Ethology of Art and Science Collaborations: Research Ethics Boards in the Context of Contemporary Art Practice

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Abstract:

Frameworks for ethical review of scientific research are well established and documented; however, many interdisciplinary artists and art institutions are unfamiliar with these policies and procedures, as well as the potential benefits this process offers within emergent areas of collaborative research. In this paper, we will examine currently established models for ethical review of scientific research as they would apply to interdisciplinary fields. Using the Canadian system as a basis for discussion, a practical overview of its guiding principles, conducts, application processes, terms of approval and liabilities will be presented. Issues covered will include tissue culture, animal use, genetic modification and transgenics. Relavant highlights will be presented from the Interagency Advisory Panel on Research Ethics (PRE), the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council of Canada (NSERC), the Canada Council of Animal Care (CCAC) and the Social Sciences and Humanities Research Council of Canada (SSHRC). Examples of contemporary artworks will be explored as specific case studies in relation to the ethics review process. Proper navigation of these processes may offer guidance to artists and institutions that engage controversial subjects, use scientific facilities, or attempt to gain access to funding traditionally oriented to scientific research.

Lecture Notes:

I would like to thank the organizers of the Bridges II Consortium for the opportunity to present, and for providing travel support.

This topic initially arose within my own artmaking practice when investigating the use of live muscle tissue as a studio material. However, this topic soon revealed itself within a much larger context: the ethics of interdisciplinary collaborations and the language of science.

In 2001 at San Francisco State University, Adam Zaretsky - while teaching a class titled "Art & Biology" - had an undergraduate class of Conceptual Information Arts students each submit an art project proposal to the SFSU Animal Care and Use Committee. Bewildered, the committee was aghast at many of the applications: including the proposed creation of bombs filled with manure, sculptures made from a slaughtered cow, and a urinal execution device for humans. The Animal Care Committee - which normally approves scientific research on lab animals - was unprepared for evaluating and processing applications which injected artistic exploration, aesthetics, and humor into their utilitarian calculations.

[Acknowledge diagram of "Electric Urinal", Michael Rich]

Within a Canadian context, the Canada Council for the Arts and the National Research Council of Canada [NRC] are piloting an Artist-in-Residence for Research Program in which direct collaborations between scientific, engineering and artist researchers are catalyzed. Ethical precedents have not been fully explored within this framework due to the freshness of the program: Canadian interdisciplinary ethical policies are on the cusps of emergence.

As artists bridge into contemporary collaborations with scientists and science-oriented facilities, numerous ethical policies and practices have not been established or tested. Artists continue to explore and expand creative approaches to genetic modification, tissue culture, animal use and transgenics; collaborative research shifts scientific ethics into focus as a ripe topic of emergent artworks.

Why is this relevant within the context of interdisciplinary artmaking?

- **Language.** Understanding the culture and language of science is an important step in initiating collaborative work and dialogue across disciplines. This topic is of relevance by informing the art community of the language of science within the context of research ethics.
- **Policy.** Intertwined with the language of science is policy. Institutions, programs, and facilities operate within the framework of policy: this topic is relevant because it highlights significant guidelines currently part of the established culture of science.
- **Funding.** As artists and art institutions attempt to secure science-oriented funding, what hoops and procedures are required to access this money? This topic is relevant because it informs of a key condition to science funding: ethical review.

Language, policy, and funding: this topic is of relevance to interdisciplinary arts for at least these three reasons.

The goal of this paper is to analyze, explain and explore the topic of research ethics within the context of contemporary art practice. Toward this goal, this paper will:

1. Analyze the foundational terminology of research ethics
2. Explain the formal process and guidelines of ethical review for research, as employed by the scientific community
3. Contextualize research ethics within interdisciplinary art: including providing examples, highlighting applications, and drawing conclusions and extensions.

First, in the process of understanding research ethics within the context of art, it is worthwhile to define a few key terms.

Most obviously, one might question: "What is research?"

Although apparently simple, this single question is key. The definition of what is research and what isn't research is of fundamental importance to this discussion. Research ethics, obviously enough, is concerned with the domain of research. In other words, we could consider this not to be an exploration of what is art and what is science: this is a discussion about what is research.

So, "What is research?"

The definition of research depends on who you ask.

