

THE NAZI DOCTORS AND THE NUREMBERG CODE

Human Rights in
Human Experimentation

Edited by

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THE NUREMBERG CODE

1. The voluntary consent of the human subject is absolutely essential.

This means that the person involved should have legal capacity to give consent; should be so situated as to be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress, overreaching, or other ulterior form of constraint or coercion; and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to enable him to make an understanding and enlightened decision. This latter element requires that before the acceptance of an affirmative decision by the experimental subject there should be made known to him the nature, duration, and purpose of the experiment; the method and means by which it is to be conducted; all inconveniences and hazards reasonably to be expected; and the effects upon his health or person which may possibly come from his participation in the experiment.

The duty and responsibility for ascertaining the quality of the consent rests upon each individual who initiates, directs or engages in the experiment. It is a personal duty and responsibility which may not be delegated to another with impunity.

2. The experiment should be such as to yield fruitful results for the good of society, unprocurable by other methods or means of study, and not random and unnecessary in nature.

3. The experiment should be so designed and based on the results of animal experimentation and a knowledge of the natural history of the disease or other problem under study that the anticipated results will justify the performance of the experiment.

4. The experiment should be so conducted as to avoid all unnecessary physical and mental suffering and injury.

5. No experiment should be conducted where there is an *a priori* reason to believe that death or disabling injury will occur; except, perhaps, in those experiments where the experimental physicians also serve as subjects.

6. The degree of risk to be taken should never exceed that determined by the humanitarian importance of the problem to be solved by the experiment.

7. Proper preparations should be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability, or death.

8. The experiment should be conducted only by scientifically qualified persons. The highest degree of skill and care should be required through all stages of the experiment of those who conduct or engage in the experiment.

9. During the course of the experiment the human subject should be at liberty to bring the experiment to an end if he has reached the physical or mental state where continuation of the experiment seems to him to be impossible.

10. During the course of the experiment the scientist in charge must be prepared to terminate the experiment at any stage, if he has probable cause to believe, in the exercise of the good faith, superior skill, and careful judgment required of him, that a continuation of the experiment is likely to result in injury, disability, or death to the experimental subject.

1

Introduction

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This book grew out of our continuing work on the ethics and law of human experimentation. The themes of patients' rights and the protection of human subjects of research have led us to broader public policy considerations. Since all contemporary debate on human experimentation is grounded in Nuremberg, it is the goal of this project to explore the history, context, and implications of the Doctors' Trial at Nuremberg and the impact of the Nuremberg Code on subsequent codes of research ethics and international human rights. The Nuremberg Code was an attempt to formulate a universal natural law standard for human experimentation. This book explores the origin and influence of the code for human rights in the United States and throughout the world.

The most important historical forum for questioning the permissible limits of human experimentation was the trial of Nazi physicians in post-World War II Nuremberg, Germany. The trial provided the occasion for a substantive analysis of ethical standards. The physicians and professors prosecuted at Nuremberg represent a frightening example of medicine gone wrong. The extent of human experimentation, atrocities, and murders that were recorded during the trials is inescapable. Most relevant, however, was the focus on universal ethical codes within the context of a criminal trial.

After the war, the United States and its allies were involved in a succession of criminal trials. Perhaps the most famous Nuremberg trial involved the military officers of the Third Reich. Other trials involved soldiers, industrialists, and politicians. The Doctors' Trial, although less well known, is perhaps the most disturbing chapter of Nazi ideology. How could physician healers have turned into murderers? This is among the most profound questions in medical ethics. To understand the Nuremberg Code, one must understand the setting and circumstances of these Nuremberg trials.

The Doctors' Trial, also known as the "Medical Case," was tried at the Palace of Justice in postwar Nuremberg Germany. The trial was Case No. 1 of Military Tribunal I and was officially designated United States of America v. Karl Brandt et al. The trial was conducted under U.S. military auspices according to the Moscow Declaration on German Atrocities (November 1, 1943, signed by Roosevelt, Churchill, and Stalin), Executive Order 9547 (May 2, 1945, signed by Truman), and the London Agreement (August 8, 1945, signed by the United States, the French Republic, the United Kingdom, and the Union of Soviet Socialist Republics). The Charter of the International Military Tribunal was drawn up, and Control Council Law No. 10 established a uniform legal basis in Germany for the prosecution of war criminals and other similar offenders other than those dealt with by the International Military Tribunal. Signed on December 20, 1945, Control Council Law No. 10 established the articles for the punishment of persons guilty of war crimes, crimes against peace, and crimes against humanity.¹

President Truman provided for the representation of the United States in preparing and prosecuting charges of atrocities and war crimes in January 1946. The military government in the U.S. zone of Germany set out the organization and powers of certain military tribunals in October 1946 and February 1947. Military Tribunal I was constituted on October 25, 1946. The judges designated as members of Tribunal I to hear Case No. 1 were Walter Beals, Harold Sebring, Johnson Crawford, and Victor Swearingen. The chief of counsel for the prosecution was Brigadier General Telford Taylor. The chief prosecutor was James McHaney.

The Tribunal for the Doctors' Trial convened 139 times following the indictment and arraignment of the 23 defendants. The prosecution's opening statement was made on December 9, 1946, and the judgment was delivered some 8 months later, on August 19, 1947. There were a total of 85 witnesses, 1,471 documents, and 11,538 pages of transcript. The Tribunal reviewed prosecution and defense exhibits, which included documents, photographs, affidavits, interrogations, letters, maps, and charts. On August 20, 1947, the death sentence was imposed on Karl Brandt, Rudolf Brandt, Karl Gebhardt, Joachim Mrugowsky, Victor Brack, Wolfram Sievers, and Waldemer Hoven.

Counts 2 and 3 of the guilty verdict were for war crimes and crimes against humanity. The human experimentation carried out by the Nazi physicians included both war-related and non-war-related activities. The judgment contains the documented proof of crimes and proceeds to the question of the permissibility of medical experimentation. The judgment concludes with enumeration of a 10-point code of human experimentation ethics that is now known as the Nuremberg Code.

That the Nuremberg Code is relevant to modern medical research cannot be doubted. A few contemporary events illustrate its relevance. In the May 17, 1990, *New England Journal of Medicine*, Robert Berger, a surgeon and

Holocaust survivor, published an article focusing on the Nazi data obtained from the hypothermia experiments at the Dachau, Germany, concentration camp in 1942 and 1943. This article highlighted the continued debate on the science and on appropriate use and citation of unethically obtained research data from human experimentation by Nazi physicians.²

In the October 18, 1990, issue of *Nature*, there is a report of a World Health Organization official investigating claims that an untested AIDS treatment was being administered to children, mostly orphans, in violation of international research ethics, in a hospital in Bucharest, Romania.³

On December 21, 1990, the U.S. Food and Drug Administration published a new regulation permitting the Commissioner to determine that the requirement for obtaining informed consent from all human subjects prior to the use of an experimental drug or vaccine could be waived for Desert Shield participants when it was not feasible in "certain battlefield or combat-related" situations. The regulation further noted that the term "combat-related" might mean only the threat of combat. The request for this regulation came from the U.S. Department of Defense, which claimed that "military combat is different."⁴ In October 1990, the World Medical Association called on its physician members to stop all research on chemical weapons and germ warfare experiments.⁵

In November 1991 it was suggested that the AIDS epidemic may have originated from malaria experiments in which humans were directly inoculated with chimpanzee or mangabey blood.⁶ Most of these experiments—both pre- and post-Nuremberg—violated precepts of the Nuremberg Code. In 1991, French officials admitted that AIDS-contaminated blood was knowingly used for blood transfusions and the production of factor 8 (for hemophiliacs) in 1985.⁷ Although not technically an "experiment" (criminal charges have been filed against the physicians involved), the decision to permit this contaminated blood to be used violated two major points of the Nuremberg Code.

Less than one year after the reunification of Germany, in the fall of 1991, it was revealed that East German scientists and physicians had for more than a decade been using "men, women, and children as human guinea pigs in a state-sponsored research program intended to perfect steroid hormone drugs" in an effort "to develop compounds that would boost the performance of East German athletes . . ." The investigation is ongoing as this book goes to press, but it appears that research was conducted on children without their consent (or that of their parents), and that permanent damage was done to many of the athletes. For now, however, according to Lutz Nover of the Institute for Plant Biochemistry in Halle, a longtime opponent of the Communist regime, "No one is asking about ethics."⁸

All of these contemporary events are concerned with the nature, scope, and limits of medical research and the legal justification and ethical standards for the conduct of human experimentation. The search for universal

international codes of research ethics has had a disturbing history. Virtually all scholarly inquiries into the content, and the universality of ethical and legal norms of human experimentation, are divided into a pre-Nuremberg and a post-Nuremberg era. Abuses of human subjects by the medical and scientific communities have served as a focal point for reassessment and promulgation of ongoing standards. No atrocities, however, can be compared to the human experimentation carried out by Nazi medical doctors during the Second World War.

The chief of counsel for the prosecution, Brigadier General Telford Taylor, delivered the opening statement at the Nuremberg Tribunal:

The defendants in this case are charged with murder, tortures and other atrocities committed in the name of medical science. The victims of those crimes are numbered in the hundreds of thousands. A handful are still alive; a few of the survivors will appear in this courtroom. But most of these miserable victims were slaughtered outright or died in the course of the tortures to which they were subjected.

For the most part they are nameless dead. To their murderers, these wretched people were not individuals at all. They came in wholesale lots and were treated worse than animals.

The Nuremberg Code set the general agenda for all future ethical and legal questions pertaining to the conduct of human experimentation. What are the individual and societal values that justify science and technology? What are the source and the imperative of the quest for knowledge? Who decides on the limits of the scientific endeavor? Who determines the benefits and who sets the research agenda? How are responsibility and culpability determined? If controls and regulations are needed, should they be established at the level of law or ethical code? Who has the expert authority to carry out human experimentation? What roles, interests, goals, judgments, and standard of competence must investigators adhere to? How willing are we to risk human life to serve individual or societal ends? What are the limits of acceptable consequences and harm to human subjects? How is harm assessed, and what is the distinction between therapeutic and non-therapeutic research? How central a role should informed consent play in the acceptability of human experimentation? What are the roles of professional, private, and public institutions? What added safeguards might be necessary to protect vulnerable populations such as minors, the incompetent, and the disenfranchised? Is it ever justifiable to use prison populations as research subjects? Who should monitor the research process? And finally, how should society deal with human rights abuses in human experimentation?

This book is an attempt to answer some of these questions. It is divided into four major parts, each of which focuses on the interplay of history and human experimentation. A central theme is the pivotal role Nuremberg has played and continues to play in the ethics, law, and ethos of the protection of

human subjects in medical research. The common theme is the attempt to understand the context, origins, and significance of the Nuremberg Code for today and tomorrow.

Part I focuses on the Nazi doctors and their medical experiments. One cannot understand the context of Nuremberg without a foundational knowledge of the nature of prewar German medicine, and how social Darwinism and notions of racial hygiene meshed with Nazi ideology to foster the atmosphere necessary to carry out these human atrocities. This part addresses the extent of German physicians' knowledge of and complicity in human experimentation. The victims' perspective serves as the grounding for all further explorations of human rights and dignity.

Part II consists partly of edited primary documents from the Doctors' Trial itself, including the prosecution's opening statement, and the final judgment, which contains the Nuremberg Code. An excerpt from the German official court observers covers the sentencing and aftermath of the trial. This part also outlines the historical origins of codes of research ethics and details the sources of the Nuremberg Code itself.

Part III analyzes the role of the Nuremberg Code in international and U.S. law. The Code's influence on later international regulations and directives is traced. Despite the fact that the Code was promulgated by U.S. judges in a U.S. military tribunal, it has rarely been cited in U.S. courts. In fact, only a few human experimentation cases have ever been tried in a court of law. The use of the Code as a basis for legislation and regulation is also addressed, with special attention to its influence on the regulation of research on fetuses and prisoners.

Part IV attempts to put the ethical principles of the Nuremberg Code in the context of modern medical research. This part addresses the centrality of informed consent, suggesting that without consent there is no other rationale to justify human experimentation. Two chapters address the specific ethical concerns of relativism, and the justification for the modern invocation of Holocaust metaphors in the context of medical ethics and research. The responsibility of scientific publications and editorial reviews in monitoring the ethics of human experimentation is analyzed. Finally, the application of the Nuremberg Code and its principles to the increasing complexity of modern therapeutic research is discussed.

In a concluding chapter we ask, where do we go from here? Among other things, we endorse past calls for an international covenant on nontherapeutic human experimentation. We also discuss the more refined and difficult task of developing a consensus of the appropriate ethical norms for nontherapeutic research with incompetent subjects and for the limits of therapeutic research.

The theme of human rights in human experimentation is a universal one. The need to respect the humanity and self-determination of all humans is central to the ethos not only of medicine and human experimentation but of all civilized societies. This may be the simplest and yet most profound conclusion of our project.

NOTES

1. *The Declaration on German Atrocities, Executive Order 9547, and the London Agreement of 8 August 1945* are reproduced here. *Control Council Law No. 10* appears at p. 317.

DECLARATION ON GERMAN ATROCITIES

[Moscow Declaration]

Released November 1, 1943

THE UNITED KINGDOM, the United States and the Soviet Union have received from many quarters evidence of atrocities, massacres and cold-blooded mass executions which are being perpetrated by the Hitlerite forces in the many countries they have overrun and from which they are now being steadily expelled. The brutalities of Hitlerite domination are no new thing and all the peoples or territories in their grip have suffered from the worst form of government by terror. What is new is that many of these territories are now being redeemed by the advancing armies of the liberating Powers and that in their desperation, the recoiling Hitlerite Huns are redoubling their ruthless cruelties. This is now evidenced with particular clearness by monstrous crimes of the Hitlerites on the territory of the Soviet Union which is being liberated from the Hitlerites, and on French and Italian territory.

Accordingly, the aforesaid three allied Powers, speaking in the interests of the thirty-two [thirty-three] United Nations, hereby solemnly declare and give full warning of their declaration as follows:

At the time of the granting of any armistice to any government which may be set up in Germany, those German officers and men and members of the Nazi party who have been responsible for, or have taken a consenting part in the above atrocities, massacres, and executions, will be sent back to the countries in which their abominable deeds were done in order that they may be judged and punished according to the laws of these liberated countries and of the free governments which will be created therein. Lists will be compiled in all possible detail from all these countries having regard especially to the invaded parts of the Soviet Union, to Poland and Czechoslovakia, to Yugoslavia and Greece, including Crete and other islands, to Norway, Denmark, the Netherlands, Belgium, Luxemburg, France and Italy.

Thus, the Germans who take part in wholesale shootings of Italian officers or in the execution of French, Dutch, Belgian, or Norwegian hostages or of Cretan peasants, or who have shared in the slaughters inflicted on the people of Poland or in territories of the Soviet Union which are now being swept clear of the enemy, will know that they will be brought back to the scene of their crimes and judged on the spot by the peoples whom they have outraged. Let those who have hitherto not imbrued their hands with innocent blood beware lest they join the ranks of the guilty, for most assuredly the three allied Powers will pursue them to the uttermost ends of the earth and will deliver them to their accusers in order that justice may be done.

The above declaration is without prejudice to the case of the major criminals, whose offences have no particular geographical localisation and who will be punished by the joint decision of the Governments of the Allies.

[Signed]
Roosevelt
Churchill
Stalin

EXECUTIVE ORDER 9547

PROVIDING FOR REPRESENTATION OF THE UNITED STATES IN PREPARING AND PROSECUTING CHARGES OF ATROCITIES AND WAR CRIMES AGAINST THE LEADERS OF THE EUROPEAN AXIS POWERS AND THEIR PRINCIPAL AGENTS AND ACCESSORIES

By virtue of the authority vested in me as President and as Commander in Chief of the Army and Navy, under the Constitution and statutes of the United States, it is ordered as follows:

1. Associate Justice Robert H. Jackson is hereby designated to act as the Representative of the United States and as its Chief of Counsel in preparing and prosecuting charges of atrocities and war crimes against such of the leaders of the European Axis powers and their principal agents and accessories as the United States may agree with any of the United Nations to bring to trial before an international military tribunal. He shall serve without additional compensation but shall receive such allowance for expenses as may be authorized by the President.

2. The Representative named herein is authorized to select and recommend to the President or to the head of any executive department, independent establishment, or other federal agency necessary personnel to assist in the performance of his duties hereunder. The head of each executive department, independent establishment, and other federal agency is hereby authorized to assist the Representative named herein in the performance of his duties hereunder and to employ such personnel and make such expenditures, within the limits of appropriations now or hereafter available for the purpose, as the Representative named herein may deem necessary to accomplish the purposes of this order, and may make available, assign, or detail for duty with the Representative named herein such members of the armed forces and other personnel as may be requested for such purposes.

3. The Representative named herein is authorized to cooperate with, and receive the assistance of, any foreign Government to the extent deemed necessary by him to accomplish the purposes of this order.

Harry S. Truman

The White House,

May 2, 1945.

(F.R. Doc. 45-7256; Filed, May 3, 1945; 10:57 a. m.)

LONDON AGREEMENT OF 8 AUGUST 1945

AGREEMENT by the Government of the UNITED STATES OF AMERICA, the Provisional Government of the FRENCH REPUBLIC, the Government of the UNION OF SOVIET SOCIALIST REPUBLICS for the Prosecution and Punishment of the MAJOR WAR CRIMINALS of the EUROPEAN AXIS.

WHEREAS the United Nations have from time to time made declarations of their intention that War Criminals shall be brought to justice;

AND WHEREAS the Moscow Declaration of the 30th October 1943 on German atrocities in Occupied Europe stated that those German Officers and men and members of the Nazi Party who have been responsible for or have taken a consenting part in atrocities and crimes will be sent back to the countries in which their abominable deeds were done in order that they may be judged and punished according to the laws of these liberated countries and of the free Governments that will be created therein;

AND WHEREAS this Declaration was stated to be without prejudice to the case of major criminals whose offenses have no particular geographical location

and who will be punished by the joint decision of the Governments of the Allies;

NOW THEREFORE the Government of the United States of America, the Provisional Government of the French Republic, the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the Union of Soviet Socialist Republics (hereinafter called "the Signatories") acting in the interests of all the United Nations and by their representatives duly authorized thereto have concluded this Agreement.

Article 1. There shall be established after consultation with the Control Council for Germany an International Military Tribunal for the trial of war criminals whose offenses have no particular geographical location whether they be accused individually or in their capacity as members of organizations or groups or in both capacities.

Article 2. The constitution, jurisdiction and functions of the International Military Tribunal shall be those set out in the Charter annexed to this Agreement, which Charter shall form an integral part of this Agreement.

Article 3. Each of the Signatories shall take the necessary steps to make available for the investigation of the charges and trial the major war criminals detained by them who are to be tried by the International Military Tribunal. The Signatories shall also use their best endeavors to make available for investigation of the charges against and the trial before the International Military Tribunal such of the major war criminals as are not in the territories of any of the Signatories.

Article 4. Nothing in this Agreement shall prejudice the provisions established by the Moscow Declaration concerning the return of war criminals to the countries where they committed their crimes.

Article 5. Any Government of the United Nations may adhere to this Agreement by notice given through the diplomatic channel to the Government of the United Kingdom, who shall inform the other signatory and adhering Governments of each such adherence.

Article 6. Nothing in this Agreement shall prejudice the jurisdiction or the powers of any national or occupation court established or to be established in any allied territory or in Germany for the trial of war criminals.

Article 7. This agreement shall come into force on the day of signature and shall remain in force for the period of one year and shall continue thereafter, subject to the right of any Signatory to give, through the diplomatic channel, one month's notice of intention to terminate it. Such termination shall not prejudice any proceedings already taken or any findings already made in pursuance of this Agreement.

IN WITNESS WHEREOF the Undersigned have signed the present Agreement.

DONE in quadruplicate in London this 8th day of August 1945 each in English, French and Russian, and each text to have equal authenticity.

For the Government of the United States of America
Robert H. Jackson

For the Provisional Government of the French Republic
Robert Falco

For the Government of the United Kingdom of Great Britain
and Northern Ireland

Jowitt, C.

For the Government of the Union of Soviet Socialist Republics

I. Nikitchenko

A. Trainin

2. L. Altman, "Nazi Data on Hypothermia Termed Unscientific," *New York Times*, May 17, 1990, p. B11, and R. Berger, "Nazi Science—The Dachau Hypothermia Experiments," *New England Journal of Medicine* 322 (1990): 1435-1440. Also see M. Angell, "The Nazi Hypothermia Experiments and Unethical Research Today," *New England Journal of Medicine* 322 (1990): 1462-1465.

3. S. Dickman and P. Aldhous, "WHO Concern Over New Drug," *Nature* 347 (1990): 606.

4. Department of Health and Human Services, Food and Drug Administration, "Informed Consent for Human Drugs and Biologics: Determination That Informed Consent Is Not Feasible: Interim Rule and Opportunity for Public Comment," *Federal Register* 55: 52814-52816 (1990). Also see G. Annas and M. Grodin, "Our Guinea Pigs in the Gulf," *New York Times* (January 8, 1991), p. A22, and J. Foreman, "Ethicists Assail Plan to Give Troops Unapproved Vaccine," *Boston Globe* (January 9, 1991), p. 1D.

5. World Medical Association, "Declaration on Chemical and Biological Weapons," adopted by the 42nd World Medical Assembly, Rancho Mirage, California, October 1990.

6. C. Gilks, "AIDS, Monkeys and Malaria," *Nature* 354 (1991): 262.

7. D. L. Breo, "Blood, Money, and Hemophiliacs—The Fatal Story of France's 'AIDSgate'," *Journal of the American Medical Association* 266 (1991): 3477-3482.

8. S. Dickman, "East Germany: Science in the Disservice of the State," *Science* 254 (1991): 26-27.

9. Ibid.

I
**THE NAZI DOCTORS
AND THE
MEDICAL EXPERIMENTS**

This part addresses the nature, source, and scope of Nazi medical experimentation. In his preface, Elie Weisel asks how medical doctors could have performed such murderous crimes against humanity. The crimes themselves, however, must be seen in conjunction with Nazi ideology and eugenic beliefs.

In Chapter 2, historian Robert Proctor argues that Nazi experimentation is rooted in the pre-1933 racial hygiene movement. He argues that, far from being passive pawns or a small minority in the Nazi effort, physicians were instrumental in formulating, and took the lead in carrying out, the Nazi racial hygiene program. The Nazi theory, based on a social Darwinist view of genetics and racial purity, meshed perfectly with the Nazi ideology. Physicians became leaders in the National Socialist Party and were honored for their work.

Christian Pross, a German physician and historian, has been instrumental in uncovering the extent of Nazi physicians' involvement in human experimentation. In 1989, he organized an exhibit for the West German Medical Society that was the first formal recognition of Nazi medical involvement by this society since the Nuremberg war crimes trials. In Chapter 3, Pross highlights the broad nature of physician involvement, from professor to common practitioner. He also discusses the attempts to cover up and rewrite this period of medical history.

Eva Mozes-Kor is a survivor of the infamous Mengele twin experiments. Ms. Kor is the president and founding member of an international organization called CANDLES—Children of Auschwitz Nazi Deadly Lab Experiments Survivors. Mengele, the “Angel of Death,” was one of the most notorious of the Nazi physicians. Eyewitness accounts summarize the cold and murderous brutality of this M.D.-Ph.D. “man of science.” Some of his most horrifying work involved genetically-related experiments performed on children who were twins, many of whom he personally killed. In an affidavit, one of his prison assistants, Dr. Miklos Nyiszli, described how Mengele killed fourteen Gypsy twins:

In the work room next to the dissecting room, fourteen Gypsy twins were waiting and crying bitterly. Dr. Mengele didn't say a single word to us, and prepared a 10 cc and a 5 cc syringe. From a box he took Evipal and from another box he took chloroform, which was in 20 cc glass containers, and put these on the operating table. After that the first twin was brought in . . . a fourteen year old girl. Dr. Mengele ordered me to undress the girl and put her head on the dissecting table. Then he injected

the Evipal into her right arm intravenously. After the child had fallen asleep, he felt for the left ventricle of the heart and injected 10 cc of chloroform. After one little twitch the child was dead, whereupon Dr. Mengele had her taken into the corpse chamber. In this manner all fourteen twins were killed during the night.¹

Dr. Nyiszli first observed this method of killing when it was used on four pairs of twins, all under 10 years of age. Mengele was interested in them because three of the pairs had different-colored eyes. He had them killed, and their eyes and other organs removed and shipped to the Kaiser Wilhelm Institute in Berlin, marked "War Materials—Urgent."

In Chapter 4, Eva Mozes-Kor gives her personal account of Mengele and the extent of human experimentation. Ms. Kor describes the types of experimentation and the human horror and tragedy of those atrocities. And she sets an ethical agenda for the progress of medical research from the perspective of a victim of Nazi experimentation.

NOTES

1. G. L. Posner and J. Ware, *Mengele: The Complete Story* (New York: McGraw-Hill, 1986), p. 39.

2

Nazi Doctors, Racial Medicine, and Human Experimentation

ROBERT N. PROCTOR

Only a good person can be a good physician.

