The Creation of the Nuremberg Code:

Authorship and Legacy

by

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ABSTRACT

In response to Nazi human experimentation crimes, the judges of the American Military Tribunal included a section on "Permissible Medical Experiments" in their final opinion of the "Doctor's Trial" of 1947. This section stated ten ethical points on the subject of human experimentation, a list of principles that became internationally recognized as the Nuremberg Code. This thesis explores two of the Code's most debated historical questions: Who should be accredited authorship of its ethical principles? And what was the document's legacy?

Detailed analysis of trial script, testimony, and memoranda shows that the judges and medical experts of the trial shared authorship of the Code. Additionally, years of past Western medical conversation also inspired the creation of the principles. The narrative of authorship reveals how American liberalism influenced the authors of the Code and allowed them to recognize the documents potential for international impact. During and after the trial, the United States government promoted the principles of the Code. This was done in accordance with postwar U.S. foreign policy, which aimed to establish the U.S. as a leader in the new liberal world order. But despite newfound international moral authority, the United States largely ignored the Nuremberg Code for decades after its inception. In the years after the war, U.S. government agencies sponsored numerous unethical human experiments. These studies dealt with nonconsensual exposure to radiation, syphilis, and psychoactive drugs. In light of this hypocrisy, this thesis offers a balanced interpretation of legacy. While it features America's disregard for the Code during the Cold War, it recognizes the Code's important international legacy that still serves as a beacon for medical ethics and human rights today.

Chapter 1

INTRODUCTION

In the wake of World War II, a unique legal dilemma emerged. While the dust settled across Europe, the victorious Allied powers of the United States of America, Great Britain, France, and the Soviet Union pondered how to dispense justice to their German enemies. With American influence, the Allies decided to try the Nazi criminals in the courtroom, choosing the Franconian city of Nuremberg as their stage. The story of the main Nuremberg Trial, starting on November 20, 1945, is well known. There exists much literature, film, and lengthy historical commentary on this first trial, which brought charges against twenty-four of the highest ranking political and military leaders of Hitler's Third Reich. As a result, the Allies found nineteen of the defendants guilty, including such prominent figures as Hermann Goering. The tribunal sentenced twelve of these men to death. They were hanged and cremated inside Dachau concentration camp. Only Goering escaped the noose, as he committed suicide before the execution date.

Following the "Main Trial" at Nuremberg, the United States later created its own military tribunal to prosecute less prominent Nazi actors. The first group to be tried under the American Military Tribunal consisted of twenty-three Nazi doctors, researchers, and medical staff. Formally labeled *United States of America v. Karl Brandt et al,* "The Doctor's Trial" began on December 9, 1946. Here, the U.S. indicted the twenty-three defendants for war crimes and crimes against humanity. Such allegations rested on the assumption that they subjected inmates of Nazi concentration camps to torture and deadly medical experiments.

The nine-month trial exposed the horrors of the Holocaust and established the defendants' obvious disregard for human life. Their experiments involved the treatment of thousands of people as dispensable "guinea pigs." The trial's drama centered on the fact that a majority of these torturers were physicians, people who supposedly devoted their lives to promoting health and the healing of others. Perhaps even more chilling, the trial proved that the defendants could not be easily dismissed as lunatics or historical anomalies; rather, they ranked among the most well-respected medical researchers of their time.

The Doctor's Trial formulated the first international code of biomedical ethics on human experimentation, known as the Nuremberg Code. It enumerated ten points to observe when experimenting with humans and constituted the first ever attempt of creating an international standard of law for these types of experiments. The principles were pioneering for their absolute requirement of informed consent and their focus on the rights of the test subject. In general, the trial itself acted as a forum for history's first in-depth discussion of experimentation ethics. It is therefore no surprise that scholars and doctors hail the Nuremberg Code as "the most important document in the history of the ethics of medical research."[1]

This paper examines the development of the Nuremberg Code to answer its two most debated questions. First is the question of authorship. In the years following the trial, scholars debated who exactly authored the Nuremberg Code. Some historians contend that the judges wrote the Code, and others point to the participation of the court's two medical experts: Dr. Leo Alexander and Dr. Andrew C. Ivy. To expand

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[1] Evelyne Shuster, "Fifty Years Later: The Significance of the Nuremberg Code," New England Journal of Medicine 337, no. 20 (1997): 1436-1440.

the debate further, other scholars point toward prior medical codes, with some even going as far as to label the Nuremberg Code as an act of plagiarism.[2] To answer the question of authorship, this study first investigates the history of past medical codes and then consults the trial's script, letters, memoranda, and other primary sources.

As is the case with a majority of historical debates, many arguments marshal some form of convincing evidence. But most historians agree that Alexander, Ivy, and the judges should all receive praise. This thesis supports this argument and offers a wider viewpoint. Whichever way one leans on the specifics of authorship, each of the considered contributors acted on behalf of the American Military Tribunal. The story of the Code's creation reveals each authors' aspirations for global recognition, and their interests in promoting the philosophy of mid twentieth century American liberalism. The judges stressed the importance of the protection of human rights, and the trial showed the United States' new role as an international moral authority. When evaluating the impact of the principles, the Code's provenance is significant.

The legacy of the Nuremberg Code is the study's second leading question. As Telford Taylor, chief prosecutor of the trial, stated, 'Nuremberg has remained a bench mark in international law and the lodestar of thought and debate on the great moral and legal questions of war and peace."[3] In accordance with this, the medical profession recognizes the Code as a foundational document for modern research.[4]

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[2] Ravindra B Ghooi, "The Nuremberg Code-A Critique," Perspectives in Clinical Research 2, no. 2 (2011): 72.

[3] Telford Taylor, *The Anatomy of the Nuremberg Trials: A Personal Memoir* (New York: Knopf, 2013), 4.

George J. Annas and Michael A. Grodin, *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation* (New York, NY: Oxford University Press, 1995), 4.

Indeed, the Nuremberg Code has shaped virtually every subsequent ethical guidelines on experimentation, and its international impact is formidable.[5]

But the Code's legacy is decidedly mixed. For years after the trial, the United States blatantly disregarded the ten principles proclaimed at Nuremberg. Such hypocrisy is highly ironic. Whether looking at authorship or state sponsorship, the Code is an American institution. U.S. hypocrisy first arose with Operation Paperclip, a program that sought to relocate Nazi researchers to the United States.

In addition to Operation Paperclip, America's own human experiments reveal even more questionable aspects. There is much evidence that before, during, and after the war, U.S. government agencies such as the C.I.A. conducted numerous operations that violated the Nuremberg Code. This thesis focuses on three of the most renowned incidents. First, it will examine the American radiation experiments, involving the injection of plutonium into citizens. Second, the infamous Tuskegee syphilis study, a decades-long experiment that observed syphilis in hundreds of African American men. Third and finally, a secret C.I.A. program known as Project MKULTRA, which included the governmental pursuit for "mind control" substances.

These experiments are evidence that the United States disregarded its own international guidelines of medical ethics for decades following the Nuremberg Trials. For years, United States courts rarely mentioned the Nuremberg Code, and still today, American lawyers largely ignore it. The government often stated that their justification for experimentation was the compelling demands of the Cold War. Despite

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[5] Sharon Perley et al., "The Nuremberg Code: An International Overview," in *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation* (New York, NY: Oxford University Press, 1995).

condemnation of the Nazi doctors at Nuremberg, national security once again became an ideological excuse for unethical medical practice.

But even with this dark and overlooked history, the Code itself still possesses a respectable legacy. It initiated a significant conversation about medical ethics in the postwar world, which inspired indispensable regulations that exist today. Although the United States only began to adhere to its principles in the mid 1970s, the Code still stands as one of the most, if not the most, important legal documents on the ethical conduct of human experimentation. Moreover, examination of the unethical American experiments reveals significant historical lessons on the balance of state power, medical ethics, and the evolutionary process of laws gaining international acceptance.

Chapter 2

THE TRIAL, EXPERIMENTS, AND THE CODE

United States v Karl Brandt et. al took place in the city of Nuremberg within a building named the "Palace of Justice." The Allies chose this town because it once hosted Hitler's original Nazi Party rallies.[6] Here, in the year 1946, the trial prosecuted the following members of the National Socialist system: Karl Brandt, Siegfried Handloser, Paul Rostock, Oskar Schroeder, Karl Genzken, Karl Gebhardt, Kurt Blome, Rudolf Brandt, Joachim Mrugowsky, Helmut Poppendick, Wolfram Sievers, Gerhard Rose, Siegfried Ruff, Hans Wolfgang Romberg, Victor Brack, Hermann Becker-Freyseng, Georg August Weltz, Konrad Schaefer, Waldemar Hoven, Wilhelm Beiglboeck, Adolf Pokorny, Herta Oberhauser, and, finally, Fritz Fischer. The majority of the court's time determined the personal guilt of each defendant, certainly a long and arduous process.[7]

Totaling twenty-two men and one woman, the defendants were the highest-ranking medical authorities of Hitler's Third Reich. Karl Brandt was the personal physician to Adolf Hitler and head of all medical emergency operations as Reich Commissioner; Handloser worked as the Chief of the Medical Services of the Armed Forces; Rostock was the Surgical Adviser to the Army, and Schroeder operated as Chief of Staff of the Inspectorate of the Medical Service of the Air Force. It is impossible that the experiments could have been approved without at least partial consent from these high-ranking actors. As for the rest, many of the lower-ranking

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[6] Horst H. Freyhofer, *The Nuremberg Medical Trial: The Holocaust and the Origin of the Nuremberg Medical Code* (New York: Peter Lang, 2005), 56.
[7] Freyhofer, 51.

defendants included the administrators of the experiments: doctors of Nazi concentration camps and other researchers.

The United States rounded up as many notable figures as they could, but some still escaped prosecution, such as the notorious Dr. Josef Mengele, who fled to Argentina after the war and was presumed dead at the time. The Medical Trial began with the indictment of the twenty-three defendants on multiple charges, which read as follows:

> The United States of America… charges that the defendants herein participated in a Common Design of Conspiracy to commit and did commit War Crimes and Crimes Against Humanity, as defined in Control Council Law No. 10, duly enacted by the Allied Control Council on December 1945. These crimes include murders, brutalities, cruelties, tortures, atrocities, and other inhuman acts, as set forth in Counts One, Two, and Three of this Indictment. Certain defendants are further charged with Membership in a Criminal Organization, as set forth in Count Four of this Indictment.[8]

Count One of the Medical Trial charged all defendants with conspiracy to commit war crimes and crimes against humanity. Count Two listed and grouped the experiments that the Nazis enacted. Such tests horrified contemporaries. Group A, for example, included high-altitude experiments. From March to August of 1942, researchers at Dachau concentration camp tested the absolute limits of human endurance at high altitudes for the German Air Force. Subjects were placed into low-pressure chambers, in which situations similar to the pressures of up to 68,000 feet could be simulated. "Many victims died as a result of these experiments and others suffered grave injury, torture, and ill treatment."[9]

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[8] *U.S.A. v Karl Brandt et. al* (1946), 1.
[9] *U.S.A. v Karl Brandt et. al* (1946), 11356.

