

## The Dirty Dozen Research Projects in Search of a Researcher or Two

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Over the past five years I have broadened my interests a fair bit but in many ways bitten off more than I can chew (my teeth are wearing, no doubt). For the next few years, I'll likely be concentrating my efforts on completing a book to round out *The Individual in the Fragile Sciences* research project, begun in 1998, most of the work for which will fall in the biological and social sciences, and on developing the undergraduate Program in Science, Technology and Society at the University of Alberta.

Below are a dozen research projects that I have made some kind of start on, that seem to me worth doing, and that I would continue with by myself if I could only find the time and energy. They range from single and multi-paper projects to larger scale projects suitable for a master's or doctoral dissertation.

If anyone is interested in taking these on, either solo or jointly (with me or others), please let me know, not least of all because I have already, in most cases, made a start on the work to be done. If you have suggestions for how to shape any of these projects up (better focus, different direction, literature suggestions, etc.), I'm all ears.

Honours or graduate students interested in pursuing any of these under my supervision should also feel free to contact me directly. The academic areas that I envisage each drawing on and contributing to most directly are listed in [brackets] following the description. Between them they cover the following areas: philosophy of biology, science and technology studies, legal studies, ethics, anthropology, evolutionary biology, philosophy of culture, philosophy of science, epidemiology, virology, history and philosophy of science, cognitive science, feminism, developmental psychology, history of modern philosophy, analytic metaphysics, philosophy of mind, education, critical thinking, and philosophy for children. If you're interested in any of these areas, read on!

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## 1. Eugenics: A Canadian View

Over the last few years, primarily through teaching and reviewing (see, for example, my review of *'Fighting for the Good Cause': Reflections on Francis Galton's Legacy to American Hereditarian Psychology* (American Philosophical Society), *Victorian Review* 28 (2002): 95-104), I have become more interested in the social edge to biology. Three years ago I first taught a few weeks of material on eugenics, in the middle of which I discovered that Alberta, both province and university, had played a central role in eugenics in Canada. The court case of Leilani Muir, vividly depicted in the National Film Board film, *The Sterilization of Leilani Muir* (1996), brought aspects of this role to public attention. But I am struck in teaching this material again more recently just how unexplored the history and philosophy of eugenics in Alberta is. For example, despite having sterilization laws that were acted on from 1928 until 1971, Alberta rates only two brief mentions in Edwin Black's recently published *War Against the Weak* (2003), and there are no entries on Alberta to be found at the impressive electronic archive [www.eugenicsarchive.org](http://www.eugenicsarchive.org). This is despite the fact that both sources purport to, and in fact manage to, provide an international perspective on the history of eugenics. Even in works on eugenics in Canada, such as Angus McLaren's *Our Own Master Race* (1990), Alberta features only minimally. I am currently exploring the prospects for assembling a research team of scholars, based at the University of Alberta, that includes participants from psychology, law, sociology, and philosophy, to work on this. It would make an ideal postgraduate project, at either the master's or doctoral level. **[philosophy of biology, science and technology studies, legal studies, ethics]**

## 2. The Race Race: Critical Reflections on Some Recent Discussions of Race

Even though race has faded from the limelight of anthropology, it is a concept that still structures much research there, including within forensic and medical anthropology, and in evolutionary anthropology. Several philosophers of biology, including Phillip Kitcher and Robin Andreason, have recently argued for descent-based views of race. I had some all-too-brief discussion of Kitcher's views in an extended review I wrote of his collection of essays *In Mendel's Mirror* (Oxford, 2003) [*Human Nature Review*, 4 (1 January 2004), pp.1-13. <http://human-nature.com/nibbs/04/rawilson.html>]. What's needed is a much more systematic discussion and evaluation of these kind of proposals. Perhaps a paper, perhaps good fodder for an honours or master's thesis. **[philosophy of biology, anthropology, evolutionary biology, philosophy of culture, science and technology studies]**