Rudolf Ramm, the leading Nazi medical ethicist, 1942

The human experimentation carried out by physicians in Nazi concentration camps can be understood only within the context of the German militarized state and the racial hygiene movement.¹ Profound and disturbing questions arise concerning how and why physicians were able to engage in these medical crimes and atrocities. How could men and women sworn to the Hippocratic oath, trained as professionals in the world's most advanced scientific culture, come to commit crimes that even today stand as exemplars of evil?

My interest in these questions is part of a larger interest in what can be called the "political history of science": How do political formations shape the structure of science? Why do scientists support or resist the emergence of a particular political order? How does this pattern of support or resistance differ from discipline to discipline? Why do governments find it in their interest to support one kind of science and not another? And how are the theories or methods in a particular science shaped by the larger political order?

The well-established fact of medical complicity in Nazi crimes² does not fit well with traditional views of how scientists or other professionals establish and maintain norms of conduct. It used to be argued (by both logical positivists and many liberal sociologists) that science is either *inherently democratic* (that is, it depends on and contributes to democratic political formations) or, at worst, *apolitical*, and that the politicization of science implies its destruction. Science, in this view, must have only itself as a goal and a guide; science in the service of "interests" is no longer science. There is a political view implicit in this judgment — namely, that science grows only in

the soil of democracy and that social forces hostile to democracy will be hostile to science. Such a view holds that science in a totalitarian regime is fated to be suppressed. The possibility that science (or medicine) might contribute to fascist movements is ruled out.

The point I would like to make here, however, is that this conclusion is not borne out when we look at medicine under the Nazis. Biomedical scientists played an active and leading role in the initiation, administration, and execution of each of the major Nazi racial programs. In this sense, science (especially biomedical science) under the Nazis cannot be seen simply as an essentially *passive and apolitical* scientific community responding to *external* political forces. This model of science as passive and apolitical in the face of Nazi racial politics underestimates the extent to which political initiatives arose from within the medical community and the extent to which medicine was an integral part of the Nazi program. It is a mistake, in other words, to view the relation of physicians and the state in this period as essentially one of hostility. Certain forms of medicine were indeed suppressed, but others did quite well.

EARLY RACIAL HYGIENE

The kind of science I focus on is what was known as *racial hygiene*. At the end of the nineteenth century, German social Darwinists, fearing a general "degeneration" of the human race, set about to establish a new kind of hygiene—a racial hygiene (*Rassenhygiene*) that would turn the attention of physicians away from the individual or the environment and toward the human germ plasm. In the eyes of its founders (Alfred Ploetz and Wilhelm Schallmayer), racial hygiene was supposed to complement personal and social hygiene; racial hygiene would provide long-run preventive medicine for the "German germ plasm" by combatting the disproportionate breeding of "inferiors," the celibacy of the upper classes, and the threat posed by feminists to the reproductive performance of the family.³

Interestingly, the early racial hygiene movement was primarily nationalistic and meritocratic rather than anti-Semitic or Nordic supremacist. Eugenicists worried more about the indiscriminate use of birth control (by the "fit") and the provision of inexpensive medical care (to the "unfit") than about the breeding of superior with inferior races or many of the other themes we associate with the Nazis. Anti-Semitism played a relatively minor role in early racial hygiene. In fact, for Alfred Ploetz, Jews were to be classed along with the Nordics as one of the superior, "cultured" races of the world.⁴

By the mid-1920s, however, this situation had changed, and the right-wing faction of racial hygiene had merged with National Socialism. The conservative, anti-Semitic J. F. Lehmann Verlag took over publication of the *Archiv für Rassen- und Gesellschaftsbiologie* (the main racial hygiene journal) shortly after World War I, and Nazi ideologues began to incorporate eugenic rhetoric into their propaganda. By the mid-1920s, biology (especially

biological determinism) had begun to play an important role in Nazi ideology. Fritz Lenz (one of Germany's most prominent racial hygienists) praised Hitler in 1930 as "the first politician of truly great import who has taken racial hygiene as a serious element of state policy." Hitler himself was lauded as the "great doctor of the German people" (he once called his revolution "the final step in the overcoming of historicism and the recognition of purely biological values").

Biological imagery was important in Nazi literature in several ways. SS journals spoke of the need for "selection" to replace "counterselection," borrowing their language directly from the social Darwinian racial hygienists. Nazi leaders commonly referred to National Socialism as "applied biology"; indeed, it was Lenz who originally coined this phrase in the 1931 edition of his widely read textbook on human genetics.⁵ The Nazi state was itself supposed to be organic (*biologisch*) in two separate senses: in its suppression of dissent (the organic body does not tolerate a battle between one part and another) and in its emphasis on "natural" modes of living. Nature and natural modes of living were highly prized by Nazi philosophers. Women were not supposed to wear makeup, and legislation was enacted early in the Nazi period to protect endangered species. Hitler did not smoke or drink, nor would he allow anyone to do so in his presence.

Given the importance of biology in Nazi discourse, it is not surprising that doctors were among those most strongly attracted to the Nazi movement. It is frightening to see how early and eagerly they joined. In 1929 a number of physicians formed the National Socialist Physicians' League to coordinate Nazi medical policy and purify the German medical community of "Jewish Bolshevism." The organization was an immediate success, with nearly 3,000 doctors, representing 6 percent of the entire profession, joining the League by January 1933—that is, *before* the rise of Hitler to power. Doctors in fact joined the Nazi Party earlier and in greater numbers than any other professional group. By 1942, more than 38,000 doctors had joined the Nazi Party, representing about half of all doctors in the country. In 1937, doctors were represented in the SS seven times more often than the average for the employed male population; doctors assumed leading positions in German government and universities.

PAWNS OR PIONEERS?

One often hears that National Socialists distorted science, and that doctors perhaps cooperated more with the Nazi regime than they should have done, but that by 1933 it was too late, and scientists had no alternative but to cooperate or flee. There is certainly some truth in this, but I think it misses the more important point: that medical scientists were the ones who *invented* racial hygiene in the first place. Most of the 20-odd university institutes for racial hygiene were established at German universities before the Nazi rise to power, and by 1932 racial hygiene had become an orthodox fixture in

the German medical community. The major expansion in this occurred *before* Hitler came to power; most of the 15-odd journals of racial hygiene, for example, were established long before the rise of National Socialism.

Racial hygiene was recognized as the primary research goal of two separate institutes of the prestigious Kaiser Wilhelm Gesellschaft: the Kaiser Wilhelm Institute for Anthropology in Berlin (1927-1945), directed by Eugen Fischer, and the Kaiser Wilhelm Institute for Genealogy in Munich (1919-1945), directed by the psychiatrist Ernst Rüdin. Both institutes helped train SS physicians; both helped construct the "genetic registries" later used to round up Jews and Gypsies. Twin studies—that is, of identical twins raised apart—were among the leading preoccupations of these and other racial institutes; their purpose was to sort out the relative influences of nature and nurture in human character and institutions.⁶ Racial hygienists were convinced that many human behaviors were at root genetic—crime, alcoholism, wanderlust, even divorce. Studies of how twins behave in different environments were supposed to prove the ultimate genetic origins of racial and social differences. In 1939, Interior Minister Wilhelm Frick ordered all twins born in the Reich to be registered with Public Health Offices for the purpose of genetic research.

The largest such institution, however, was Otmar von Verschuer's Frankfurt Institute for Racial Hygiene. This institute had 67 rooms and several laboratories; this was where Josef Mengele did his doctoral research on the genetics of cleft palate, working under Verschuer. Mengele was subsequently appointed assistant to Verschuer at Berlin and provided "experimental materials" to the Institute (including eyes, blood, and other body parts) from Auschwitz as part of a study on the racial specificity of blood types funded by the Deutsche Forschungsgemeinschaft. This, I should note, was one of the reasons blood groups were so actively studied in the 1930s. When Otto Reche founded the German Society for Blood Group Research in 1926, one of the reasons he gave was to see if he could find a reliable means of distinguishing Aryans from Jews in the test tube.

Scientists, in other words, were not simply pawns in the hands of Nazi officials. But without a strong state to back them, racial hygiene was relatively impotent. It was not until 1933 that the programs of the pre-Nazi era gained the support of officials willing to move aggressively in this area.

THE STERILIZATION LAW

What were the practical results of Nazi racial hygiene? Three main programs—the Sterilization Law, the Nuremberg Laws, and the euthanasia operation—formed the heart of the Nazi program of medicalized "racial cleansing."⁷ I shall deal with each in turn.

On July 14, 1933, the Nazi government passed the Law for the Prevention of Genetically Diseased Offspring, or "Sterilization Law," allowing the for-

cible sterilization of anyone suffering from "genetically determined" illnesses, including feeble-mindedness, schizophrenia, manic depression, epilepsy, Huntington's chorea, genetic blindness, deafness, and "severe alcoholism." The measure was drawn up after a series of meetings by several of Germany's leading racial hygienists, including Lenz, Ploetz, Rüdin, Himmler (who had been active in breeding chickens prior to 1933), Gerhard Wagner, and Fritz Thyssen, the industrialist.

In 1934, 181 Genetic Health Courts and Appellate Genetic Health Courts were established throughout Germany to adjudicate the Sterilization Law. The courts were usually attached to local civil courts and presided over by two doctors and a lawyer, one of whom had to be an expert on genetic pathology. Doctors throughout the Reich were required to register every case of genetic illness known to them and could be fined 150 RM for failing to register any such defective.⁸ Physicians were also required to undergo training in genetic pathology at one of the numerous racial institutes established throughout the country. The German Medical Association founded a journal, *Der Erbarzt (The Genetic Doctor)*, to help physicians determine who should be sterilized. The journal included a regular column to which physicians could write to ask whether a patient with, say, a club foot or hearing disorder should be sterilized.

Estimates of the total number of people sterilized in Germany range from 350,000 to 400,000. Compared with the demands of some racial hygienists, this number was relatively modest. Lenz, for example, had argued that as many as 10-15 percent of the entire population were defective and ought to be sterilized.

As a consequence of the Sterilization Law, sterilization research and engineering rapidly became one of the largest medical industries. Medical supply companies designed new and improved sterilization equipment; medical students wrote more than 180 doctoral theses exploring new methods and consequences of sterilization. There were obvious incentives for developing more rapid techniques, especially since, for women, the standard tubal ligation involved a hospital stay of more than a week. The most important of these techniques was a nonsurgical procedure involving scarification of the fallopian tubes through injections of supercooled carbon dioxide. In 1943, the gynecologist Carl Clauberg announced to Himmler that, using such a technique and with a staff of 10 men, he could sterilize as many as 1,000 women per day. Experiments were also done on sterilization by X-rays, a technique also used in the United States at this time.

I should also mention that it was the United States that provided the most important model for German sterilization laws. By the late 1920s, some 15,000 individuals had been sterilized in the United States—most while incarcerated in prisons or homes for the mentally ill. German racial hygienists throughout the Weimar period expressed their envy of American achievements in this area, warning that unless the Germans made progress in this field, America would become the world's racial leader. After World War

I, the Nazi sterilization program was never considered to have been a criminal program. It would have been difficult to do so, given the sterilization laws in many other countries.

THE CONTROL OF WOMEN

Racial domination and the elimination of the weak and unproductive were not the only forms of oppression in the Nazi regime. One aspect of Nazi ideology that has come under increasing scrutiny in recent years is the masculine and *machismo* nature of that ideology. Nazi medical philosophers were quite explicit about their feelings on this matter. A 1933 editorial by the National Socialist Physicians' League announced that the National Socialist movement was "the most *masculine* movement to have appeared in centuries."

One of the initial thrusts of Nazi policy was to take women out of the workplace and return them to the home, where they were to have as many children as possible. Fritz Lenz, for example, argued that any woman with fewer than 15 children by menopause should be considered "pathological." The government was more modest, pushing what it called the *four-child family* ideal. On December 16, 1938, Hitler announced the establishment of the "Iron Cross of German Motherhood," awarded in bronze for four children, silver for six, and gold for eight. After 1938 all public officials (including professors) were required to marry or resign; medical journals published the names of unmarried or childless colleagues. At the same time that forced sterilization and abortion were instituted for individuals of "inferior" genetic stock, sterilization and abortion for healthy German women were declared illegal and punishable (in some cases by death) as a "crime against the German body." As one might imagine, Jews and others deemed racially suspect were exempted from these restrictions. On November 10, 1938, a Lüneberg court legalized abortion for Jews. A decree of June 23, 1943, allowed abortions for Polish workers, but only if they were not judged "racially valuable."

Nazi population policy, directed to what Interior Minister Wilhelm Frick called "the solution to the woman question," was remarkably successful. The birth rate jumped from 14.7/1,000 in 1933 to 18/1,000 in 1934, representing what Friedrich Burgdörfer called an unprecedented achievement in world population history and a victory in the "war of births."

It is not well known, but there is one final aspect of gender that has escaped most discussions of the Holocaust. In Germany in 1939, there were substantially more Jewish women than Jewish men; indeed, the ratio was roughly 14 women for every 10 men (men had presumably managed to emigrate in greater numbers). Gisela Bock points out that among German Jews killed in concentration camps (including most of the 167,000 Jews living in Germany in 1941), some 60 percent were women. Women also outnumbered men among the Gypsies killed at Auschwitz.¹⁰

THE NUREMBERG LAWS

In the fall of 1935, Hitler signed into law the so-called Nuremberg Laws—excluding Jews from citizenship and preventing marriage or sexual relations between Jews and non-Jews. A further measure, the Marital Health Laws, required couples to submit to a medical examination before marriage to see if "racial pollution" might be involved.

I will not go into detail here on the operation of these laws; the story has been told elsewhere.¹¹ Important for our purposes, though, is the fact that the Nuremberg Laws were considered public health measures and were administered primarily by physicians. In early 1936, when the Marital Health Laws went into effect, responsibility for administering them fell to marital counseling centers attached to local public health offices. The Nuremberg Laws, along with the Sterilization Law, were two of the primary reasons expenditures and personnel for public health actually *expanded* under the Nazis.

I should also note that, as with the Sterilization Law, here, too, German racial theorists learned from the Americans. In fact, Nazi physicians on more than one occasion argued that German racial policies were relatively "liberal" compared with the treatment of blacks in the United States. Evidence of this was usually taken from the fact that, in several southern states, a person with 1/32nd black ancestry was legally black, whereas if someone were 1/8th Jewish in Germany (and, for many purposes, 1/4th Jewish), that person was legally Aryan (a 1/4th Jew, for example, could marry a full-blooded German). Nazi physicians spent a great deal of time discussing American miscegenation legislation; German medical journals reproduced charts showing the states in which blacks could or could not marry whites, could or could not vote, and so forth.¹²

Sadly, there is yet another area where Nazi physicians were able to draw support from their American colleagues. In 1939, Germany's leading racial hygiene journal reported the refusal of the American Medical Association to admit black physicians to its membership; 5,000 black physicians had petitioned to join the all-white American body but were turned down. German physicians only one year before, in 1938, had barred Jews from practicing medicine (except on other Jews); Nazi racial theorists were thereby able to argue that Germany was "not alone" in its efforts to preserve racial purity.¹³

EUTHANASIA, GENOCIDE, AND EXPERIMENTATION

In early October 1939, Hitler issued orders that certain doctors be commissioned to grant a "mercy death" (*Gnadentod*) to patients judged "incurably sick by medical examination." By August 1941, when the first phase of the euthanasia plan was brought to a close, more than 70,000 patients from German mental hospitals had been killed in an operation which provided a

rehearsal for the subsequent destruction of Jews, homosexuals, Communists, Gypsies, Slavs, and prisoners of war.

The idea of ending "lives not worth living" did not begin with the Nazis, but had been discussed in the legal and medical literatures since the end of the First World War. And not just in Germany. In 1935, the same year Egas Moniz invented the lobotomy, the French-American Nobel Prize winner Alexis Carrel suggested in his book, *Man the Unknown*, that the criminal and the mentally ill should be "humanely and economically disposed of in small euthanasia institutions supplied with proper gases." Six years later, as German psychiatrists were sending the last of their patients into the gas chambers, an article appeared in the *Journal of the American Psychiatric Association* calling for the killing of retarded children, "nature's mistakes."¹⁴ Journals as diverse as *American Scholar* and the *Journal of the American Institute of Homeopathy* debated the merits of forcible euthanasia—at least until reports of wholesale Nazi exterminations began to appear in American newspapers in 1941 and 1942.¹⁵

The fundamental argument for forcible euthanasia was economic: euthanasia was justified as a kind of "preemptive triage" to free up beds. This became especially important in wartime. I want to stress this: things can happen in war that would not be tolerated in peacetime. The onset of the euthanasia operation was consciously timed to coincide with the invasion of Poland. The first gassings of mental patients occurred at Posen, in Poland, on October 15, 1939, just 45 days after the invasion of that country, marking the beginning of the Second World War. In Germany itself, after August 1941, euthanasia became part of normal hospital routine. Handicapped infants were regularly put to death; persons requiring long-term psychiatric care and judged incurable suffered the same fate. Euthanasia operations were sometimes coordinated with bombing raids: elderly or otherwise infirm individuals were killed in order to make room for war-wounded (patients capable of productive work were usually spared).¹⁶ Psychiatrists eventually worried that their aggressive efforts to eliminate Germany's mental defectives would render their own skills useless. Professor O. Wuth, chief physician for the army, pondered in the midst of the war that with so many mental patients being eliminated by euthanasia, "who will wish to study psychiatry when it becomes so small a field?"¹⁷

The importance of war can also be seen in the fact that during the First World War, half of all German mental patients starved to death (45,000 in Prussia alone, according to one estimate); they were simply too low on the list to receive rations. In the Nazi period, the starvation of the mentally ill, the homeless, and other "useless eaters" became official state policy after a prolonged propaganda campaign to stigmatize the mentally ill and handicapped as having lives not worth living.

One should recall that the euthanasia program was planned and administered by leading figures in the German medical community. When the first experiments to test gases for killings took place in Brandenburg Hospital in January 1940, Viktor Brack, head of the operation, emphasized that such

gassings "should be carried out only by physicians." Brack cited the motto: "The needle belongs in the hand of the doctor."

It is also important to appreciate both the *banality* and the *popularity* of the euthanasia operation. In 1941, for example, the psychiatric institution of Hadamar celebrated the cremation of its ten-thousandth patient in a special ceremony, where everyone in attendance—secretaries, nurses, and psychiatrists—received a bottle of beer for the occasion. The operation was also popular *outside* the medical community. Parents were made to feel shame and embarrassment at having to raise an abnormal or malformed child. Hospital archives are full of letters from parents requesting their children be granted euthanasia.

Historians exploring the origins of the Nazi destruction of lives not worth living have only in recent years begun to stress the link between the euthanasia operation, on the one hand, and the "final solution," on the other. And yet the two programs were linked in both theory and practice. The most important theoretical link was what might be called the "medicalization of anti-Semitism," part of a broader effort to reduce a host of social problems—unemployment, homosexuality, crime, "antisocial behavior," and others—to medical or, ideally, *surgical problems*.

In the late 1930s, German scientists proposed a number of solutions to the "Jewish question." The agronomist Hans Hefelmann suggested exporting all Jews to Madagascar. Philip Bouhler, head of Nazi party Chancellery, proposed sterilizing all Jews by X-rays. Dr. Viktor Brack, the SS colonel, recommended sterilization of the 2 to 3 million Jews capable of work, who might be put to use in Germany's factories. German medical authorities also devoted themselves to this problem. During the early war years, the official journal of the German Medical Association (*Deutsches Ärzteblatt*) published a regular column on "Solving the Jewish Question."

The ultimate decision to *gas* the Jews emerged from the fact that the technical apparatus already existed for the destruction of the mentally ill. In the fall of 1941, with the completion of the bulk of the euthanasia operation, the gas chambers at psychiatric hospitals were dismantled and shipped east, where they were reinstalled at Majdanek, Auschwitz, and Treblinka. The same doctors, technicians, and nurses often followed the equipment. In this sense, there was continuity in both theory and practice between the destruction of the lives not worth living in Germany's mental hospitals and the destruction of Germany's ethnic and social minorities.

Given the effort to destroy entire peoples, and given the medical complicity in Nazi racial crime, it is hardly surprising that physicians attempted to exploit concentration camp inmates as subjects in human experimentation. The experiments chronicled in the Nuremberg trials were carried out for various reasons. Physicians forced people to drink seawater to find out how long a man might survive without fresh water. At Dachau, Russian prisoners of war were immersed in icy water to see how long a pilot might survive when shot down over the English Channel and to find out what kinds of protective gear or rewarming techniques were most effective. Prisoners were

placed in vacuum chambers to find out how the human body responds when pilots are forced to bail out at high altitudes.

There were many other experiments. At Fort Ney, near Strasbourg, 52 prisoners were exposed to phosgene gas (a biowarfare agent) in 1943 and 1944 to test possible antidotes;¹⁸ at Auschwitz, physicians experimented with new ways to sterilize or castrate people as part of the plan to repopulate Eastern Europe with Germans.¹⁹ Physicians performed limb and bone transplants (on persons with no medical need) and, in at least one instance, injected prisoners' eyes with dyes to see if eye color could be permanently changed. At Buchenwald, Gerhard Rose infected prisoners with spotted fever to test experimental vaccines against the disease; at Dachau, Ernst Grawitz infected prisoners with a broad range of pathogens to test homeopathic preparations. Nazi military authorities were worried about exotic diseases German troops could contract in Africa or Eastern Europe; physicians in the camps reasoned that the "human materials" at their disposal could be used to develop remedies. Hundreds of people died in these experiments; many of those who survived were forced to live with painful physical or psychological scars.

Contrary to postwar apologies, doctors were never forced to perform such experiments. Physicians volunteered—and in several cases, Nazi officials actually had to restrain overzealous physicians from pursuing even more ambitious experiments.²⁰ The logic governing the use of prisoners for terminal human experiments was similar to that underlying efforts to eliminate lives not worth living. In the Nazi view of the world, there were superior and inferior races, worthies and unworthies, healthy and diseased. If it required the deaths of 20 or 100 Russian prisoners to increase the chances of saving 1 German pilot, this was, in the Nazi scale of values, a justified investment. Concentration camp inmates were valued as slave labor, and when that labor was exhausted, they were not even worth keeping alive. They were lives without value, and their death implied a saving. Doctors acting in this situation were not without values. Their values were clear (Nordic supremacy, total war demands extreme measures, Jews are vermin, etc.), and they acted in accordance with those values.

CONCLUSION

Most leading German physicians supported the Nazis. Why? Physicians commonly boasted that their profession had shown its allegiance earlier, and in greater strength, than any other professional group. But why?

First of all, we should recall that the medical profession at this time was quite conservative. Before 1933, the leadership of the profession was dominated by the *Deutschnationalen*—a German nationalist party that subsequently threw its support to Hitler. Not all physicians, of course, were conservative. The profession was politicized and polarized after the economic collapse in the late 1920s and early 1930s; physicians moved from the

center to the left or (more often) to the right. Socialists and Communists, however, were always a minority in the German medical community. By the end of 1932, the National Socialist Physicians' League was twice as large as the Association of Socialist Physicians (3,000 vs. 1,500 members). In the Reichstag elections leading to the Nazi seizure of power, nine physicians were elected to represent the Nazi Party; only one physician was elected to represent the socialists.

Apart from this conservatism, it is possible to argue that there was a certain ideological affinity between medicine and Nazism at this time. Many physicians were attracted by the importance given to *race* in the Nazi view of the world; physicians were intrigued by the Nazi effort to *biologize* or *medicalize* a broad range of social problems, including crime, homosexuality, the falling birth rate, the collapse of German imperial strength, and the Jewish and Gypsy "problems."

The Nazis, in turn, were able to exploit both the intimacy and the authority of the traditional physician-patient relationship. Crudely stated, they could do things with doctors that would have been much harder without them. Doctors served as executioners; doctors performed "selections" (of people to be killed) in the camps. Himmler recognized the special role of physicians in this regard. On March 9, 1943, the Reichsführer of the SS issued an order that henceforth only physicians trained in anthropology could perform selections at concentration camps.²¹ Medicine also served as a *disguise*. In Buchenwald 7,000 Russian prisoners of war were executed in the course of supposed "medical exams," using a device disguised as an instrument to measure height.

There is a further element. The rise of the Nazis coincides with a period of concern about what was widely known as the "crisis" in modern science and medicine: a crisis associated with the increasing specialization and bureaucratization of science, a crisis traced alternatively to capitalism, Bolshevism, materialism, or any of a host of other real or apparent threats to human health. The Nazis promised to restore Germany to a more natural (*biologische*) way of living, a future with "more Goethe and less Newton."

In such a climate, Jews became a convenient scapegoat for all that was wrong in modern medicine. This was especially easy because Jews were in fact quite prominent in the German medical profession; 60 percent of Berlin's physicians, for example, were either Jewish or of Jewish ancestry. It was hard to name an area where opportunistic professionals were able to profit so much from exclusion of their Jewish colleagues.