Group B experiments, conducted at Dachau, investigated how to best treat a person who had been severely frozen. Test subjects were forced to sit in tanks of ice water for numerous hours or stand outside naked. Next, various types of re-warming methods were applied, many of which accidentally resulted in the quick death of the subject. Group C experiments focused on finding immunization and treatment for malaria. This included purposely letting tainted mosquitos infect concentration camp inmates and injecting them directly with the "extracts of the mucous glands" of the insects.[10]

Group D included mustard gas experiments that were conducted at Sachsenhausen, Natzweiler, and other concentration camps. Nazi doctors deliberately wounded inmates to simulate battle conditions and then infected the wounds with *lost*: a poisonous form of mustard gas. "Some of the subjects died as a result of these experiments and others suffered intense pain and injury."[11] Group E aimed to investigate the effectiveness of sulfanilamide at Ravensbrück concentration camp. Here, once again, Nazi doctors inflicted deliberate wounds on the prisoners and then purposely infected them with streptococcus and tetanus. Even more terrifying, they aggravated the infections by rubbing wood shavings and ground glass into their wounds. Finally, they would use sulfanilamide and other drugs to try to cure the infections but often ended up killing or causing immense pain to the subject in the process.

Group F experiments focused on bone, muscle, and nerve regeneration and transplantation. At Ravensbrück, sections of bones, muscles, and nerves were removed

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[10] *U.S.A. v Karl Brandt et. al* (1946), 396.
[11] *U.S.A. v Karl Brandt et. al* (1946), 11367.

from subjects' bodies as the Nazi doctors attempted to transplant them into other inmates. These experiments produced some of the most gruesome instances of mutilation of the Holocaust. Group G investigated seawater at Dachau, seeking to find an effective method to make it drinkable. Accordingly, the subjects were first completely starved and then given chemically processed seawater to ingest, resulting in internal bodily injury.

Group H experiments investigated jaundice. Participants were injected against their will, often causing death and suffering. Group I involved sterilization experiments that hoped to "develop a method which would be suitable for sterilizing millions of people with a minimum of time and effort."[12] They tested methods by means of X-ray beams, surgery, and various drugs, and successfully sterilized thousands of victims against their will.

The final two sets of experiments, groups J and K, gave prisoners spotted fever and also tested the effects of poison on the human body. Over 90 percent of the victims with the spotted fever virus died as a result.[13] Hundreds of others also died from the faulty vaccines the tests created. The poison experiments involved the secret administration of dangerous substances to subjects in their food. In September 1944, this group also tested poison bullets on human subjects, experiments in which almost 100 percent of the prisoners passed away.

Because the Nazi doctors caused the deaths of thousands, in unimaginably cruel and inhumane ways, the trial's importance cannot be exaggerated. At Nuremberg, the prosecution submitted overwhelming documentary evidence of the

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[12] *U.S.A. v Karl Brandt et. al* (1946), 11368.
[13] *U.S.A. v Karl Brandt et. al* (1946), 11370.

crimes. The Nazis, in general, were careful record keepers and so documents were not too hard to find. Eye witnesses and victim testimony also played a part and allowed many to voice their outrage and tell their stories about what had happened to them in the confines of the concentration camps. Mostly mutilated and broken people, the victims surely provided powerful testimony.

Three judges and one alternate supervised the trial. This roster included the presiding judge Walter B. Beals from Washington, Johnson T. Crawford hailing from Oklahoma, Harold L. Sebring from the state of Florida, and Victor C. Swearingen, alternate judge and former assistant to the Attorney General of the United States.[14] Chief of Counsel Brigadier General Telford Taylor and James H. McHaney headed the prosecution. Notably, the defendants were allowed their own counsel to prove their innocence. Telford Taylor summed up the spirit of the Doctor's Trial well in his opening statement for the prosecution, where he said:

> 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.[15]

With this opening statement on December 9, 1946, the Medical Trial began. Throughout the next 255 days, thirty-two prosecution and fifty-three defense witnesses testified, and 1,471 documents were submitted as evidence.[16] The prosecution was

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[14] Ann Tusa and John Tusa, *The Nuremberg Trial* (Bethesda, MD: Legal Classics Library, 2011).
[15] *U.S.A. v Karl Brandt et. al* (1946), 12.
[16] Evelyne Shuster, "Fifty Years Later: The Significance of the Nuremberg Code," New England Journal of Medicine 337, no. 20 (1997): 1436-1440.

intent on exposing the horrors of the Nazi crimes. But the defendants presented themselves as "mere followers of higher orders." They maintained that they had acted, to the best of their knowledge, within the limits of [the] existing law" of their country.[17] The defense attempted to expose the guilt of the United States for its own experiments. With each defendant, however, the prosecution combated all excuses and added more evidence to the mix.

After 140 days of actual proceedings, the judges delivered their verdict on August 19, 1947. Through hearing witness testimony, and with the help of medical experts, the judges realized that their verdict could make an impact on international conduct of human experimentation, and perhaps, prevent future atrocities of this scale. The Nuremberg Code germinated from this idea. Delivered by Judge Harold Sebring in a section of the judges' verdict entitled "Permissible Medical Experiments," the ten points of the Nuremberg Code were given in their entirety.[18]

The first point of the Code opens with the phrase, "The voluntary consent of the human subject is absolutely essential."[19] A subject should be able to exercise his free power of choice, without any interference from force, duress, or coercion. Additionally, the subject must be informed of all possible risks of the experiment and its basic procedures. The first point also states that it is the "personal duty and responsibility" of the director of the experiment to obtain true consent and to make sure that the subject has sufficient knowledge of the situation.

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[17] Freyhofer, *The Nuremberg Medical Trial*, 65.
[18] See Appendix A.
[19] "Permissible Medical Experiments." Trials of War Criminals before the Nuremberg Military Tribunals under Control Council Law No. 10. Nuremberg October 1946 – April 1949, Washington. U.S. Government Printing Office (n.d.), vol. 2., 181-182.

The following nine points require similar rules. The experiment must be beneficial to society, unprocurable by any other methods, designed on the results of known animal experimentation, and necessary to achieve scientific advancement. Additionally, an experiment must be conducted so as to avoid all unnecessary injury, mental and physical. There should be no a priori reason to believe that death or a disability will occur, and the degree of risk taken should never exceed the humanitarian importance of the problem. Furthermore, proper preparations should be made, and adequate facilities provided to the researcher. Experiments must only be conducted by scientifically qualified persons, and at any time during the study, the human subject should be at liberty to bring the procedures to an end. The tenth and final point states that the scientist in charge must be prepared to end the experiment at any stage if he thinks that continuation would result in injury, disability, or death.

For the first time ever, the ten points of the Nuremberg Code framed a global statement that protected the rights of patients in human experimentation. Its demand for consent was groundbreaking, even though this innovative concept is often taken for granted today. In the past, various philosophers and members of the medical profession discussed the concept of informed consent, but never had the topic been addressed so directly on an international level. This idea seems so self-evident in contemporary society, but its universal acceptance began with the Code.

Important too are the other nine points of the Nuremberg Code. Dr. Evelyne Shuster recognizes that "The key contribution of Nuremberg was to merge Hippocratic ethics and the protection of human rights."[20] Points one and nine state that research subjects have the right to protect themselves. Additionally, the idea that "the human

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[20] Shuster, "Fifty Years Later: The Significance of the Nuremberg Code," 1436-1440.

subject should be at liberty to bring the experiment to an end" constituted a new right of the patient, one that diminished the absolute authority of the physician researcher.

Along with the proclamation of the Nuremberg Code came the final verdicts. Fifteen of the twenty-three defendants were found guilty in varying degrees.[21] However, defendant Poppendick was only found guilty of being a member of a criminal organization, not for any participation in the medical experiments. Defendants Karl Brandt, Sievers, Gebhardt, Hoven, Brack, Rudolf Brandt, and Mrugowsky were all immediately sentenced to death by hanging. Defendants Schoeder, Handloser, Genzken, Fischer, and Rose received life in prison for their crimes. Herta Oberheuser, the only woman of the trial, got 20 years, while Beiglböck received 15 years, and Poppendick only 10 years. Defendants Blome, Rostock, Ruff, Pokorny, Weltz, Romberg, and Schaefer were all acquitted due to lack of evidence.

On June 2, 1948, the Allies hanged the seven defendants found most guilty. This took place at a prison in Landsberg, the same facility where Adolf Hitler had written his book *Mein Kampf*. Many of these doomed criminals chose to violently proclaim their continued allegiance to Nazism on the stand. Karl Brandt screamed, "'It is no shame to stand on this scaffold. I served my fatherland as others before me." He continued to give such a long speech that the executioners dropped the black hood on him mid-sentence.[22] Mrugowsky exclaimed, "I die as a German officer sentenced by a brutal enemy and conscious I never committed the crimes charged against me."[23] Finally, Gebhardt solemnly stated, "'I die without bitterness but regret there is still

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[21] Alexander Mitscherlich and Fred Mielke, "Seven Were Hanged," in *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation* (New York, NY: Oxford University Press, 1995).
[22] Mitscherlich and Mielke, "Seven Were Hanged," 105.
[23] Mitscherlich and Mielke, 106.

injustice in the world."[24] To the very end, these Nazi criminals would not fathom the moral weight of their actions.

The proceedings of the trial prompted the judges to include the Nuremberg Code, their own thoughts on “Permissible Medical Experiments,” in their concluding statements. They aspired to condemn unethical experimentation and forever label the Nazi actions as absolutely prohibited. Surely, the trial was a dramatic moment in the history of international law. The Code marked a culmination of years of Western discourse on medical ethics, as it was supported by a variety of other ethical guidelines of the past.

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[24] See note 23.

Chapter 3

PRIOR CODES ON HUMAN EXPERIMENTATION

The Nuremberg Code was not the first code on experimentation to exist in history, but it was monumental in its aims to achieve international recognition. To understand the Nuremberg Code's innovative significance, one needs to first survey prior codes of medical ethics. These various guidelines, made before the year 1947, influenced the later Nuremberg tribunal. As two historians argue, "The Nuremberg Code was based on a convergence of historical documents and circumstances. During the trial, both the prosecution and the defense repeatedly cited and analyzed past experiences and standards of ethical human experimentation."[25]

The Hippocratic Oath, the most mentioned document at the trial, had been in practice for thousands of years. Written sometime in the fifth or fourth century BCE, most likely not by the famed healer Hippocrates, but rather by a coalition of physicians, the Hippocratic Oath is a vow of ethics taken by doctors to promote the health of their patients to the best of their ability. The ancient translation of the oath's original Greek states that the physician must "keep [their patient] from harm and injustice" in the pursuit of healing over anything else.[26] The Hippocratic Oath, then, had long served as a serious binding vow of the medical community. Consequently, the medical experts of the trial repeatedly invoked the oath's general concepts in their letters and testimony. But the Hippocratic Oath, while surely sacred in the medical community and important to the idea of protecting the patient, centers on the general practices of physicians, and never mentions experimental research.

