Some ACUNS member Universities, for example the University of Calgary, have elected to include this policy, as part of their regulations governing research. McGill should do the same, or at least refer to the policy in its regulations such that

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<sup>6</sup> University of Guelph. *Research as a Univeristy Function*. Retrieved June 11, 2009, from [http://www.uoguelph.ca/research/policies/Research\\_Policy.html](http://www.uoguelph.ca/research/policies/Research_Policy.html)

<sup>7</sup> ACUNS. *Ethical Principles for the Conduct of Research in the North*. Retrieved June 4, 2009 from <http://www.acuns.ca/EthicsEnglishmarch2003.pdf>

McGill researchers are cognizant of this framework and such that the University expresses its support of ethical research in Northern Canada.

### **Whistleblowing Policy**

The Royal Rhodes policy entitled “Whistleblowing Policy,” is a unique document which ensures protection of members of staff, faculty or students who “take steps to expose wrongdoing, by prohibiting harassment, threats, retaliation or discrimination against them.”<sup>8</sup> This policy has as its aim to ensure that the University maintains the highest standards of ethical conduct by making disclosure of known misconduct mandatory, and ensuring that those who do disclose wrongdoing are protected. In formulating this policy, Royal Rhodes, acknowledges that “employees, learners and volunteers are often in the best position to observe ethical misconduct or abuse of public trust because of their proximity to day-to-day University operations.”<sup>9</sup> This policy is important as it ensures that members of the University community are able to raise concerns that are in the public interest and to disclose at a higher level information about behaviour which the individual believes shows malpractice or misuse of University assets. Significantly, included in behaviour deemed malpractice is “endangering health or safety or the environment.” As the draft policy of research regulations includes sections on malpractice, it is appropriate that McGill should adopt a policy that empowers those most vulnerable to retribution, to act in the public interest.

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<sup>8</sup> Royal Roads University. *Whistleblowing policy*. Retrieved May 28, 2009, from <http://myrru.royalroads.ca/files-myrru/File/RRU%20Whistleblowing%20Policy.pdf>

<sup>9</sup> *ibid*

## **Women in International Activities**

This policy adopted by the University of Guelph, applies to all international activities including research. The policy reflects the University's concern for:

(1) the effects of the institution's actions on society and environment pertaining to women; (2) the conduct and application of potentially harmful research, particularly to women, and (3) the enhancement of human rights as outlined in the Policy on University Involvement in International Activities. The Policy expresses the University's continued commitment to the service of the entire society (women, children and men), the promotion of international cooperation and understanding, and the integration of the University's teaching, research and service functions.<sup>10</sup>

This policy outlines general principles that researchers should adhere to in conducting their field research. These include 1) determining “socio-cultural meaning of womanhood in the host country and the potential implications for research and projects,”<sup>11</sup> 2) involving women in all stages of the project, and 3) monitoring and evaluating research projects for their differential impact on women. As McGill continues to increase its presence in international research, affirmation of a policy like this one would serve to highlight McGill's commitment to ensuring the human rights of women are protected.

## **Sources of research funds and transparency of research funds**

This policy adopted by York University requires that a Senate committee receive notice of all institutional grants (those awarded to research units or faculties) and that this committee have the power to report to Senate as to the acceptability of the grants or awards in order to ensure that all

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<sup>10</sup> University of Guelph. *Women in International Activities*. Retrieved June 11, 2009, from [http://www.uoguelph.ca/research/policies/WIA\\_Policy.html](http://www.uoguelph.ca/research/policies/WIA_Policy.html)

<sup>11</sup> *ibid*

research is “consistent with the goals of the University.”<sup>12</sup> As the policy states, “decisions as to the acceptability of fund sources and research projects should be based upon the merits and acceptability of the projects at the time when they are considered. The Senate Committee on Research will report annually on the patterns and trends of all types of research funds, and review their implications for the University.”<sup>13</sup> While the terms of acceptability in the former clause are vague, reporting on the trends of research funds is important. Equally important, is the last clause in the policy which states that, “All information about sources of research funds for particular projects and conditions of award of grants shall be in the public domain.”<sup>14</sup> McGill’s draft policy on the conduct of research currently reads: “A Researcher shall acknowledge, in all published works resulting from his or her Research, all Agencies and other public and private funding sources which supported his or her Research.”<sup>15</sup> The former clause is insufficient as it perpetuates the lack of transparency that currently exist vis a vis sources of funding. Currently, reporting on sources of funding at McGill is non-uniform and difficult to access. McGill should adopt a policy that requires all researchers and research units to report on the *value*, on the *source*, and on the *conditions of award* for all research grants. This information should be made available in a consistent, coherent and accessible manner, for example on each faculty’s webpage along with reports that describe trends in research funding over time.

### **Harmful research**

Research revealed no other institution of higher learning in Canada that has a policy directly related to harmful or military research. Never the less, it is clear that these are progressive

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<sup>12</sup> York University. *Policy on Sources of Research Funds*. Retrieved June 10, 2009 from <http://www.yorku.ca/secretariat/policies/document.php?document=93>

<sup>13</sup> *ibid*

<sup>14</sup> *ibid*

<sup>15</sup> McGill University. (2009, February). *Draft Policy on the Conduct of Research, Rev 5*

policies and that they arose in the first place due to sustained student involvement in the process of drafting regulations governing the conduct of research at McGill. McGill's draft policy on the conduct of research reads:

A Researcher shall not knowingly undertake Research which has significant potential of direct harmful applications or adverse effects without receiving the approval of: (i) an appropriate research review committee; and (ii) the Vice-Principal (Research and International Relations).<sup>16</sup>

As has been repeated numerous times, the former policy does little to ensure accountability as it has no checks and balances. Furthermore, it is not clear why clauses related to military research are absent from McGill's Draft Policy on the Conduct of Research as these clauses only serve to increase transparency and promote ethical conduct of research.

### **Other features**

In addition to the aforementioned policies, other institutions have a number of links available to their students and faculty which help to promote ethical research activities. Among them:

- Online tutorial on ethics in research
- Links to federal regulations for certain types of research in order to promote awareness and to facilitate compliance. Links to federal research regulations could include:
  - Alcohol
  - Biosafety
  - Biosecurity
  - Biotechnology
  - Controlled drugs and substances, narcotics, and veterinary biologics

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<sup>16</sup> McGill University. (2009, February). *Draft Policy on the Conduct of Research, Rev 5*

- Controlled goods and controlled technology
- Environmental Assessments
- Nanotechnology
- Radiation

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