And in a certain sense, the medical profession might even be said to have *prospered* under the Nazis. The medical community grew substantially under the Nazis despite the banishment of the Jews and Communists. It may even be true that physicians achieved a higher status in the Nazi period than at any time before or since. During the 12 years of Nazi rule, for example, the office of *Rektor* (president) at German universities was occupied by physicians 59 percent of the time; this contrasts with 36 percent for the decade prior to the rise of the Nazis and 18 percent for the two decades

following the Nazi period. Doctors also prospered financially under the Nazis. In 1926, lawyers earned an average annual salary of 18,000 RM compared with only 12,000 RM for physicians. By 1936 doctors had reversed this trend and were earning 2,000 RM more than lawyers.

Biomedical science was *not*, in other words, simply destroyed by the Nazis; the story is more complex. If you go to the New York Academy of Medicine, or Stanford's Lane Library, or any other major medical library, you can find more than 150 German medical journals published continuously throughout the Nazi period—more than 100 meters of shelf space of journals! In fact, some 30-odd new medical journals begin publication during the Nazi period. Several of them are still published today.

The Nazis suppressed some areas and encouraged others. They supported extensive research on ecology, public health, cancer, behavioral genetics, and (of course) racial and sociobiology.²² The Nazi government funded research on the effects of exposure to X-rays and heavy metals; some of the first reliable studies on the health effects of asbestos were done in this period. The Nazis were among the first to initiate bans on smoking in public buildings;²³ Nazi leaders organized unprecedented support for midwifery, homeopathy, and a number of other areas of heterodox medicine. Nazi physicians recognized the importance of a diet high in fruit and fiber, and in the early war years managed to have enacted a law requiring every German bakery to produce whole-grain bread. Nazi physicians restricted the use of DDT and denied women tobacco rationing coupons on the grounds that nicotine could harm the fetus. Racial hygiene itself was supposed to provide "long-run," preventive care for the German germ plasm, complementing shorter-term social and individual hygiene.²⁴

I have stressed the continuity with pre-1933 traditions; space limits preclude a discussion of the important postwar continuities. Let me simply note, in conclusion, four points. First, it is important to appreciate not just the extent to which the Nazis were able to draw on the imagery and authority of science, but also the extent to which Nazi ideology informed the practice of science. Second, scientists were not bystanders or even pawns: many (not all, but not a few) helped to construct the racial policies of the Nazi state. It is probably as fair to say that Nazi racial policy emerged from *within* the scientific community as to say that it was imposed *on* that community. Third, it is commonly said that the Nazis politicized science, and that much of what went wrong under the Nazis can be traced to this politicization. The argument I have made here is that one can't consider the experience of the medical profession in terms of a simple "use and abuse" model of science. Among physicians, there were as many volunteers as victims; no one had to *force* physicians to support the regime. Hans Hefelmann testified to this effect in the euthanasia trial at Limburg in 1946: "no doctor was ever ordered to participate in the euthanasia program; they came of their own volition."

The Nazis did not have to politicize science; in fact, it is probably fair to say that the Nazis *depoliticized* science in the sense that they destroyed the

political diversity that had made Weimar medicine and public health the envy of the world (with their local outpatient clinics, self-help networks, etc.). Nazism was itself supposed to transcend politics: the German state was to be a *Volksstaat*, not a *Parteistaat*; National Socialism was to be a movement, not a party. The Nazis medicalized politics as much as they politicized medicine; problems of racial, sexual, or social deviance were transformed into "surgical problems" in need of surgical solutions.

Finally, I do not want to leave the impression that the horrors of this period can be attributed to anything inherent in science or medicine, or even in technocracy or the rule of professional elites. It took a powerful state to concentrate and unleash the destructive forces within German medicine, and without that state, science would have remained impotent in this sphere. In the midst of a war engineered by an aggressive, expansionistic state, Nazi ideologues were able to turn to doctors to carry out acts that have come to be regarded as the embodiment of evil.

Rudolf Ramm, the Nazi medical ethicist whose words I cited at the beginning of this chapter, noted in his 1942 book on medical ethics that physicians will often encounter patients who complain of the treatment they have received from another doctor. Ramm advised that physicians should *always take the side of the other doctor*, turning a blind eye to whatever incompetence or malpractice their colleagues may be accused of.²⁵ Today one hopes that "professional ethics" means more than vigilance in the defense of the honor of the profession against its critics. Or at least that professional honor will always be understood to include a requirement that professionals act in an ethical and socially responsible manner. Elaborating on this ethic has become the painful task of physicians ever since Nuremberg, though hopefully we will never be so vain as to think that the job is finished.

NOTES

1. This paper has appeared in a similar form in Lester Embree and Tim Casey, eds., *Lifeworld and Technology* (Washington, D.C., 1989). For further documentation see my *Racial Hygiene: Medicine under the Nazis* (Cambridge, Mass., 1988).

2. See Robert J. Lifton, *Nazi Doctors* (New York, 1986); Michael H. Kater, *Doctors Under Hitler* (Chapel Hill, N.C., 1989); Hendrik van den Bussche, ed., *Medizinische Wissenschaft im "Dritten Reich"* (Hamburg, 1989); Heidrun Kaupen-Haas, ed., *Der Griff nach der Bevölkerung* (Nördlingen, 1986); Benno Müller-Hill, *Murderous Science: Elimination by Scientific Selection of Jews, Gypsies, and Others, Germany 1933-1945* (1984) (New York, 1988); Karl Heinz Roth, ed., *Erfassung zur Vernichtung, von der Sozialhygiene zum "Gesetz über Sterbehilfe"* (West Berlin, 1984); Achim Thom and Horst Spar, eds., *Medizin im Faschismus* (East Berlin, 1983); also my *Racial Hygiene*.

3. The earliest English-language history of German racial hygiene is a secret Office of Strategic Services report compiled in 1944 or 1945; see Report No. 3114.7, "Principal Nazi Organization Involved in the Commission of War Crimes, Nazi Racial and Health Policy," U.S. Office of Strategic Services, Research and Analysis

Branch, "R and A Reports," Hoover Institution Archives. The document is unsigned, though Oscar Weigart may have been the author. The report reviews the history of the Gesellschaft für Rassenhygiene, noting both the overlap with the Pan German League and the significance of the early takeover of the *Archiv für Rassen- und Gesellschaftsbiologie* by the J. F. Lehmann Verlag and of *Volk und Rasse* and the *Archiv* by the Reichsausschuss für Volksgesundheitsdienst in 1933. The report credits the Gesellschaft für Rassenhygiene with having provided Hitler with his racial ideology.

4. Alfred Ploetz, *Die Tüchtigkeit unserer Rasse und der Schutz der Schwachen* (Berlin, 1895).

5. Fritz Lenz, *Menschliche Auslese und Rassenhygiene (Eugenik)*, 3rd ed. (Munich, 1931), p. 417.

6. See Chapter 4 by Eva Kor.

7. There was also the "Law Against Habitual Criminals" (*Gesetz gegen Gewohnheitsverbrecher*), passed on November 24, 1933, providing for castration of criminals age 21 and over sentenced to at least 6 months for sexual assault. See Ludwig Lotz, *Der gefährliche Gewohnheitsverbrecher* (Leipzig, 1939).

8. Physicians, dentists, nurses, midwives, and directors of mental institutions were all required to register anyone suffering from infirmities named in the law. Children under the age of 14 were not to be forcibly sterilized, but a petition for sterilization could be issued for anyone over the age of 10. See the *Reichsgesetzblatt 1* (1933): 1021. Local health offices were empowered to inspect municipal and private institutions to guarantee that everyone falling within the rubric of the law would be brought before the courts. On February 25, 1935, the Genetic Health Courts were granted powers to disbar any attorney who persisted too vigorously in arguing that their clients should not be sterilized. See the *Reichsgesetzblatt 1* (1935): 289.

9. Matthias Hamann, "Die Morde an polnischen und sowjetischen Zwangsarbeitern in deutschen Anstalten," in Götz Aly et al., eds., *Aussonderung und Tod: Die klinische Hinrichtung der Unbrauchbaren* (Berlin, 1985), p. 131.

10. Gisela Bock, *Zwangssterilisation im Nationalsozialismus* (Opladen, 1986), p. 13.

11. See my *Racial Hygiene*, 1988, chap. 6.

12. See, for example, *Neues Volk* (March 1, 1936), p. 9. A 1926 Indiana law declared null and void marriage between white persons and "Persons having one-eighth or more of negro blood." Virginia's "Pure-Race Law" allowed anyone with 1/16th Indian ancestry to pass as white but required that anyone with even a trace of Negro blood be considered Negro, "though he be white as snow." See Joseph C. Carroll, "The Race Problem," *Sociology and Social Research* 11 (1927): 267. By 1940, 30 U.S. states had passed legislation barring miscegenation in one form or another; most of these laws were not repealed until after World War II (California's law, for example, was declared unconstitutional by the state supreme court in 1948). See Ashley Montagu, *Man's Most Dangerous Myth* (New York, 1952), pp. 304-305.

13. See "Keine Negerärzte in der amerikanischen Standesorganisation," *Archiv für Rassen- und Gesellschaftsbiologie* 33 (1939-1940): 276; also 33 (1939-1940): 96. In 1930 there were 5,000 licensed black physicians among a population of 13,000,000 American blacks. The appeal by America's black physicians was placed at the annual meeting of the American Medical Association in St. Louis; it was rejected. America's leading medical organization remained essentially a segregated body until the mid-1950s.

14. Foster Kennedy, "The Problem of Social Control of the Congenitally Defec-

tive: Education, Sterilization, Euthanasia," *American Journal of Psychiatry* 99 (1942): 13-16 (see also 141-143).

15. See my *Racial Hygiene*, 1988, pp. 179-189. On the murder of mentally ill persons in French hospitals under Vichy, see Max Lafont, *L'Extermination douce* (Ligné, 1987).

16. As a memo of July 5, 1943, put it, "total war" precluded the use of hospital beds for the aged or infirm. See Götz Aly, "Medizin gegen Unbrauchbare," in Aly et al., *Aussonderung und Tod: Die klinische Hinrichtung der Unbrauchbaren* (Berlin, 1985), pp. 56-74.

17. Müller-Hill, *Murderous Science*, p. 42.

18. These were the experiments that Lee Thomas, a head of the U.S. Environmental Protection Agency, barred from an EPA report in March 1988. See Philip Shabecoff, "Head of E.P.A. Bars Nazi Data in Study of Gas," *Boston Globe* (March 23, 1988), p. 4.

19. Gerhard Baader, "Menschenexperimente," in Fridolf Kudlien, ed., *Ärzte im Nationalsozialismus* (Cologne, 1985), pp. 178-180.

20. There is little evidence for the claim, made recently by Alan C. Nixon in his defense of using Nazi data, that "German scientists were rather reluctant party members, going along with the Nazis' demands in order to save their lives in an impossible situation." See his "If the Data's Good, Use It—Regardless of the Source," *The Scientist* (November 14, 1988), p. 8. In fact, there were far more volunteers than victims among scientists.

21. Müller-Hill, *Murderous Science*, p. 18.

22. One of the earliest uses of the term *sociobiology* in English can be found in the Nazi criminologist Hans von Hentig's book, translated into English as *The Criminal and His Victim, Studies in the Sociobiology of Crime* (New Haven, Conn., 1948).

23. In 1939 the city of Dresden enacted a law prohibiting smoking in all public buildings. See the *Archiv für Rassen- und Gesellschaftsbiologie* 33 (1939-1940): 274.

24. See my *Racial Hygiene*, chap. 8. For evidence of early racial hygienist concerns about lead poisoning, see E. Abramowski, "Bleivergiftung und Rasse," *Archiv für Rassen- und Gesellschaftsbiologie* 8 (1911): 542ff.

25. Rudolf Ramm, *Ärztliche Rechts- und Standeskunde* (Berlin, 1942), pp. 88-89.

3

Nazi Doctors, German Medicine,
and Historical Truth

CHRISTIAN PROSS

One purpose of research during the past decade has been to destroy German postwar legends of Nazism. This work has contributed to a better and deeper understanding of health policy in Nazi Germany, and of the motives and actions of Nazi physicians, by uncovering new, hitherto unknown material and by putting old material into a new context. Anti-Semitism and racism can no longer be identified as the sole driving forces behind Nazi politics, nor can the Nazi power elite be viewed as a small group of deviant monsters who misled a supposedly passive constituency. What for us today appears contradictory in the nature of Nazism was the reason for its success: the connection between destruction and modernization. Auschwitz cannot be seen without the Volkswagen plant in Wolfsburg, or the SS regime of terror without the social security, health, and recreation programs provided by the Nazi trade union Deutsche Arbeitsfront. The so-called *Neue deutsche Seelenheilkunde* (new German psychotherapy) for the "superior" members of the *Volk* complemented the mass sterilizations of the "inferior." The destruction of the latter created social guarantees for the former, and thus secured the standard of living of the productive community of a conformist petit bourgeoisie and working class at the expense of excluded minorities.

Along with the homeless, the beggars, the inmates of insane asylums, and the Jews of the East European ghettos, the German authorities eliminated the visible poor, nonproductive people who caused the state expenses during their lifetime. Their mistreatment and liquidation provided housing, employment, assets, and old-age pensions for others. In this sense, the National Socialist *Volksgemeinschaft* (community of the people) really existed. Health policy in Nazi Germany—scientifically labeled as "hereditary and race hygiene"—was a concept of rule. It unified German population, eco-

nomie, and social policies to achieve one goal: the final solution of the social question. On the whole, the functionaries of the Nazi state were extraordinarily young, and they consciously relied on the results of scientific research. This elite did away with rusty old structures and started to put their political utopias—such as the concept of a common *Gesundheitspflicht* (obligation for health)—into practice. To clean the body of the *Volk* from everything sick, alien, and disturbing was one of the dreams of the German intelligentsia.

In addition to the well-known "euthanasia Aktion T4"—the killing of the mentally ill and the handicapped in 1940 and 1941—there is a hitherto unknown chapter of mass murder, consisting of the ways in which other "useless" members of society were singled out, sent to killing hospitals, starved to death, or killed by injections. The "useless" consisted of "antisocials" or *Gemeinschaftsfremde* (alien to the community), as the Nazis called them: maladjusted adolescents, sick foreign slave laborers, and civilians who had suffered psychic breakdowns, became disoriented after air-raid attacks, and posed a threat to public order and discipline. The planning and executing forces were labor offices, health administration authorities, city mayors, and others who organized the killings. Their rationale was, for example, to provide beds for physically wounded soldiers and civilians in the phase of "total war" by emptying mental hospitals, foster homes, and institutions for the handicapped. These issues were only marginally dealt with in the Doctors' Trial and the postwar trials against euthanasia doctors, because the prosecuting authorities were interested primarily in evidence of individual guilt, not in the overall context and the network in which the doctors had functioned.

There was also a connection between murder and modernization in German psychiatry. The reforms envisioned by the protagonists of euthanasia, who were activists on behalf of an intensive therapy and rehabilitation program for the "superior" members of the *Volk*, demanded the destruction of the "inferior" incurable patients. To reduce the size of the hospitals, to differentiate the inner structure, to shorten the duration of inpatient care, to simplify the reimbursement of costs, to create a variety of outpatient care facilities, and to do systematic research on the causes of mental disease was part of the professional ethos and identity of these doctors who executed mass murder not simply for its own sake. They had been among the leaders of psychiatric reform in the Weimar period, and in 1941–1942 they believed they had achieved the goal of their plans, which had been massively promoted and accelerated by the euthanasia program. As unfinished as their plans were in 1945, the military defeat of German fascism did not make them disappear.

National Socialism removed barriers that in a democratic system would at least have considerably impeded quick reforms and radical scientific experiments. It offered certain researchers and reformers unusual chances. At the same time, a modern social strategy and science gave National Socialism the chance to rationalize its irrational ideology and to legitimize its crimes as

scientifically and economically reasonable. These scientific procedures did not require any *Gleichschaltung* (synchronization). Their inner form, guided by their abstract interest, complied with the logic of Nazi rule.

THE ORDINARY PHYSICIAN IN THE THIRD REICH

Alexander Mitscherlich, the official envoy of the West German Chamber of Physicians at the Doctors' Trial, noted that many more physicians were involved in medical crimes than the 23 Nuremberg defendants, who were only the tip of an iceberg. An anecdote by a physician I interviewed about her wartime experience helps to elucidate this observation. In 1943, as a medical student, she was conducting experiments on the functioning of the kidney in a Berlin laboratory. She was doing these experiments on herself and her fellow students. One day an air force physician, who was on leave from the African front and had stopped by her lab, exclaimed: "Are you crazy, doing those experiments on yourself? We have concentration camps for this!"

Hermann Voss, professor of anatomy at Posen University in occupied Poland, conducted experiments on the content of the blood in the spleen. He received his "material" from the guillotine of the Posen Gestapo, which was very busy fighting the Polish resistance. In his diary, which he failed to destroy when the Russians arrived, he noted:

Yesterday I looked at the mortuary morgue in the basement and the furnace in the crematorium. The furnace was originally intended to dispose of the remnants of the dissecting course for the students. Now it serves to incinerate executed Poles. Almost daily the gray limousine arrives with the gray men, the SS-men from the Gestapo, carrying material for the furnace. As it was not working yesterday we could look inside the furnace, where we could see the ashes of four Poles. How little remains from a human being after all organic material has been burnt! Looking into such a furnace makes me feel very calm and comfortable. The Poles recently have become increasingly impudent and thus our furnace is very busy. How nice it would be to chase the whole population through such furnaces! Then the German people finally would get some rest in the East. . . . Today I wrote to Prof. Schoen in Göttingen and asked him to remember me when the chair for anatomy at the university becomes vacant.²

Voss was an average physician, not an ardent Nazi. He became one of the most prestigious professors of anatomy after the war and held the chair of anatomy at the University of Jena, East Germany. Virtually every medical student in both Germanies learned anatomy from his handy little textbook, the "Voss-Herrlinger book."

The Posen diaries of Voss give an unusual insight into the inner life of a rather average perpetrator. They are based on documents written at the time, uncensored and unfalsified by the need for excuses and for some kind of postwar identity. To a certain extent, they resemble the autobiography of the

commander of Auschwitz, Rudolf Höß, written after his arrest by the Allies. His whining and philistine language bore the stamp of the typical culprit: the German sentimentality of the mass murderer, who emphasizes his own suffering in the face of the mountain of corpses he himself produces. The autobiography of Rudolf Höß gave support to the theory of the "banality of evil." Remarkably, this notion supported the dispersion of a sense of threat from the continued presence of these men among the population in Germany. The idea quickly became the common currency of the task of mastering the past, utterly contrary to Hanna Arendt's intent. The concept, intended as a rhetorical spur to focus attention on the inconceivable, merely made it tangible, so that it could be pushed aside. Immediately the actual perpetrator Höß managed to disappear behind the image of the culprit Höß. He was perfectly willing to admit to mass murder, but he did not mention the removal of three carloads of valuables from Auschwitz. This silence concerning the evidence of baser motives was accepted without question. Amazingly, it seemed easier to deal with a profile of the perpetrator that remained unblemished by any trace of sadism or greed.

The diaries of Voss, however, reveal such baser motives as envy, greed, careerism and mutual elbowing, malicious joy, and contempt for the subhumans at his disposal. They exhibit a peculiar coexistence of the enjoyments of everyday life, tender feelings for flowers and loved ones—and the routine of selecting and killing. One might expect that petit bourgeois intimacy and human destruction would somehow be linked in these private documents, but somehow, seeing the mixture of these two elements in their particularity overwhelms one with a sense of shock. Voss's diary is a mixture of whining over his unsatisfying career, pleasure in nature, and greed for the marginal profits of the great war, for the "special distributions."

The conquest of the East brought him a professorship at the university in Posen. Even if his drive for advancement couldn't be stilled by this position, the anatomical institute of the *Reichsuniversität* Posen represented one object of his desire: the crematorium in the service of the Gestapo. The oven was his social utopia. These quotes of an average doctor, who did not stand at the ramp in Auschwitz, demonstrate to what extent the officially organized murders were supported by the anticipatory consent of the people, including the intelligentsia. The German intelligentsia lent a vocabulary to the hatred of the little people and rationalized the will for annihilation to the point where it could become realized. It is, in fact, a singular accomplishment of the German intelligentsia that the crematoria could be promoted as a solution for social ills. Voss's diary is important, above all, because it shows that it was not only unrestrained desire for knowledge that energized the fury of destruction, but simple hate.³

One of the leading German surgeons, Ferdinand Sauerbruch, was on the Research Review Committee of the *Reichsforschungsrat* (the Reich Research Council) that approved the grants for Mengele's twin studies in Auschwitz.⁴ The prosecutor in the Doctors' Trial named Sauerbruch and other leading German medical professors as accessories to medical crimes because they

had participated in a conference on the extremely cruel and fatal sulfonamide experiments in the Ravensbrück concentration camp. In that conference, the results of the experiments were openly discussed among specialists, without anybody questioning their ethics.⁵

Another high-ranking surgeon, Erwin Gohrbandt, director of Surgery III of the University Clinic of Berlin and chief medical advisor for aeronautical medicine at the Luftwaffe's sanitary services division, participated in a secret 1942 conference on the results of the fatal freezing experiments at Dachau. Later he reported on these results in the leading surgical journal, *Zentralblatt für Chirurgie*.⁶ By participating in the scientific discourse on these experiments in a value-free manner, or by approving of grants for these experiments or publishing the results under their names in prestigious medical journals, Sauerbruch and Gohrbandt gave them the appearance of legitimacy.

Gastroenterologist Kurt Gutzeit, professor of medicine at the University of Breslau, directed hepatitis experiments on Jewish children from Auschwitz. He wanted to identify the carrier of hepatitis by artificially infecting these children with serum from hepatitis patients. When his assistant, Dr. Arnold Dohmen, tried to avoid the human experiments by doing animal experiments, Gutzeit threatened to wake him up from his "animal-experiment lethargy." Finally, Dohmen infected 11 Jewish children and carried out liver punctures on them, but with no satisfying results. Further "massive" artificial infections, which Gutzeit demanded, were never carried out because of Germany's defeat.⁷

Heinrich Berning, associate professor at Hamburg University, carried out famine experiments on Soviet prisoners of war to investigate the nature of famine disease. While the prisoners starved to death, he observed their body functions, such as the ceasing of libido, dizziness, headache, edema, and swelling of the lower abdomen. "The changes in the gastrointestinal tract, that we find in the autopsies, are particularly interesting," he wrote in a secret preliminary report. He published a sanitized version of his results in a monograph after the war.⁸

Neuropathologist Julius Hallervorden from the Kaiser Wilhelm Institute for Brain Research in Berlin-Buch, together with his chief, Hugo Spatz, is known in the medical world as the discoverer of the Hallervorden-Spatz disease, a rare congenital brain disease. In the early 1940s, he ordered hundreds of brains of the victims of euthanasia from the killing hospital in Brandenburg-Görden for his neuropathological studies. In 1945 an American interrogator asked him about his research and quoted Hallervorden's excuses in his report:

I heard that they were going to do that, and so I went up to them and told them "Look here now, boys, if you are going to kill all these people, at least take the brains but so that the material could be utilized." They asked me: "How many can you examine?" and so I told them an unlimited number—"the more the better." I gave them fixatives, jars and boxes and instructions for removing and fixing the

brains and then they came bringing them like the delivery van from the furniture company. There was wonderful material among these brains, beautiful mental defectives, malformations and early infantile disease. I accepted these brains of course. Where they came from and how they came to me, was really none of my business.⁹

Hallervorden's statement shows that he was so preoccupied with his scientific curiosity that he accepted the killing of patients as normal.

Robert Ritter, a psychiatrist who was trained at the Psychiatric Clinic of the University of Tübingen, worked on the racial identification and genealogy of the Gypsies and the *Asozialen* (antisocials). In 1938, when he became director of the Research Institute of the Reich Health Office for Race Hygiene and Criminal Biology, he systematically searched for and examined all Gypsies living within the borders of the Reich (after 1939 he included those in the occupied territories). He discovered that most Gypsies were not racially pure, but rather half-breeds. He considered these half-breeds, who, according to him, had intermarried with the "antisocial and criminal German subproletariat," more dangerous than pure Gypsies. The half-Gypsies, as he saw it, were a primitive, intellectually underdeveloped species that neither education nor punishment could mold into tidy, settled citizens. They would inevitably cost the state tremendous sums for welfare. Ritter proposed that they be incarcerated in forced labor camps and prevented from procreating. In a proposal to the SS chief, Himmler, he suggested that the pure Gypsies, on the other hand, be assigned to reservations, where their exotic customs and culture could be preserved for anthropological science. Ritter presented his first report in 1941 and announced that 30,000 Gypsies had been registered, among them 19,000 within the borders of the Reich and 11,000 in the occupied territories. During a conference of the *Reichssicherheitshauptamt* in 1941, SS leaders discussed various means of exterminating the Gypsies. One proposal was to drown them in the Mediterranean. Ritter, who took part in this conference, managed to persuade the SS leaders to postpone the killing for another year until his racial studies were finished and the racially pure Gypsies had been separated from the mass of the half-breeds. Himmler ordered the deportation of the majority of the Gypsies to Auschwitz in December 1942. Only nine Gypsy clans, who were considered racially pure, were exempt from the deportation. Ritter's contribution to the genocide of the Gypsies was essential. His medical expert opinions defining who was a Gypsy and who wasn't, and what kind of Gypsy one was, gave the selection and destruction of socially undesired elements a medical, scientific underpinning.¹⁰

The director of the Institute of Anatomy of Berlin University, Hermann Stieve, conducted experiments on female prisoners from the Plötzensee prison and the Ravensbrück concentration camp. He studied the female menstrual cycle under severe stress, that is, the irregular bleedings in women after they learned about their imminent execution. At autopsy he proved that the bleedings were not regular menstruations after ovulation but stress-

induced bleeding. He published his results after the war as the honored leading specialist in gynecological anatomy at East Berlin's Humboldt University.¹¹

None of the above-mentioned physicians was indicted at Nuremberg. They represent not the extremes, but rather the attitude, thinking, and daily routine of a large part of the average physician population. They were not fanatic Nazis or high-ranking SS physicians, but they profited from the unique opportunity to experiment on living humans, and they supported the Nazi utopian view of a society cleansed of everything sick, alien, and disturbing. These facts have been revealed only in the past 10 years and have stirred a debate among the German medical profession that was long overdue.