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[25] Annas and Grodin, *The Nazi Doctors and the Nuremberg Code*, 120.
[26] Jay W. Marks, "Medical Definition of Hippocratic Oath," MedicineNet (MedicineNet, June 3, 2021), https://www.medicinenet.com/hippocratic_oath/definition.htm.

The first historically recognized code on ethical experimentation would not appear until the early nineteenth century. In the year 1803, the English physician Thomas Percivel published a book entitled *Medical Ethics; or, a Code of Institutes and Precepts Adapted to the Professional Conduct of Physicians and Surgeons*. In this work, Percivel established a list of rules for his fellow doctors, so that they could uphold the professionalism of the field. Percivel's code mentions human experimentation for the first time, stating, "whenever it is for the public good... that new remedies and new methods of chirurgical treatment should be devised, the gentlemen of the faculty should be scrupulously and conscientiously governed by sound reason, just analogy, or well-authenticated facts."[27] Percivel's code posited two premises: experiments should be for the "public good" and physicians must be consulted beforehand.

In 1853, William Beaumont, a prominent surgeon in the United States army, also wrote his own guidelines. Beaumont's code stated, "The investigator must be conscientious and responsible... for a well-considered, methodological approach is required so that as much information as possible will be obtained whenever a human subject is used. No random studies are to be made."[28] These points advanced the discussion on the laws of human experimentation. Beaumont was a physician who carried out experiments upon a man who had accidentally shot himself in the abdomen and was left with an unusual open fistula tract to study.[29] Pondering the morals of this, Beaumont wrote his own code of medical ethics.

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[27] Annas and Grodin, *The Nazi Doctors and the Nuremberg Code*, 124.
[28] Ronald L Numbers, "William Beaumont and the Ethics of Human Experimentation." Journal of the History of Biology 12, no. 1 (1979): 113–35.
[29] Annas and Grodin, *The Nazi Doctors and the Nuremberg Code*, 125.

Percivel and Beaumont inspired the American Medical Association to publish its Code of Ethics in 1847, the organization's first formally adopted statement on the topic.[30] It focused on the physician's duties and obligations to their patients. In 1865, French physiologist Claude Bernard contributed to the growing discussion with his work, *An Introduction to the Study of Experimental Medicine*. He stated, "It is our duty and right to perform an experiment on man whenever it can save his life, cure him or gain him some personal benefit. The principle of medical and surgical morality, therefore, consists, in never performing on man an experiment which might be harmful to him to any extent, even though the result might be highly advantageous to science."[31] Bernard's approach focused mostly on experiments where the patient would be provided some sort of "personal benefit" through participation.

Arguably the most intriguing instance of a prior code came from none other than Weimar Germany itself, with its 1931 regulation by the Reich Minister of the Interior. This was officially entitled "Regulations on New Therapy and Human Experimentation." Point four of the 1931 regulation states, "Any innovative therapy must be justified and performed in accordance with the principles of medical ethics and the rules of medical practice and theory…. Innovative therapy may be carried out only if it has been tested in advance in animal trials."[32] The Nuremberg Code includes similar ideas for of the justification of experiments and animal testing.

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[30] "Bioethics: Major and Historical Codes," LibGuides, accessed December 19, 2021, https://dal.ca.libguides.com/c.php?g=256990&p=1717825.
[31] Claude Bernard, *An Introduction to the Study of Experimental Medicine* 1865, (New York: Dover Publications, Inc., 2018).
[32] Ghooi, "The Nuremberg Code-A Critique," 72.

Ironically, at the time, the 1931 regulation was the only code of medical ethics legally adopted by a country throughout the entire world.[33] Moreover, it also addressed the consent of the subject, but only in light of therapeutic treatment as opposed to medical research. When the Nazi party took over Germany in 1933, it chose to ignore this code, but nonetheless it remained a law until 1948.[34] The Nuremberg tribunal recognized the 1931 regulation as a "standard of ethics for the practice of human experimentation during the Nazi period."[35] Surely, then, its principles affected the writing of the Nuremberg Code.

A brief history of these prior codes bears on the question of authorship. Although the Nuremberg Code was not entirely new in some of its concepts, it was nonetheless innovative. No other code addressed human experimentation so directly, included ideas of consent, and, most importantly, aspired to international application. The medical experts cited many of these past codes during their work at Nuremberg, and so the documents should be accredited at least partially for their basic ideas and for starting a broader conversation about human experimentation in the Western world.

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[33] Perley et al., "The Nuremberg Code: An International Overview, 151.
[34] Ghooi, "The Nuremberg Code-A Critique," 72.
[35] Annas and Grodin, *The Nazi Doctors and the Nuremberg Code*, 129.

Chapter 4

THE QUESTION OF AUTHORSHIP

The Nuremberg Code's authorship has been the focus of a longstanding historical debate, which seemingly started directly after the end of the trial in 1947. Some historians claim that the Code was nothing more than a culmination of prior medical guidelines on human experimentation. But, this view lacks support. Even if historical predecessors influenced the ideas of the Nuremberg Code, does that qualify them as "authors" of the work? Just as nobody would claim that the sources of a researched article are the authors of the paper as a whole, one cannot say that Hippocrates, Thomas Percival, or the Reich Minister of the Interior in 1931 were the authors of the Nuremberg Code, even if they did influence its ideas.

In "The Nuremberg Code-A Critique", author Ravindra B. Ghooi goes as far as to suggest that the framers of the Nuremberg Code plagiarized directly from the Guidelines of Human Experimentation of 1931.[36] Principles four, five, nine, and ten of the Nuremberg Code, he claims, came from the 1931 guidelines. Ghooi states, "There is little doubt that the Code was prepared after studying the Guidelines, but no reference was made to the Guidelines, for reasons that are not known. Using the Guidelines as a base document without giving due credit is plagiarism; as per our understanding of ethics today, this would be considered unethical."[37] Generally, scholars reject this view. Ghooi's point that the Nuremberg Code should have referenced the 1931 guidelines, while valid, is not tantamount to a claim of authorship.

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[36] Ghooi, "The Nuremberg Code-A Critique," 72.
[37] Ghooi, "The Nuremberg Code-A Critique," 72.

To solve the question, we must look to the people involved in the courtroom. Telford Taylor, the chief prosecutor of the trial, stated, "the judge who had the most to do with shaping the opinion, and who I think is primarily responsible for the famous ten principles… was Judge Harold Sebring."[38] Taylor thought Judge Sebring had the perception to see that the trial needed to establish international standards for human experimentation. Because the Nuremberg Code first appeared in the final judgements of the tribunal, and was physically written by the judges, Taylor's judgment is plausible.

In a similar manner, author Allan Gaw states that in formulating the Code, "it [was] necessary to invoke the bench's involvement either collectively or singly, perhaps most credibly in the person of Judge Sebring."[39] "Perhaps in this light", he goes on to say, "the true author of the Code should be identified as justice itself."[40] Additionally, Professor Leonard H. Glantz recognizes that the judges "dictated" the Nuremberg Code during the trial.[41] The judiciary penned the Code, thus their involvement with authorship is undeniable.

But Telford Taylor also claimed that the "judges who came to sit on the case were just as green in the problem [of ethical experimentation] as the lawyers."[42] He

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[38] Daniel Callahan et al. "Special Supplement: Biomedical Ethics and the Shadow of Nazism," The Hastings Center Report 6, no. 4 (1976): 1–19.
[39] Allan Gaw, "Reality and Revisionism: New Evidence for Andrew C Ivy's Claim to Authorship of the Nuremberg Code," Journal of the Royal Society of Medicine 107, no. 4 (2014): 138-143.
[40] See note 39.
[41] Annas and Grodin, *The Nazi Doctors and the Nuremberg Code*.
[42] Annas and Grodin, *The Nazi Doctors and the Nuremberg Code*, 6.

explained how initially the judges and prosecution depended on the knowledge and opinions from "two well-known American doctors as medical consultants… one, a Boston psychiatrist, Dr. Leo Alexander, and the other, the better-known Dr. Andrew Ivy."[43] The judges alone did not create the Nuremberg Code, they needed the help of medical professionals.

In the years after the trial, judges Beals, Crawford, and Sebring were not seen as the only authors of the Nuremberg Code. As historian Paul Julian Weindling recognizes, both Dr. Leo Alexander and Dr. Andrew C. Ivy "claimed authorship of the eventual Code."[44] Both doctors furthermore asserted *sole* authorship of the ten points, as they each claimed that their own sentiments had influenced the judges immensely. Historians acknowledge Alexander and Ivy's contributions to the Nuremberg Code, and the opinion that these medical experts were the true authors of the Code is popular. It is thus crucial to examine each expert on their own merits.

Leo Alexander was a Viennese-born physician, who joined the United States Army Medical Corps in the year 1942.[45] Toward the end of the war, Dr. Alexander joined the Combined Intelligence Objectives Sub-Committee, an international intelligence organization whose main objective was to research and gather evidence for the upcoming trials at Nuremberg. At the Doctors Trial in 1946, Alexander was the

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[43] Daniel Callahan et al. "Special Supplement: Biomedical Ethics and the Shadow of Nazism," 1–19.
[44] Paul Weindling, *Nazi Medicine and the Nuremberg Trials: From Medical War Crimes to Informed Consent* (Basingstoke: Palgrave Macmillan, 2008), 287.
[45] Shuster, "Fifty Years Later: The Significance of the Nuremberg Code," 1436-1440.

secretary of war's chief medical advisor. Although he did not testify in court, his behind-the-scenes role at Nuremberg was certainly influential. "In his room, number 221 at the Palace of Justice, he had direct access to the defendants. There, he prepared and reviewed depositions, coordinated testimonies, orchestrated and reviewed hundreds of affidavits, and helped the prosecution assess the harmful consequences on victims of Nazi experiments."[46]

On December 7, 1946, only two days before the beginning of the Medical Trial, Alexander sent Telford Taylor and the prosecution team a memorandum entitled "Ethical and Non-Ethical Experimentation on Human Beings." In it he identified three ethical requirements of experimentation: "(1) moral and legal requirements (obtaining a legally and ethically valid consent from the participant); (2) medical-ethical requirements (moral obligation of the investigator toward the participant as described in Hippocratic ethics); and (3) scientific requirements (the quality of the research project)."[47] This memo attests Alexander's claims to authorship.