## 3. Being Kind, Naturally

In my *Genes and the Agents of Life* (Cambridge University Press, 2005; <http://www.cup.org/titles/catalogue.asp?isbn=0521544955>), I made use in several places of Richard Boyd's homeostatic property cluster (HPC) view of natural

kinds. In particular, I used it in a chapter on species (which developed my 1999 paper "Realism, Essence, and Kind: Resuscitating Species Essentialism?"), in a chapter on organisms, and in a chapter on the concept of the gene. Boyd himself has applied the HPC view to moral concepts as part of his moral realism and to species, and Paul Griffiths has done so with respect to structural homology concepts in biology. Despite this, the HPC view remains woefully underdeveloped, and stands in need of a kind of ground-level articulation that is more concrete than Boyd's yet general enough to see just how the view applies to a wide range of cases. The HPC view has also been subject to much recent discussion (e.g., Matthen and Ereshefsky in *Phil of Sci* Jan 2005, and in many papers at the 2005 meetings of ISHPSSB in Guelph). I'd say this is a solid paper, though someone who wanted to sketch the background to debates over natural kinds and develop several novel applications could end up with a whole master's level thesis. **[history and philosophy of science, philosophy of biology]**

#### 4-6. Evaluating Group Selection

In "Test Cases, Resolvability, and Group Selection: A Critical Examination of the Myxoma Case", [*Philosophy of Science* 71 (July 2004): 380-401] I noted that there were two paradigm cases of group selection appealed to in the literature on the levels of selection: that of myxomatosis in rabbits in Australia in the 1950s and '60s, and that of female-biased sex ratios. As the name suggests, my paper concentrated exclusively on the former of these, and there are at least three projects that suggest themselves in light of it.

The first would be simply to turn to the case of female-biased sex ratios and see whether the conclusions I argue for through my focus on the myxoma case hold up, are weakened, or are refuted by an examination of this other case. The second would be to undertake a much more systematic examination of the myxoma case, particularly as an extended case study in the practice of science and its social implementation. (This is because there are two excellent books on the history of myxomatosis by three of its leading participants, and my guess is that there would be a wealth of archival material available from both the Australian National University and the CSIRO where this research was conducted and/or coordinated.) The third would be a step back from the details of either of these case studies and offer a broader view of the debate over group selection, one that either complements or challenges the history outlined in the first four chapters of Sober and Wilson's *Unto Others: The Evolution and Psychology of Unselfish Behavior* (Harvard, 1998). See also a recent series of papers by Samir Okasha (and the forthcoming book they will constitute), and the more general debate between Ken Waters and Lisa Lloyd in *Phil of Sci* (April 2005).

**[philosophy of biology, science and technology studies, epidemiology, virology, evolutionary biology, history and philosophy of science]**

#### 7. Revisiting Essentialism

Over the past twenty-five years, essentialism has been discussed in quite diverse literatures – in the philosophy of biology, in developmental psychology, in analytic metaphysics, and in analytic and postmodern feminism. It remains a live issue in all of these areas. In the last few years historians of biology, such as Mary Winsor and Gordon McOuat, have questioned the received view of the history of essentialism within biology, according to which biologists were awakened from a sort of essentialist dogmatic slumber by Darwinian biology, an awakening extended and crystallized through the work of the evolutionary synthesis in the 1930s and 1940s. By contrast, recent work in developmental psychology, such as that by Susan Gelman and Paul Bloom, has suggested that what they call “psychological essentialism” is a cognitive tendency entrenched in the structure of the mind, either as an aspect to existing developmental modules (for language, for biology, for social kinds) or as its own module.

The aim of this research project will be to critically examine such recent work on essentialism with an eye to showing that there is much more to essentialist views within the biological sciences, and much less in other areas, than is commonly thought. At this stage, it is not possible to tell whether this will require a short book taking a year or two or something more substantial. I have a few powerpoint talks on small bits of this over the last few years, the latest of which is “Essentialism and Nativism about the Mind”, given at the University of Adelaide in September 2004. **[cognitive science, philosophy of science, feminism, developmental psychology]**