THE TOPICALITY OF NAZI MEDICINE

It is fear of medical technology, the uncertainty of how to handle it, and the erosion of traditional ethical standards that makes people look for historical lessons from the Nazi experience. (See chapter 14) Yet it is difficult to find an answer to present-day problems in historical analogies. Long before 1933, physicians and anthropologists had tried to prove that certain human beings were less worthy of living than others. In the nineteenth century, the theory of the inequality of the human races, of the differentiation of "superiors" and "inferiors," was an attack of the declining European gentry on the demands for equality, freedom, and brotherhood and the declaration of human rights during the French Revolution. It provided the ideological tools for a biological solution to the social question. Despite the fact that in the period of industrialization poverty, venereal disease, tuberculosis, and alcoholism spread in the slums of the big cities, their social causes were simply denied, and it was suggested that it was the individual's fault if he was poor and sick. Poverty was understood as a sign of degeneration and hereditary inferiority.

Leading psychiatrists and anthropologists translated ideological slogans into scientific categories and applied them as apparently objective medical diagnoses.¹² The new science was called *racial hygiene*. The Nazi seizure of power in 1933 provided the long-desired opportunity for racial hygiene to be applied in practice, to solve the economic and social crisis of German society by a radical biological cure. Yet racism was not the only source of the disaster. Alexander Mitscherlich, noted in his first-hand impressions from Nuremberg in 1947:

Before such monstrous deeds and thoughts shape everyday routine and real life, the disaster must have originated from many sources. Only in the crossing of two currents could the doctor turn into a licensed killer and publicly employed torturer: at the point where his aggressive search for the truth met with the ideology of

the dictatorship. It is almost the same, if one sees a human being as a "case" or as a number tattooed on his arm. This is the double facelessness of a merciless epoch.¹³

The search for truth, the search for new notions, has motivated scientists and doctors for centuries. Without it there would be no progress, no modern diagnostic and therapeutic knowledge and technique. However, in nineteenth-century science, this search became more and more a search for objective truths. The search for truth in medicine turned into destruction. It abandoned its purpose of healing the sick individual, of alleviating his suffering, and abandoned the Hippocratic *nil nocere* when experimentation was done for its own sake, for "superior" aims.

What physician is not tempted by the enormous range of invasive diagnostic measures and fascinated by the chance to look into the most remote parts of the human organism? Today sheer curiosity, competition, and careerism among doctors, defensive medicine, the corporatization of medicine, and the disappearance of the classic elements of medicine, such as the art of listening to the patient and using one's senses, lead to an inflated application of machinery. They seduce the physician who is permanently confronted with the imperfect, unpredictable human being to escape into the apparently safe world of laboratory parameters and computer scans. In the Weimar Republic, numerous physicians complained about the decay of medicine into a purely diagnostic science.¹⁴ Under the Nazis, it was as if an already unstable dam had broken. The abundant availability of human guinea pigs among people labeled as "inferior" or "subhuman" was exploited by doctors as a unique opportunity for scientific research. The chief managers of euthanasia did not simply kill their victims; they thoroughly investigated them before and afterward, hoping to find eventually the clue to the nature of mental disease.

Another source of the disaster was the tension between the physicians' fantasies of omnipotence and their factual impotence. Medicine is often like the works of Sisyphus, because it alone can do little to overcome the misery of many patients, nor can it change the often puzzling and stubborn human nature. When the young physician graduates from medical school and enters the rough reality of medical practice, he quickly feels the limitations of his professional skills and his own helplessness. He can change neither men nor society. The idealism of the helpless helper can turn into an aggressive attitude toward the sick and a search for radical and final prescriptions. The relapsing, incurable, and chronically ill patient mobilizes the helper's hidden fears of disease and death. If these emotions coincide with a loss of job security, a financial crisis of the health care system, and a fear of the future, ethical standards tend to erode very quickly. The propaganda for the sterilization of the "inferior" and the elimination of "unnecessary eaters" in Weimar Germany gained broad support only when the Great Depression of 1929 caused an acute shortage of funds in the health service. Growing

unemployment after 1929 drove thousands of doctors into the ranks of the National Socialists Physicians' League.

In contemporary Germany, the official dramatic rhetoric about the "cost explosion" in health care and the continuous cuts in spending have produced new prophets of euthanasia. In a prepared television show, surgeon Julius Hackethal handed a cancer patient potassium cyanide and advocated active euthanasia.¹⁵ A growing number of court cases are being reported in which nurses have intentionally killed old and chronically ill patients in nursing homes and intensive care units.¹⁶ The *Journal of the American Medical Association* in 1988 published the anonymous report of a young physician on duty who gave a young cancer patient he did not know but had just come across during his night shift a fatal injection.¹⁷ What did the editors have in mind when they published this report? The United States and Germany in 1991 are not pre-Nazi Germany, yet there is an economic crisis, unemployment, serious cuts in health care spending, and new talk about certain people being less qualified for full medical care than others. Could calls for a discontinuation of sophisticated medical care and life-prolonging measures for the elderly be the catalyst for an attack on the life of the elderly,¹⁸ as much as Binding and Hoche's call for "the destruction of life unworthy of living" was an attack on the mentally ill and the handicapped in 1920 in Germany?¹⁹

HISTORIOGRAPHY AND POLITICS

As Mitscherlich and Mielke noted in 1947, "only the secret consent of the practice of science and politics can explain why the names of high-ranking scientists are constantly dropped during this trial, of men, who perhaps did not right off commit any crime but took advantage of the cruel fate of defenseless individuals."²⁰ Mitscherlich and Mielke had the courage to break the taboo of their profession by publishing trial documents, which charged Ferdinand Sauerbruch, Germany's leading surgeon, and Wolfgang Heubner, director of the Pharmacological Institute of Berlin University, with being accessories to medical crimes by participating in a conference on the extremely cruel and partly fatal sulfonamide experiments in Ravensbrück.²¹ Mitscherlich had to pay a high price for it. Sauerbruch and Heubner sued him and forced him to remove this paragraph from the trial report. At the same time, the leading physiologist and specialist of aviation medicine in Göttingen, Friedrich Rein, accused Mitscherlich of irresponsibly attacking the basis of scientific research and dishonoring the German medical profession.²²

Ten thousand copies of the final version of Mitscherlich's documentation of the Nuremberg Doctors' Trial²³ were printed in 1949 exclusively for the members of the West German Chambers of Physicians. Yet the book did not become known to the public. There were no reviews, no letters to the editor. "It was as if the book had never been written," Mitscherlich recalled. It is as

if the 10,000 copies disappeared in the basement of the West German Chambers of Physicians without a single German doctor ever having read the book. However, the World Medical Association received a copy and took it as proof that the German medical profession had distanced itself from the medical crimes committed under the Nazis and thus was qualified for renewed membership.²⁴ Mitscherlich, who had helped to save the international reputation of the German medical profession, was subjected to a campaign of slander by his colleagues, who labeled him a traitor to his country and succeeded in hurting his career. In 1956 the medical faculty of Frankfurt University refused to give him the chair of an institute of psychoanalysis and psychosomatic medicine that the state government had offered him. In his autobiography, Mitscherlich bitterly notes that he had virtually pulled the chestnuts out of the fire for his profession but had been stabbed in the back for it.²⁵

In the following three decades after the repression of Mitscherlich's documentation, there was a loud silence. Very little was published, and it got little public attention.²⁶ In 1960 there was some news coverage of the leading protagonist of the killing of handicapped children in the Third Reich, Werner Catel, who was forced to resign as director of the pediatric hospital of Kiel University.²⁷ In 1959 the former professor of psychiatry of Würzburg University and chief manager of euthanasia, Werner Heyde, was arrested. For 15 years he had been practicing medicine in a small town in northern Germany under a false name, protected by the local medical establishment, who knew his identity. Heyde committed suicide in prison and thus evaded trial.²⁸ The East German lawyer Friedrich Karl Kaul, who was an observer of many trials of Nazi criminals in West Germany, published a book on the cover-up of Heyde, as well as a book on physicians in Auschwitz, some of whom went on trial in Frankfurt in the mid-1960s.²⁹ But in those days, with the cold war at its height, anything that came from an East German source was considered obscure or at least not worth listening to. At least as a result of those events, Mitscherlich's documentation was reedited.³⁰

During the student rebellion of the late 1960s, some facts were revealed about the Nazi past of prominent members of medical schools. In 1968 the director of the National Cancer Institute in Heidelberg, Karl Heinrich Bauer, faced a sit-in by medical students confronting him with his involvement in compulsory sterilization during the Third Reich. A hand-made document was published but did not become known beyond the Heidelberg academic community. The whole medical faculty backed Bauer and obstructed the medical career of the author of the document.³¹

The history of medicine community at German medical schools, with few exceptions, produced the apologetic literature on the profession's past that its leaders were asking for. Hans Schadewaldt, the last director of the Institute of the History of Medicine in Düsseldorf, in a 1969 essay on the 75-year history of the largest physician lobby organization, *Hartmannbund*, denied that its pre-1933 leaders had actively participated in the Nazi seizure of power.³² Until recently, Schadewaldt was the official historian of the German

Federal Chamber of Physicians. Another influential figure in the postwar German history of medicine was Paul Diepgen, who as director of the prestigious Berlin Institute during the Third Reich had created a list of Jewish authors who were no longer to be cited.³³ In the 1947 and 1953 editions of his popular textbook *Die Heilkunde und der ärztliche Beruf* he eliminated all the Nazi phraseology that the 1938 edition had carried.³⁴ Another example of the zeitgeist is the 1972 *Festschrift* brochure on the 100th anniversary of the renowned Moabit Hospital in Berlin, in which Berlin medical historian Manfred Stürzbecher gave an industrious and detailed account of the admission figures of patients, the hospital budgets, the construction of hospital buildings, and the changing patient menus of the past 100 years, while skipping almost entirely the events between 1933 and 1945, when the hospital's predominantly Jewish physicians were persecuted and an underground resistance group of physicians was arrested and some of its members killed.³⁵ It is the typical blank spot that one finds in most postwar German *Festschriften* and biographies.

Another factor that impeded attempts to deal openly with the profession's past was that, until the end of the 1970s, many leading positions in the professional organizations and university chairs were held by physicians who had been active members of the Nazi Party or its affiliated organizations, the SA and the SS. In 1983, the president of the West Berlin Chamber of Physicians was surgeon Wilhelm Heim, who had been a member of the SA stormtrooper squad that was involved in the purge of Jewish physicians at the *Urbankrankenhaus* in Berlin in 1933.³⁶ Important data on these physicians exist in the archives of the U.S.-administered Berlin Document Center, which until recently was almost inaccessible to German researchers. Equally significant are the files of the *Kassenärztliche Vereinigung Deutschlands*, the federation of panel doctors, which took away the licenses of Jewish doctors after 1933. These files were discovered in the late 1970s in the archives of the *Kassenärztliche Bundesvereinigung* Berlin office, the West German panel doctors federation, by the Canadian historian Michael Kater. Kater was farsighted enough to copy most of the material and move it to the archives of York University in Ontario, Canada, because when researchers asked for the files a couple of years later, they had mysteriously disappeared. After repeated requests, Kater in 1986 got an official letter from the *Kassenärztliche Bundesvereinigung* headquarters in Köln saying that "unfortunately" the papers had now been "destroyed."³⁷

In the late 1970s and early 1980s, starting with the catalyzing effect of the American television series *Holocaust*, the political climate changed. The old Nazi generation was retiring or had already died. Suddenly archives were available that had not been accessible before. A fever of remembrance by grass-root historians broke out, culminating in the 50th anniversary of the Nazi seizure of power in 1983 and the 50th anniversary of the *Kristallnacht* pogrom in 1988. Politicians, professional organizations, and village or city governments suddenly discovered their former Jewish "fellow citizens," and invited and honored them. As Raoul Hilberg noted 28 years ago in a sarcas-

tic comment on the reception of Anne Frank's diary in Germany, the Germans tend to praise and deify their former victims with an ardor that seems uncanny.³⁸

Apart from all the official memorial ceremonies, the movement of grass-root historians has persistently dug out document after document about what happened between 1933 and 1945. They continued where the Nuremberg trials and the postwar German trials of perpetrators had stopped or remained fragmentary. The evidence they provided about the involvement of almost every public institution, every professional organization, about the forgotten victims—Gypsies, Communists, homosexuals, sterilization victims, deserters, and conscientious objectors—who never got compensation, pervaded the consciousness of a broader public and has to a certain extent influenced the official rhetoric since that time. It is this new consciousness that so far has prevented the attempt of conservative historians like Ernst Nolte to quietly imprint their revisionist version of history outside any public debate on the concept of a planned National Museum of History in Berlin.

THE TURN OF THE TIDE

In the historiography of Nazi medicine, the turn of the tide occurred during a national conference of physicians and health workers called the *Gesundheitstag* in West Berlin in May 1980. It was a deliberate counterconference to the simultaneous annual meeting of the *Deutsche Ärztag*, the physicians' parliament, whose host was the above-mentioned former SA member Wilhelm Heim. As an attempt to recapture destroyed alternative models of health care from the Weimar period, the organizers of the *Gesundheitstag* had invited five Jewish refugee physicians from abroad, most of them former members of the Socialist Doctors' Association (*Verein Sozialistischer Ärzte*). "Medicine Under National Socialism. Repressed Past—Unbroken Tradition?" was the title of the conference, which for the first time presented the work of a small group of outsiders.³⁹ Among them was the investigative reporter Günther Schwarberg, who had written a book on the fatal experiments on tuberculous children in Hamburg;⁴⁰ the Bremen law professor Stephan Leibfried and the Kassel sociologist Florian Tennstedt, who had documented the purge of Jewish and socialist doctors from the health insurance panels;⁴¹ the historian Walter Wuttke-Groneberg, who had published a voluminous collection of documents on Nazi health policy;⁴² and the Hamburg family physician Karl Heinz Roth, who had studied family planning and population control in the Third Reich.⁴³ From the institutes of the history of medicine, two nonconformists had the courage to attend the conference. Fridolf Kudlien from Kiel University gave a paper on anti-Nazi resistance among physicians, and Gerhard Baader of Berlin University spoke about the history of social Darwinism.⁴⁴

The conference sparked further research. A social worker for the handi-

capped, Ernst Klee, came out with a profound study of euthanasia based on material from the archives of mental hospitals run by the Innere Mission, the charitable organization of the Lutheran church.⁴⁵ Walter-Wuttke Groneberg and his associates created an exhibit on Nazi medicine, which was shown throughout West Germany, that focused on the role of psychiatrists, on the role of occupational health care, and on the preference of early Nazi health policy for holistic medicine and natural healing as opposed to decadent "Jewish" scientific medicine.⁴⁶ Benno Müller-Hill, a geneticist from Cologne University, revealed the involvement of leading German geneticists and anthropologists in the selection of Jews, Gypsies, and the mentally ill and retarded for sterilization and genocide. Among them he focused on the director of the prestigious Kaiser Wilhelm Institute for Anthropology, menschliche Erblehre und Eugenik, Otmar von Verschuer, who directed Mengele's research on twins in Auschwitz.⁴⁷ To this day, Verschuer's twin studies are still cited by many of the world's leading geneticists.⁴⁸ The Berlin historian Gisela Bock published a profound study on compulsory sterilization, in which she suggests that sterilization was directed mainly against women, who were considered inferior to men.⁴⁹

Other classic works that were published after the *Gesundheitstag* include Götz Aly and Karl-Heinz Roth's analysis of compulsory registration of the German population, which was implemented in 1938 and provided the technical assumptions for the selection of racial and hereditary "superiors" and "inferiors."⁵⁰ Michael Kater studied the National Socialist Physicians' League, documenting the high percentage of physicians in Nazi organizations and the power struggle within the Nazi health administration.⁵¹ Georg Lilienthal studied the *Lebensborn*, an SS-run foundation that established maternity homes for unmarried mothers and orphanages to raise racially selected children.⁵² Geoffrey Cocks and Regine Lockot published a history of psychoanalysis and psychotherapy in Nazi Germany,⁵³ and Angelika Ebbinghaus and associates studied the Nazi model for a "modernized" health care system in the city of Hamburg.⁵⁴ There were also many other local studies.⁵⁵

To coordinate and fund this new wave of research, which in general was not welcomed and sometimes was even obstructed by the academic community, Karl Heinz Roth, Götz Aly, and others in 1983 founded the *Verein zur Erforschung der nationalsozialistischen Gesundheits- und Sozialpolitik* (Association for Research on Nazi Health and Social Policy). The *Verein* received private contributions, and some of its members were sponsored by the foundation Hamburger Institut für Sozialforschung. In 1985 it came out with a periodical, *Beiträge zur nationalsozialistischen Gesundheits- und Sozialpolitik*, of which eight volumes have since been published.⁵⁶

The impact of these numerous publications over the past 10 years has been powerful enough to finally force the German Federal Chamber of Physicians to change its attitude. On the 50th anniversary of the *Machtergreifung*, the Nazi seizure of power, the *Deutsche Ärzteblatt* (the equivalent of the *Journal of the American Medical Association*) still maintained in an

editorial that "the new masters had appeared overnight" and seized control of the reluctant professional organizations, denying the fact that the leaders of these organizations had enthusiastically supported the new régime.⁵⁷ When the German pediatrician and peace activist Hartmut Hanauske-Abel published an article in *Lancet* in 1986 about the medical profession's continuing denial of the truth,⁵⁸ the chairman of the Federal Chamber of Physicians, Karsten Vilmar, accused him of distorting facts and slandering the profession.⁵⁹ Hanauske-Abel consequently lost his position as emergency physician at the panel (insurance) doctors association in Mainz for political reasons. His case and Vilmar's backward attitude were covered by the leading German newspapers as a scandal. In May 1989, the Berlin Chamber of Physicians, which was now controlled by the organizers of the 1980 *Gesundheitstag*, used the opportunity of hosting the 1989 annual meeting of the *Deutsche Ärztetag* to persuade Vilmar to put medicine under the Nazis on the agenda. Against considerable resistance from some state physicians' chambers, an exhibit was created, which was officially opened at the annual session in May 1989 in Berlin,⁶⁰ "The Value of the Human Being," created by the author and Götz Aly. Simultaneously, an international scientific symposium under the umbrella of the Federal Chamber of Physicians was organized and a series of articles was published on medicine under the Nazis in the *Deutsche Ärzteblatt*.⁶¹ At the opening of the exhibit, Richard Toellner, medical historian at the University of Münster, stated in a widely noted speech that the majority of physicians had actively or passively participated in medical crimes and that the burden of the past had to be faced and no longer repressed:

The whole spectrum of normal representatives of the medical profession was involved and they all knew what they did. . . . A medical profession, who accepts mass murder of sick people as a normality, and to a large degree explicitly approves of it as a necessary, justified act for the sake of the community, has failed and betrayed its mission. Such a medical profession as a whole has become morally guilty, no matter how many members of the profession directly or indirectly participated in the killing of sick people in a legal sense.

This clear statement was printed in the *Deutsche Ärzteblatt* and must be seen as a new interpretation of history, from which the Federal Chamber of Physicians can no longer retreat.⁶² Does that mean that the German medical profession has finally shown the remorse Mitscherlich asked for in vain 42 years ago? The attitude of the official representatives of the profession remains contradictory. The 1989 *Deutsche Ärztetag* in Berlin certainly triggered a debate within the profession that was unthinkable before. The articles in the *Deutsche Ärzteblatt* provoked angry reactions from a number of readers; some of the letters to the editor were full of anti-Semitic and German chauvinist resentment.⁶³ On the one hand, some of the presidents of state physicians' chambers, such as the president of the *Ärztekammer Nordrhein*, Horst Bourmer, and the president of the *Ärztekammer Bremen*, Karsten Vilmar (who is also the president of the Federal Chamber of Physi-

cians), have honored their former persecuted Jewish members in memorial ceremonies and apologized for the deeds of Nazi colleagues. On the other hand, Karsten Vilmar recently challenged Professor Toellner's notions by stating that the majority of German physicians had worked altruistically for their patients and had never been involved in or approved of any atrocities. He also repeated the official legend that as early as 1949 the West German Chamber of Physicians had confronted the past by publishing Mitscherlich's report of the Nuremberg Doctors' Trial.⁶⁴

Meanwhile, German doctors are facing growing concern from abroad on the issue of Nazi medicine. At the 1986 meeting of the American College of Neuropsychopharmacology, a German scientist was questioned about the origin of the historical brain specimens, dating from the early 1940s, that he had used for his research and had presented at the meeting. It turned out that they originated from victims of euthanasia.⁶⁵ Physicians in Israel and the United States have expressed concern about the use of anatomical specimens from Nazi victims by German medical schools for teaching purposes. The pressure from abroad finally forced several universities and the prestigious Max Planck Society for Brain Research to remove all specimens of Nazi victims from their collections and bury them.⁶⁶ The speech given by the director of the Institute for Brain Research of the University of Tübingen, Prof. Jürgen Peiffer, at the burial in Tübingen shows how the debate of the past 10 years has stimulated leading representatives of academic medicine to confront the past of their own profession. Peiffer, who served as a soldier in World War II, confessed in his speech that he admired and respected the grand old man of German neuropathology, Julius Hallervorden, as a friendly colleague and dedicated teacher. He then tried to present a balanced judgment of Hallervorden's guilt: Although Hallervorden may have had doubts about the legality of his actions, he was so dazzled by scientific curiosity and ambition that he was not aware of serving as a cog in an inhumane machinery of extermination. The zeal of scientists like Hallervorden, Peiffer suggested, thus morally legitimized the crimes of the actual "death doctors."⁶⁷ Peiffer was stimulated by Götz Aly's research to initiate a controversial debate on Hallervorden⁶⁸ in the German Neuropathological Society and now works on a detailed history of the criminal involvement of a number of German neuropathologists in the Third Reich.

This process of dethronement has affected two other leading scientists who are still alive. One is Hans Harmsen, a leading racial hygienist during the Third Reich and a supporter of compulsory sterilization of patients in the welfare institutions of the Protestant church. After the war he was co-founder of the family planning organization Pro Familia and of the International Planned Parenthood Foundation. He was removed as honorary president of Pro Familia.⁶⁹ The second scientist affected was Siegfried Koller, a leading medical statistician during the Third Reich and the author of a study on the hereditary inferiority of "antisocials" and "deviants," whose elimination he had propounded. Koller became the director of the Institute for

Medical Statistics of Mainz University after the war. The majority of the members of the German branch of the International Biometric Society, in their annual conference on March 15, 1990, declared that they no longer regarded Koller as an honorary member of the society because of his role in the Nazi period.⁷⁰

The system of silence, lies, half-truths, excuses, and angry denials of the last four decades is in retreat. The open debate about the Nazi past has raised the consciousness of many German doctors and of parts of the German public toward contemporary medical abuses. It has shaken the German doctors' self-image of infallibility, of a profession that stands above political and social forces and that presumably has always had a clean shirt and has acted out of noble, altruistic motives.