Toward the end of the trial on April 15, 1947, Alexander submitted a second version of the memorandum to the courtroom.[48] With this document he went into much greater detail and included six specific points about legally permissible

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[46] "American Doctors at the Nuremberg Medical Trial," American Journal of Public Health 108, no. 1 (2018): 47-52.
[47] Shuster, "American Doctors at the Nuremberg Medical Trial," American Journal of Public Health 108, no. 1 (2018): 47-52.
[48] See Appendix C.

experiments on human beings. For many scholars, the memorandum contains "almost all of the principles that appear in the final ten-points of the Nuremberg Code."[49] The first sentence displays the most striking similarity. Alexander's memo stated, "*1. Legally valid voluntary consent of the experimental subject is essential*," while the Nuremberg Code merely reworked the idea: "1. *The voluntary consent of the human subject is absolutely essential*." Alexander's principles of consent, motives of experimentation, prohibition of experiments resulting in death, and the securing of proper facilities are all found in the Nuremberg Code.

Dr. Alexander submitted this memorandum to the entirety of the courtroom. Every member of the prosecution and each of the judges had access to his ideas and points. When later commenting on the memo, Dr. Alexander himself explained:

> The judges enlarged these criteria to ten points by dividing my point No. 4 into three separate points, and by adding two provisions for prompt termination of an experiment at the discretion of the investigator or at the request of an experimental subject. These were incorporated in their final judgment as the basic principles which must be observed in order to satisfy moral, ethical and legal concepts with regard to medical experiments.[50]

Alexander stated that the Code was "merely a refinement" of his own 1947 memorandum and asserted authorship for the rest of his life.[51] Indeed, the judiciary relied heavily on the well-thought out points from Dr. Alexander. James McHaney,

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[49] John J. Michalczyk, *Medicine, Ethics, and the Third Reich: Historical and Contemporary Issues* (Kansas City, MO: Sheed & Ward, 1994).
[50] Leo Alexander, "Limitations in Experimental Research of Human Beings", *Lex et Scientia* 3 (1966): 15-16.
[51] Shuster, "American Doctors at the Nuremberg Medical Trial," 47-52.

chief prosecutor of the Medical Trial, mentioned many of Alexander's points almost verbatim in his closing arguments.[52]

Most historians support Leo Alexander's claims to authorship. Weindling states that "the elaborate judicial statement on "Voluntary Consent" in the final Code was substantially due to Alexander."[53] Other authors state outright that "Alexander [was] the primary author."[54] Dr. Leo Alexander would continue to promote his side of the debate until his death in July of 1985, after which his obituaries almost entirely read that he had "wrote the Nuremberg Code."[55]

Another popular opinion is that the other medical expert of the trial, Dr. Andrew C. Ivy, was the primary writer of the Code. Ivy, a former Naval medical researcher, became involved with the Doctor's Trial when the secretary of war asked the American Medical Association (AMA) to nominate an expert on practices in prisoner research. The AMA proposed Ivy, a well-known and widely respected researcher at the time. Subsequently, he began trial testimony on June 12, 1947, which lasted four days, the longest of the entire tribunal. Dr. Ivy utilized his time on the stand to shed light on the conditions in which a variety of "civilized" nations across the world conducted human research.[56] Scholars Vaux and Shade believe that Ivy's testimony provided the "architecture", or framework, for the Nuremberg Code.[57]

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[52] *U.S.A. v Karl Brandt et. al* (1947), 10717.
[53] Weindling, *Nazi Medicine and the Nuremberg Trials*, 287.
[54] Erwin Deutsch, "The Nuremberg Code: The Proceedings in the Medical Case, the Ten Principles of Nuremberg and the Lasting Effect of the Nuremberg Code," Ethics Codes in Medicine, 2019, 71-83.
[55] Shuster, "American Doctors at the Nuremberg Medical Trial," 47-52.
[56] Ibid.
[57] Kenneth Vaux and Stanley Shade, "The Search for Universality in the Ethics of Human Research: Andrew C. Ivy, Henry K. Beecher, and the Legacy of Nuremberg," in Spicker et. al., *The Use of Human Beings*, 1.

Dr. Ivy offered his own three points to the courtroom, live and in person. He had formulated research principles at the request of the AMA as a document entitled "Principles of Ethics Concerning Experimentation with Human Beings."[58] In the same fashion as Alexander's proposed points, one can see a stark similarity between the opening line of the proposed principles and those of the final Nuremberg Code. Ivy opened with "1: *Consent of the human subject must be obtained.*" Additionally, he covered topics on animal experimentation and about the requirement of scientifically qualified research conductors. Ivy explained to the courtroom that these research practices were common in many countries. Notably, point six of Alexander's memorandum and principle two of Ivy's proposed practices are also almost identical in substance and language.

In the same manner as Alexander, Ivy maintained that he was the author of the Nuremberg Code for the rest of his life. In a letter to Maurice H Pappworth about the formulation of the Code, Ivy stated that:

> *I did not include the word "perhaps" in the 5th article of the Nurenberg [sic] Code when I turned ... over to the Judges my version of the Code. Nothing else in my version was materially changed. I see NO rational or defensible reason for the word "perhaps"...*
> *I do not know who introduced the word "perhaps". The remainder of the code I turned in was not essentially changed.*[59]

Here, Ivy "claim[ed] unequivocally that he was the author of the Code with the exception of a single word in Article 5."[60] But the seventy-three year-old Ivy may have been thinking about his legacy when writing this letter to his colleague, and he

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[58] See Appendix D.
[59] Ivy to Pappworth. Letter 6 April 1966, London: PP/MHP/C5 Wellcome Library.
[60] Gaw, "Reality and Revisionism" 138-143.

most likely wanted to emphasize his role in the historical trial.[61] Both Ivy and Alexander created narratives that characterized the judges as taking their ideas, without giving any credit.

The manner in which Dr. Andrew C. Ivy was called to testify also deserves examination. He later recalled that in January of 1947 he was "invited by a member of the tribunal to have lunch with them."[62] At the luncheon, Ivy recognized his opportunity to inform the judges about the need for international regulations, and he told them about the rules that he had outlined for past experiments. Directly following this lunch, Judge Sebring invited Ivy to return in June of 1947 as a rebuttal witness. Consequently, some historians propose that Ivy "nurtured the judicial interest in the Code," and many claim that he acted as the mouthpiece to the judiciary for medical expertise.[63] As a witness to the tribunal, Ivy gained direct access to the judges' ears and promoted the need for the universal protection of human rights through the Code.

But the doctors' stories are also interwoven, record shows that Alexander and Ivy met to discuss these topics in late January of 1947 in Paris. When Ivy returned from this meeting, he came home with "the recommendation that an international, legalized Code of ethics should be published."[64] Additionally, at the time, Alexander tended to keep notes and memos of what he was working on. On January 24, just two days after the discussion with Ivy, Alexander recorded a note that said, "finished the additions to the article on ethical and unethical experimentation," which suggests that

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[61] Gaw, "Reality and Revisionism," 138-143.
[62] Irving Ladimar and Roger W. Newsman, *Clinical Investigation in Medicine: Legal, Ethical, and Moral Aspects,* (Boston University: Law-Medicine Research Institute, 1963).
[63] Weindling, *Nazi Medicine and the Nuremberg Trials*, 289.
[64] Weindling, 286.

his talks with Ivy may have helped him to finish his memo.[65] Evidence that Alexander and Ivy worked together solves the mystery of why their respective draft codes were strikingly similar.

The scholarly consensus therefore accredits authorship to both Leo Alexander and Andrew C. Ivy. Weindling sums up this view nicely:

> The first formulation of a Code should be credited to Ivy, who insisted on the voluntary status of the experimental subject, and then convinced the prosecution and the judges of the necessity of regulatory principles. Alexander amplified the obligations of the medical experimenter, defined what constitutes consent, and insisted on humane aims… Although it appeared that the Code at Nuremberg was generated by the judicial procedures, the codification of medical ethics was in the throes of repeated reformulation since the end of the war.[66]

Without the efforts of Alexander and Ivy, the Nuremberg Code would not have been the same document. Their combined expertise allowed both doctors to outline the entirety of the ten points that appear in the final version. It is no coincidence that the Nuremberg Code holds uncanny resemblance to Alexander's memorandum and Ivy's testimony points.

Yet other scholars think that the "exact origins of the Nuremberg Code will probably remain a historical mystery," for it was derived from a wide variety of sources, such as the prior writings, additional commentators, and not least, the judges, who added their own points in the final draft. [67] Rather than seeking one specific author, these scholars claim, "that the famous ten principles of the Code grew out of the trial itself."[68] However, it is hard to shake the primary evidence of Alexander and

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[65] See note 64.
[66] Weindling, *Nazi Medicine and the Nuremberg Trials,* 293.
[67] Ibid.
[68] Ghooi, "The Nuremberg Code-A Critique," 72.

Ivy's contributions. The language used in the final document is almost identical to the principles that they submitted to the judiciary. For this reason, one can conclude that Alexander and Ivy should be accredited as the main contributors to the Nuremberg Code. The judges, too, have an inherent stake in authorship, as the Code first appeared in their final statements. Judge Sebring, specifically, should be recognized alongside Alexander and Ivy.

But in the grand scheme of things, does it truly matter who wrote the Nuremberg Code? One might answer that, regardless of authorship, the Code endures as a landmark document in the field of research ethics. But establishing the Nuremberg Code's true authors does matter. These now-famous ten principles deserve proper historical analysis, which includes precise provenance. Hence, evaluating the contributions of each author is vital, and a detailed description of the Code's creation gives insight into the spirit and purpose of its principles. The memoranda and testimony mentioned above attest to an unintended collaboration of Alexander, Ivy, and Sebring. They worked together to establish guidelines for universal application. Despite their disagreement about authorship, each was aware of the Code's international significance.

But there was another historical actor present at the Code's creation: American governance. After the war, the United States government not only assumed military and economic might— but also exerted a moral leadership for the postwar world. Almost immediately after 1945, the U.S. "became the hegemonic organizer and manager of [the] Western liberal order."[69] American foreign policy advisors aspired to

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[69] John Ikenberry, "Liberal Internationalism 3.0: America and the Dilemmas of Liberal World Order," *Perspectives on Politics* 7, no. 1 (2009): 71–87.

create a new international community, one that promoted liberal ideas such as, "respect for… universal values, including human rights."[70] The righteous American pursuit of additional prosecutions at Nuremberg, long after the results of the main trial, demonstrated the nation's new role as "leader of the free world." Indeed, Western liberal philosophy informed the authors' arguments. Liberalism's regard for the consent of the governed readily transferred to the Code's tenet of consent in medical practice. In form and content, the Code's final opinion constitutes a document of mid-century liberal ethics. Alexander and Ivy pressed for liberal ideas of consent and for the protection of human life. At the end of the trial, the United States government, acting as the new "global policeman" of the postwar world, supported the ten principles that erected universal rights of humankind.[71] In this regard, American governance provided the necessary legal-political environment for the document's promulgation.