Research - as defined by the Department of Research Services of the University of Calgary - can be described as a...

> "systematic extension and application of knowledge by careful investigation. It involves basic studies, where scholars work to acquire new knowledge; studies, where an attempt is made to answer specific problems applying knowledge and methodology which have been acquired; and operational studies, where the emphases are on feasibility of projects, evaluation of programs, and production of new or improved materials, devices, processes and programs. [It] covers the whole spectrum of knowledge derived from all disciplines."

In other words, research can be defined as "the systematic extension and application of knowledge".

Within our discussion, it is therefore logical to say that research ethics is especailly applicable to the arts if artists are involved in the systematic discovery of knowledge. Natalie Jeremijekno has firmly posed this same question: "Can Artists Create Knowledge?"

This is a relevant question. Can artists create knowledge, or - to put it another way - is artmaking a form of research in the scientific sense of the word?

In the interest of time - however - I will focus this discussion on the pragmatics of research ethics systems in relation to the arts. As a shortcut, I concede with Jeremijenko's conclusion that artists can create knowledge - although I am fully aware that not all artists are actively interested in such pursuits.

Secondly, "What is ethics?"

Ethics can be quite clearly defined - in a philosophical sense - as:

> a term referring to both morality and ethical theory. "Morality" is used to refer to conventions in society about right and wrong human conduct. "Ethical theory" refers to philosophical reflection on morality's nature and function.
>
> *[Source: Philosophical Ethics: An Introduction to Moral Philosophy, Second Edition, Tom L. Beauchamp, McGraw-Hill, 1991, p 5-6, ISBN 0-07-004256-X]*

So, to paraphrase, we could say that "ethics refers to conventions in society about right and wrong human conduct, and reflection on the nature and function of these conventions"

To combine these two definitions, we could say that "research ethics" refers to "conventions in society about right and wrong human conduct toward the systematic extension and application of knowledge".

It might be logical to conclude from the above definitions that research ethics are only of relevance to the arts if:

A. Artists are involved in the systematic extension and application of knowledge, and...
B. Art is subject to operate under the larger framework of ethics.

However, this is not true.

Understanding the language of science is of relevance to artists uninterested in viewing their work as a systematic extension and application of knowledge, or - on the other hand - work that is intended to argue with the larger systems of ethics and culture. The navigation of facilities, funding agencies, and critical discourse between disciplines are strengthened by an understanding of the language of science.

So, in order to understand the mechanics of research ethics, it is helpful to consider the following:

- What is ethical review within the current context of science?
- What are the guidelines of this system, and who defines them?
- Who can submit a project for ethical review?
- What are the processes involved in submitting a project for review?
- What does it mean when a project is approved?
- And, why and how would an artist navigate this territory?

I will provide an abridged overview of the current system of research ethics in science, intending to bring light to these inquiries.

First, let me clarify my geographical territory of discussion: I am Canadian, and the majority of the policy details I give are Canadian. Generally, the procedures and frameworks of ethical review appear similar between Canada and the United States - but - to clearly state - the scope of this presentation is limited to the ethical guidelines of the Canadian research system. This is not an analysis of international guidelines on research ethics: I present the Canadian system as a case study - feel free to use it as a metaphor to understand your jurisdictional frameworks.

Now, I will now provide a top-down overview of the Canadian system of research ethics.

The system can be thought of as having two primary guiding documents: one for research involving humans and one for research involving animals.

[Hold up copies of documents]

The Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans acts as a guidebook throughout Canada for research involving humans.

By "human", we mean living human subjects, human remains, cadavers, tissues, biological fluids, embryos and fetuses: including human genetic research.

The Guide to the Care and Use of Experimental Animals by the Canadian Council on Animal Care also acts as a national guidebook for research involving animals.

By "animal", we mean vertebrate organisms like mice, cats, dogs, and chimpanzees. On the other hand, insects, crustaceans, and plant organisms don't fall under the category of being an animal, and therefore research involving these subjects do not to require any form of ethical review.

Understanding these two documents gives a clear understanding of the framework of research ethics within Canada.

