Comment on James Nelson's "Animals in 'Exemplary' Medical Research: Diabetes as a Case Study"

Lawrence Finsen
University of Redlands

Nelson's paper attempts to specify how we might identify the hard cases of animal experimentation and draw preliminary conclusions about the ethics of such experimentation. After identifying conditions for research to be "exemplary" and arguing that research concerning diabetes mellitus is reasonably viewed as exemplary research, he considers how such research might be regarded from both utilitarian and nonutilitarian stances. Most of his attention is focused on nonutilitarian approaches, and some valuable insights are offered concerning the conditions under which we might be morally justified in conscripting individuals (of other species or our own) for medical research. I am in agreement with what Nelson is aiming to accomplish in this paper, and in large part with the details. My comments are intended to focus attention on some areas which I found either particularly provocative or in need of clarification. In particular, I shall focus on the problem of utilitarian calculations, the concept of exemplary research, and finally on conscription.

DISCUSSION

Utilitarian Calculations

Nelson correctly points out that a utilitarian reading of diabetes research will be enormously difficult if it is serious: any kind of accurate comparison of utilities in this case must tackle such difficult problems as that of making interspecific comparisons of utilities. In lieu of the ability to adequately calculate, he considers it not irresponsible to conclude that research on diabetes is justified by the consequences. But nothing may be concluded from this, for there is still a serious question of the fairness of the distribution of burdens and benefits of diabetes research, i.e., of the adequacy of act utilitarianism.

I wonder whether we should be so sanguine about such a judgment that research is justified by utilitarianism. If we accept the inaccessibility of cautious comparisons of utilities it seems more appropriate to argue that appeal to such benefits should not be used in justifying research, especially since appeals to benefits without accounting for costs and for whether they shall be distributed fairly do not justify actions.

In clarifying the utilitarian situation Nelson accepts the point that the proper unit for analysis is not the particular research project but "the whole institution." Though he does not explain why this is an appropriate shift, I suspect it may relate to the problem of serendipity, since Fox and McCloskey, for example, make this shift for that reason (Fox, 193-43; McCloskey, 66). Useful results may be stumbled upon in the context of looking for something altogether different, or some general information about physiological processes may turn out to have unforeseen relevance to a later advance. If we cannot predict the importance of research beforehand, then utilities

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cannot be calculated on a case by case basis. Of course, we might say retrospectively that research was or was not beneficial, but our judgment must be prospective if ethical reflection is to help us decide what to do.

Should we shift to the "whole institution" of research as the proper unit of analysis in order to solve this problem? Does this include all medical research or just that research concerned with diabetes? Nelson's comment that we need to consider "the entire stream of research that flows into and out of [Banting and Best's] work with all its reefs and obstructions" suggests that he has in mind something narrower than all of medical research. But how narrow, and how will it be selected? Is it the entire history of diabetes research, a particular research program targeting one kind of diabetes problem (such as attempts to encourage regeneration of insulin-producing cells) or perhaps something in between? Even intuitive utilitarian conclusions require a clear sense of what the relevant facts are.

The Concept of Exemplary Research

The idea of exemplary medical research is important: it is clear that the central and toughest ethical issue resides in the kind of case Nelson wants to focus on. Though there is not universal agreement about the cases of product testing and the like, these are more peripheral to the hard questions that critics of using animals for human benefit must face. Surely it is in the use of animals in research we might call "exemplary" that a justification may be found for using animals as resources or tools, if one is to be found anywhere.

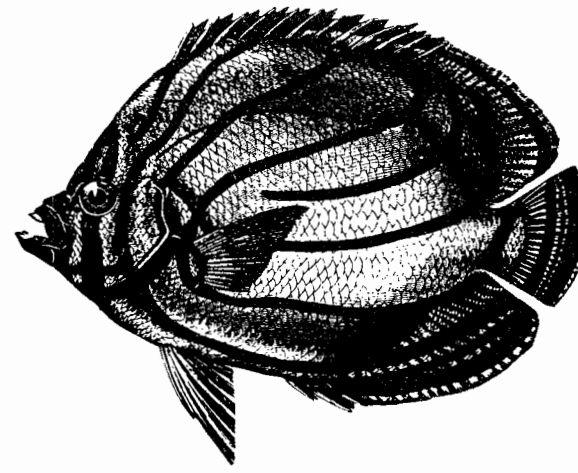
Should we accept that diabetes is exemplary research? Nelson defines exemplary research as research that targets widespread, debilitating diseases, has an admirable track record in using animals to aid in our understanding and management of the disease, and is conducted according to humane standards as they are currently understood. He offers the discovery of insulin as indicating the successful track record of diabetes animal research.