Such high moral ground invites criticism. Nazi defendants quickly pointed to the duplicity of the United States, which prosecuted others with its Code yet allegedly committed the same crimes. Time and time again, the Nazi defendants offered *tu quoque,* or "you did it too" arguments in the courtroom. In fact, Andrew C. Ivy first appeared at the trial to testify about the experiments he conducted in American prisons. The Nazis proposed that in these experiments the subjects could not give full consent, since they were prisoners. The defense council tried to implicate the

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[70] Ronald O'Rourke and Michael Moodie, "U.S. role in the world: Background and issues for Congress," 2021.

[71] Sam Lebovic, "Why Is America the World's Police?" Boston Review, October 19, 2020.

American government multiple times for their own involvement with unethical science.

Historians, too, can point toward the bitter irony of the situation, in light of American ethics of the early twentieth century. Eugenics movements, sterilization laws, segregation and racism—the United States had its own dark blemishes at the time. Surely, history cannot forget Justice Wendell Holmes's famous statement of "three generations of idiots is enough" or Madison Grant's *the Passing of the Great Race*, both artifacts of American political culture. However, ultimately, in the wake of the war the United States assumed the role of an international moral authority in response to the horrifying extent of the Nazi crimes. The U.S. became a world leader of human rights, and later, with the help of its Allies, led the creation of the United Nations to help maintain the new standard of global ethics. As a result of the trial, the Americans put to death seven men because of their heinous actions. But obvious questions arose. Would the Nuremberg Code be used only to punish the Nazis? Or would the U.S. now have to play by its own rules as well?

Chapter 5

OPERATION PAPERCLIP AND THREE U.S. EXPERIMENTS

In the years after World War II, the U.S. government started "Operation Paperclip," a special project which employed over 700 German scientists and engineers to complete government sponsored research. Through this program, the United States military hired four of the same Nazi defendants who were prosecuted at Nuremberg. The U.S. Air Force employed defendants Becker-Freyseng, Shaefer, and Ruff in the time before the trial, and their work was only brought to a halt when they were arrested and taken to the Nuremberg holding cells.[72] After the trial, the Air Force hired Blome as well.

There exists a record of exchanges between these defendants and counsel at Nuremberg about their work for the United States military. Consider the following dialogue between defendant Ruff and Fritz Sauter:

> A. (Ruff) From the Spring of 1945 until the Autumn of 1945 I was unemployed. From October, 1945, to September 1946, I was a scientific collaborator of the Aero-Medical Center of the United States Air Forces.
>
> Q. (Fritz Sauter) What was your position there, just in general?
>
> A. My activities were similar to those that I had under the DVL [Department for Aviation Medicine in Nazi Germany].
>
> Q. Were high altitude experiments carried on in this Aero Medical Center such as you are accused of in this trial?
>
> A. I experimented in the field of high-altitude research and also carried out high altitude experiments in the low pressure chamber as I had done in my institute and of which I am here accused.

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[72] Mitscherlich and Mielke, "Seven Were Hanged."

Q. Did you use a low-pressure chamber such as was used in Dachau?

A. Yes.[73]

Here, in front of the entire tribunal, Ruff confirmed that he was continuing his projects under the United States Air Force. Additionally, he conducted these experiments in high-altitude research with "the same type of low-pressure chambers" as was used in the Nazi concentration camp at Dachau. This parallel work points to the United States' willingness to utilize Nazi doctors, despite their pending trial. Even if the test subjects gave documented consent for these experiments, the fact that the U.S. government hired Nuremberg defendants suggests moral indifference at the federal level.

Defendant Hans Wolfgang Romberg also testified about United States tests. During his testimony he was questioned:

> Q. Do you know of deaths caused by a sudden central failure due to stoppage of the blood flow? Is that a known cause of death in medical circles?
>
> A [Romberg]. I know it now because of the experience of the American air forces when they tried to examine the fitness of their flyers. In 6 cases during a prolonged stay - I think that in twelve-kilometer altitude - a sudden death occurred; and since there is no physician present during these American tests but only some sergeant or corporal, I only know of this from what they said. But judging from the entire description, there cannot have been any other cases of death, but caused by sudden embolisms.[74]

In this passage, Romberg pointed out that U.S. altitude tests resulted in deaths and that professional physicians were not present. The defendants who were involved in high-altitude experiments repeatedly tried to compare American medical practices with their own to point out the similarities. The Tribunal, however, consistently objected

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[73] *U.S.A. v Karl Brandt et. al* (1946), 6492.
[74] *U.S.A. v Karl Brandt et. al* (1946), 7011.

and kept the trial focused on Nazi crimes, but the evidence of American practice certainly challenged the prosecution's moral authority. Both the transfer of personnel and the charge of fatal altitude tests defied the principles and spirit of the Nuremberg Code.

At the end of the trial, three out of four of the employed defendants—Ruff, Schaefer, and Blome—were acquitted of all charges. One of these physicians continued his research on potability of seawater for years at Randolph Field, a research base located in Texas.[75] "While the Tribunal of the U.S. Military felt it could convict Blome for experiments he may have conducted on Russian prisoners during the war," remarks Freyhofer, "the Army Medical Corps of the U.S. Military was confident that his knowledge gained from these experiments was valuable enough to hire him three years after the trial ended."[76] Therefore, there will always be the suspicious question of why the tribunal acquitted these three men. Was it because of their true innocence? Or perhaps due to their unique value? At the moment, archival documentation is not available to answer. But even if the U.S. experiments were performed in a consenting manner, testimony of deaths and the lack of physicians present during testing violated at least two of the main principles of the Code.

Indeed, the United States developed a troubling attitude toward the Nuremberg Code in the years after the trial. Whenever the ten points are mentioned today, they are likely to be praised. However, "as significant as the Nuremberg Code may look in retrospect, it was hardly mentioned in the press at the time."[77] Scholars note that originally few or no scientists believed that the Code had a direct impact on their

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[75] Freyhofer, *The Nuremberg Medical Trial*, 39.
[76] Freyhofer, 87.
[77] Freyhofer, 105.

work. In fact, U.S. Courts of law have rarely ever cited the Nuremberg Code.[78] It seems that even though the Code is now hailed as monumental, many American scientists once viewed it as "a good code for barbarians but an unnecessary code for ordinary physician-scientists."[79]

Historian David Rothman agrees that the prevailing view was "that the defendants were Nazis first and last; [and] by definition nothing they did, and no code drawn up in response to them, was relevant to the United States."[80] Some European critics of the Nuremberg Code have said that it only represented an attempt by Americans to distance themselves from Nazi experiments, while still creating a legal basis to continue their own "condemnable, nontherapeutic experiments at home."[81] What kind of experiments could these be, and for what reasons were they performed? This essay now turns to the questionable legacy of the Nuremberg Code.

During and after the war, U.S. government agencies tested the effects of radiation on the human body. Considering the fact that the atomic bomb was invented by the United States through the wartime Manhattan project, it seemed the next logical step for the government to test the effects of radiation and newly discovered elements, such as plutonium, on the body. A wide range of secret experiments with radioactive elements were performed on U.S. soil from 1945 until the early 1950s.

Eileen Welsome, a reporter for *The Albuquerque Tribune,* discovered classified documents at the Kirtland Air Force Base in New Mexico. They detailed events

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[78] Annas and Grodin, *The Nazi Doctors and the Nuremberg Code*.
[79] Jay Katz, "The Consent Principle of the Nuremberg Code: Its Significance Then and Now."
[80] David J. Rothman, *Strangers at the Bedside a History of How Law and Bioethics Transformed Medical Decision Making* (New York: de Gruyter, 2003).
[81] Giovanni Maio, "Ärztliche Ethik Als Politikum: Zur Französischen Diskussion Um das Humanexperiment Nach 1945," Medizinhistorisches Journal 36, no. 1 (2001): 35–80.

between 1945 and 1947, in which the United States' atomic weapons program conducted experiments that involved direct injections of plutonium into unsuspecting human subjects.[82] In total, the project authorized eighteen plutonium injections. Most of the subjects were poor patients in hospitals, who were terminally ill or injured in some way. Ebb Cade, a black man who was hospitalized after a motor-vehicle accident, was one of the first to recognize that he was an unwilling participant in these experiments and later come forward. On April 10, 1945, doctors treating Ebb Cade for his car crash injuries injected 4.7 micrograms of raw plutonium into his body at a hospital in Oak Ridge, Tennessee.[83] Fifty-three year old Cade was almost completely blind during his stay at the hospital; his impaired vision made him a patient who was easy to fool.

On September 3, 1946, Elmer Allen, a young African American man, was involved in a train accident in California's Bay Area.[84] The injury changed his life forever. After being evaluated by multiple doctors, each medical expert who examined Elmer was confused on why his knee was not healing. Eventually, a pathologist concluded that Elmer Allen had bone cancer in his kneecap, which had by then swollen to three times its original size. Perhaps because of the extensive number of X-rays the patient received, workers for the U.S. government soon became interested in Elmer Allen's case. At this point, he was in line for a leg amputation to stop the spread of his cancer, a common practice at the time.

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[82] John S. Friedman, *The Secret Histories: Hidden Truths That Challenged the Past and Changed the World* (New York: Picador, 2005), 60.
[83] Eileen Welsome, *The Plutonium Files: America's Secret Medical Experiments in the Cold War* (New York: Delta, 2000), 87.
[84] Welsome, 157.

On Monday, July 18, 1947, several doctors, including a veteran of the Manhattan Project named Bertram Low-Beer, came to Elmer's hospital room and pressured him to sign a consent form for an experiment. The doctors later claimed that they had explained the experimental nature of the substance, as they told Allen that they wanted to put plutonium into his amputated leg, but the records show that their information was vague, and that the patient did not grasp the gravity of the situation. Elmer's daughter Elmerine would later remark, "if they told my father that he was injected with plutonium, that would be like telling him he was injected with ice cream."[85] Regardless, the doctors plunged a syringe filled with plutonium deep into Elmer's left calf muscle in 1947.

After three days, Elmer Allen's leg was amputated, as planned with the cancer procedures. Afterward, he moved to Italy with his family to start a new life. The plutonium injection, however, took a particularly psychological toll. Reportedly, Elmer soon began drinking heavily, and became known as the town drunk who tried to tell everybody and anybody outlandish stories of United States doctors using him in an experiment. He claimed that he had been used as a human guinea pig, but his friends and family did not believe him. This led Elmer Allen to become a paranoid schizophrenic.[86] The weight of knowing that he was utilized in such an experiment was too much for him to mentally bear.

Ebb Cade and Elmer Allen are only two of the eighteen stories of direct injection of plutonium, a highly poisonous substance to the human body. In their records, the government codenamed Elmer as "Cal-3." Another patient was Albert

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[85] Welsome, *The Plutonium Files*, 159.
[86] Welsome, *The Plutonium Files,* 161.

