

President's Commission on Bioethics

Ethics of Synthetic Biology

Transcript from July 9, 2010, in Washington, D.C.

Full transcript : <http://bioethics.gov/transcripts/synthetic-biology/070910/ethics-of-synthetic-biology.html>

Q&A

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Nita Farahany:

I have two questions. First, I want to thank Mr. Rejeski for your specific recommendations. I thought they were incredibly helpful and your study I think is really quite enlightening for us, as well. My questions are actually directed to Dr. Wolpe.

The first one, I was quite surprised when you said there was no religious perspective, or difference at least, within the religious community. And I wonder if that was a representative population that you spoke to, because I would suspect there may be some differences, particularly around the questions of life, dualistic versus materialistic concerns about the creation of life. And so I wonder if the question of awareness, of the degree to which synthetic biology is being included under the sort of large umbrella, and whether or not you think that there may be concerns develop.

Let me ask you the second question. Your answer to incrementalism and to the rate of change was that we should create goals and incentives to keep in mind as a way to direct this. And I wonder if you have specific ideas as to what those goals and incentives are and if they would address the shifting rate of change in the environment.

Paul Wolpe:

Thank you. I wasn't trying to say there aren't religious objections to synthetic biology. There are some religious groups that object to virtually the entire modern scientific enterprise. I spoke to mostly official or high-place spokesmen for religion and these religious traditions asking them what their religious traditions say specifically about this particular case of the creation of the artificial cell. What I got in

response from almost all of them was, at this point, the actual act of creating a synthetic genome and inserting into a cell that replicates is not one that we have any particular ideological or theological objection to. I asked a very narrow question.

Nita Farahany:

It was not about synthetic biology generally or their views about it.

Paul Wolpe:

Right. And so far as the conversation as it went on as it invariably did as to where their problems lie, they tended to all be down the road or they tended to be in this more intrinsic issue of hubris or of proper limits of human intervention or of humility or issues like that. And I think part of the reason for that is that synthetic biology is nascent enterprise and, like us, nobody really knows all the implications of it are, and so there's a "let's wait-and-see" attitude.

But religious traditions, especially outside Christian religious traditions, tend to see the use of other forms of life to better human life as a legitimate enterprise within certain limits. So creation of synthetic biology products that would cure disease or help with things like mitigating pollution are seen as legitimate scientific goals.

The issue of incrementalism, the reason that I'm suggesting positive incentives rather than regulatory limits is because nobody knows and I certainly don't know where to put regulatory limits. And as I say, it always seems arbitrary. Therefore, in some sense, it is a very practical difficulty that leads me to suggest that positive incentives are a better policy strategy.

At this point, I think it's premature to suggest where the proper goals of synthetic biology are. That needs a little bit more time. But it is exactly what we do in medicine, of course. So we create the NIH. And the NIH looks at-- it is the steward of public funds. It looks at all the possible places that it could invest public funds. And it makes value decisions about what kinds of medical products, goals, cures, preventions are in the best public interest and then it incentivizes the system to try to move in those directions. That's what NSF, of course that's what all of our public funding agencies and private funding agencies do.

So I was just suggesting that it's such an intractable problem, the problem of incrementalism, that that is a better strategy, even though I don't really have a specific recommendation at this point about what specific goals that incentive program should pursue.

Nita Farahany:

Thank you.

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Daniel Sulmasy:

Thanks again. I think we were treated to three very different, but very, very good presentations. My question would be for Dr. Wolpe. Paul, you probably know there are sort of two ways we can think about

religious voices participating in public dialogues like the one this commission is conducting. One strategy is to sort of only give publicly accessible reasons. And the second is to allow people of religious communities to speak out of the fullness of their traditions. You seem to have allowed a broader sense of the second kind of participation in a dialogue like this. And I was wondering what you think the actual — if that's true, what the actual value is of allowing people to speak out of the thickness of their own traditions as part of a public debate about a contentious issue like this one.

Paul Wolpe:

I think the problem with religious perspectives in a society that's supposed to have a religion-state split is that religious traditions don't get to talk about why they really believe what they believe. If you get up in front of Congress or a commission and you say I think this is wrong because the Koran tells me it's wrong or the Torah or whatever your sacred scriptures are, it's the end of the conversation, not the beginning of the conversation. You have to translate parochial religious ideas into universal principles if you want to be—if you want to be convincing about why you should take actions. But I think underlying the parochial reasons that religious traditions think things, are often very deep principles that can be universally expressed. And I think that in our society, that is the greatest contribution of religious traditions because these are well thought-out, centuries old, much debated, much-- very nuanced positions. So that's what I tried to do here, rather than reiterating what I think are very easily accessible and commonly discussed religious positions about technological issues. I was trying to get underneath the surface and ask what is the font of concern from which religious objections spring?

Amy Gutmann:

Well, thank you all three. This has been enormously insightful and informative. I think it will help us moving forward. So I really like the idea, if you would mind my changing one word. Instead of knowledge tempered by wisdom, knowledge coupled with wisdom. And I think we, as a commission, would like to issue a report that is informed by the facts, knowledge, and driven by values, wisdom. To elevate it a bit. And I'd like to ask any of you to share — we can start, if you want, with Paul. What are the values that you see us having to deal with? What are the values that are most relevant to the issue of where synthetic biology is likely to go? The values that we need to deal with as a Presidential Commission. Just, I know this is a big question. But if you can give us one answer.

Paul Wolpe:

My answer would be that it isn't a single values question. It is a balancing of values problem. That is, when I talked about the fetishization of scientific progress, I wasn't trying to say I was against scientific progress. I am extraordinarily for it. I live my life in a medical environment and celebrate medical advances but there are other values, too, that have to be brought in. So I think your challenge is not so much what is the value we should represent in our report that will be the value that synthetic biology needs, but rather how do we create a report — and I think temperance might be the right word — that takes all of these competing values and balances them in a way that makes policy valuable.

Amy Gutmann:

I should say that why I asked about values, there was a famous philosopher who said that “values without facts are lame. Facts without values are blind.” So we take both sides of this. You can speak to either one.