To summarize:

The Tri-Council Policy Statement was created by the Medical Research Council of Canada, the Natural Sciences and Engineering Research Council of Canada, and the Social Sciences and Humanities Research Council of Canada. To further the promotion of ethically responsible research, these councils constructed this document as a minimum set of condition for funding research projects. I quote, "As a condition of funding, we require, as a minimum, that researchers and their institutions apply the ethical principles and the articles of this policy." [section i.2.A, TCPS]

In other words, money plays a significant role.

So, what are the guiding ethical principles of this Tri-Council Policy Statement? Simply put, they are:

- Respect for Human Dignity
- Respect for Free and Informed Consent
- Respect for Vulnerable Persons
- Respect for Privacy and Confidentiality
- Respect for Justice and Inclusiveness
- Balancing Harms and Benefits
- Minimizing Harm
- Maximizing Benefit

In the interest of time, a complete overview of these principles will not be provided. I invite you to explore this document, as it is more inclusive to creative research as one may initially assume. It is of interest to note that these principles - especially harms and benefits - are explicitly given leeway in the conducting of research within the area of art history. The document also seeks to "articulate ethical norms that transcend disciplinary boundaries" [i.2.B.2] and "seeks to avoid imposing one disciplinary perspective on others" while it accommodates "the needs of specialized research disciplines." [i.2.B.4] Beyond this, the understanding of "the evolving human condition" [i.4.A] and the "freedom to challenge conventional thought" [i.8.E] appear to open a welcoming hand to contemporary art practice.

The second document which composes the other half of the Canadian system of research ethics is the Canadian Council on Animal Care's Guide to the Care and Use of Experimental Animals.

This document outlines many pragmatic details of a lab animal's life - and death. Details include required cage sizes for each species, suggested food intakes, anesthetic dosages, and other particulars of the daily existence of a lab subject. The document's aim is to provide details of a humane living environment while balancing the objectives - and potential benefits - of lab research.

Pertaining to the arts, this document addresses specific details on transgenic animals, and general guidelines regarding the use of animals, including - perhaps - suggestions on how living animals could be used within pieces of artwork. A historical framework that outlines artistic use of animals has been recently outlined by Karen Thornton in “The Aesthetics of Cruelty vs. the Aesthetics of Empathy,” presented at the Biennial Electronic Art festival at Perth.

> *[Ad lib: “I Suggest that you read this paper if you are looking for a historical overview of animal use in the arts…”]*

The Tri-Council Policy Statement and the Canadian Council on Animal Care form the ethical foundations for research in Canada.

The two documents act as national guidelines, and local bodies - referred to as Research Ethics Boards and Animal Care Committees - see that the national guidelines are observed within academic institutions, research councils, and anywhere else public funding is provided for research.

They "approve, reject, propose modifications to, or terminate any proposed or ongoing research" [1.2.B1] according to the national ethical guidelines. The key power of an REB ("Research Ethics Board") or Animal Care Committee is that they have influence over the funding of a research project.

It is of interest to note that - at least in reference to research involving human subjects - that setting up a Research Ethics Board is not overly complicated, and is not restricted to scientific research agencies. For example - for the sake of argument - an REB could be established by an arts agency like the Canada Council for the Arts, and could conceivably review potentially

controversial artworks incorporating humans, tissue or genetics. This hypothetical REB would consist of five people on the review board, some record keeping, and other guidelines as outlined in the TCPS.

However, questions still remain:

- Who can submit a project?
- What are the processes involved in submitting a project for review?
- What does it mean when a project is approved?

So - who can submit a project?

Anyone, although you will likely only be required to submit a project if you are accessing public research funding or utilizing public research facilities, like a university campus.

What are the processes involved in submitting a project for review?

As an example, let's look at the application of "Electric Urinal" by Michael Rich:

[Showing Animal Subjects application: Michael Rich]

As a note, this is an American application, but the paperwork procedures of application are similar enough that this form is of direct relevance to the Canadian system.

In this project, the MFA student outlines the testing of his conceptual invention - a uninal which doubles as an electrocution device. Clearly, the work is intended to policy-prod: it is designed to fail a formal ethical review, despite pointing out many clear utilitarian arguments as to the object's usefulness within American society.

[Show highlight of statements, "In addition to eliminating the role of executioner..."]