NOTES

1. Interview with Ilse Bürgel in Berlin, July 12, 1983, cited from Christian Pross, "Das Krankenhaus Moabit 1920, 1933, 1945," in Christian Pross and Rolf Winau, ed., *Nicht mißhandeln* (Berlin: Edition Hentrich, 1984), p. 226.
2. Götz Aly, "Das Posener Tagebuch des Anatomen Hermann Voss," in *Biedermann und Schreibtischtäter, Beiträge zur nationalsozialistischen Gesundheits- und Sozialpolitik*, Bd. 4 (Berlin: Rotbuch-Verlag, 1987), pp. 43-44.
3. For a detailed excerpt of the Voss diaries see Götz Aly, note 2, pp. 15-66.
4. Berlin Document Center, Akte von Verschuer, cited in Benno Müller-Hill, *Tödliche Wissenschaften* (Reinbek: Rowohlt Taschenbuchverlag 1984), p. 72.
5. Alexander Mitscherlich and Fred Mielke, ed., *Das Diktat der Menschenverachtung* (Heidelberg: Verlag Lambert Schneider, 1947), pp. 83-84.
6. Erwin Gohrbandt, "Auskühlung," *Zentralblatt für Chirurgie*. 70 (1943): 1553-1557. The Gohrbandt case is described in detail in Pross, "Das Krankenhaus Moabit 1920, 1933, 1945," pp. 224-226.
7. Brigitte Leyendecker and Burghardt F. Klapp, "Deutsche Hepatitisforschung im Zweiten Weltkrieg," in Christian Pross, Götz Aly and Ärztekammer Berlin, ed., *Der Wert des Menschen, Medizin in Deutschland 1918-1945* (Berlin: Edition Hentrich, 1989), pp. 261-293.
8. Götz Aly, "Die Menschenversuche des Doktor Heinrich Berning," in Angelika Ebbinghaus et al., ed., *Heilen und Vernichten im Mustergau Hamburg* (Hamburg, Konkret Literatur Verlag, 1984), pp. 184-187.
9. Leo Alexander, *Neuropathology and Neurophysiology Including Electro-Encephalography in Wartime Germany*, CIOS Report, Item No. 24, File No. XXVII-I (London: His Majesty's Stationery Office, 1945); see also Götz Aly, "Der saubere und der schmutzige Fortschritt," in *Reform und Gewissen, Beiträge zur nationalsozialistischen Gesundheits- und Sozialpolitik* Bd. 2 (Berlin: Rotbuch Verlag, 1985), pp. 64-71.
10. Reimar Gilsenbach, "Die Verfolgung der Sinti - Ein Weg, der nach Auschwitz führte," in *Feinderklärung und Prävention, Beiträge zur nationalsozialistischen Gesundheits- und Sozialpolitik*, Bd. 6 (Berlin: Rotbuch Verlag, 1988), S. 11-41; Donald Kenrick and Gratian Puxton, *Sinti und Roma, die Vernichtung eines Volkes im NS-Staat* (Göttingen: 1981), pp. 53-61.

11. Aly, "Das Posener Tagebuch," pp. 61-62.
12. For the history of the politics of eugenics in Germany, see Hedwig Conrad-Martius, *Utopien der Menschenzüchtung. Der Sozialdarwinismus und seine Folgen* (Munich: 1955); Gerhard Baader, "Die Medizin im Nationalsozialismus: Ihre Wurzeln und die erste Periode ihrer Realisierung 1933-1938," in Pross and Winau, *Nicht mißhandeln*, pp. 61-75; Anna Bergmann, Gabriele Czarnowski, and Annegret Ehmann, "Menschen als Objekte humangenetischer Forschung und Politik im 20. Jahrhundert. Zur Geschichte des Kaiser Wilhelm Instituts für Anthropologie, menschliche Erblehre und Eugenik in Berlin-Dahlem (1927-1945)," in *Der Wert des Menschen*, Christian Pross and Götz Aly, ed., *Herausgegeben von der Ärztekammer Berlin in Zusammenarbeit mit der Bundesärztekammer* (Berlin: Edition Hentrich, 1989), pp. 121-142; Sheila Faith Weiss, *Race Hygiene and National Efficiency. The Eugenics of Wilhelm Schallmeyer* (Berkeley: University of California Press, 1987).
13. Alexander Mitscherlich and Fred Mielke, ed., *Das Diktat der Menschenverachtung* (Heidelberg: Verlag Lambert Schneider, 1947), preface.
14. See Heinz-Peter Schmiedebach, "Zur Standesideologie in der Weimarer Republik am Beispiel Erwin Liek," in *Medizin in Deutschland 1918-1945*, Pross and Aly, *Herausgegeben von der Ärztekammer Berlin*, pp. 26-35; and: Susanne Hahn, "Revolution der Heilkunst—Ausweg aus der Krise? Julius Moses (1968-1942) zur Rolle der Medizin in der Gesundheitspolitik in der Weimarer Republik," *Der Wert des Menschen*, pp. 71-85.
15. Götz Aly, "Medizin gegen Unbrauchbare," in *Aussonderung und Tod, Beiträge zur nationalsozialistischen Gesundheits- und Sozialpolitik* (Berlin: Rotbuch Verlag, 1985), pp. 9-10.
16. The most recent one is the case of the "Vienna death nurses": Die Mord-schwestern von Wien, "Ruhig, unauffällig, hilfsbereit," *Stern* Nr. 17 (April 20, 1989), pp. 32-39.
17. Anonymous, "It's Over, Debbie," 259 (1988): 272.
18. See e.g., Daniel Callahan, *Setting Limits. Medical Goals in an Aging Society* (New York: Simon and Schuster, 1987). See also the critical review of Callahan's book by Amitai Etzioni: "Spare the Old, Save the Young," *The Nation* (June 11, 1988), pp. 818-822, and the debate on Callahan's book "The Nazi Analogy in Bioethics," *Hastings Center Report* (August-September 1988): pp. 29-33.
19. Karl Binding and Alfred Hoche, *Die Freigabe der Vernichtung lebensunwerten Lebens. Ihr Maß und ihre Form* (Leipzig: F. Meiner, 1920).
20. Mitscherlich and Mielke, *Das Diktat*, preface.
21. *Ibid.*, pp. 83-84.
22. Rein, Sauerbruch, and Heubner's campaign against Mitscherlich is documented in the *Göttingen Universitätszeitung* Nr. 14 (1947): 3-5; Nr. 17/18 (1947): 6-8; Nr. 3 (1948): 4-7; Nr. 10 (1948): 6-8.
23. Alexander Mitscherlich and Fred Mielke, *Wissenschaft ohne Menschlichkeit* (Heidelberg, 1949). The book was published in an incomplete translated version in the United States: *Doctors of Infamy* (New York: Henry Schuman, 1949).
24. Alexander Mitscherlich and Fred Mielke, *Medizin ohne Menschlichkeit* (Frankfurt: Fischer Verlag, 1978), p. 15.
25. Alexander Mitscherlich, *Ein Leben für die Psychoanalyse* (Frankfurt: Suhr-Kamp-Verlag, 1980), pp. 144-147, 157, 189-192.
26. In 1965 an apologetic book on Nazi euthanasia was published by the prominent psychiatrist Helmut Ehrhardt (Helmut Ehrhardt, *Euthanasie und die Vernichtung "lebensunwerten Lebens"*, Stuttgart: Ferdinand Enke Verlag, 1965). Ehrhardt

- denied the true extent of the euthanasia program, did not name all the physicians involved in it, and overemphasized the resistance against the killing of patients by some psychiatrists. The same year, a report about the killings in the psychiatric state hospital Eglfing Haar near Munich was published by its postwar director, Gerhard Schmidt (*Selektion in der Heilanstalt 1939-1945*, Stuttgart: Evangelisches Verlagswerk, 1965).
27. Ulrich Schultz, "Dichtkunst, Heilkunst, Forschung, Der Kinderarzt Werner Catel," in *Reform und Gewissen, Euthanasie im Dienst des Fortschritts. Beiträge zur nationalsozialistischen Gesundheits- und Sozialpolitik*, Band 2 (Berlin: Rotbuch Verlag, 1985), p. 122.
 28. Ernst Klee, *Was sie taten—Was sie wurden. Ärzte, Juristen und andere Beteiligte am Kranken- oder Judenmord* (Frankfurt: Fischer Taschenbuchverlag, 1986), pp. 19-29.
 29. Friedrich Karl Kaul, *Dr. Sawade macht Karriere. Der Fall des Euthanasie-Arzt Dr. Heyde* (Frankfurt: Röderberg Verlag, 1971); Kaul, *Ärzte in Auschwitz* (Berlin: GDR: VEB Verlag Volk und Gesundheit, 1968).
 30. Of the first new edition under the title *Medizin ohne Menschlichkeit* (op. cit.), 50,000 copies were printed in 1960 and another 25,000 in 1962.
 31. *Dokumentation des Arbeitskreises Medizin und Verbrechen, Arbeit, Aktionen, Analysen zum Thema Zwangssterilisation im 3. Reich, Kritik heutiger Medizin* Kritische, Universit of Heidelberg, July 1968) (typewritten brochure in author's possession). The main initiator and author of the brochure, Ernst Scheurlen, a young internist, could not continue his career at the Department of Medicine at the University of Heidelberg. In 1936 Bauer had published the standard textbook on the sterilization of males under the Nazi sterilization law, in which he propagated the principles of Nazi racial hygiene concerning the "hereditary inferior" (Karl Heinrich Bauer and Felix von Mikulicz-Radecki, *Die Praxis der Sterilisierungsoperationen*, Leipzig: 1936). Bauer, who to this day is falsely regarded as an anti-Nazi, had been made the first postwar president of Heidelberg University by the American military government.
 32. Hans Schadewaldt, *75 Jahre Hartmannbund: Ein Kapitel deutscher Sozialpolitik* (Bonn-Bad: Godesberg, 1975, p. 79). A detailed correction of Schadewaldt's apology is Michael Hubenstorf, "Deutsche Landärzte an die Front!"—*Ärztekammer Standespolitik zwischen Liberalismus und Nationalsozialismus*," in *Der Wert des Menschen*, 1989, pp. 200-223.
 33. Werner Leibbrand reports this in his autobiography: "Fridolf Kudlien, Werner Leibbrand als Zeitzeuge: Ein ärztlicher Gegner des Nationalsozialismus im Dritten Reich," *Medizinhistorisches Journal* 21 (1986): 344.
 34. A summary of the Diepgen story is William Coleman, "The Physician in Nazi Germany," *Bulletin of the History of Medicine* 60 (1986): 238-240. A detailed study of Paul Diepgen's role in the Third Reich will be published by the Institute of the History of Medicine at Humboldt University in Berlin.
 35. Manfred Stürzbecher, "Aus der Geschichte des Städtischen Krankenhauses Moabit," in *1872-1972 Städtisches Krankenhaus Moabit, Festschrift zum 100jährigen Bestehen. Herausgegeben von Bezirksamt Tiergarten von Berlin* (Berlin: Abteilung Gesundheitswesen, 1972), pp. 13-98. For comparison, see Pross, "Das Krankenhaus Moabit 1920, 1933, 1945," pp. 7-10, 109-261.
 36. Michael Kater, "The Burden of the Past: Problems of a Modern Historiography of Physicians and Medicine in Nazi Germany," *German Studies Review* 10 (1987): 31-56.

37. *Ibid.*, 40.
38. Raoul Hilberg, *Die Vernichtung der europäischen Juden, Die Gesamtgeschichte des Holocaust* (Berlin: Olle und Wolter, 1982), p. 802.
39. The proceedings of the Gesundheitstag 1980 were published in Gerhard Baader and Ulrich Schultz, ed., *Medizin und Nationalsozialismus, Tabuisierte Vergangenheit—ungebrochene Tradition?* (Berlin: Verlagsgesellschaft Gesundheit, 1980).
40. Günther Schwarberg, "Der SS-Arzt und die Kinder," *Stern Magazin* im Verlag Gruner und Jahr, Hamburg, 1979.
41. Stephan Liebfried and Florian Tennstedt, *Berufsverbote und Sozialpolitik 1933, Die Auswirkungen der nationalsozialistischen Machtergreifung auf die Krankenkassenverwaltung und die Kassenärzte* (University of Bremen: Arbeitspapiere des Forschungsschwerpunktes Reproduktionsrisiken, soziale Bewegungen und Sozialpolitik Nr. 2, 1979).
42. Walter Wuttke-Groneberg, *Medizin im Nationalsozialismus, Ein Arbeitsbuch* (Tübingen: Schwäbische Verlagsanstalt, 1980).
43. See note 39.
44. *Ibid.*
45. Ernst Klee, "Euthanasie" im NS-Staat, *Die "Vernichtung lebensunwerten Lebens"* (Frankfurt: Fischer Verlag, 1983).
46. Projektgruppe "Volk und Gesundheit", Volk und Gesundheit, Heilen und Vernichten im Nationalsozialismus, Tübinger Vereinigung für Volkskunde e.V. Tübingen 1982; see also Walter Wuttke-Groneberg's paper on the 1980 Gesundheitstag: "Von Heidelberg nach Dachau. 'Vernichtungslehre' und Naturwissenschaftskritik in der nationalsozialistischen Medizin." See note 39, pp. 113–138.
47. Müller-Hill, *Tödliche Wissenschaft*. The book is now available in English under the title *Murderous Science* (Oxford: Oxford University Press, 1988).
48. See, for example, Victor McKusick, "Medical Genetics," in A. McGhee Harvey et al., *The Principles and Practice of Medicine*, 21st ed. (Norwalk, Conn.: Appleton-Century Crofts, 1984), p. 433.
49. Gisela Bock, *Zwangsterilisation im Nationalsozialismus* (Opladen: Westdeutscher Verlag, 1986).
50. Götz Aly and Karl-Heinz Roth, *Die restlose Erfassung, Volkszählen, Identifizieren, Aussondern im Nationalsozialismus* (Berlin: Rotbuch-Verlag, 1984).
51. See the following works by Michael H. Kater: "Hitlerjugend und Schule im Dritten Reich," *Historische Zeitschrift* 228 (1981): 572–623; *The Nazi Party: A Social Profile of Members and Leaders, 1919–1945* (Cambridge, Mass.: Harvard University Press, 1983), p. 112; "Hitler's Early Doctors: Nazi Physicians in Predepression Germany," *The Journal of Modern History* 59 (1987): 25–52; "The Nazi Physicians' League of 1929: Causes and Consequences," in Thomas Childers, ed., *The Formation of the Nazi Constituency 1919–1933* (London: Croom Helm, 1986), pp. 147–181; "Doctor Leonardo Conti and His Nemesis: The Failure of Centralized Medicine in the Third Reich," *Central European History* 18 (1985): 299–325; *Doctors Under Hitler* (Chapel Hill: University of North Carolina Press, 1989).
52. Georg Lilienthal, *Der "Lebensborn e.V."* (Stuttgart: Gustav Fischer Verlag, 1985).
53. Geoffrey Cocks, *Psychotherapy in the Third Reich* (New York: Oxford University Press, 1985); Regine Lockot, *Erinnern und Durcharbeiten, Zur Geschichte der Psychoanalyse und Psychotherapie im Nationalsozialismus* (Frankfurt: Fischer Taschenbuch Verlag, Frankfurt 1985).

54. Angelika Ebbinghaus, Heidrun Kaupen-Haas, and Karl Heinz Roth, *Heilen und Vernichten im Mustergau Hamburg* (Hamburg: Konkret Literatur Verlag, 1984).
55. To mention only a few examples: Pross, "Das Krankenhaus Moabit 1920, 1933, 1945"; Arbeitsgruppe zur Erforschung der Karl-Bonhoeffer-Nervenklinik, ed., *Totgeschwiegen 1933–1945, Die Geschichte der Karl-Bonhoeffer Nervenklinik* (Berlin: Edition Hentrich, 1988); Michael Wunder, Ingrid Genkel, and Harald Henner, *Auf dieser schiefen Ebene gibt es keine Halten mehr—Die Alsterdorfer Anstalten im Nationalsozialismus*, Kommissionsverlag (Hamburg: Agentur des Rauhen Hauses, 1987); Matthias Leipert, Rudolf Styrnal, and Winfried Schwarzer, *Verlegt nach unbekannt, Sterilisation und Euthanasie in Galkhausen 1933–1945* (Cologne: Rheinland-Verlag, 1987); Dagmar Hartung von Doetinchem, *Zerstörte Fortschritte—Zur Geschichte des Jüdischen Krankenhauses zu Berlin 1756–1861–1914–1989* (Berlin: Edition Hentrich, 1989).
56. *Beiträge zur nationalsozialistischen Gesundheits- und Sozialpolitik, Rotbuch Verlag Berlin*: Vol. 1, *Aussonderung und Todi* (1985); Vol. 2, *Reform und Gewissen* (1985); Vol. 3, *Herrenmensch und Arbeitsvölker* (1986); Vol. 4, *Biedermann und Schreibtischtäter* (1986); Vol. 5, *Sozialpolitik und Judenvernichtung* (1987); Vol. 6, *Feinderklärung und Prävention* (1988); Vol. 7, *Internationales Ärztliches Bulletin*, Reprint (1989); Vol. 8, *Arbeitsmarkt und Sonderesaß* (1990); Another series of books and a journal are published by the Hamburg branch of the Verein: *Schriften der Hamburger Stiftung für Sozialgeschichte des 20. Jahrhunderts*. Vol. 1, *Der Griff nach der Bevölkerungspolitik*; Vol. 6, *Die Träume der Genetik*, Greno Nördlingen 1987ff; 1989, *Zeitschrift für Sozialgeschichte*, des 20. und 21; *Jahrhunderts*, Vol. 1, 1986ff.
57. Norbert Jachertz, "Die neuen Herren kamen über Nacht," *Deutsches Ärzteblatt* (1983): pp. 23–26.
58. Hartmut Hanauske-Abel, From Nazi Holocaust to Nuclear Holocaust: A Lesson to Learn?" *Lancet* (1986): 271–273.
59. "Die 'Vergangenheitsbewältigung' darf nicht kollektiv die Ärzte diffamieren, Interview mit Dr. Karsten Vilmar," *Deutsches Ärzteblatt* (1987): pp. 767–779.
60. An exhibit catalogue was published containing an anthology of scientific contributions: *Der Wert des Menschen*. See note 7.
61. The series of articles in the *Deutsche Ärzteblatt* were published as an anthology: Johanna Bleker and Norbert Jachertz, ed., *Medizin im Dritten Reich* (Cologne: Deutscher Ärzteverlag, 1989).
62. Richard Toellner, "Ärzte im Dritten Reich, Wortlaut des Vortrages, gehalten auf der 1. Plenarsitzung des 92. Deutschen Ärztetages in Berlin," *Deutsches Ärzteblatt* (August 17, 1989), pp. 1427–1433.
63. See letters to the editor in *Deutsches Ärzteblatt* Heft 19, 1988ff.
64. "Rolle der Medizin bleibt umstritten," in *Süddeutsche Zeitung* (October 13, 1989).
65. *Archives of General Psychiatry* 45 (1988): 774–776.
66. William E. Seidelman, "In Memoriam: Medicine's Confrontation with Evil," *Hastings Center Report* (November–December 1989): 5–6. Meanwhile the University of Heidelberg has buried all anatomical specimens of Nazi victims. The University of Tübingen buried their specimens on July 8, 1990, in an official memorial ceremony. W. E. Seidelman, professor of family medicine at McMaster University in Hamilton, Ontario, and Arthur Caplan, professor at the Center for Bioethics at the University of Minnesota, both called for an international commemoration at the burial of the Hallervorden brain specimen. This call was ignored by the Max Planck Insti-

tute, which buried the brain specimens from the Hallervorden collection in an un-spectacular closed ceremony in Munich on May 25, 1990 and in Frankfurt on December 21, 1990. See J. Peiffer, "Neuropathology in the Third Reich: Memorial to Those Victims of National-Socialist Atrocities in Germany Who Were Used by Medical Science," *Brain Pathology* 1 (1991): 125-131.

67. Jürgen Peiffer, "Gedenkrede aus Anlass der Aufstellung eines Steines auf dem Gräberfeld X zum Gedenken an die Opfer nationalsozialistischer Gewalt und deren Nutzung durch die medizinische Wissenschaft." The speech was published in English as "Neuropathology in the Third Reich: Memorial to those victims of National Socialist atrocities in Germany who were used by Medical Sciences," *Brain Pathology* 1 (1991): 125-131.

68. Götz Aly discovered the Hallvorden collection in the Max Planck Institute for Brain Research in Frankfurt in the early 1980s and published his findings in 1985 (see note 9.)

69. Harmsen's Nazi past was revealed by Heidrun Kaupen Haas: "Eine deutsche Biographic—der Bevölkerungspolitiker Hans Harmsen," in Angelika Ebbinghaus et al., ed., *Heilen und Vernichten im Mustergau Hamburg* (Hamburg: Konkret Literatur Verlag, 1984), pp. 41-44.

70. Koller's role in the Third Reich was exposed by Götz Aly and Karl Heinz Roth in their monograph *Die restlose Erfassung, Volkszählen, Identifizieren, Aussondern im Nationalsozialismus* (Berlin: Rotbuch Verlag, 1984). The vote of the German branch of the International Biometric Society concerning Koller is documented in a letter to the members dating from February 1990. I am grateful to Rolf Lorenz, Tübingen, who made this letter available to me.

4

The Mengele Twins and Human Experimentation: A Personal Account

EVA MOZES-KOR

To look back at my childhood is to remember my experiences as a human guinea pig in the Birkenau laboratory of Dr. Josef Mengele. To recount such painful memories is to relive the horrors of human experimentation, where people were used as merely objects or means to a scientific end. I envision the chimneys, the smell of burning flesh, the medical injections, the endless blood taking, the tests, the dead bodies all around us, the hunger, and the rats. Nothing that is close to human existence existed in that place.

THE LABORATORY

It was early spring in 1944. I don't know the exact date. It was likely the beginning of April. We had traveled from our small village of Portz in Transylvania, not knowing where we were going or what fate lay ahead. Our cattle car train came to a sudden stop. I could hear a lot of German voices yelling orders outside. Inside I could smell the stench of the cramped bodies. We were packed like sardines. I could see a small patch of gray sky through the barbed wires. My father, Alexander Mozes, gathered the family around him. My mother was 38 years old, my oldest sister Edit was 14, my middle sister Aliz was 12 and we, the twins, Miriam and Eva, were 9. We listened quietly as my father spoke: "Promise me that if any of you survive this terrible war, you will go to your uncle Aaron Mozes in Palestine, where Jews can live in peace and freedom." I did not really understand what my father

meant by those words, but I sensed that the situation was grave because he had never spoken to us that way before. We cried, and with tears in our eyes promised him that we would do as he said. My father was a very religious man; he was 44 years old at the time we were deported. His faith in God was the guiding force in his life, and with all that had happened to us, he had turned even closer to God.

My thoughts were interrupted by the sound of the cattle car door as it swung open. "*Schnell, schnell.*" The SS soldiers were ordering everybody out. As soon as we stepped out onto the cement platform, my mother grabbed my twin sister and me by the hand, hoping somehow to protect us. Everything was moving very fast. I suddenly realized that my father and my two older sisters, Edit and Aliz, were gone. I never saw them again. I think the whole thing took 10 minutes; they were lost in the crowd as Miriam and I clutched my mother's hand. The SS soldiers walked by, shouting louder. Suddenly, they stopped my mother and looked at my twin sister and me, because we were dressed alike and looked very much alike. "Are they twins?" one soldier asked my mother. My poor mother was bewildered. What was this place? she must have thought. What was happening here? What were the rules? What was a good answer and what was bad? She asked the SS soldier if being a twin was good. The guard nodded his head. My mother said very hesitantly, "Yes, they are." Without any further explanation, the officer grabbed Miriam and me, and another SS soldier grabbed my mother and pulled her in the opposite direction. We screamed and pleaded as we were separated. I remember looking back and seeing my mother's arm stretched in despair as she was being pulled away. I never even said goodbye to her. I did not know that was the last time we would see our mother.

Miriam and I joined a group of about 10 or 12 sets of twins. We waited for a long time at the edge of the railroad ramp. They seemed to be waiting for everybody to be detained and all the twins to be gathered. I looked around the camp. Everything appeared dark, gray, and lifeless. Near the train, as the victims were being separated into two distinct groups, there stood one SS officer dressed in a neatly pressed uniform. He looked very sharp in his beautiful gleaming boots. It appeared to me that he was in charge. The officer doing the selection was Dr. Josef Mengele.

Our group was led to a huge building near a very tall barbed-wire fence. I had never seen a fence like this before. The building looked like a big gymnasium that was divided in two; one half was occupied by bleachers and the other half by many shower heads. We were ordered to undress, and our clothes were taken away. I felt numb, paralyzed in body and mind. It seemed like a nightmare that would be over as soon as I opened my eyes. All the twins were given short haircuts. Miriam and I had arrived at the camp with long braids and ribbons in our hair. The barber explained to us that the twins were privileged; therefore, we could have short hair instead of having our heads shaved. Our clothes were returned with a big red cross painted on the back. This identified the twins as part of medical experiments. We were

lined up for registration and tattooing. Four people, two SS soldiers and two women prisoners, restrained me while they heated a pen-like gadget over an open flame, dipped it in ink, and forced it into my left arm, burning into my flesh, dot by dot, the number A-7063.

Early in the evening we were taken to a barrack in camp A, the women's camp. I could see groups of prisoners returning from work. They looked like walking skeletons. One poor victim stepped out of line, trying to talk to us. She said, "Children, children, where did you come from?" She was killed on the spot. The SS guards were everywhere. They marched us to every activity: to the lab, to the showers, to Auschwitz, and to the other experiments. Our interactions with the other prisoners was extremely limited, as the twin experiments were top secret.

In the barracks we met many other twin children. After our evening meal of a two-inch slice of black bread and a brownish liquid, two Hungarian twins briefed us about the camp. They explained that this camp was called Birkenau. Auschwitz, they said, had one gas chamber and one crematorium, while Birkenau had four gas chambers and four crematoriums. "We don't understand these words—*gas chambers, crematorium,*" Miriam and I interrupted. They took us to the back door, where we looked toward the northern sky, to see a giant smoking chimney towering above the camps. I could see glowing flames rising high above the structure. I asked, "What are they burning so late at night?" "The Germans are burning people in the ovens. They want to kill all the Jews, and after every transport, the chimney burns day and night." "Burning people? That's crazy. Why would they want to burn people?" I asked. "Did you see the two groups of people on the railroad platform this morning?" they asked. "They are probably burning them right now. Only those who can work stay alive, and only as long as they are strong enough to work. The weak, the sick, the old, and the children all end up in the gas chambers and in the flames." "But," I said, "we are children too, and we are alive. Why don't they kill us?" It seemed to me a very good question. "They will someday, but right now, they want us alive because we are twins and they use us in experiments conducted by Dr. Josef Mengele," they replied. "You will meet him tomorrow; he comes in every morning after roll call."