Stevens, “Cal-1,” who received a much stronger dose of plutonium because of his imminent surgery for stomach cancer. However, according to some sources, Albert Stevens never had stomach cancer at all.[87] After his death twenty years later, samples of his internal organs were collected and immediately used in a government report titled “A Comparison of the Metabolism of Plutonium in Man and the Rat.” “Livers, spleens, gonads, kidneys, hearts, ribs, intestines- virtually every organ- would be harvested and measured for plutonium [for any] patient who died after the injections.”[88]

Many of the facts of this operation are still shrouded in governmental silence, but it is known that Elmer Allen received the smallest dose of plutonium out of the eighteen participants. Afterward, about half of the substance remained in his body. Leukemia and solid tumors were a serious a risk not only for him, but for each of the subjects of the study. Described more vaguely in the documents is a young Chinese boy nicknamed “CAL-A”, who on June 10, 1947, about a month before Elmer was admitted to the hospital, was given a similar injection and amputation. The young boy died eleven months later and is now buried somewhere in San Francisco.[89]

Because these experiments took place at the same time as the Medical Trial, they undermined much of the medical experts' testimony about the current U.S. medical practices. From what historians can gather from limited evidence, the scientists and doctors lied to these patients when signing supposed forms of consent. They pressured patients to comply, who were not sufficiently educated enough to

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[87] Friedman, *The Secret Histories*, 64.
[88] Eileen Welsome, “Elmer Allen Loses His Leg-And all Hope, The Plutonium Experiment” *The Albuquerque Tribune,* November 15, 1993.
[89] Ibid.

understand the substance's dangers. The patients had no idea what kind of consequences the direct injection of plutonium would have on their bodies, and perhaps the United States government did not either. These eighteen patients only marked the beginning of U.S. radiation experiments on humans.

Decades after Ebb Cade, victims of other radiation studies sued the United States government for their unethical actions. Coming before the U.S. Court of Appeals in 1979, *Stanley Jaffee vs United States* sought justice for American soldiers who were used in radiation experiments. In 1953, while serving in the United States Army, Jaffee and other soldiers were ordered to stand in a field at Camp Desert Rock, Nevada, while a nuclear device was detonated nearby. These soldiers did not have any protective clothing on.[90] The explosion from the bomb caused Jaffee and others to be exposed to massive amounts of radiation. Stanley Jaffee died of cancer in 1977, and his family blamed the United States government.

With the rising tensions of the Cold War after 1948, government agencies saw it warranted to test the effects of radiation on terminally ill patients, car-crash victims, and their own soldiers. Historian George J. Annas puts it best, when he said, that often for the United States, "in times of national emergency, research rules must take a backseat to national security."[91] The argument stressed geopolitical security and that the technological edge of atomic research was paramount. In no way should the U.S. fall behind in this crucial field of weaponry and research; and if the Nuremberg Code stood in the way, then so be it. This prevailing attitude framed the U.S. government's actions in the years after the war.

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[90] Annas and Grodin, *The Nazi Doctors and the Nuremberg Code*, 209.
[91] Annas and Grodin, *The Nazi Doctors and the Nuremberg Code*, 210.

The Tuskegee syphilis project was another exemplification of an infamous American human experiment. Starting in 1932, the project was formally labelled the "Tuskegee Study of Untreated Syphilis in the Negro Male." The Center for Disease Control officially described the experiment as involving 600 Black men, 399 with naturally occurring syphilis, and 201 who did not have the disease. The CDC stated that "participants' informed consent was not collected. Researchers told the men they were being treated for 'bad blood*,'* a local term used to describe several ailments, including syphilis, anemia, and fatigue."[92] These African Americans, most of whom were poor and illiterate sharecroppers from Macon county, Alabama, were blatantly lied to about their treatment. Instead, the U.S. government monitored their health for years to study the effects of lifelong untreated syphilis.[93] A well-known venereal disease, when syphilis is left untreated it can cause serious health problems, even death. These Black men were tricked into participating in the study, and receiving their consent was never a concern.

Although there was no known cure for syphilis at the beginning of this program, penicillin became an effective treatment for the disease in early 1943. Yet, no participants in the study received this treatment, as the researchers did not want to skew the results. Instead, for years government physicians purposely prevented the subjects from receiving any sort of remedy. The researchers distributed the subjects' names to doctors in Macon county, who were instructed to not treat their diseases.[94]

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[92] "Tuskegee Study - CDC Timeline," Centers for Disease Control and Prevention (Centers for Disease Control and Prevention, April 22, 2021).
[93] "About the USPHS Syphilis Study," Tuskegee University, accessed December 19, 2021.
[94] Ada McVean, "40 Years of Human Experimentation in America: The Tuskegee Study," McGill: Office for Science and Society, December 30, 2020.

Even if participants moved location, the government made sure that they kept track of them and let their doctors know. No matter where they went, they could not receive any forms of treatment. For decades U.S. researchers observed men go blind, insane, and even die. Additionally, to monitor results, the government often performed dangerous and painful spinal taps on the subjects, which they said were part of their treatment. This experiment continued for decades. The government finally terminated the project in 1972, a quarter century after the Nuremberg Code.[95]

It was not until 1972, when media attention about the experiment came out, that the Assistant Secretary for Health and Scientific Affairs appointed a panel of physician-researchers to review the study. It found that the research project was "ethically unjustified" and that the results were "disproportionately meager compared with known risks to human subjects involved."[96] A class-action lawsuit was later filed on behalf of the participants and their families, which ended in millions of dollars of court settlement. Later, in 1997, President Bill Clinton issued a formal apology for Tuskegee.[97] At the end of the study, twenty-eight of the participants had died directly from syphilis, another one hundred or so died from medical complications, forty of their wives were infected, and nineteen of their children contracted the disease through birth.[98] Other side-effects appeared too, such as vision loss and neurological impairment.[99]

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[95] "Tuskegee Study - CDC Timeline," Centers for Disease Control and Prevention
[96] Ibid.
[97] Bill Clinton, "Apology For Study Done in Tuskegee," (National Archives and Records Administration), May 16, 1997.
[98] Rosario C. Mata, Ana Cardesa, and Fabiola Lora, "Good Clinical Practice in Nonprofit Institutions," Guide to Cell Therapy GxP, 2016, pp. 177-229.
[99] "At Least 28 Died in Syphilis Study", *The New York Times*, September 12, 1971.

The Tuskegee study violated multiple rules of the Nuremberg Code, not only with informed consent but also with the experimenter's duty to protect the health of the subject and to end a study that may result in death. Penicillin could have healed many of the Tuskegee patients, and it most likely would have saved at least a few of the subjects from dying. The study underscored the readiness of the United States government to utilize poor and uneducated Black men for their research. With both the radiation tests and Tuskegee, it seems that Black men were being chosen purposely. The racial discrimination that underlay these research projects lies outside of the scope of this paper but is still critical to grasp.

The essay's final case study involves the search for mind-control substances by the Central Intelligence Agency, better known as the CIA.[100] In the years 1953 to 1973, the United States government aggressively studied psychoactive drugs.[101] The CIA researched psilocybin, a chemical found most commonly in "magic mushrooms," and d-lysergic acid diethylamide, or LSD. Accidentally discovered by Swiss scientist Albert Hofmann in 1943, LSD had made its way to the states by the late 1940s, and the U.S. government took interest in its apparent mind-altering effects. In light of the Cold War's rising tensions, the CIA funded projects to create new weapons. One of its objectives was to find a form of truth-serum. At the time, they feared that the Soviets, Chinese, and North Koreans were utilizing truth-serums and forms of mind-control techniques on U.S. prisoners of war in Korea. Consequently, the CIA sought to replicate these fictitious methods themselves.

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[100] Friedman, *The Secret Histories*, 124.
[101] Terry Gross, "The CIA's Secret Quest for Mind Control: Torture, LSD and a 'Poisoner in Chief'," NPR (NPR, September 9, 2019).

On April 3, 1953, Richard Helms, a well-known government official, suggested to CIA director Allen Dulles that they set up a program for the "covert use of biological and chemical materials" to conduct research that the agency could later use in "present and future clandestine operations."[102] Dulles agreed and started Project MKULTRA. This program received $300,000 as an initial investment.[103] Due to its sensitive nature, project MKULTRA was one of the agency's most closely held secrets, and historians only know about it today due to the Freedom of Information Act (FOIA). In 1977, the FOIA forced the CIA to release over 16,000 pages of documents, including information about its use of drugs on unsuspecting citizens.[104]

Headed by chemist Sidney Gottlieb, Project MKULTRA first began in the early 1950s, when the U.S. government bought massive amounts of LSD and secretly distributed the drug to hospitals, clinics, and prisons for research. These experiments involved a wide range of people, including some who volunteered. In fact, Ken Kasey, author of *One Flew Over the Cuckoo's Nest*, and Robert Hunter, lyricist for the Grateful Dead, were included in the few subjects that volunteered for the experiments and took LSD from Sidney Gottlieb.[105] However, such volunteers were rare, and the majority of participants were never informed about the nature of the experiments, nor were they asked for consent. When Project MKULTRA was later brought to the attention of the U.S. Congress, and put under investigation, Senator Ted Kennedy aptly summed up the activities of the organization. On the Senate floor in 1977, he stated:

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[102] John Marks, *LSD: The Search for the Manchurian Candidate*, W. W. Norton & Company (1991).
[103] Ibid.
[104] Friedman, *The Secret Histories*, 124.
[105] Gross, "The CIA's Secret Quest for Mind Control."

> The Deputy Director of the CIA revealed that over 30 universities and institutions were involved in an "extensive testing and experimentation" program which included covert drug tests on unwitting citizens "at all social levels, high and low, native Americans and foreign." Several of these tests involved the administration of LSD to "unwitting subjects in social situations."[106]

Originally, project MKULTRA's experiments began inside the agency. The researchers wanted to study the effects of giving the drug to someone unexpectedly, and they did so by slipping LSD into each other's lunches and coffees at the office.[107] According to two CIA veterans, these trips occasionally turned sour. Reportedly, one man fled their office building on the edge of the Washington D.C. mall and ran aimlessly in a terrified sprint throughout the city. After a few hours, his coworkers found him trembling under a fountain. He told them that every car that passed was a terrible monster and that he never thought the trip would end.[108] An even darker tale took place in 1953. Frank Olson, a United States Army biochemist and weapons researcher, was unwittingly given LSD as part of the same internal experiments. Following his trip, and a week of psychotic episodes, Frank Olsen jumped from a ten-story window and killed himself.[109]

When project MKULTRA shifted to public test subjects, the CIA first sought out prisoners for the experiments. Whitey Bulger, an infamous organized crime boss, became involved with project MKULTRA while he was serving his first term in

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[106] "Project MKULTRA, the CIA's Program of Research in Behavioral Modification: Joint Hearing before the Select Committee…, Ninety-Fifth Congress, First Session, August 3, 1977," Project MKULTRA, the CIA's program of research in behavioral modification: Joint hearing before the Select Committee on Intelligence and the Subcommittee on Health and Scientific Research of the Committee on Human Resources, United States Senate, Ninety-fifth Congress, First Session, August 3, 1977 § (n.d.).
[107] Marks, *LSD: The Search for the Manchurian Candidate*.
[108] Ibid.
[109] "Project MKULTRA Hearing," Ninety-Fifth Congress, First Session, August 3, 1977.

federal prison at an Atlanta penitentiary in 1956. He was approached by researchers who asked him to volunteer in an experiment to find "a cure for schizophrenia."[110] He volunteered but was told nothing about the nature of the experiment nor about the drug he was going to take. The CIA gave Whitey Bulger LSD every day for more than a year straight. Bulger later came forward and spoke about this experience, he said, "Total loss of appetite. Hallucinating. The room would change shape. Hours of paranoia and feeling violent. We experienced horrible periods of living nightmares and even blood coming out of the walls. Guys turning to skeletons in front of me. I saw a camera change into the head of a dog. I felt like I was going insane."[111] The CIA apparently placed the race for mind-control substances before Bulger's sanity.