One might wish to raise questions about the historical claims made on behalf of the discovery of insulin through animal research, as for example Dr. Robert Sharpe has (Sharpe, 21-68). Claims on behalf of animal research are sometimes overblown by proponents. For example, while chemical therapies and vaccines have enabled many people to avoid contracting a number of infectious diseases, such as whooping cough, measles, and tuberculosis, mortality from these diseases was already in serious decline (perhaps due to public health measures — especially improved sanitation) before the widespread introduction of such vaccines and therapies. In some cases only a very small percentage of the reduction in mortality rates for such diseases is attributable to vaccines and therapies. Clearly, we should not conclude too quickly that improved health today is primarily attributable to the results of animal research. A

stronger conclusion drawn by some is that it is in our own interest to abandon animal research in favor of much greater emphasis on preventive medicine, public health measures, and improved sanitation. Clearly, if it were in our best interest to do so, one would not have to argue the difficult and controversial moral case, and this seems preferable.

In the case of diabetes the point, if it can be made at all, cannot be put so dramatically. Diabetes is not an infectious disease, and so improved sanitation does not have the impact that it might have on infectious diseases. Further, while human clinical trials and autopsies played an important part in understanding diabetes, much of the story preceding the discovery of insulin involved the use of animal models. For example, consider Robert Sharpe's claim that animal research could have been discarded because today we know from comparison of diabetic patients and nondiabetics that maturity onset diabetes is often controllable with diet. What is presumably needed is more public education, not more animal research (Sharpe, 173-4). I believe this is a dangerous argument. Even if dietary advice is sufficient, the question must still be asked, how do we know what diet to recommend? A few years prior to the discovery of insulin, Frederick Allen showed that the then standard dietary approach to diabetes, relying on control of carbohydrate intake, was mistaken. Instead, Allen argued, it was the overall caloric intake that was overburdening the diabetic's system. Thus, Allen developed diets designed to find the balance between overburdening the system and starving the patient. In historical fact, Allen's initial research involved dogs who had had partial pancreatectomies and ultimately led to trials with patients, some of whom died of the cure (Bliss, 34). This prudential argument might have more merit were it possible to show that Allen could have obtained his results without the use of both animal and human subjects. Such counterfactuals are at minimum difficult to assess. In fairness, we should make a shift (analogous to the one discussed concerning the proper unit of utilitarian analysis) to something more institutional than Allen's own beliefs: we need to consider how science might have been different had animal experimentation not been considered a possibility. Obviously, this is an enormously difficult claim to assess.

Nelson's attempt to identify the notion of exemplary medical research can help us understand the failure of such prudential arguments to settle the question of the advisability of animal research. While there are cases of less than exemplary research, and while public health policies and preventive medicine do deserve great attention — perhaps more than they receive now (after all, shouldn't it give us some pause to have heard that the mortality rate of black insulin-dependent diabetics is twice that for whites?) — it does not follow from a purely prudential standpoint that all other approaches ought to be abandoned. That there are cases of "exemplary medical research" would cut to the heart of the prudence objection, because these would be cases where it is imprudent to neglect such research. As difficult as it may be to obtain agreement on such moral questions, Nelson's approach seems to me to be the more responsible one.



Beyond the actual track record of diabetes research, a broader question about the notion of the exemplary needs to be asked. This concept applies insofar as research addresses a certain disease. That is, exemplariness is exemplified by all diabetes research taken as a class, rather than a particular research study at one time or a larger program of which such a study might be part. That this is Nelson's intention is evident for three reasons: first, he nowhere specifies a particular project or kind of project as "exemplary"; second, the second condition of the definition requires that exemplary research itself have an admirable track record, thus it cannot be limited to a project not yet undertaken; and third, that the classification is by disease is again evident when, in discussing the lessons of just war theory for exemplary research, Nelson says:

> Exemplary research's insistence on a demonstrable record of achievement in using animal models to ameliorate disease coheres nicely with the first of [the just war tradition's conditions] and reinforces the condition as a selection criterion for the *kinds of diseases against which invasive animal-based research might be employed.*

However, from the fact that a breakthrough in understanding or managing a disease (such as the discovery of insulin) occurred through animal research, it hardly follows without additional assumptions that future animal research is likely to be beneficial. Nelson acknowledges this when, despite satisfying the track record condition, he still thinks it appropriate to ask whether continued diabetes research holds out much promise of answering significant questions. And his answer is appropriately given in terms of much more fine-grained classifications of research such as the claim that the BB rat has provided evidence that diabetes is or may be an autoimmune disease.

This shows that what is needed in focusing the discussion on exemplary research is a concept of a class of research broad enough to have a track record but narrow enough to permit useful inferences concerning the promise of future studies from truly relevant precedents. The entire history of diabetes research is not specific enough. The BB rat's performance is much better, but I still would want to know what proposals relate to it and how it indicates their promise.

Another reason I would hesitate to consider the entirety of diabetes research as exemplary is that there are portions of it which were scientifically questionable in their design. For example, once the role of the pancreas in diabetes was evident, it became important to ask how the pancreas regulated sugar metabolism — was the absence of pancreatic juices the key to diabetes? Minkowski and von Mering's work in 1889 seemed to confirm observations of other researchers who had ligated or cut the ducts leading from pancreas to duodenum, indicating that such animals do not become diabetic, but critics at the time pointed out that ligated ducts might have been bypassed or replaced by new ones. It was not until Hedon devised a method of partial pancreatectomy with relocation of the remaining portion of the pancreas outside the skin that the question being asked by Minkowski and von Mering could be answered. It seems appropriate to maintain, then, that this particular study of Minkowski and von Mering should not be considered exemplary, as it posed questions which could not be answered suitably given the techniques employed.

The upshot is that the truly exemplary must meet a number of conditions Nelson has not mentioned. I have argued it must be more narrowly defined in its relation to prior successes, and must pose important questions which have a reasonable chance of being answered given proposed techniques. There are undoubtedly other conditions; one might be that it must not target conditions which are avoidable (e.g., research concerning the adverse effects of smoking).[2]

Conscription

Turning to nonutilitarian approaches to exemplary research, Nelson argues that even if we accept the conclusion that some kinds of animals have moral rights, including the rights to life and to be free of unnecessary and non-trivial suffering, abolitionism does not follow immediately. A number of reasons are given, but for the sake of brevity I will focus on his discussion of conscription. Two analogies are employed in this context to help illuminate the situation of diabetes research animals: the case of young children who are offered as subjects by proxies and the case of military conscription.

In both cases Nelson's primary point is that such conscription is not always wrong, since the individuals conscripted are members of a community and should not be conceived apart from that community. Their good, in some sense, is a function of its good. So using young children for research is not a matter of judging that they count for less morally, but rather that the promotion of social good in such cases can also be understood as promotion of their good.

Nelson has pointed out that these cases are disanalogous with animal research — even exemplary research — because the animals called upon to sacrifice cannot be considered members of our community, as we do little to protect their most basic rights, which shows that the identification of individual and social good is absent. I would add that there is a further condition on research with children that is important to bear in mind if that case is considered analogous to exemplary animal research: the regulations covering studies with more than minimal risk and no direct benefit to the subject require that the Institutional Review Board determine that the knowledge sought is of vital importance and that the risk is not too great (Brody, 266-7). So, surprisingly enough, the fact that we conscript children and soldiers will not justify us in doing the same with animals, even in exemplary research.

The case of young children stimulates a point somewhat at odds with Nelson's treatment. Does it follow from the fact that we are members of the community and thus our good is in some sense a function of the community's good that we are *obligated* to subject ourselves to invasive, albeit low risk research for the good of others? Perhaps many would feel that their connectedness to others in their community gives them reason enough without obligation to act on behalf of others; but isn't this a gift, a departure from the stringency of obligation? If the situation envisioned were one in which a truly critical situation — a lifeboat case, if you will — were to arise, then perhaps we could argue that our sacrifice is called for by the threat to the community. That is, of course, the situation of the conscript in a just war. But the normal situation of medical research is not that of the lifeboat or a just war. Medical knowledge, rightly employed, might enable us to live longer and fuller lives and also enable us to die easier deaths, assuming we are able to cope with the problems such advances inevitably create, but it will not change the fact that we are biological organisms all of whom are born and all of whom will die. Providing further medical advances than those currently enjoyed is a good thing, but whatever the case for thinking it is owed as an obligation might be (and this is not often explained), that value must be balanced against conscripting healthy individuals with significant interests at stake to do the dirty work.