THE EXPERIMENTS

No one ever attempted to explain anything to us. No one explained why we were in Mengele's "laboratory," what was going to be done to us, or what would be our ultimate destiny. There was never an attempt to minimize our risks. In fact, we were there for one reason: to be used as experimental objects and then to be killed. Mengele had two types of research programs. One set of experiments dealt with genetics and the other with germ warfare. In the germ experiments, Mengele would inject one twin with the germ.

Then, if and when that twin died, he would kill the other twin in order to compare the organs at autopsy.

In June or July, about 3 months after my arrival, I was injected with some kind of deadly germ. After a visit to Dr. Mengele's lab, I became ill with a very high fever. I was desperately afraid of revealing this fact because it was well known that the illness would result in my being separated from Miriam and sent to the hospital. We knew that many children became sick, were taken to the hospital, and never came back. On the next visit to the lab my fever was measured, and I was sent to the hospital.

The hospital was a camp filled with some 15 to 25 barracks for the sick. I was placed in a barrack filled with moving and screaming skeletons. I called the ward the "barrack of the living dead." I was told by the other children that we were not given anything to eat here because people were brought here to await their turn for a place in the gas chambers. Twice a week, a truck would come to pick up the living dead. These sick people were thrown on the truck like sacks of potatoes. The screaming of these poor souls will stay with me forever.

The next day a team of five doctors, including Mengele, came to study my case. They looked at my fever chart and then Mengele said sarcastically, "She is so young. Too bad. She has only two weeks to live."

The doctors never examined me and never ran any tests; they only looked at the fever chart. I was between life and death for 2 weeks. It was then that I made a silent pledge: "I will do everything in my power to prove Mengele wrong, and to survive and be reunited with my sister Miriam." During the first 2 weeks I was unconscious most of the time, but I do remember waking up on the barrack floor while trying to crawl to the other end of the barrack to a water faucet. I was given no food, no medication, and no water.

Then I realized that my temperature had to be normal before I would be reunited with Miriam. I understood that I had to convince Mengele and the other doctors who were monitoring my disease that I was getting well. I accomplished this by manipulating the thermometers so that it appeared that my fever had gradually disappeared. It took me 3 weeks to allow my temperature to be read as normal. Three weeks later, I was released and reunited with Miriam.

Upon my return, Miriam told me that during the first 2 weeks of my hospitalization, someone had stayed with her continually. She was not told of my condition, but it was clear that had I died in the hospital, Miriam would have been taken immediately to Mengele's lab to be killed. After the 2 weeks, when it appeared that I would not die, Miriam was no longer under surveillance at all times. Instead, she was taken back to the lab, together with all the other twins, and was injected with something. When I got back from the hospital, Miriam was very ill.

The daily routine for Mengele's twins was regimented. We awoke every morning at 5 A.M. and helped the younger twins to dress. In our barracks there were twins from 1 1/2 to 13 years of age. By 6 A.M. all of us were

standing for roll call outdoors, whether it was winter or summer, rain or snow. Everybody had to be accounted for as either dead or alive. The bodies of dead children were brought out and counted as well. Mengele became very angry when a child died in bed because of the conditions in the camp. These deaths meant the loss of valuable guinea pigs for his medical experiments.

After Mengele's visit, we received some food and then were taken to the labs for tests. We were examined, measured, and given X-rays. Three times a week we were taken to the blood lab. There, blood was taken from my left arm, and three or more shots were injected into my right arm. Afterward, we were usually taken back to the barracks. On one occasion, while in the waiting area of the lab, I observed one twin faint. She was being tested to see how much blood could be taken before death occurred. These experiments were felt to have a practical application on the battlefield.

Three times a week we were marched from Birkenau to Auschwitz, where we would go to Barrack 10. We were assembled, naked, in an enormous room. There 10 or 12 doctors would study us. They measured parts of the body: the size of the mouth, the shape of the bones of the face and skull, and the colors of eyes and hair. We were compared to a chart in addition to each set of twins. Our bodies were marked with different color codes, and each doctor walked around us, continually taking notes. The "specimens" were photographed and catalogued. There was no way to protest and stay alive.

One of the twins, who was 19 years old, told of experiments involving a set of teenage boys and a set of teenage girls. Cross-transfusions were carried out in an attempt to "make boys into girls and girls into boys." Some of the boys were castrated. Transfusion reactions were similarly studied in the adolescent twins.

In the area of genetics, Mengele collected dwarfs, giants, hunchbacks, and people with abnormalities and defects. He studied genetic traits in the hope of "purifying" the "Aryan superrace." He closely monitored eye and hair color.

A set of Gypsy twins was brought back from Mengele's lab after they were sewn back to back. Mengele had attempted to create a Siamese twin by connecting blood vessels and organs. The twins screamed day and night until gangrene set in, and after 3 days they died. Mengele also attempted to connect the urinary tract of a 7-year-old girl to her own colon. Many experiments were performed on the male and female genitals.

LIBERATION

In early November 1944 all the Gypsies were exterminated, and we were transferred to their camp, which was next to the gas chambers and crematorium. After we were transferred to the Gypsy camp, the experiments became

less routine. We were still taken to the lab, but not as frequently. It was clear that something was happening. It was a midnight in January, 1945. We were awakened by the unbearable heat coming from the roof of the barracks. I looked outside; the whole sky was red with flames. The SS had blown up the gas chambers and crematoriums. The SS guards stood outside with their machine guns and ordered us to march.

On a snowy day, January 27, 1945, just 4 days before my 10th birthday, Auschwitz was liberated. I thought that once we were free, we would be able to go home. Of course, that was not the case. We were held in refugee camps until September 1945. We were then transferred from one camp to another.

I eventually made it back to my home city. Our home had been looted and ransacked. I found a crumpled photograph—the last photograph I have of my family. The picture was taken in the fall of 1943.

In 1948, Miriam and I applied for a visa to emigrate to the newly formed country of Israel. After 2 years, we were finally granted our request, and in 1950 we settled in Israel. In 1960, I married an American tourist and came to live in the United States. My son Alex was born in 1961 and my daughter Rina in 1963. I have tried to obtain copies of the medical experimentation records from the U.S. Government. My sister Miriam suffers from renal disease, and I have donated my left kidney to her. To this day, we do not know what substances were injected into us when we served as Mengele's guinea pigs.

CONCLUSION

I hope that what was done to me will never again happen to another human being. This is the reason I have told my painful story. Those who do research must be compelled to obey international law. Scientists should continue to do research. But if a human being is ever used in the experiments, the scientists must make a moral commitment never to violate a person's human rights and human dignity. The scientist must respect the wishes of the subjects. Every time scientists are involved in human experimentation, they should try to put themselves in the place of the subject and see how they would feel. The scientists of the world must remember that the research is being done for the sake of mankind and not for the sake of science; scientists must never detach themselves from the humans they serve. I hope with all my heart that our sad stories will in some special way impel the international community to devise laws and rules to govern human experimentation.

The dignity of all human beings must be respected, preserved, and protected at all costs; life without dignity is mere existence. I experienced such loss of dignity every day as a guinea pig in Dr. Mengele's laboratory. Forty-five years later, I still feel deep pain and anger for the way I was treated by the doctors. These same doctors had taken an oath to help and to save human life.¹

NOTES

1. For further discussion of Josef Mengele and the twin experiments see M. Nyiszli, *Auschwitz: An Eyewitness Account of Mengele's Infamous Death Camp* (New York: Seaver Books, 1986), and G. L. Posner and J. Ware, *Mengele: The Complete Story* (New York: McGraw-Hill, 1986). See also P. Aziz, *Doctors of Death*, Vol. 2, *Joseph Mengele, The Evil Doctor* (Geneva: Ferni Publishing, 1976), and C. Bernadac, *Devil's Doctors: Medical Experiments on Human Subjects in the Concentration Camps* (Geneva: Ferni Publishing, 1978), L. M. Lagnado and S. C. Dekel, *Children of the Flames: Dr. Josef Mengele and the Untold Story of the Twins of Auschwitz* (New York: William Morrow, 1991), A. Haas, *The Doctor and the Damned* (London: Granada, 1985); The International Auschwitz Committee on Nazi Medicine: *Doctors, Victims and Medicine in Auschwitz* (New York: Fertig Publishing, 1986); and R. J. Lifton, *The Nazi Doctors: Medical Killing and the Psychology of Genocide* (New York: Basic Books, 1986).



II

THE DOCTORS' TRIAL
AND THE
NUREMBERG CODE

This part contains the primary source documents from the Doctors' Trial; a summary of the aftermath of the trial; a discussion of the origin of the Nuremberg Code; and photographs of the judges, the courtroom, counsel, defendants, and exhibits.

Brigadier General Telford Taylor was the chief counsel for the trials of war criminals before the Nuremberg military tribunal from October 1946 to April 1949. Although James M. McHaney was the chief prosecutor for Tribunal No. I, Case 1, the Doctors' Trial, Taylor delivered the opening statement for the prosecution. In a 1990 discussion with the editors about the significance of the medical trials and the Nuremberg Code, Taylor suggested that his opening statement was more important than present-day personal reminiscence. Although rather reluctantly, we ultimately agreed. The opening statement appears almost in its entirety in Chapter 5.

We have not included the formal indictment because this material is contained in the final judgment. The judgment itself is reprinted almost in its entirety in Chapter 6. The concluding section of the judgment contains a discussion of the permissibility of medical experiments and the ten point Nuremberg Code.

Mitscherlich and Mielke were the official German court observers of the tribunal. Following the trial, they wrote a landmark account of the Doctors' Trial and published their observations in a book entitled *Doctors of Infamy*. We have included the epilogue to their book, which summarizes the verdicts and sentencing of the Nazi defendants.

The final chapter in this part of the book, Chapter 7, was written by one of the editors, Michael Grodin. It traces the history of codes of medical ethics and human experimentation. The sources of the various points in the Nuremberg Code are discussed in detail, and the context of the code is illuminated.

The twenty-three defendants at the trial (as described in the indictment) were:

Karl Brandt—Personal physician to Adolf Hitler; Gruppenfuehrer in the SS and Generalleutnant (Major General) in the Waffen SS; Reich Commissioner for Health and Sanitation (Reichskommissar fuer Sanitaets—und Gesundheitswesen); and member of the Reich Research Council (Reichsforschungsrat).

Siegfried Handloser—Generaloberstabsarzt (Lieutenant General, Medical Service); Medical Inspector of the Army (Heeressanitaetsinspekteur); and Chief of the Medical Services of the Armed Forces (Chef des Wehrmachtsanitaetswesens).

Paul Rostock—Chief Surgeon of the Surgical Clinic in Berlin; Surgical Adviser to the Army; and Chief of the Office for Medical Science and Research (Amtschef der Dienststelle Medizinische Wissenschaft und Forschung) under the defendant Karl Brandt, Reich Commissioner for Health and Sanitation.

Oskar Schroeder—Generaloberstabsarzt (Lieutenant General Medical Service); Chief of Staff of the Inspectorate of the Medical Service of the Luftwaffe (Chef des Stabes, Inspekteur des Luftwaffe-Sanitaetswesens); and Chief of the Medical Service of the Luftwaffe (Chef des Sanitaetswesens der Luftwaffe).

Karl Genzken—Gruppenfuehrer in the SS and Generalleutnant (Major General) in the Waffen SS; and Chief of the Medical Department of the Waffen SS (Chef des Sanitaetsamts der Waffen SS).

Karl Gebhardt—Gruppenfuehrer in the SS and Generalleutnant (Major General) in the Waffen SS; personal physician to Reichsfuehrer SS Himmler; Chief Surgeon of the Staff of the Reich Physician SS and Police (Oberster Kliniker, Reichsarzt SS und Polizei); and President of the German Red Cross.

Kurt Blome—Deputy [of the] Reich Health Leader (Reichsgesundheitsfuehrer); and Plenipotentiary for Cancer Research in the Reich Research Council.

Rudolf Brandt—Standartenfuehrer (Colonel) in the Allgemeine SS; Personal Administrative Officer to Reichsfuehrer SS Himmler (Persoenlicher Referent von Himmler); and Ministerial Counsellor and Chief of the Ministerial Office in the Reich Ministry of the Interior.

Joachim Mrugowsky—Oberfuehrer (Senior Colonel) in the Waffen SS; Chief Hygienist of the Reich Physician SS and Police (Oberster Hygieniker, Reichsarzt SS und Polizei); and Chief of the Hygienic Institute of the Waffen SS (Chef des Hygienischen Institutes der Waffen SS).

Helmut Poppendick—Oberfuehrer (Senior Colonel) in the SS; and Chief of the Personal Staff of the Reich Physician SS and Police (Chef des persoenlichen Stabes des Reichsarztes SS und Polizei).

Wolfram Sievers—Standartenfuehrer (Colonel) in the SS; Reich Manager of the "Ahnenerbe" Society and Director of its Institute for Military Scientific Research (Institut fuer Wehrwissenschaftliche Zweckforschung); and Deputy Chairman of the Managing Board of Directors of the Reich Research Council.

Gerhard Rose—Generalarzt of the Luftwaffe (Brigadier General, Medical Service of the Air Force); Vice President, Chief of the Department for Tropical Medicine, and Professor of the Robert Koch

Institute; and Hygienic Adviser for Tropical Medicine to the Chief of the Medical Service of the Luftwaffe.

Siegfried Ruff—Director of the Department for Aviation Medicine at the German Experimental Institute for Aviation (Deutsche Versuchsanstalt fuer Luftfahrt).

Hans Wolfgang Romberg—Doctor on the Staff of the Department for Aviation Medicine at the German Experimental Institute for Aviation.

Viktor Brack—Oberfuehrer (Senior Colonel) in the SS and Sturm-bannfuehrer (Major) in the Waffen SS; and Chief Administrative Officer in the Chancellery of the Fuehrer of the NSDAP (Oberdienstleiter, Kanzlei des Fuehrers der NSDAP).

Hermann Becker-Freyseng—Stabsarzt in the Luftwaffe (Captain, Medical Service of the Air Force); and Chief of the Department for Aviation Medicine of the Chief of the Medical Service of the Luftwaffe.

Georg August Weltz—Oberfeldarzt in the Luftwaffe (Lieutenant Colonel, Medical Service of the Air Force); and Chief of the Institute for Aviation Medicine in Munich (Institut fuer Luftfahrtmedizin).

Konrad Schaefer—Doctor of the Staff of the Institute for Aviation Medicine in Berlin.

Waldemar Hoven—Hauptsturmfuehrer (Captain) in the Waffen SS; and Chief Doctor of the Buchenwald Concentration Camp.

Wilhelm Beiglboeck—Consulting Physician to the Luftwaffe.

Adolf Pokorny—Physician, Specialist in Skin and Venereal Diseases.

Herta Oberheuser—Physician at the Ravensbrueck Concentration Camp; and Assistant Physician to the defendant Gebhardt at the Hospital at Hohenlychen.

Fritz Fischer—Sturm-bannfuehrer (Major) in the Waffen SS; and Assistant Physician to the defendant Gebhardt at the Hospital at Hohenlychen.

5

Opening Statement of the Prosecution December 9, 1946

TELFORD TAYLOR

[Editors' Note: This historical document is reproduced as written. Spelling errors are silently corrected.]

The defendants in this case are charged with murders, tortures, and other atrocities committed in the name of medical science. The victims of these crimes are numbered in the hundreds of thousands. A handful only are still alive; a few of the survivors will appear in this courtroom. But most of these miserable victims were slaughtered outright or died in the course of the tortures to which they were subjected.

For the most part they are nameless dead. To their murderers, these wretched people were not individuals at all. They came in wholesale lots and were treated worse than animals. They were 200 Jews in good physical condition, 50 Gypsies, 500 tubercular Poles, or 1,000 Russians. The victims of these crimes are numbered among the anonymous millions who met death at the hands of the Nazis and whose fate is a hideous blot on the page of modern history.

The charges against these defendants are brought in the name of the United States of America. They are being tried by a court of American judges. The responsibilities thus imposed upon the representatives of the United States, prosecutors and judges alike, are grave and unusual. It is **owed**, not only to the victims and to the parents and children of the victims, **that** just punishment be imposed on the guilty, but also to the defendants **that** they be accorded a fair hearing and decision. Such responsibilities are the ordinary burden of any tribunal. Far wider are the duties which we must fulfill here.

These larger obligations run to the peoples and races on whom the

scourge of these crimes was laid. The mere punishment of the defendants, or even of thousands of others equally guilty, can never redress the terrible injuries which the Nazis visited on these unfortunate peoples. For them it is far more important that these incredible events be established by clear and public proof, so that no one can ever doubt that they were fact and not fable; and that this court, as the agent of the United States and as the voice of humanity, stamp these acts, and the ideas which engendered them, as barbarous and criminal.

We have still other responsibilities here. The defendants in the dock are charged with murder, but this is no mere murder trial. We cannot rest content when we have shown that crimes were committed and that certain persons committed them. To kill, to maim, and to torture is criminal under all modern systems of law. These defendants did not kill in hot blood, nor for personal enrichment. Some of them may be sadists who killed and tortured for sport, but they are not all perverts. They are not ignorant men. Most of them are trained physicians and some of them are distinguished scientists. Yet these defendants, all of whom were fully able to comprehend the nature of their acts, and most of whom were exceptionally qualified to form a moral and professional judgment in this respect, are responsible for wholesale murder and unspeakably cruel tortures.

It is our deep obligation to all peoples of the world to show why and how these things happened. It is incumbent upon us to set forth with conspicuous clarity the ideas and motives which moved these defendants to treat their fellow men as less than beasts. The perverse thoughts and distorted concepts which brought about these savageries are not dead. They cannot be killed by force of arms. They must not become a spreading cancer in the breast of humanity. They must be cut out and exposed, for the reason so well stated by Mr. Justice Jackson in this courtroom a year ago. "The wrongs which we seek to condemn and punish have been so calculated, so malignant, and so devastating, that civilization cannot tolerate their being ignored because it cannot survive their being repeated."

To the German people we owe a special responsibility in these proceedings. Under the leadership of the Nazis and their war lords, the German nation spread death and devastation throughout Europe. This the Germans now know. So, too, do they know the consequences to Germany: defeat, ruin, prostration, and utter demoralization. Most German children will never, as long as they live, see an undamaged German city.

To what cause will these children ascribe the defeat of the German nation and the devastation that surrounds them? Will they attribute it to the overwhelming weight of numbers and resources that was eventually leagued against them? Will they point to the ingenuity of enemy scientists? Will they perhaps blame their plight on strategic and military blunders by their generals?

If the Germans embrace those reasons as the true cause of their disaster, it will be a sad and fatal thing for Germany and for the world. Men who have

never seen a German city intact will be callous about flattening English or American or Russian cities. They may not even realize that they are destroying anything worthwhile, for lack of a normal sense of values. To reestablish the greatness of Germany they are likely to pin their faith on improved military techniques. Such views will lead the Germans straight into the arms of the Prussian militarists to whom defeat is only a glorious opportunity to start a new war game. "Next time it will be different." We know all too well what that will mean.

This case, and others which will be tried in this building, offer a signal opportunity to lay before the German people the true cause of their present misery. The walls and towers and churches of Nuernberg were, indeed, reduced to rubble by Allied bombs, but in a deeper sense Nuernberg had been destroyed a decade earlier, when it became the seat of the annual Nazi Party rallies, a focal point for the moral disintegration in Germany, and the private domain of Julius Streicher. The insane and malignant doctrines that Nuernberg spewed forth account alike for the crimes of these defendants and for the terrible fate of Germany under the Third Reich.

A nation which deliberately infects itself with poison will inevitably sicken and die. These defendants and others turned Germany into an infernal combination of a lunatic asylum and a charnel house. Neither science, nor industry, nor the arts could flourish in such a foul medium. The country could not live at peace and was fatally handicapped for war. I do not think the German people have as yet any conception of how deeply the criminal folly that was Nazism bit into every phase of German life, or of how utterly ravaging the consequences were. It will be our task to make these things clear.

These are the high purposes which justify the establishment of extraordinary courts to hear and determine this case and others of comparable importance. That murder should be punished goes without the saying, but the full performance of our task requires more than the just sentencing of these defendants. Their crimes were the inevitable result of the sinister doctrines which they espoused, and these same doctrines sealed the fate of Germany, shattered Europe, and left the world in ferment. Wherever those doctrines may emerge and prevail, the same terrible consequences will follow. That is why a bold and lucid consummation of these proceedings is of vital importance to all nations. That is why the United States has constituted this Tribunal.

I pass now to the facts of the case in hand. There are 23 defendants in the box. All but three of them—Rudolf Brandt, Sievers, and Brack—are doctors. Of the 20 doctors, all but one—Pokorny—held positions in the medical services of the Third Reich. To understand this case, it is necessary to understand the general structure of these state medical services, and how these services fitted into the over-all organization of the Nazi State. [The material on the organization of the military medical personnel, and where the individual defendants fit into it, has been deleted.]

CRIMES COMMITTED IN THE GUISE OF SCIENTIFIC RESEARCH

I turn now to the main part of the indictment and will outline at this point the prosecution's case relating to those crimes alleged to have been committed in the name of medical or scientific research. The charges with respect to "euthanasia" and the slaughter of tubercular Poles obviously have no relation to research or experimentation and will be dealt with later. What I will cover now comprehends all the experiments charged as war crimes in paragraph 6 and as crimes against humanity in paragraph 11 of the indictment, and the murders committed for the so-called anthropological purposes which are charged as war crimes in paragraph 7 and as crimes against humanity in paragraph 12 of the indictment.

Before taking up these experiments one by one, let us look at them as a whole. Are they a heterogeneous list of horrors, or is there a common denominator for the whole group?

A sort of rough pattern is apparent on the face of the indictment. Experiments concerning high altitude, the effect of cold, and the potability of processed sea water have an obvious relation to aeronautical and naval combat and rescue problems. The mustard gas and phosphorus burn experiments, as well as those relating to the healing value of sulfanilamide for wounds, can be related to air-raid and battlefield medical problems. It is well known that malaria, epidemic jaundice, and typhus were among the principal diseases which had to be combated by the German Armed Forces and by German authorities in occupied territories. To some degree, the therapeutic pattern outlined above is undoubtedly a valid one, and explains why the Wehrmacht, and especially the German Air Force, participated in these experiments. Fanatically bent upon conquest, utterly ruthless as to the means or instruments to be used in achieving victory, and callous to the sufferings of people whom they regarded as inferior, the German militarists were willing to gather whatever scientific fruit these experiments might yield.

But our proof will show that a quite different and even more sinister objective runs like a red thread through these hideous researches. We will show that in some instances the true object of these experiments was not how to rescue or to cure, but how to destroy and kill. The sterilization experiments were, it is clear, purely destructive in purpose. The prisoners at Buchenwald who were shot with poisoned bullets were not guinea pigs to test an antidote for the poison; their murderers really wanted to know how quickly the poison would kill. This destructive objective is not superficially as apparent in the other experiments, but we will show that it was often there.

Mankind has not heretofore felt the need of a word to denominate the science of how to kill prisoners most rapidly and subjugated people in large numbers. This case and these defendants have created this gruesome question for the lexicographer. For the moment we will christen this macabre science *thanatology*, the science of producing death. The thanatological

knowledge, derived in part from these experiments, supplied the techniques for genocide, a policy of the Third Reich, exemplified in the "euthanasia" program and in the widespread slaughter of Jews, Gypsies, Poles, and Russians. This policy of mass extermination could not have been so effectively carried out without the active participation of German medical scientists.

I will now take up the experiments themselves. Two or three of them I will describe more fully, but most of them will be treated in summary fashion, as Mr. McHaney will be presenting detailed proof of each of them.

High-Altitude Experiments

The experiments known as *high-altitude* or *low-pressure* experiments were carried out at the Dachau concentration camp in 1942. According to the proof, the original proposal that such experiments be carried out on human beings originated in the spring of 1941 with a Dr. Sigmund Rascher. Rascher was at that time a captain in the Medical Service of the German Air Force, and also held officer rank in the SS. He is believed now to be dead.

The origin of the idea is revealed in a letter which Rascher wrote to Himmler in May 1941 at which time Rascher was taking a course in aviation medicine at a German Air Force headquarters in Munich. According to the letter, this course included researches into high-altitude flying and "considerable regret was expressed at the fact that no tests with human material had yet been possible for us, as such experiments are very dangerous and nobody volunteers for them."

Rascher, in this letter, went on to ask Himmler to put human subjects at his disposal and baldly stated that the experiments might result in death to the subjects but that the tests theretofore made with monkeys had not been satisfactory. Rascher's letter was answered by Himmler's adjutant, the defendant, Rudolf Brandt, who informed Rascher that "prisoners will, of course, gladly be made available for high-flight researches."