In addition to prisoners, project MKULTRA tested random citizens. One of these programs on the unsuspecting public was labeled Operation Midnight Climax. Started in 1954, the CIA conducted this experiment at various "safehouses," such as the one on 255 Chestnut Street in San Francisco.[112] In order to attract non-consenting individuals, they hired prostitutes to lure clients into the houses, where they would then be slipped LSD and other psychoactive substances.[113] CIA agents monitored these interactions behind one way glass, including any sexual encounters that took place, and took notes on the subjects' behaviors. Afterward, they did not inform the subject about either the drug or the collective experiment. Instead, they were simply released.

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[110] Gross, "The CIA's Secret Quest for Mind Control."
[111] Brianna Nofil, "The CIA's Appalling Human Experiments with Mind Control Channel," History.com (A&E Television Networks), accessed December 20, 2021.
[112] Ibid.
[113] "Project MKULTRA Hearing…" Ninety-Fifth Congress, First Session, August 3, 1977.

The CIA also gave LSD to United States military personnel. There exists a number of court cases in which United States Army veterans attempted to sue the government for their involvement in drug experiments. The most famous of these was *United States v Stanley*, which came before the Supreme Court in 1987. In 1958, Master Sergeant James Stanley volunteered to be a part of military testing on the effectiveness of equipment against chemical warfare. However, while at the laboratories, he was secretly administered doses of LSD, which gave him hallucinations, memory loss, and increased feelings of violence. In 1975, Stanley received a letter from the military asking for him to participate in another test of LSD due to his previous involvement with drug experiments. This was the first instance that Stanley was ever told that he took the drug in the past.

Ultimately, the Supreme Court decided against Stanley's suit. Previous precedent, *Feres v United States*, instructed the court that military members could not sue the government for any damage inflicted "incident to service."[114] *Stanley* was, and still is, the only United States Supreme Court case to mention the Nuremberg Code. In the dissent, Justice William Brennan argued that:

> The medical trials at Nuremberg in 1947 deeply impressed upon the world that experimentation with unknowing human subjects is morally and legally unacceptable. The United States Military Tribunal established the Nuremberg Code as a standard against which to judge German scientists who experimented with human subjects. . . [I]n defiance of this principle, military intelligence officials . . . began surreptitiously testing chemical and biological materials, including LSD.[115]

Justice Sandra Day O'Connor continued the dissent:

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[114] *Feres v. United States,* 340 U.S. 135 (1950).
[115] *United States v Stanley*, 483 US 669 (1987).

> No judicially crafted rule should insulate from liability the involuntary and unknowing human experimentation alleged to have occurred in this case. Indeed, as Justice Brennan observes, the United States played an instrumental role in the criminal prosecution of Nazi officials who experimented with human subjects during the Second World War, and the standards that the Nuremberg Military Tribunals developed to judge the behavior of the defendants stated that the 'voluntary consent of the human subject is absolutely essential . . . to satisfy moral, ethical, and legal concepts.' If this principle is violated, the very least that society can do is to see that the victims are compensated, as best they can be, by the perpetrators.[116]

Justices Brennan and O'Connor made strong arguments that used the Nuremberg Code to judge the unethical nature of the studies. The CIA's experiments broke a wide variety of the Code's ten points. At the end of his dissent, Brennan stated, "The United States military developed the Code, which applies to all citizens – soldiers as well as civilians."[117] The argument that soldiers also deserved experimentation rights received additional support in 1991, at a Congressional hearing about a bill to compensate Stanley for his mental injuries. During this discussion, some Congressmen claimed that a few of the researchers who subjected Stanley to these tests were former Nazis who were brought to the U.S. under Operation Paperclip.[118]

The total impact of project MKULTRA is ultimately hard to judge, for much of its documentation on specific test-subjects was either destroyed or is still held classified. With available evidence, however, one can state that hundreds, if not thousands, of people participated in these experiments, some of whom may never know that they did. Many were left with shattered minds, psychological problems, and

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[116] *United States v Stanley*, 483 US 669 (1987).
[117] Ibid.

[118] Annas and Grodin, *The Nazi Doctors and the Nuremberg Code*, 215.

inexplicable fear. In 1994, the United States General Accounting Office tallied the total amount of people used for human experiments by the U.S. government, which included the estimates of victims of the radiation projects, the Tuskegee study, and project MKULTRA. The GAO stated:

> During World War II and the Cold War era, DOD and other national security agencies conducted or sponsored extensive radiological, chemical, and biological research programs. Precise information on the number of tests, experiments, and participants is not available, and the exact numbers may never be known. However, we have identified hundreds of radiological, chemical, and biological tests and experiments in which *hundreds of thousands of people were used as test subjects*. These tests and experiments often involved hazardous substances such as radiation, blister and nerve agents, biological agents, and lysergic acid diethylamide (LSD). In some cases, basic safeguards to protect people were either not in place or not followed. For example, some tests and experiments were conducted in secret; others involved the use of people without their knowledge or consent or their full knowledge of the risks involved.[119]

The GAO's total headcount of hundreds of thousands is shocking and throws light on the power of national security to suspend ethical judgment. What is more, "the wartime mentality expressed by the CIA and the U.S. army to justify its LSD experiments, and by the U.S. army to justify its atomic-bomb-exposure experiments, is almost identical to the defense of Nazi physicians at Nuremberg."[120] This essay in no way defends the Nazi criminals involved in the Medical Trial, their heinous crimes live on in infamy. Rather, it points out the United States' unethical behavior with human experimentation, despite their role as a moral leader of the "free world." Such American hypocrisy cannot continue to go unnoticed. The actions of governmental

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[119] Frank C. Conahan, "Human Experimentation: An Overview on Cold War Era Programs: Statement of Frank C. Conahan, Assistant Comptroller General, National Security and International Affairs Division, before the Legislation and National Security Subcommittee, Committee on Government Operations, House of Representatives," (1994).
[120] Annas and Grodin, *The Nazi Doctors and the Nuremberg Code*, 260.

agencies were performed in direct opposition of not only the principles of the Nuremberg Code, but also of the United States' new international liberal order.

Chapter 6

STILL SIGNIFICANT?

Despite the hypocritical stance of the U.S. toward the Nuremberg Code, the document itself remains significant. Even if its creators did not initially adhere to the principles, the Nuremberg Code is still "the most important document in the history of the ethics of medical research."[121] The Doctor's Trial marked a unique turning point, one which fostered a global debate about the rules of human experimentation. "The Code raised the consciousness of the global community; it succeeded in bringing the issue of human experimentation to the forefront of public debate. A series of international documents were thereafter created whose genesis can be traced to the Nuremberg Code."[122] Each Nuremberg principle enumerated would later appear in countless other subsequent ethical codes on the use of human subjects. Even though the Code itself has never been officially adopted into any nation's formal law, it has had a profound impact on global human rights and medical ethics.[123]

The Nuremberg Code influenced the four Geneva Conventions of 1949. Article 12 of the First and Second conventions states that members of the armed forces shall not be "subjected to torture or to biological experiments."[124] The creation of the Nuremberg Code also contributed to the founding of the World Medical Association

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[121] Shuster, "Fifty Years Later: The Significance of the Nuremberg Code."
[122] Perley et al., "The Nuremberg Code: An International Overview."
[123] See note 121.
[124] Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field. Geneva, 12 August 1949.

(WMA) in 1947. The founding physicians of the WMA thought it paramount to create new professional codes and guidelines.[125] Accordingly, the WMA produced its "Resolution on Human Experimentation: Principles for Those in Research and Experimentation" in 1954, a document that expanded on the points of the Nuremberg Code.[126] This became the first in a series of drafts of various professional guidelines produced by the World Medical Association. The document's tenets about human subjects permeated into other publications: the *World Medical Journal* in 1960; the WMA's "Draft Code of Ethics" in 1961; and two more drafts in 1962. In June of 1964, the 18th World Medical Assembly adopted the Declaration of Helsinki (I), which stands as one of the Nuremberg Code's most important legacies. Both the Code and the Declaration require similar principles, such as previous animal testing, scientifically qualified researchers, subject's freedom to withdraw, and the important obtainment of free consent.[127]

Since 1964, the Declaration of Helsinki has been revised seven times, most recently at the General Assembly in 2013. Today, the World Medical Association has 115 constituent members, including the United States.[128] Each member state is

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[125]Perley et al., "The Nuremberg Code: An International Overview."
[126] Delon Human and Sev S. Fluss, "The World Medical Association's Declaration of Helsinki Historical & Contemporary Perspective," n.d.
[127] Perley et al., 158.
[128] "WMA - The World Medical Association-Members," The World Medical Association, accessed March 24, 2022.

expected to abide by the Declaration of Helsinki and its revisions. The Declaration includes a variety of additional principles that were not featured in the Nuremberg Code, such as the important addition of ethical review committees, which guide experiments and supervise their implications. The Declaration also expanded the idea of informed consent, adding more guidelines about consent under duress. "It has been suggested that the two sets of principles, the Nuremberg Code and the revised Declaration of Helsinki, constitute the basis of universality in the field of ethical-moral standards in human experimentation."[129]

The spirit of the Nuremberg Code can also be seen in the 1982 work, "Proposed International Guidelines for Biomedical Research Involving Human Subjects." Nicknamed "the Guidelines" for short, this document outlines the process of implementing ethical principles in domestic law. This solved a major problem that the Nuremberg Code and Declaration of Helsinki faced: they were simply sets of suggested ethical principles, not true law. The Nuremberg Tribunal and the World Medical Association could promulgate as many codes as they wanted, but they could not force countries to adhere to them. The Guidelines were created to "assist developing countries in evolving mechanisms that would ensure observance of the principles of medical ethics in biomedical research."[130] Essentially, they aimed to help

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[129] Perley et al., "The Nuremberg Code: An International Overview," 160.
[130] Perley et al., 161.

enforce the Declaration of Helsinki globally and consequently earned worldwide praise.