### 8-9. Primary Qualities

When I taught a graduate seminar on Locke in the Fall of 1998 at Illinois, I was struck by the fact that while the distinction between primary and secondary qualities and the nature or status of secondary qualities had been the subject of a dishearteningly large literature, scant attention had been paid to what Locke thought of the primary qualities themselves. This led to my “Locke’s Primary Qualities”, (*Journal of the History of Philosophy* 40 (April 2001), pp.201-228) initially conceived as the start of a broader project on the concept of primary qualities in seventeenth- and eighteenth-century philosophy and science. I would like to return to this broader project in due course, particularly having recently taught a large seminar on Hobbes and Locke. In the first instance, this will focus on two questions: (i) what are the implications of Locke’s view of primary qualities for his broader philosophical views? (ii) how were primary qualities conceptualized more generally in the 17<sup>th</sup> century? This could probably be undertaken as two related papers, at least in the first instance. **[history of modern philosophy, history and philosophy of science]**

### 10. Externalism and the Problem of Intentionality

Following on from *Boundaries of the Mind* [Cambridge University Press, 2004; <http://www.cup.org/titles/catalogue.asp?isbn=0521544947>], in the first half of 2005 I started on a series of papers on externalism, particular the radical form

that it takes as *locational externalism* or *the extended mind thesis*. Although there is some discussion of the classic problem of intentionality tucked into one or two of these still in progress papers, I think there is room for stand-alone treatment of the problem. Here's the idea. Since the now classic recent discussions of the problem of intentionality were developed presupposing either individualism or weak forms of externalism (what I call "taxonomic externalism"), what does the problem look like when we take stronger forms of externalism, such as Clark and Chalmers's extended mind thesis seriously? Can the problem still be articulated? If so, can it be solved more satisfactorily than in the past? My "Meaning Making and the Mind of the Externalist", in Richard Menary (editor), Externalism (Ashgate, in press), and "How to Situate Cognition: Letting Nature Take its Course" (with Andy Clark) in Murat Aydede and Philip Robbins (editors), Cambridge Handbook of Situated Cognition (in progress), are starts on this general project. **[philosophy of mind, cognitive science]**

### 11. Mereological Constitution

In a series of papers written in 2004-05, I have explored constitution views in metaphysics, which have their most detailed development in Lynne Rudder Baker's *Persons and Bodies: A Constitution View* (Cambridge University Press, 2000). The first of these, "Persons, Social Agency, and Constitution" (*Social Philosophy and Policy*, in press), applies Baker's constitution view to both individual and collective social agents; the second, "Non-Mereological Constitution and the Many-Many Problem" (submitted), poses a novel problem for views like Baker's, what I call the many-many problem; and the third, "A Puzzle About Constitution: Cohesive Physical Mereology and the Relational / Intrinsic Constraint", (submitted), argues that we need two concepts of constitution, the non-mereological one that Baker offers, and a mereological notion. That third paper concentrates almost exclusively on the former of these, and so this would be a follow up paper that developed the notion of mereological constitution in the context of systematic metaphysics. **[analytic metaphysics]**

### 12. Philosophy in the Schools: A Curriculum

From 1984, when I was an undergraduate at the University of Western Australia, until 1987, when I left Australia for graduate study, I worked with teachers and students with the Philosophy for Children curriculum pioneered by Matthew Lipman and Ann Margaret Sharp from the Institute for the Advancement of Philosophy for Children at Montclair State College. (I had spent two months visiting at the IAPC in early 1986) Since coming to Alberta I have given more serious thought to developing a competitor curriculum that overcomes many of the pitfalls of this relatively successful curriculum. Given the interest at high levels in the education sector and at many individual schools in critical thinking, imaginative reasoning, and socially-integrated academic skills, I think that there may be an unusual opportunity in our current environment for such a program.

This would be at least a five-year project and would involve assembling a team of students and researchers to write and test the curriculum. (The Lipman curriculum is based on stories that Lipman wrote, with roughly 400-page supporting teacher manuals containing exercises and discussion sketches.) I have already identified several ideally-trained and motivated individuals, with background both in the education system and with higher degrees in philosophy, around whom to build an international research team, but there's no point taking this on until a little more temporal ground is cleared. **[education, critical thinking, philosophy for children]**

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