Subsequently, Rascher wrote directly to Rudolf Brandt, asking for permission to carry out the experiments at the Dachau concentration camp, and he mentioned that the German Air Force had provided "a movable pressure chamber" in which the experiments might be made. Plans for carrying out the experiments were developed at a conference late in 1941, or early in 1942, attended by Dr. Rascher and by the defendants Weltz, Romberg, and Ruff, all of whom were members of the German Air Force Medical Service. The tests themselves were carried out in the spring and summer of 1942, using the pressure chamber which the German Air Force had provided. The victims were locked in the low-pressure chamber, which was an airtight ball-like compartment, and then the pressure in the chamber was altered to simulate the atmospheric conditions prevailing at extremely high altitudes. The pressure in the chamber could be varied with great rapidity, which permitted the defendants to duplicate the atmospheric conditions which an aviator might encounter in falling great distances through space without a parachute and without oxygen.

The reports, conclusions, and comments on these experiments, which were introduced here and carefully recorded, demonstrate complete disregard for human life and callousness to suffering and pain. These documents reveal at one and the same time the medical results of the experiments and the degradation of the physicians who performed them. The first report by Rascher was made in April 1942 and contains a description of the effect of the low-pressure chamber on a 37-year-old Jew. I quote:

The third experiment of this type took such an extraordinary course that I called an SS physician of the camp as witness, since I had worked on these experiments all by myself. It was a continuous experiment without oxygen at a height of 12 kilometers conducted on a 37-year-old Jew in good general condition. Breathing continued up to 30 minutes. After 4 minutes the experimental subject began to perspire, and wiggle his head; after 5 minutes cramps occurred; between 6 and 10 minutes breathing increased in speed and the experimental subject became unconscious; from 11 to 30 minutes breathing slowed down to three breaths per minute, finally stopping altogether.

Severest cyanosis developed in between and foam appeared at the mouth.

At 5 minute intervals electrocardiograms from three leads were written. After breathing had stopped [the] EKG [electrocardiogram] was continuously written until the action of the heart had come to a complete standstill. About 1/2 hour after breathing had stopped, dissection was started.

Rascher's report also contains the following record of the "autopsy":

When the cavity of the chest was opened the pericardium was filled tightly (heart tamponade). Upon opening of the pericardium, 80 cc of clear yellowish liquid gushed forth. The moment the tamponade had stopped, the right auricle of the heart began to beat heavily, at first at the rate of 60 actions per minute, then progressively slower. Twenty minutes after the pericardium had been opened, the right auricle was opened by puncturing it. For about 15 minutes, a thin stream of blood spurted forth. Thereafter, clogging of the puncture wound in the auricle by coagulation of the blood and renewed acceleration of the action of the right auricle occurred.

One hour after breathing had stopped, the spinal marrow was completely severed and the brain removed. Thereupon, the action of the auricle of the heart stopped for 40 seconds. It then renewed its action, coming to a complete standstill 8 minutes later. A heavy subarachnoid oedema was found in the brain. In the veins and arteries of the brain, a considerable quantity of air was discovered. Furthermore, the blood vessels in the heart and liver were enormously obstructed by embolism.

After seeing this report Himmler ironically ordered that if a subject should be brought back to life after enduring such an experiment, he should be "pardoned" to life imprisonment in a concentration camp. Rascher's reply to this letter, dated 20 October 1942, reveals that up to [that] time the victims of these experiments had all been Poles and Russians, that some of them had been condemned to death, and Rascher inquired whether Himmler's

benign mercy extended to Poles and Russians. A teletyped reply from the defendant, Rudolf Brandt, confirmed Rascher's belief that Poles and Russians were beyond the pale and should be given no amnesty of any kind.

The utter brutality of the crimes committed in conducting this series of experiments is reflected in all the documents. A report written in May 1942 reflects that certain of these tests were carried out on persons described therein as "Jewish professional criminals." In fact, these Jews had been condemned for what the Nazis called *Rassenschande*, which literally means "racial shame." The crime consisted of marriage or intercourse between Aryans and non-Aryans. The murder and torture of these unfortunate Jews is eloquently reflected in the following report:

Some of the experimental subjects died during a continued high altitude experiment; for instance, after one-half hour at a height of 12 kilometers. After the skull had been opened under water, an ample amount of air embolism was found in the brain vessels and, in part, free air in the brain ventricles.

In order to find out whether the severe psychic and physical effects, as mentioned [elsewhere] are due to the formation of embolism, the following was done: After relative recuperation from such a parachute descending test had taken place, however before regaining consciousness, some experiment subjects were kept under water until they died. When the skull and cavities of the breast and of the abdomen were opened under water, an enormous amount of air embolism was found in the vessels of the brain, the coronary vessels, and the vessels of the brain, the coronary vessels, and the vessels of the liver and the intestines.

The victims who did not die in the course of such experiments surely wished that they had. A long report written in July 1942 by Rascher, and by the defendants Ruff and Romberg, describes an experiment on a former delicatessen clerk, who was given an oxygen mask and raised in the chamber to an atmospheric elevation of over 47,000 feet, at which point the mask was removed and a parachute descent was simulated. The report describes the victim's reactions—"spasmodic convulsions," "agonal convulsive breathing," "clonic convulsions, groaning," "yells aloud," "convulses arms and legs," "grimaces, bites his tongue," "does not respond to speech," "gives the impression of someone who is completely out of his mind."

The evidence which we will produce will establish that the defendants Ruff and Romberg personally participated with Rascher in experiments resulting in death and torture; that the defendant Sievers watched the experiments for an entire day and made an oral report to Himmler on his observations; that the defendant Rudolf Brandt was the agent of Himmler in providing the human subjects for these experiments and in making many other facilities available to Rascher and rendering him general assistance; and that the defendant Wetz, in his official capacity, repeatedly insisted on supervision over and full responsibility and credit for the experiments. The higher authorities of both the German Air Force and the SS were fully informed concerning what was going on. . . .

Freezing Experiments

The deep interest of the German Air Force in capitalizing on the availability of inmates of concentration camps for experimental purposes is even more apparent in the case of the freezing experiments. These, too, were conducted at Dachau. They began immediately after the high-altitude experiments were completed and they continued until the spring of 1943. Here again, the defendant Wetz was directly in charge of the experiments, with Rascher as his assistant. . . .

The purpose of these experiments was to determine the most effective way of rewarming German aviators who were forced to parachute into the North Sea. The evidence will show that in the course of these experiments, the victims were forced to remain outdoors without clothing in freezing weather from 9 to 14 hours. In other cases, they were forced to remain in a tank of iced water for 3 hours at a time. The water experiments are described in a report by Rascher written in August 1942. I quote:

Electrical measurements gave low temperature readings of 26.4° in the stomach and 26.5° in the rectum. Fatalities occurred only when the brain stem and the back of the head were also chilled. Autopsies of such fatal cases always revealed large amounts of free blood, up to 1/2 liter, in the cranial cavity. The heart invariably showed extreme dilation of the right chamber. As soon as the temperature in those experiments reached 28°, the experimental subjects died invariably, despite all attempts at resuscitation.

Other documents set forth that from time to time the temperature of the water would be lowered by 10° Centigrade and a quart of blood would be taken from an artery in the subject's throat for analysis. The organs of the victims who died were extracted and sent to the Pathological Institute at Munich.

Rewarming of the subjects was attempted by various means, most commonly and successfully in a very hot bath. In September, Himmler personally ordered that rewarming by the warmth of human bodies also be attempted, and the inhuman villains who conducted these experiments promptly produced four Gypsy women from the Ravensbrueck concentration camp. When the women had arrived, rewarming was attempted by placing the chilled victim between two naked women.

A voluminous report on the freezing experiments conducted in tanks of ice water, written in October 1942, contains the following:

If the experimental subject were placed in the water under narcosis, one observed a certain arousing effect. The subject began to groan and made some defensive movements. In a few cases, a state of excitation developed. This was especially severe in the cooling of the head and neck. But never was a complete cessation of the narcosis observed. The defensive movements ceased after about 5 minutes. There followed a progressive rigor, which developed especially strongly in the arm musculature; the arms were strongly flexed and pressed to the body.

The rigor increased with the continuation of the cooling, now and then interrupted by tonic-clonic twitching. With still more marked sinking of the body temperature, it suddenly ceased. These cases ended fatally, without any successful results from resuscitation efforts.

Experiments without narcosis showed no essential differences in the course of cooling. Upon entry into the water, a severe cold shuddering appeared. The cooling of the neck and back of the head was felt as especially painful, but already after 5 to 10 minutes, a significant weakening of the pain sensation was observable. Rigor developed after this time in the same manner as under narcosis, likewise the tonic-clonic twitchings. At this point, speech became difficult because the rigor also affected the speech musculature.

Simultaneously with the rigor, a severe difficulty in breathing set in with or without narcosis. It was reported that, so to speak, an iron ring was placed about the chest. Objectively, already at the beginning of this breathing difficulty, a marked dilatation of the nostrils occurred. The expiration was prolonged and visibly difficult. This difficulty passed over into a rattling and snoring breathing.

During the winter of 1942 and 1943, experiments with "dry" cold were conducted. And Rascher reported on these in another letter to Himmler:

Up to now, I have cooled off about 30 people stripped in the open air during nine to fourteen hours at 27° to 29°. After a time, corresponding to a trip of 1 hour, I put these subjects in a hot bath. Up to now, every single patient was completely warmed up within 1 hour at most, although some of them had their hands and feet frozen white.

The responsibility among the defendants for the freezing experiments is substantially the same as for the high-altitude tests. The results were, if anything, even more widely known in German medical circles. In October 1942, a medical conference took place here in Nuernberg at the Deutscher Hof Hotel, at which one of the authors of the report from which I have just quoted spoke on the subject "Prevention and Treatment of Freezing," and the defendant Wetz spoke on the subject "Warming Up After Freezing to the Danger Point." Numerous documents which we will introduce show the widespread responsibility among the defendants, and in the highest quarters of the German Air Force, for these sickening crimes.

Malaria Experiments

Another series of experiments carried out at the Dachau concentration camp concerned immunization for and treatment of malaria. Over 1,200 inmates of practically every nationality were experimented upon. Many persons who participated in these experiments have already been tried before a general military court held at Dachau, and the findings of that court will be laid before this Tribunal. The malaria experiments were carried out under the general supervision of a Dr. Schilling, with whom the defendant Sievers and others in the box collaborated. The evidence will show that healthy persons were infected by mosquitoes or by injections from the glands of

mosquitoes. Catholic priests were among the subjects. The defendant Gebhardt kept Himmler informed of the progress of these experiments. Rose furnished Schilling with fly eggs for them, and others of the defendants participated in various ways which the evidence will demonstrate.

After the victims had been infected, they were variously treated with quinine, neosalvarsan, pyramidon, antipyrin, and several combinations of these drugs. Many deaths occurred from excessive doses of neosalvarsan and pyramidon. According to the findings of the Dachau court, malaria was the direct cause of 30 deaths, and 300 to 400 others died as the result of subsequent complications.

Mustard Gas Experiments

The experiments concerning mustard gas were conducted at Sachsenhausen, Natzweiler, and other concentration camps and extended over the entire period of the war. Wounds were deliberately inflicted on the victims, and the wounds were then infected with mustard gas. Other subjects were forced to inhale the gas or to take it internally in liquid form, and still others were injected with the gas. A report on these experiments written at the end of 1939 described certain cases in which wounds were inflicted on both arms of the human guinea pigs and then infected, and the report states: "The arms in most of the cases are badly swollen and pains are enormous."

The alleged purpose of these experiments was to discover an effective treatment for the burns caused by mustard gas. . . .

Ravensbrueck Experiments Concerning Sulfanilamide and Other Drugs; Bone, Muscle, and Nerve Regeneration and Bone Transplantation

The experiments conducted principally on the female inmates of Ravensbrueck concentration camp were perhaps the most barbaric of all. These concerned bone, muscle, and nerve regeneration and bone transplantation, and experiments with sulfanilamide and other drugs. They were carried out by the defendants Fischer and Oberheuser under the direction of the defendant Gebhardt.

In one set of experiments, incisions were made on the legs of several of the camp inmates for the purpose of simulating battle-caused infections. A bacterial culture, or fragments of wood shavings, or tiny pieces of glass were forced into the wound. After several days, the wounds were treated with sulfanilamide. Grawitz, the head of the SS Medical Service, visited Ravensbrueck and received a report on these experiments directly from the defendant Fischer. Grawitz thereupon directed that the wounds inflicted on the subjects should be even more severe so that conditions similar to those prevailing at the front lines would be more completely simulated.

Bullet wounds were simulated on the subjects by tying off the blood vessels at both ends of the incision. A gangrene-producing culture was then placed in the wounds. Severe infection resulted within 24 hours. Operations

were then performed on the infected areas, and the wounds were treated with sulfanilamide. In each of the many sulfanilamide experiments, some of the subjects were wounded and infected but were not given sulfanilamide, so as to compare their reactions with those who received treatment.

Bone transplantation from one person to another and the regeneration of nerves, muscles, and bones were also tried out on the women at Ravensbrueck. The defendant Gebhardt personally ordered that bone transplantation experiments be carried out, and in one case the scapula of an inmate at Ravensbrueck was removed and taken to Hohenlychen Hospital and there transplanted. We will show that the defendants did not even have any substantial scientific objective. These experiments were senseless, sadistic, and utterly savage. . . .

Other experiments in this category were conducted at Dachau to discover a method of bringing about coagulation of the blood. Concentration camp inmates were actually fired upon, or were injured in some other fashion in order to cause something similar to a battlefield wound. These wounds were then treated with a drug known as polygal in order to test its capacity to coagulate the blood. Several inmates were killed. Sulfanilamide was also administered to some and withheld from other inmates who had been infected with the pus from a phlegmon-diseased person. Blood poisoning generally ensued. After infection, the victims were left untreated for 3 or 4 days, after which various drugs were administered experimentally or experimental surgical operations were performed. Polish Catholic priests were used for these tests. Many died and others became invalids.

As a result of all of these senseless and barbaric experiments, the defendants are responsible for manifold murders and untold cruelty and torture.

Sea-Water Experiments

For the sea-water experiments we return to Dachau. They were conducted in 1944 at the behest of the German Air Force and the German Navy in order to develop a method of rendering sea water drinkable. Meetings to discuss this problem were held in May 1944, attended by representatives of the Luftwaffe, the Navy, and I. G. Farben. The defendants Becker-Freyseng and Schaefer were among the participants. It was agreed to conduct a series of experiments in which the subjects, fed only with shipwreck emergency rations, would be divided into four groups. One group would receive no water at all; the second would drink ordinary sea water; the third would drink sea water processed by the so-called "Berka" method, which concealed the taste but did not alter the saline content; the fourth would drink sea water treated so as to remove the salt.

Since it was expected that the subject would die, or at least suffer severe impairment of health, it was decided at the meeting in May 1944 that only persons furnished by Himmler could be used. Thereafter in June 1944 the defendant Schroeder set the program in motion by writing to Himmler, and I quote from his letter:

Earlier you made it possible for the Luftwaffe to settle urgent medical matters through experiments on human beings. Today I again stand before a decision which, after numerous experiments on animals and also on voluntary human subjects, demands final solution: The Luftwaffe has simultaneously developed two methods for making sea water drinkable. The one method, developed by a medical officer, removes the salt from the sea water and transforms it into real drinking water; the second method, suggested by an engineer, only removes the unpleasant taste from the sea water. The latter method, in contrast to the first, requires no critical raw material. From the medical point of view this method must be viewed critically, as the administration of concentrated salt solutions can produce severe symptoms of poisoning.

As the experiments on human beings could thus far only be carried out for a period of 4 days, and as practical demands require a remedy for those who are in distress at sea up to 12 days, appropriate experiments are necessary.

Required are 40 healthy test subjects, who must be available for 4 whole weeks. As it is known from previous experiments that necessary laboratories exist in the Dachau concentration camp, this camp would be very suitable.

Due to the enormous importance which a solution of this question has for soldiers of the Luftwaffe and Navy who have become shipwrecked, I would be greatly obliged to you, my dear Reich Minister, if you would decide to comply with my request.

Himmler passed this letter to Grawitz who consulted Gebhardt and other SS officials. A typical nauseating Nazi discussion of racial questions ensued. One SS man suggested using quarantined prisoners and Jews; another suggested Gypsies. Grawitz doubted that experiments on Gypsies would yield results that were scientifically applicable to Germans. Himmler finally directed that Gypsies be used, with three others as a check.

The tests were actually begun in July 1944. The defendant Beiglboeck supervised the experiments, in the course of which the Gypsy subjects underwent terrible suffering, became delirious or developed convulsions, and some died.

EPIDEMIC JAUNDICE

The epidemic jaundice experiments, which took place at Sachsenhausen and Natzweiler concentration camps, were instigated by the defendant Karl Brandt. A letter written in 1943 by Grawitz stresses the enormous military importance of developing an inoculation against epidemic jaundice, which had spread extensively in the Waffen SS and the German Army, particularly in southern Russia. In some companies, up to 60 percent casualties from epidemic jaundice had occurred. Grawitz further informed Himmler that, and I quote:

The General Commissioner of the Fuehrer, SS Brigadefuehrer Professor Dr. Brandt, has approached me with the request to help him obtain prisoners to be

used in connection with his research on the causes of Epidemic Jaundice which has been furthered to a large degree by his efforts. . . . In order to enlarge our knowledge, so far based only on inoculation of animals with germs taken from human beings, it would not be necessary to reverse the procedure and inoculate human beings with germs cultivated in animals. Casualties [*Todesfaelle*] must be anticipated.

Grawitz also had been doing research on this problem with the assistance of a Dr. Dohmen, a medical officer attached to the Army Medical Inspectorate. Himmler made the following reply to the Grawitz letter:

I approve that eight criminals condemned in Auschwitz [eight Jews of the Polish Resistance Movement condemned to death] should be used for these experiments.

Other evidence will indicate that the scope of these experiments was subsequently enlarged and that murder, torture, and death resulted from them.

STERILIZATION EXPERIMENTS

In the sterilization experiments conducted by the defendants at Auschwitz, Ravensbrueck, and other concentration camps, the destructive nature of the Nazi medical program comes out most forcibly. The Nazi were searching for methods of extermination, both by murder and sterilization, of large population groups by the most scientific and least conspicuous means. They were developing a new branch of medical science which would give them the scientific tools for the planning and practice of genocide. The primary purpose was to discover an inexpensive, unobtrusive, and rapid method of sterilization which could be used to wipe out Russians, Poles, Jews, and other people. Surgical sterilization was thought to be too slow and expensive to be used on a mass scale. A method to bring about an unnoticed sterilization was thought desirable.

Medicinal sterilizations were therefore carried out. A Dr. Madaus had stated that caladium sequinum, a drug obtained from a North American plant, if taken orally or by injection, would bring about sterilization. In 1941 the defendant Pokorny called this to Himmler's attention, and suggested that it should be developed and used against Russian prisoners of war. I quote one paragraph from Pokorny's letter written at that time:

If, on the basis of this research, it were possible to produce a drug which, after a relatively short time, effects an imperceptible sterilization on human beings, then we would have a powerful new weapon at our disposal. The thought alone that the 3 million Bolsheviks, who are at present German prisoners, could be sterilized so that they could be used as laborers but be prevented from reproduction, opens the most far-reaching perspectives.

As a result of Pokorny's suggestion, experiments were conducted on concentration camp inmates to test the effectiveness of the drug. At the same time, efforts were made to grow the plant on a large scale in hothouses.

At the Auschwitz concentration camp sterilization experiments were also conducted on a large scale by a Dr. Karl Clauberg, who had developed a method of sterilizing women, based on the injection of an irritating solution. Several thousand Jews and Gypsies were sterilized at Auschwitz by this method.

Conversely, surgical operations were performed on sexually abnormal inmates at Buchenwald in order to determine whether their virility could be increased by the transplantation of glands. Out of 14 subjects of these experiments, at least 2 died.

The defendant Gebhardt also personally conducted sterilizations at Ravensbrueck by surgical operation. The defendant Viktor Brack, in March 1941, submitted to Himmler a report on the progress and state of X-ray sterilization experiments. Brack explained that it had been determined that sterilization with powerful X-rays could be accomplished and that castration would then result. The danger of this X-ray method lay in the fact that other parts of the body, if they were not protected with lead, were also seriously affected. In order to prevent the victims from realizing that they were being castrated, Brack made the following fantastic suggestion in his letter written in 1941 to Himmler, from which I quote:

One way to carry out these experiments in practice would be to have those people who are to be treated line up before a counter. There they would be questioned and a form would be given them to be filled out, the whole process taking 2 or 3 minutes. The official attendant who sits behind the counter can operate the apparatus in such a manner that he works a switch which will start both tubes together (as the rays have to come from both sides). With one such installation with two tubes about 150 to 200 persons could be sterilized daily, while 20 installations would take care of 3,000 to 4,000 persons daily. In my opinion the number of daily deportations will not exceed this figure.

In this same report the defendants Brack related that, and I quote,

the latest X-ray technique and research make it easily possible to carry out mass sterilization by means of X-rays. However, it appears to be impossible to take these measures without having those who were so treated finding out sooner or later that they definitely had been either sterilized or had been castrated by X-rays.

Another letter from Brack to Himmler, in June 1942, laid [out] the basis for X-ray experiments which were subsequently carried out at Auschwitz. The second paragraph of this letter forms a fitting conclusion to this account of Nazi depravity, and I quote:

Among 10 millions of Jews in Europe there are, I figure, at least 2 to 3 millions of men and women who are fit enough to work. Considering the extraordinary difficulties the labor problem presents us with, I hold the view that these 2 to 3 millions should be specially selected and preserved. This can, however, only be done if at the same time they are rendered incapable to propagate. About a year ago I reported to you that agents of mine have completed the experiments necessary for this purpose. I would like to recall these facts once more. Sterilization, as normally performed on persons with hereditary diseases, is here out of the question because it takes too long and is too expensive. Castration by X-rays, however, is not only relatively cheap but can also be performed on many thousands in the shortest time. I think that at this time it is already irrelevant whether the people in question become aware of having been castrated after some weeks or months, once they feel the effects.

TYPHUS (FLECKFIEBER) AND RELATED EXPERIMENTS

From December 1941 until near the end of the war, a large program of medical experimentation was carried out upon concentration camp inmates at Buchenwald and Natzweiler to investigate the value of various vaccines. This research involved a variety of diseases—typhus, yellow fever, smallpox, paratyphoid A and B, cholera, and diphtheria. A dozen or more of the defendants were involved in these experiments, which were characterized by the most cynical disregard of human life. Hundreds of persons died. The experiments concerning typhus—known in Germany as *Fleckfieber* or "spot fever," but is not to be confused with American spotted fever—were particularly appalling.

The typhus experiments at Natzweiler were conducted by Dr. Eugen Haagen, an officer in the Air Force Medical Service and a professor at the University of Strasbourg. In the fall of 1943, through the defendant Sievers, Haagen obtained 100 concentration camp prisoners for experiments with typhus vaccines. Two hundred more prisoners were furnished in the summer of 1944. These experiments caused many fatalities among the prisoners.

The general pattern of these typhus experiments was as follows. A group of concentration camp inmates, selected from the healthier ones who had some resistance to disease, were injected with an antityphus vaccine, the efficacy of which was to be tested. Thereafter, all the persons in the group would be infected with typhus. At the same time, other inmates who had not been vaccinated were also infected for purposes of comparison—these unvaccinated victims were called the "control" group. But perhaps the most wicked and murderous circumstance in this whole case is that still other inmates were deliberately infected with typhus with the sole purpose of keeping the typhus virus alive and generally available in the bloodstream of the inmates.

The typhus murders at Buchenwald were carried out in 1942 and 1943 under the direction of the defendants Genzken and Mrugowsky. Requests

for the human guinea pigs were turned over to, and filled by, the defendant Hoven. The bulk of the actual work was done by an infamous physician known as Dr. Ding, who committed suicide after the war. But Dr. Ding's professional diary has survived.

The first entry in Ding's diary, for 29, December 1941, reveals that here again, the impetus for these murderous researches came from the Wehrmacht. This entry describes a conference sponsored by the defendant Handloser and Dr. Conti, respective heads of the military and civilian medical services of the Reich, which was also attended by the defendant Mrugowsky. Typhus had been making serious inroads on the German troops fighting in Russia. The account of this conference relates that, and I quote:

Since tests on animals are not of sufficient value, tests on human beings must be carried out.

Other entries in the Ding diary quoted below are typical of those made over a period of 3 years, and give some idea of the mortality among the victims:

10 Jan 42: Preliminary test B: Preliminary test to establish a sure means of infection: Much as in smallpox vaccination, 5 persons were infected with virus through 2 superficial and 2 deeper cuts in the upper arm. All of the humans used for this test fell ill with true typhus. Incubation period up to 6 days.

20 Feb 42: Chart of the case history of the preliminary tests to establish a sure means of infection were sent to Berlin. One death out of five sick.

17 Mar 42: Visit of Prof. Gildemeister and Prof. Rose [department head for tropical medicine of the Robert Koch Institute] at the experimental station. All persons experimented on fell sick with typhus, except two, who, the fact was established later, already had been sick with typhus during an epidemic at the police prison in Berlin.