Over the years, the medical research community has shifted its focus from promoting informed consent to instituting ethical review committees to approve experiments. This does not mean that the Nuremberg Code's principle of consent has become less popular; rather, it shows how the modern world has self-evidently embraced the concept. Today, the requirement of informed consent is universally accepted.

But the Nuremberg Code was far from a perfect document. Countries were never truly bound to its principles; it said almost nothing about therapeutic research; and it never addressed ethical review committees, which are essential today. Even its own supporters ignored the Nuremberg Code, yet, it remains groundbreaking. "Although the field of international research ethics has evolved greatly over the past forty years, its origins can always be traced back to the ten principles first enumerated at the trial of the Nazi physicians."[131]The Code gave birth to universal principles of informed consent: the ethical cornerstone of modern medical research practice. For these reasons, the Nuremberg Code is indeed still significant.

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[131] Perley et. al

Chapter 7

CONCLUSIONS

Known today as the "Doctors from Hell," the sixteen physicians convicted at Nuremberg committed crimes of the worst degree.[132] Their actions compelled the world to set international guidelines on human experimentation. At the trial, the framers of the Nuremberg Code drew on previous ethical guidelines as inspiration. But ultimately, the Code owes its existence to a variety of key players. Judge Sebring, Leo Alexander, and Andrew C. Ivy all contributed to the document. In terms of weighing their contributions, Alexander and Ivy played the most vital roles in its formulation. Furthermore, tracing authorship shows how mid twentieth century liberal ideals influenced Alexander, Ivy, and Sebring, who each aimed to internationally protect the consent of subjects. Incontrovertible is the fact that the three authors, prosecution, and the entire tribunal worked under the auspices of American governance. After the trial, the U.S. promoted the principles proclaimed at Nuremberg and incorporated them in their visions for a new international liberal world order. Western civilization condemned the acts of the Nazis, and in the process, the Americans posed as the ethical policemen of the postwar world.

But the hypocrisy of the United States tells us much about the compromises of state affairs and politics. The hiring of Nazis showed the stark difference between principle and practice. There is a good reason why the government has kept this information top-secret. The injection of plutonium, the mal-treatment of doomed syphilis patients, and the mind-alteration of thousands through psychoactive drugs are

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[132] Vivien Spitz, *Doctors from Hell: The Horrific Account of Nazi Experiments*. (Sentient Publications, 2005).

skeletons hiding in the American closet, all of which are demonstrable through official government documents. Furthermore, these are only three of hundreds of known experimental projects that the U.S. government participated in throughout the latter half of twentieth century.

To justify these events, the government offered the rationale of national security, a mantra that the American people heard for decades. When all else fails, the U.S. government can resort to national security issues, even if it demands that citizens give up their own civil liberties and most basic rights. In the name of national security, thousands of citizens' bodies and minds were violated, in ways that were irreparable. The fear of falling behind in the technological race of the Cold War distracted agencies, such as the CIA, from realizing the impact of their actions. At the same time that the U.S. prosecuted the Nazis and made plans for the creation of the United Nations, it also force-fed prisoners LSD and withheld life-saving treatment from poverty-stricken African Americans. Governmental agencies abused countless U.S. citizens, yet, the only justification they offered was the prevention of threats to national security, the exact same defense that the Nazi criminals cowered behind at Nuremberg. The failure of the United States to follow the Nuremberg Code in its practices constitutes one of the darkest chapters in the history of medical research.

It was not until later public embarrassment in the 1970s that the United States government finally began to practice the principles of the Code. In July of 1972, the American media exposed the Tuskegee study, which quickly turned into political scandal. In response, Senators such as Edward Kennedy led congressional hearings on human-subject experiments. After this, President Nixon signed the National Research Act of 1974. This act created the National Commission for the Protection of Human

Subjects of Biomedical and Behavioral Research and established basic principles of research conduct as domestic law in the United States.

Still, despite controversy, the Nuremberg Code remains internationally significant and constitutes a unique case study of international law. Philosophically, the sovereignty of states is absolute, yet, at Nuremberg the judges aspired to apply their principles to the international population. What is more, the Nuremberg Code confirms a tenet of international law: converting ethical norms into concrete legislation takes time. In the case of the Code, it took decades. The years after World War II marked the creation of peremptory norms of international law. The prohibition of genocide, crimes against peace, protections against unethical experiments and ideals of human rights— the horrors of Nazi Europe spurred the invention of fundamental legal standards that transcend the laws of any sovereign state.

The significance of the Code cannot be overstated, but American abuse of the document reconfirmed the ongoing need to hold all people accountable for its principles. American hypocrisy with the Code serves as a grim reminder that medical research must stand above political expediency. From fascism to democracy, this thesis has shown that all forms of government are susceptible to the abuse of medical ethics. Both the United States and Nazi Germany diminished their nations' basic moral standards of medicine with the intent of gaining scientific advancement to achieve political might. Governmental power should never be allowed to dismiss the lives of innocent human beings so easily. Rules of medical ethics must exist outside of state power, so that nations may not use their citizens as means to an end. Once again, history confirms that checks on political power are vital to the protection of human rights.

However, these checks must be employed correctly. Today, the COVID-19 pandemic has revived interest in the Code. Various anti-vaccination supporters invoke the Nuremberg Code to justify their opposition to vaccines.[133] Such claims are historically inaccurate. They often cite the Code's first principle of consent as the reason that they cannot be forced to get a vaccine. But this is willful misinformation. The Nuremberg Code focused on experimentation, not on medical practice. In fact, all of the COVID-19 vaccines have gone through intense clinical research, ethical committees, and experimentation with informed humans who gave their consent. Ironically, then, the development of COVID-19 vaccines expressly follows the principles of the Code and the subsequent medical guidelines it inspired.

Nonetheless, when invoked correctly, the Nuremberg Code acts as a vital barrier to governmental overreach. The lessons to be learned from the creation and legacy of the Code are noteworthy. Medical ethics must be held sacred, especially by those in positions of power. Human beings should never be utilized as "guinea pigs." Furthermore, it is apparent that all forms of government demand heightened skepticism from their citizens. The hypocritical violations of the Code show that Americans cannot accept the mantra of "national security" without proper investigation. The case of the Code is only one of the many times that the U.S. government has employed this rationale as justification for criminal activity. In this sense, it is imperative that the American people stay alert to hypocrisy, fight for human rights, and continue to question the government's alleged moral authority.

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[133] Simon Stewart, "Faculty Senate Debates University Mandates, Nuremberg Code," The Review, November 9, 2021, https://udreview.com/faculty-senate-debates-university-mandates-nuremberg-code/.

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Appendix A

The Nuremberg Code ("Permissible Medical Experiments")

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 reasonable 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.

Appendix B

1931 Guidelines of the Reich Minister of the Interior

4. Any innovative therapy must be justified and performed in accordance with the principles of medical ethics and the rules of medical practice and theory.

In all cases, the question of whether any adverse effects which may occur are proportionate to the anticipated benefits shall be examined and assessed. Innovative therapy may be carried out only if it has been tested in advance in animal trials (where these are possible).

5. Innovative therapy may be carried out only after the subject or his legal representative has unambiguously consented to the procedure in the light of relevant information provided in advance. Where consent is refused, innovative therapy may be initiated only if it constitutes an urgent procedure to preserve life or prevent serious damage to health and prior consent could not be obtained under the circumstances.

6. The question of whether to use innovative therapy must be examined with particular care where the subject is a child or a person under 18 years of age.

7. Exploitation of social hardship in order to undertake innovative therapy is incompatible with the principles of medical ethics.

8. Extreme caution shall be exercised in connection with innovative therapy involving live microorganisms, especially live pathogens. Such therapy shall be considered permissible only if the procedure can be assumed to be relatively safe and similar benefits are unlikely to be achieved under the circumstances by any other method.

Appendix C

"Ethical and Non-Ethical Experimentation on Human Beings"

1. *Legally valid voluntary consent of the experimental subject is essential.* This requires specifically:

(a) The absence of duress

(b) Sufficient disclosure on the part of the experimenter and sufficient understanding on the part of the experimental subject of the exact nature and consequences of the experiment for which he volunteers, to permit an enlightened consent.

In the case of mentally ill patients, for the purpose of experiments concerning the nature and treatment of nervous and mental illness or related subjects, such consent of the next of kin or legal guardian is required; whenever the mental state of the patient permits (that is, in those mentally ill patients who are not delirious or confused) his own consent should be obtained in addition.

2. The nature and purpose of the experiment must be humanitarian, with the ultimate aim to cure, treat, or prevent illness, and not concerned with methods of killing or sterilisation (ktenology). The motive and purpose of the experiment shall also not be personal nor otherwise ulterior.

3. No experiment is permissible if the foregone conclusion exists, or the probability or the a priori reason to believe that death or disabling injury of the experimental subject will occur.

4. Adequate preparations must be made and proper facilities be provided to aid the experimental subject against any remote chance of injury, disability, or death. This provision specifically requires that the degree of skill of all those who are taking an

active part as experimenters, and the degree of care which they exercise during the experiment, must be significantly higher than the skill which is considered adequate for the performance of standardised medical or surgical procedures, and for the administration of well established drugs. American courts are very stringent in requiring for the permissible use of any new or unusual technique or drug, irrespective of whether this use is experimental or purely therapeutic, a degree of skill and care on the part of the responsible physician which is higher than that required for the purpose of routine medical or surgical procedures.

5. The degree of risk taken should never exceed that determined by the humanitarian importance of the problem to be solved by the experiment. It is ethically permissible for an experimenter to perform experiments involving significant risks only if the solution, after thorough exploration along all other lines of scientific investigation is not accessible by any other means, and if he considers the solution of the problem important enough to risk his own life along with those of his non-scientific colleagues, such as was done in the case of Walter Reed's yellow fever experiments.

6. The experiment to be performed must be so designed and based upon the results of thorough thinking-through, of investigation of simple physico-chemical systems and of animal experimentation that the anticipated results will justify the performance of the experiment. That is, the experiment must be such as to yield decisive results for the good of society and should not be random and unnecessary in nature

Appendix D

Andrew C. Ivy Submitted Points

1: Consent of the human subject must be obtained. All subjects have been volunteers in the absence of coercion in any form. Before volunteering, subjects have been informed of the hazards, if any. Small rewards in various forms have been provided as a rule.

2: The experiment to be performed must be based on the results of animal experimentation and on a knowledge of the natural history of the disease under study, and must be so designed that the anticipated results will justify the performance of the experiment. The experiment must be such as to yield results for the good of society, unprocurable by other methods of study, and must not be random and unnecessary in nature.

3: The experiment must be conducted only by scientifically qualified persons and so as to avoid all unnecessary physical and mental suffering and injury and only after the results of adequate animal experimentation have eliminated any a priori reason to believe that death or disabling injury will occur