One might expect that an application of this sort would fail ethical review. However, in this case, the application wasn't even reviewed. The application - and most of the other applications submitted in 2001 under Zaretsky at San Francisco State - were so outside of the normal framework of ethical review that they were refused serious consideration. This brings up another relevant question: if research ethics boards are put in place to review research, what happens when their foundational concepts of research and practicality are prodded: projects that incorporate aesthetics, philosophical questions and other aspects of "the evolving human condition" [TCPS, i.4.A]?

However, to continue: what happens when a project is approved?

An ethical review and approval usually means that the project receives a "green light" for funding, or - more accurately, the project doesn't receive a "red light".

Beyond funding, project approval poses an interesting prospect for an artist or institution: liability and - related to this - public discourse and relations.

When a project is approved by a Research Ethics Board or Animal Care Committee, the ethical liability for the project shifts from the applicant to the respective review board. As long as the research is conducted as described in the application, the ethical liability for the project is - at least theoretically - the responsibility of the local ethics board that approved the project.

So, why should artists be concerned about issues of liability?

- For artists using potentially controversial materials, a voluntary ethical review and approval puts the artist on the same ethical grounds as a scientist. This could be used to attempt to indemnify the artist in the case of funding, exhibition, or public outcry, or could be used to directly probe into the larger ethologies of science.

But what do these abstract ethical principles mean in the production of REAL artwork? What could these policies mean if they were applied to recent examples of artwork incorporating scientific facilities or biological materials?

Let's look at some examples within contemporary Art that incorporates biological materials and see how they might fit in to a formal system of ethical review.

A straightforward example is Eduardo Kac's work.

[Kac, GFP Bunny slide]

To summarize, this is the creation of a transgenic rabbit (transgenic meaning that it incorporates genetic material from a species other than a rabbit), and the subsequent effort of the artist to have the transgenic rabbit live with him in his home. A simplified analysis of this work would seem to indicate that this project would fail an Animal Care Committee review in Canada. Although Kac clearly outlines his plans for caring for the animal - which would surpass the standard lab requirements - the project falls short in at least one condition of transgenic animal research in Canada: containment. Controlled lab containment is a key condition to the development of transgenic animals, with the key concern being the escape of a transgenic species into the wild and - in this case - do what rabbits are known to do best: procreate.

[Kac, Eighth Day slide]

In contrast, Kac's more recent work - Eighth Day - which also incorporates transgenic animals, appears to be more compliant in respect to the issue of containment. In this installation, transgenic animals are contained in plexiglass domes within the gallery. Assuming that these animals are given the required space, food and water as outlined by the Canadian Council on Animal Care, this project could concieveably pass the review of an Animal Care Committee.

[Symbiotica, Pig Wings slide]

[Ad lib: discuss cell culture vs primary cells]

[Symbiotica, cell harvesting slide]

[Ad lib: the issue of food]

[Adam Zaretsky, Zoo slide]

[Ad lib: In this project, Adam Zaretsky took samples of several lab animals, and attempted to create a "wild" environment…]

[Joe Davis, Frog Ornithopter slide]

[Ad lib: within a research ethics board, are frogs considered animals?]

CONCLUSIONS

To conclude...

We have analyzed the foundational terminologies of research ethics.

We have also contextualized the formal process of ethical review for research.

And, we have contextualized research ethics within some examples of contemporary art.

Am I proposing that research ethics boards act as "art police"? No.
Am I suggesting that all art institutions should be interested in the policies of research ethics? No.
Am I suggesting that all artists are interested in viewing their artwork as research? No.
Am I suggesting that experiments in transgenics, tissue culture, and animal use should only proceed with the blessing of an external ethical review? No.

So - why are research ethics relevant within the context of interdisciplinary artmaking?

Language, **policy** and **funding**. As a foundation of interdisciplinary research, artists are facilitated by understanding the culture of the discipline they are collaborating with. For artists collaborating with scientists, research ethics are a reality of their cultural system. Intertwined in language is policy, and within policy is funding. Understanding research ethics policies opens up avenues for artists working with biological materials.

To extend, the foundational terminologies of research ethics bring up key points in reference to contemporary artmaking. The definition of research, as "the systematic extension and application of knowledge" brings up the questions of:

- Is artmaking essentially a form of pure research?
- And, do artists create basic knowledge?

These questions - and the languages that bridge cultures - are at the foundation of the vigorously hybrid investigations of tomorrow.

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