Occasionally defenders of research attempt to escape criticism by appealing to the oddity of the fact that our society engages in tremendous exploitation of animals in pursuit of less serious and more easily replaceable benefits than those sought by scientific inquiry. Criticism of scientific inquiry in such a context seems out of place. Nelson's argument might be looked at as an attempt to turn that argument on its head. Scientists themselves are committed to conscripting animals for communal benefits for which we only have a right to conscript those who identify with or at least stand to benefit from such communal efforts. Until animals become members of our community in more meaningful senses than simply serving our needs and interests, the justification for conscription looks more like the enslavement of an outsider than the unfortunate but necessary conscription of one of our own community. Perhaps one further analogy would help here: in the case of medical experimentation with prisoners, the problem one faces

is the threat of coercion undermining the free giving of consent; to overcome this objection to the use of prisoners, scientists would have to show that certain rights of prisoners outside the experimental situation are not violated. Analogously, to make the case for conscription of animals, scientists would have to work to protect their rights in nonscientific contexts.

Exemplary research is research which is most defensible ethically. Thus attention to the conditions under which research might be exemplary is a promising route to pursue, though, as I have argued, the specification of those conditions is more difficult than appears at first. Once the moral status of animals as beings with independent value is recognized, the position of animals in exemplary research is nonetheless, as Nelson has argued, ethically questionable, especially if we appeal to communal goods or obligations to the community to justify conscription.

"Pastoral"

Chickens don't scratch in the yard;
their world is a crowded cell.
No need to peck at anything,
they haven't any beaks.
Sow is immobilized for life;
she's a living breakfast machine.
The horses stand like statues of bone,
with icicles on their hooves.
Cow is full of penicillin;
her baby's in a small, dark crate.
There is no Old MacDonald,
just a corporate plan for Hell.

— Kathleen Malley

Letters to the Editors

Dear Editors:

The identification of my name under my article "What A Jew Should Do," in *BTS*, Summer, 1989, with the organization Jews for Jesus, struck me with the same hilarity Mark Twain felt reading his obituary in a newspaper. His response became memorable: "Reports of my death have been wildly exaggerated." I wish I could match that. My response will have to remain standard, though it has an historical resonance:

I am not now, nor have I ever been, a member of or associated with Jews for Jesus. My organization is Jews for Animal Rights. Our goals and methods are traditional and available to all Jews.

— Roberta Kalechofsky
Jews for Animal Rights

The Editors sincerely regret the foregoing error.

A Reply To My Critics

The nastiness of Professor Schwartz and a serious misunderstanding on the part of Ms. Kalechofsky do not inspire one to want to reply. I fear, however, that if I say nothing, readers will be left with the impression that I am unable to defend myself. Reluctantly, I begin.

It is true that I thought Schwartz was a "reform" Jew but my article was not, as Ms. Kalechofsky claims, based on the premise that Schwartz is "reform" and Rabbi Bleich "orthodox." Much of my piece sketches a history of the development of doctrine and it is during that sketch that I try to make clear my basic premises, which are as follows. Devout Jews need nothing more than the Torah if they are intelligent as well as devout. I painted a picture of the growth of the Mishnah and Talmudic scholarship as the effort of certain Jews to usurp the right of "lay" Jews to think for themselves. I drew an analogy with certain Catholic prohibitions upon "laymen," circa 1000 C.E., not to read the Bible. Implicit in my paper is the idea that there is no injunction in the Torah itself to take the Mishnah and Talmud as more holy or about as holy as Torah itself. I presented excerpts from classical "sages" that strike the unprejudiced Jew who has no axe to grind as absurdities on their face. Example: that we may torture a dead king's horse as a way of paying respect to him. As a philosopher, I am committed to the idea that people are only free when they stop slavishly accepting the opinions of "greater persons" and think every important issue through for themselves.

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