9 Jan 43: By order of the surgeon general of the Waffen SS, SS Gruppenfuehrer and Major General of the Waffen SS, Dr. Genzken, the hitherto existing typhus research station at the concentration camp Buchenwald becomes the "Department for Typhus and Virus Research." The head of the department will be SS Sturmbannfuehrer Dr. Ding. During his absence, the station medical officer of the Waffen SS, Weimar, SS Hauptsturmfuehrer Hoven, will supervise the production of vaccines.

13 and 14 Apr 43: Unit of SS Sturmbannfuehrer Dr. Ding ordered to I. G. Farbenindustrie A. G., Hoechst. Conference with Prof. Lautenschlaeger, Dr. Weber and Dr. Fussgaenger about experimental series "Acridine Granulate and Rutenol" in the concentration camp Buchenwald. Visit to Geheimrat Otto and Prof. Prigge in the institute for experimental therapeutics in Frankfurt-on-Main.

24 Apr 1943: Therapeutic experiments Acridine-Granulate (A-Gr2) and Rutenol (R-2) to carry out the therapeutic experiments Acridine Granulate and Rutenol, 30 persons (15 each) and 9 persons for control were infected by intravenous injection of 2 cc. each of fresh blood of a typhus sick person. All experimental persons got very serious typhus.

1 Jun 1943: Charts of case history completed. The experimental series was

concluded with 21 deaths; of these, 8 were in Buchenwald, 8 with Rutenol and 5 control.

7 Sep 1943: Chart and case history completed. The experimental series was concluded with 53 deaths.

8 Mar-18 Mar 1944: It is suggested by Colonel of the Air Corps, Prof. Rose, [that] the vaccine "Kopenhagen," produced from mouse liver by the National Serum Institute in Copenhagen, be tested for its compatibility on humans. Twenty persons were vaccinated for immunization by intramuscular injection.

Ten persons were contemplated for control and comparison.

16 Apr 1944: The remaining experimental persons were infected on 16 April by subcutaneous injection of 1/20 cc. typhus sick fresh blood. The following fell sick: 17 persons immunized: 9 medium, 8 seriously. Nine persons from the control: 2 medium, 7 seriously.

13 Jun 1944: Chart and case history completed and sent to Berlin. Six deaths (3 "Kopenhagen") (3 control).

4 Nov 1944: Chart and case history completed. Twenty-four deaths.

Copies of each of Dr. Ding's official reports went to the defendants Mrugowsky and Poppendick, as well as to the I. G. Farben laboratories at Hoechst. Nowhere will the evidence in this case reveal a more wicked and murderous course of conduct by men who claimed to practice the healing art than in the entries of Dr. Ding's diary relating to the typhus experiments.

POISON EXPERIMENTS

Here again the defendants were studying how to kill, and the scene is Buchenwald. Poisons were administered to Russian prisoners of war in their food, and German doctors stood behind a curtain to watch the reactions of the prisoners. Some of the Russians died immediately, and the survivors were killed in order to permit autopsies.

The defendant Mrugowsky, in a letter written in September 1944, has provided us with a record of another experiment in which the victims were shot with poisoned bullets, and I quote:

In the presence of SS Sturmbannfuehrer Dr. Ding, Dr. Widmann and the undersigned, experiments with aconitine nitrate projectiles were conducted on 11 September 1944 on 5 persons who had been condemned to death. The projectiles in question were of a 7.64 mm. caliber, filled with crystallized poison. The experimental subjects, in a lying position, were each shot in the upper part of the left thigh. The thighs of two of them were cleanly shot through. Afterwards, no effect of the poison was to be observed. These two experimental subjects were therefore exempted. . . .

During the first hour of the experiment the pupils did not show any changes. After 78 minutes the pupils of all three showed a medium dilation, together with a retarded light reaction. Simultaneously, maximum respiration with heavy breathing inhalations set in. This subsided after a few minutes. The pupils contracted again and their reaction improved. After 65 minutes the patellar and achilles

tendon reflexes of the poisoned subjects were negative. The abdominal reflexes of two of them were also negative. After approximately 90 minutes, one of the subjects again started breathing heavily; this was accompanied by an increasing motor unrest. Then the heavy breathing changed into a flat, accelerated respiration, accompanied by extreme nausea. One of the poisoned persons tried in vain to vomit. To do so he introduced four fingers of his hand up to the knuckles into his throat, but nevertheless could not vomit. His face was flushed.

The other two experimental subjects had already early shown a pale face. The other symptoms were the same. The motor unrest increased so much that the persons flung themselves up and then down, rolled their eyes and made meaningless motions with their hands and arms. Finally the agitation subsided, the pupils dilated to the maximum, and the condemned lay motionless. . . . Death occurred 121, 123, and 129 minutes after entry of the projectile.

INCENDIARY BOMB EXPERIMENTS

These experiments were likewise carried out at Buchenwald, and the Ding diary gives us the facts. In November 1943 five persons were deliberately burned with phosphorus material taken from an English incendiary bomb. The victims were permanently and seriously injured.

JEWISH SKELETON COLLECTION

I come now to charges stated in paragraphs 7 and 11 of the indictment. These are perhaps the most utterly repulsive charges in the entire indictment. They concern the defendants Rudolf Brandt and Sievers. Sievers and his associates in the Ahnenerbe Society were completely obsessed by all the vicious and malignant Nazi racial theories. They conceived the notion of applying these nauseous theories in the field of anthropology. What ensued was murderous folly.

In February 1942, Sievers submitted to Himmler, through Rudolf Brandt, a report, from which the following is an extract:

We have a nearly complete collection of skulls of all races and peoples at our disposal. Only very few specimens of skulls of the Jewish race, however, are available, with the result that it is impossible to arrive at precise conclusions from examining them. The war in the East now presents us with the opportunity to overcome this deficiency. By procuring the skulls of the Jewish-Bolshevik Commissars, who represent the prototype of the repulsive but characteristic subhuman, we have the chance now to obtain a palpable, scientific document.

The best practical method for obtaining and collecting this skull material could be handled by directing the Wehrmacht to turn over alive all captured Jewish-Bolshevik Commissars to the Field Police. They, in turn, are to be given special directives to inform a certain office at regular intervals of the number and place of detention of these captured Jews and to give them special close attention and care until a special delegate arrives. This special delegate, who will be in charge of securing the "material," has the job of taking a series of previously established

photographs, anthropological measurements, and in addition has to determine, as far as possible, the background, date of birth, and other personal data of the prisoner. Following the subsequently induced death of the Jew, whose head should not be damaged, the delegate will separate the head from the body and will forward it to its proper point of destination in a hermetically sealed tin can, especially produced for this purpose and filled with a conserving fluid.

Having arrived at the laboratory, the comparison tests and anatomical research on the skull, as well as determination of the race membership of pathological features of the skull form, the form and size of the brain, etc., can proceed. The basis of these studies will be the photos, measurements, and other data supplied on the head, and finally the tests of the skull itself.

After extensive correspondence between Himmler and the defendants Sievers and Rudolf Brandt, it was decided to procure the skulls from inmates of the Auschwitz concentration camp instead of at the front. The hideous program was actually carried out, as is shown by a letter from Sievers written in June 1943, which states in part:

I wish to inform you that our associate, Dr. Beger, who was in charge of the above special project, has interrupted his experiments in the concentration camp Auschwitz because of the existing danger of epidemics. Altogether 115 persons were worked on, 79 were Jews, 30 were Jewesses, 2 were Poles, and 4 were Asiatics. At the present time these prisoners are segregated by sex and are under quarantine in the two hospital buildings of Auschwitz.

After the death of these wretched Jews had been "induced" their corpses were sent to Strasbourg. A year elapsed, and the Allied armies were racing across France and were nearing Strasbourg where this monstrous exhibit of the culture of the master race reposed. Alarmed, Sievers sent a telegram to Rudolf Brandt in September 1944, from which I quote:

According to the proposal of 9 February 1942, and your approval of 23 February 1942, Professor Dr. Hirt has assembled a skeleton collection which has never been in existence before. Because of the vast amount of scientific research that is connected with this project, the job of reducing the corpses to skeletons has not yet been completed. Since it might require some time to process 80 corpses, Hirt requested a decision pertaining to the treatment of the collection stored in the morgue of the Anatomy, in case Strasbourg should be endangered. The collection can be defleshed and rendered unrecognizable. This, however, would mean that the whole work had been done for nothing—at least in part—and that this singular collection would be lost to science, since it would be impossible to make plaster casts afterwards. The skeleton collection, as such, is inconspicuous. The flesh parts could be declared as having been left by the French at the time we took over the Anatomy and would be turned over for cremating. Please advise me which of the following three proposals is to be carried out:

- (1) The collection as a whole is to be preserved.
- (2) The collection is to be dissolved in part.
- (3) The collection is to be completely dissolved.

The final chapter of this barbaric enterprise is found in a note in Himmler's files addressed to Rudolf Brandt stating that:

During his visit at the Operational Headquarters on 21 November 1944, Sievers told me that the collection in Strasbourg had been completely dissolved in conformance with the directive given him at the time. He is of the opinion that this arrangement is for the best in view of the whole situation.

These men, however, reckoned without the hand of fate. The bodies of these unfortunate people were not completely disposed of, and this Tribunal will hear the testimony of witnesses and see pictorial exhibits depicting the charnel house that was the Anatomy Institute of the Reich University of Strasbourg.

I have now completed the sketch of some of the foul crimes that these defendants committed in the name of research. The horrible record of their degradation needs no underlining. But German medical science was in past years honored throughout the world, and many of the most illustrious names in medical research are German. How did these things come to pass? I will outline briefly the historical evidence which we will offer and which, I believe, will show that these crimes were the logical and inevitable outcome of the prostitution of German medicine under the Nazis. . . .

SUMMARY

I have outlined the particular charges against the defendants under counts two, three, and four of the indictment; and I have sketched the general nature of the evidence that we will present. But we must not overlook that the medical experiments were not an assortment of unrelated crimes. On the contrary, they constituted a well-integrated criminal program in which the defendants planned and collaborated among themselves and with others.

We have here, in other words, a conspiracy and a common design, as is charged in count one of the indictment, to commit the criminal experiments set forth in paragraphs 6 and 11 thereof. There was a common design to discover, or improve, various medical techniques. There was a common design to utilize for this purpose the unusual resources which the defendants had at their disposal, consisting of numberless unfortunate victims of Nazi conquest and Nazi ideology. The defendants conspired and agreed together to utilize these human resources for nefarious and murderous purposes, and proceeded to put their criminal design into execution. Numbered among the countless victims of the conspiracy and the crimes are Germans, and nationals of countries overrun by Germany, and Gypsies, and prisoners of war, and Jews of many nationalities. All the elements of a conspiracy to commit the crimes charged in paragraphs 6 and 11 are present, and all will be clearly established by the proof.

There were many co-conspirators who are not in the dock. Among the planners and leaders of this plot were Conti and Grawitz, and Hippke whose whereabouts is unknown. Among the actual executioners, Dr. Ding is dead and Rascher is thought to be dead. There were many others.

Final judgment as to the relative degrees of guilt among those in the dock must await the presentation of the proof in detail. Nevertheless, before the introduction of evidence, it will be helpful to look again at the defendants and their part in the conspiracy. What manner of men are they, and what was their major role?

The 20 physicians in the dock range from leaders of German scientific medicine, with excellent international reputations, down to the dregs of the German medical profession. All of them have in common a callous lack of consideration and human regard for, and an unprincipled willingness to abuse their power over, the poor, unfortunate, defenseless creatures who have been deprived of their rights by the ruthless and criminal government. All of them violated the Hippocratic commandments which they had solemnly sworn to uphold and abide by, including the fundamental principle never to do harm—"primum non nocere."

Outstanding men of science, distinguished for their scientific ability in Germany and abroad, are the defendants Rostock and Rose. Both exemplify, in their training and practice alike, the highest traditions of German medicine. Rostock headed the Department of Surgery at the University of Berlin and served as dean of its medical school. Rose studied under the famous surgeon, Enderlen, at Heidelberg and then became a distinguished specialist in the fields of public health and tropical diseases. Handloser and Schroeder are outstanding medical administrators. Both of them made their careers in military medicine and reached the peak of their profession. Five more defendants are much younger men who are nevertheless already known as the possessors of considerable scientific ability, or capacity in medical administration. These include the defendants Karl Brandt, Ruff, Beiglboeck, Schaefer, and Becker-Freyseng.

A number of the others such as Romberg and Fischer are well trained, and several of them attained high professional positions. But among the remainder few were known as outstanding scientific men. Among them at the foot of the list is Blome who has published his autobiography, entitled *Embattled Doctor*, in which he sets forth that he eventually decided to become a doctor because a medical career would enable him to become "master over life and death."

The part that each of these 20 physicians and their 3 lay accomplices played in the conspiracy and its execution corresponds closely to his professional interests in his place in the hierarchy of the Third Reich, as shown in the chart. The motivating force for this conspiracy came from two principal sources. Himmler, as head of the SS, a most terrible machine of oppression with vast resources, could provide numberless victims for the experiments. By doing so, he enhanced the prestige of his organization and was able to

give free rein to the Nazi racial theories of which he was a leading protagonist and to develop new techniques for mass exterminations which were dear to his heart. The German military leaders, as the other main driving force, caught up the opportunity which Himmler presented them with and ruthlessly capitalized on Himmler's hideous overtures in an endeavor to strengthen their military machine.

And so the infernal drama was played just as it had been conceived in the minds of the authors. Special problems which confronted the German military or civilian authorities were, on the orders of the medical leaders, submitted for solution in the concentration camps. Thus we find Karl Brandt stimulating the epidemic jaundice experiments, Schroeder demanding "40 healthy experimental subjects" for the sea-water experiments, Handloser providing the impetus for Ding's fearful typhus researches, and Milch and Hippke at the root of the freezing experiments. Under Himmler's authority, the medical leaders of the SS—Grawitz, Genzken, Gebhardt, and others—set the wheels in motion. They arranged for the procurement of victims through other branches of the SS and gave directions to their underlings in the SS medical service such as Hoven and Fischer. Himmler's administrative assistants, Sievers and Rudolf Brandt passed on the Himmler orders, gave a push here and a shove there and kept the machinery oiled. Blome and Brack assisted from the side of the civilian and party authorities.

The Wehrmacht provided supervision and technical assistance for those experiments in which it was most interested. A low-pressure chamber was furnished for the high-altitude tests, the services of Weltz, Ruff, Romberg, and Rascher for the high-altitude and freezing experiments, and those of Becker-Freyseng, Schaefer, and Beiglboeck for sea water. In the important but sinister typhus researches, the eminent Dr. Rose appeared for the Luftwaffe to give expert guidance to Ding.

The proper steps were taken to ensure that the results were made available to those who needed to know. Annual meetings of the consulting physicians of the Wehrmacht held under Handloser's direction were favored, with lectures on some of the experiments. The report on the high-altitude experiment was sent to Field Marshal Milch, and a moving picture about them was shown at the Air Ministry in Berlin. Weltz spoke on the effects of freezing at a medical conference in Nuernberg, the same symposium at which Rascher and others passed on their devilish knowledge.

There could, we submit, be no clearer proof of conspiracy. This was the medical service of the Third Reich at work. Among the defendants in the box sit the surviving leaders of that service. We will ask the Tribunal to determine that neither scientific eminence nor superficial respectability shall shield them against the fearful consequences of the orders they gave.

I intend to pass very briefly over matters of medical ethics, such as the conditions under which a physician may lawfully perform a medical experiment upon a person who has voluntarily subjected himself to it, or whether experiments may lawfully be performed upon criminals who have been con-

demned to death. This case does not present such problems. No refined questions confront us here.

None of the victims of the atrocities perpetrated by these defendants were volunteers, and this is true regardless of what these unfortunate people may have said or signed before their tortures began. Most of the victims had not been condemned to death, and those who had been were not criminals, unless it be a crime to be a Jew, or a Pole, or a Gypsy, or a Russian prisoner of war.

Whatever book or treatise on medical ethics we may examine, and whatever expert on forensic medicine we may question, will say that it is a fundamental and inescapable obligation of every physician under any known system of law not to perform a dangerous experiment without the subject's consent. In the tyranny that was Nazi Germany, no one could give such a consent to the medical agents of the State; everyone lived in fear and acted under duress. I fervently hope that none of us here in the courtroom will have to suffer in silence while it is said on the part of these defendants that the wretched and helpless people whom they froze and drowned and burned and poisoned were volunteers. If such a shameless lie is spoken here, we need only remember the four girls who were taken from the Ravensbrueck concentration camp and made to lie naked with the frozen and all but dead Jews who survived Dr. Rascher's tank of ice water. One of these women, whose hair and eyes and figure were pleasing to Dr. Rascher, when asked by him why she had volunteered for such a task, replied, "rather half a year in a brothel than half a year in a concentration camp."

Were it necessary, one could make a long list of the respects in which the experiments that these defendants performed departed from every known standard of medical ethics. But the gulf between these atrocities and serious research in the healing art is so patent that such a tabulation would be cynical.

We need look no further than the law which the Nazis themselves passed on the 24th of November 1933 for the protection of animals. This law states explicitly that it is designed to prevent cruelty and indifference of man towards animals and to awaken and develop sympathy and understanding for animals as one of the highest moral values of a people. The soul of the German people should abhor the principle of mere utility without consideration of the moral aspects. The law states further that all operations or treatments which are associated with pain or injury, especially experiments involving the use of cold, heat, or infection, are prohibited, and can be permitted only under special exceptional circumstances. Special written authorization by the head of the department is necessary in every case, and experimenters are prohibited from performing experiments according to their own free judgment. Experiments for the purpose of teaching must be reduced to a minimum. Medico-legal tests, vaccinations, withdrawal of blood for diagnostic purposes, and trial of vaccines prepared according to well-established scientific principles are permitted, but the animals have

to be killed immediately and painlessly after such experiments. Individual physicians are not permitted to use dogs to increase their surgical skill by such practices. National Socialism regards it as a sacred duty of German science to keep down the number of painful animal experiments to a minimum.

If the principles announced in this law had been followed for human beings as well, this indictment would never have been filed. It is perhaps the deepest shame of the defendants that it probably never even occurred to them that human beings should be treated with at least equal humanity.

This case is one of the simplest and clearest of those that will be tried in this building. It is also one of the most important. It is true that the defendants in the box were not among the highest leaders of the Third Reich. They are not the war lords who assembled and drove the German military machine, nor the industrial barons who made the parts, nor the Nazi politicians who debased and brutalized the minds of the German people. But this case, perhaps more than any other we will try, epitomizes Nazi thought and the Nazi way of life, because these defendants pursued the savage premises of Nazi thought so far. The things that these defendants did, like so many other things that happened under the Third Reich, were the result of the noxious merger of German militarism and Nazi racial objectives. We will see the results of this merger in many other fields of German life; we see it here in the field of medicine.

Germany surrendered herself to this foul conjunction of evil forces. The nation fell victim to the Nazi scourge because its leaders lacked the wisdom to foresee the consequences and the courage to stand firm in the face of threats. Their failure was the inevitable outcome of that sinister undercurrent of German philosophy that preaches the supreme importance of the state and the complete subordination of the individual. A nation in which the individual means nothing will find few leaders courageous and able enough to serve its best interests.

Individual Germans did indeed give warning of what was in store, and German doctors and scientists were numbered among the courageous few. At a meeting of Bavarian psychiatrists held in Munich in 1931, when the poisonous doctrines of the Nazis were already sweeping Germany, there was a discussion of mercy killings and sterilization, and the Nazi views on these matters, with which we are now familiar, were advanced. A German professor named Oswald Bumke rose and made a reply more eloquent and prophetic than anyone could have possibly realized at the time. He said:

I should like to make two additional remarks. One of them is please for God's sake leave our present financial needs out of all these considerations. This is a problem which concerns the entire future of our people, indeed, one may say without being overemotional about it, the entire future of humanity. One should approach this problem neither from the point of view of our present scientific opinion nor from the point of view of the still more ephemeral economic crises. If by sterilization we can prevent the occurrence of mental disease then we should certainly do it, not in order to save money for the government but because every

case of mental disease means infinite suffering to the patient and to his relatives. But to introduce economic points of view is not only inappropriate but outright dangerous because the logical consequence of the thought that for financial reasons all these human beings, who could be dispensed with for the moment, should be exterminated, is a quite monstrous logical conclusion; we would then have to put to death not only the mentally sick and the psychopathic personalities but all the crippled, including the disabled veterans, all old maids who do not work, all widows whose children have completed their education, and all those who live on their income or draw pensions. That would certainly save a lot of money but the probability is that we will not do it.

The second point of advice is to use utmost restraint, at least until the political atmosphere here in this country shall have improved, and scientific theories concerning heredity and race can no longer be abused for political purposes. Because, if the discussion about sterilization today is carried into the arena of political contest, then pretty soon we will no longer hear about the mentally sick but, instead, about Aryans and non-Aryans, about the blonde Germanic race and about inferior people with round skulls. That anything useful could come from that is certainly improbable; but science in general and genealogy and eugenics in particular would suffer an injury which could not easily be repaired again.

I said at the outset of this statement that the Third Reich died of its own poison. This case is a striking demonstration not only of the tremendous degradation of German medical ethics which Nazi doctrine brought about, but of the undermining of the medical art and thwarting of the techniques which the defendants sought to employ. The Nazis have, to a certain extent, succeeded in convincing the peoples of the world that the Nazi system, although ruthless, was absolutely efficient; that although savage, it was completely scientific; that although entirely devoid of humanity, it was highly systematic—that "it got things done." The evidence which this Tribunal will hear will explode this myth. The Nazi methods of investigation were inefficient and unscientific, and their techniques of research were unsystematic.

These experiments revealed nothing which civilized medicine can use. It was, indeed, ascertained that phenol or gasoline injected intravenously will kill a man inexpensively and within 60 seconds. This and a few other "advances" are all in the field of thanatology. There is no doubt that a number of these new methods may be useful to criminals everywhere and there is no doubt that they may be useful to a criminal state. Certain advances in destructive methodology we cannot deny, and indeed from Himmler's standpoint this may well have been the principal objective.

Apart from these deadly fruits, the experiments were not only criminal but a scientific failure. It is indeed as if a just deity had shrouded the solutions which they attempted to reach with murderous means. The moral shortcomings of the defendants and the precipitous ease with which they decided to commit murder in quest of "scientific results" dulled also that scientific hesitancy, that thorough thinking-through, that responsible weighing of every single step which alone can ensure scientifically valid results. Even if they had merely been forced to pay as little as two dollars for human

experimental subjects, such as American investigators may have to pay for a cat, they might have thought twice before wasting unnecessary numbers, and thought of simpler and better ways to solve their problems. The fact that these investigators had free and unrestricted access to human beings to be experimented upon misled them to the dangerous and fallacious conclusion that the results would thus be better and more quickly obtainable than if they had gone through the labor of preparation, thinking, and meticulous preinvestigation.

A particularly striking example is the sea-water experiment. I believe that three of the accused — Schaefer, Becker-Freyseng, and Beiglboech — will today admit that this problem could have been solved simply and definitively within the space of one afternoon. On 20 May 1944 when these accused convened to discuss the problem, a thinking chemist could have solved it right in the presence of the assembly within the space of a few hours by the use of nothing more gruesome than a piece of jelly, a semipermeable membrane and a salt solution, and the German Armed Forces would have had the answer on 21 May 1944. But what happened instead? The vast armies of the disenfranchised slaves were at the beck and call of this sinister assembly; and instead of thinking, they simply relied on their power over human beings rendered rightless by a criminal state and government. What time, effort and staff did it take to get that machinery in motion! Letters had to be written, physicians, of whom dire shortage existed in the German Armed Forces whose soldiers went poorly attended, had to be taken out of hospital positions and dispatched hundreds of miles away to obtain the answer which should have been known in a few hours, but which thus did not become available to the German Armed Forces until after the completion of the gruesome show, and until 42 people had been subjected to the tortures of the damned, the very tortures which Greek mythology had reserved for Tantalus.

In short, this conspiracy was a ghastly failure as well as a hideous crime. The creeping paralysis of Nazi superstition spread through the German medical profession and, just as it destroyed character and morals, it dulled the mind.

Guilt for the oppression and crimes of the Third Reich is widespread, but it is the guilt of the leaders that is deepest and most culpable. Who could German medicine look to to keep the profession true to its traditions and protect it from the ravaging inroads of Nazi pseudo-science? This was the supreme responsibility of the leaders of German medicine — men like Rosstock and Rose and Schroeder and Handloser. That is why their guilt is greater than that of any of the other defendants in the dock. They are the men who utterly failed their country and their profession, who showed neither courage nor wisdom nor the vestiges of moral character. It is their failure, together with the failure of the leaders of Germany in other walks of life, that debauched Germany and led to her defeat. It is because of them and others like them that we all live in a stricken world.¹

NOTES

1. *Trials of War Criminals Before the Nuremberg Military Tribunals Under Control Council Law 10*, Vol. 1 (Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office, 1950); Military Tribunal, Case 1, *United States v. Karl Brandt et al.*, October 1946–April 1949, pp. 27–74.