

**CAN THE ETHICAL DIMENSION OF A SCIENTIFIC DISCOVERY BE  
DIVORCED FROM ITS HISTORICAL ASPECT?**

Naomi Beck, University of Chicago

As I understand it, the main goal of this panel is to engage in an interdisciplinary discussion on a given topic. In this respect, the specific topic of face transplants isn't the focus of our debate, but rather the question is what the interaction of different approaches can teach us on a meta-level of discussion about the dialogue across disciplines in itself.

I come from the field of history of science and my own research deals with the relationship between scientific and political ideas, and more specifically with the influences of particular circumstances, related to a specific historical context, on the diffusion, interpretation, and subsequent use of evolutionary theories. So, in an over-simplified formula, one could say that I study science in the broad cultural context.

Clearly, this is relevant to the issue of face transplants, and ethical questions of all sorts immediately spring to mind. Questions like: how this new technology may affect our way of thinking about individuality, identity, etc.? What should we use it for? Who should get permission to use it? And so forth. However, what I would like to highlight in my ten minute presentation is the fact that the "ethical dimension" is already a component of the question even before the procedure makes it to the drawing board. Thus, in order to seriously deal with the ethical issues, we need to take into account the context within which a certain discovery or innovation is made and not only what we should do with it once it is out there and available.

In this respect, the specificities of time and place, the historical circumstances of an innovation, are of utmost importance. You are probably all familiar with, or maybe even followed in the news, the story of the first partial face transplant in France last November, and then, a few weeks ago, the press conference with the patient herself and her two doctors. Interestingly, there was a parallel story in the news that may at first seem unrelated but could present interesting points of comparison: it is the story of the South Korean scientist, Dr. Hwang Woo Suk, who was accused of falsifying evidence for landmark papers on stem-cell and embryonic research in 2004-2005.

Consider, for example, titles from articles on the two stories: on the one hand, “French, in First, Use a Transplant to Repair a Face;” on the other hand, “In a Country That Craved Respect, Stem Cell Scientist Rode a Wave of Korean Pride” (both appeared in the *New York Times*, 1 December 2005 and 22 January 2006, respectively). What these two titles illustrate very clearly is that the place of scientific discoveries or pioneer experiments is at least as important as the discovery itself. The reason for this lies with the deep political implications that science has as an enterprise within a society.

Any scientific discovery or innovation comes out of a specific cultural and ethical setup that contributes to some degree in directing scientific development in one way or another. Because science—and nowadays this is truer than ever—is an enterprise that requires money. An interesting question to ask, therefore, is who gives the money, who finances or backs up science, and how that affects the direction of scientific development itself; and this is something we need to ask ourselves even before we consider how it is that we should use this or that discovery or technology.

Let me quickly give you another example to show the importance of the historical context. In one of the first articles on the French face transplant, the reader was offered the following information: “It has been technically possible to carry out such a transplant for some years, with teams in the US, the UK and France researching the procedure [...] But the ethical concerns of a face transplant, and the psychological impact to the patient of looking different has held teams back” (BBC News, on <http://news.bbc.co.uk>, 30 November 2005).

When reading this, I could not ignore the fact that the US, Britain, and France are the historic twentieth-century triad of Western democracies, the powers of liberty, against the more dubious sovereign states of the East. Granted, France wasn't always reliable in this respect. Nonetheless, think what the titles of the articles I mentioned earlier would have looked like if the facts were inversed: if, for example, the first face transplant would have taken place in South Korea, and the scientific forgery in France. Would, then, the article on the South Korean scientist still focus mainly on the issue of the “pride of the country,” and the article on the face transplant still have a pseudo-neutral description of the medical procedure?

Perhaps we would get very different titles and, on the one hand, a much more alarming heading to describe the breakthrough in performing the first face-transplant in South Korea (who knows, maybe even North Korea would be mentioned); whereas on the other hand, the article on France would perhaps be focused more on the scientist himself, his personality problems and character flaws. Maybe a case of forgery in France would have been written off as a glitch in the system. Certainly nothing to be taken

lightly, but definitely not something that questions the status of French science in the eyes of the world, or more importantly the motives that drive it.

What I'm trying to claim is that the importance of the time and place of scientific discoveries leads to an interesting paradox within the scientific enterprise itself. We cannot really know what scientific discoveries are going to tell us (this is the nature of discovery, otherwise it has no meaning), or, in this case, what the implications of a new procedure might be—and yet we feel the need to control science.

This is so because to a certain extent, science in itself is neutral, and because it is neutral we have to make sure that it isn't. Let me explain. Science is neutral in the sense that the procedure of a face transplant, from a scientific point of view, is the same as a kidney transplant or any other transplant for that matter. It is perhaps more difficult and complex, but this is a difference of degree, not of kind. From a medical point of view, a transplant is a transplant, and the medical criterion for success is whether the body accepts it or rejects it.

Thus, one could say, rather provocatively, that science only acquires a meaning when it is put in motion and used, and it is put in motion and used by specific individuals in specific times and places. This is why we feel that we have to make sure that scientific discoveries do not fall into the wrong hands. But this is only looking at the bottom half of a picture.

We need first to seriously examine the springs that put science in motion and see on what kind of principles it operates. The business of allocating budgets, or favouring this field of scientific research rather than another, is a social act that is determined by

social, political, and moral values; and in this sense, it invests the scientific enterprise with ethical content long before a breakthrough is made.

To conclude this short presentation, it would be interesting to ask what sort of society is interested in face transplants. Who decides that it is important to put money into this type of research rather than to increase the budget for research on, say, finding a cure for cancer or for AIDS? What does that say about our social values? Is a face transplant of the same order as cosmetic and plastic surgery or is it something else, and if so, how?