

An unholy alliance

The Nazis showed that 'politically responsible' science risks losing its soul.

Ute Deichmann

In 1947, Max Delbrück, the German-born physicist-turned-geneticist then resident in the United States, was preparing to visit Germany. Hermann Muller, a US geneticist, asked him to find out which German geneticists had never voluntarily helped the Nazi regime. This information, he suggested, "would be very helpful to our Committee on Aid to Geneticists Abroad, because many of the members ... do not want to have their money used to help people who had taken part in the prostitution of science".

Seven years earlier, Sir Richard Gregory, former editor of *Nature*, pointed out the dangers of basing science on principles other than scientific ones: "To make race, political convictions, or religious faith, barriers to the pursuit of natural knowledge, means that science in Nazi Germany loses its soul for the purpose of gaining the world." Muller and Gregory believed that science is so pure that its ideological and practical support of Nazi race policy could be called a prostitution, and is so universal and independent of national or ethnic affiliations that it would lose its soul if it excluded people of supposedly different races.

More recently, disillusionment about the contributions of eminent scientists to the Nazi regime has led many to question the notion of a pure, universal, basic science, and even to reject it as a myth. Instead, science has been redefined as a socially organized, political enterprise with a high potential for creating power. Proponents of this view argue that science must be politically responsible, directed towards socially acceptable goals, and assessed according to its long-range consequences.

But the call for politically responsible science, and hence more power for scientists, does not guarantee an ethical stance. Environmentalists' attempts in the 1980s to create a 'political ecology' as the 'guiding science of post-modernism' is a case in point. The intellectual origins of their criticisms of 'causal reductionist' science lie in the 1920s, when German ecologists, among them Karl Friederichs, proclaimed ecology as a path to "a view of the world, in which everything is related to everything else, everything directly or indirectly affects everything else". Friederichs became a leading Nazi ecologist, and he and his colleagues created and spread the view of biology as an eminent political sci-



Loaded questions: a German physician conducts 'ethnological' research on a gypsy woman. Left: Adolf Windus, who resisted calls to "serve the general good".



ence aimed at serving "the benefit of the people [Volk]" and of ecology as the "doctrine of blood and soil".

Eugenics, or race hygiene, is another case of scientists claiming to act in a politically responsible manner. To avert long-range threats to the gene pool they demanded compulsory sterilization of 'genetically unfit' people. These attempts to create a politically responsible biology ended disastrously. If we criticize reductionist science for having contributed to the technical and military power of the Nazis, we have to acknowledge that 'politically responsible' biologists provided for their ideological and political power.

In contrast to the rhetoric of his fellow German scientists, Adolf Windaus, the 1928 Nobel laureate for chemistry — and one of the few who refused to compromise or work with the Nazis — frankly admitted that his science had no ethical agenda. In 1948, a colleague argued that "it is the final task of every science to serve the general good".

"I have always felt differently," replied Windaus. "My motive has been scientific curiosity. I wanted to know what is the structure of a substance... I have never thought that by this I might serve the general good. ... I was induced to remind myself of all this, because recently a Swiss philosopher strongly criticised scientific curiosity, the quest for knowledge, for the sake of knowledge, as value-free science. He even attributed the atrocities of the experiments on defenceless

humans to such curiosity. I believe a scientist is self-evidently bound to ethical principles, as is every man, but his quest for knowledge has, at first, nothing to do with morality."

Windaus was right to point to a scientific level outside politics, ethics and applications. It is not the quest for knowledge that was responsible for the atrocities, but, as Windaus argued, the fact that scientists did not pay due regard to normal ethical principles. Nazi 'moral standards' were not imposed on scientists. On the contrary, for whatever reason — opportunism, conviction, promotion or power — scientists lent their support to ranking human beings as valuable, inferior or worthless, hence providing the ideological basis of the Nazi state.

Otmar von Verschuer, for example, the director of the Kaiser Wilhelm Institute for Anthropology, collaborated with Josef Mengele in Auschwitz. His acceptance of organs and blood from deliberately infected concentration-camp inmates, stands, according to the German geneticist Benno Müller-Hill, as the most infamous crime in which geneticists have participated. These researchers clearly transgressed the limits of science.

The example of Nazi Germany shows that 'politically responsible' science endowed with power can have disastrous consequences for innocent people and for science itself. The call for politically responsible science, frequently heard today, cannot solve the problem of how scientists can prevent science from serving immoral, inhuman ends. ■

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