

Examining the Medical Experiments Conducted During the Holocaust and their Impacts on  
the Creation of Post-war Scientific and Medical Codes of Ethics

by  
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## AN ABSTRACT OF THE THESIS OF

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Kara Ritzheimer

The Hippocratic Oath has served as the standard for ethical conduct for physicians and scientists alike since its establishment in 400BCE. In stating, “according to my ability and judgement, I will keep this Oath and this contract...” and through the use of other language, the Hippocratic Oath implies that the judgement of the doctor is the best for the patient, and thus assumes a certain degree of morality among doctors.<sup>1</sup> However, the racial and eugenic ideologies held by the ruling Nazi regime during the 1930s and 1940s resulted in the rationalization, dehumanization, and brutal experimentation on unwilling subjects conducted supposedly in the name of science and medicine during the moment now referred to as the Holocaust. Tens of thousands of people died as a consequence of these experiments. Following the Nazi regime’s defeat in May 1945, the Allied forces created the International Military Tribunal and subsequent Nuremberg proceedings to prosecute top Nazi officials and set a legal precedent for war crimes and crimes against humanity.<sup>2</sup> During these proceedings, the

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<sup>1</sup> “Greek Medicine - The Hippocratic Oath,” trans. Michael North, U.S. National Library of Medicine, National Institutes of Health, February 7, 2012, [https://www.nlm.nih.gov/hmd/greek/greek\\_oath.html](https://www.nlm.nih.gov/hmd/greek/greek_oath.html)

<sup>2</sup> “International Military Tribunal at Nuremberg,” United States Holocaust Memorial Museum, accessed May 19, 2020, <https://encyclopedia.ushmm.org/content/en/article/international-military-tribunal-at-nuremberg>

Americans organized and conducted the Doctor's Trial, also called the Medical Trial, which resulted in the conviction of twenty-three high ranking Nazi officials for their role in medical experimentation conducted in SS-controlled concentration camps.<sup>3</sup> The results of this trial were twofold. First, they imposed justice on the perpetrators. Second, they helped establish a new moral code of ethics in the realm of science and medicine. The Nuremberg Code was the first international document to outline a code of conduct among physicians and researchers in order to protect the rights of individuals within scientific and medical experimentation. This code both changed the practices and procedures of experimentation within post-war societies and established the foundations for future documentation in the field of bioethics. Such documents would not have been possible or nearly as successful without the context and lessons of the Holocaust, which serve as a warning about the delicate relationship between politics, science, and ethics to this day.

Key Words: Nazi medical experiments, Human experimentation, Nuremberg Code, Codes of medical ethics, Bioethics and the Holocaust

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<sup>3</sup> "The Doctors Trial: The Medical Case of the Subsequent Nuremberg Proceedings," United States Holocaust Memorial Museum, accessed May 23, 2020, <https://encyclopedia.ushmm.org/content/en/article/the-doctors-trial-the-medical-case-of-the-subsequent-nuremberg-proceedings>

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## Introduction

The Tuskegee trials. The exploitation of Henrietta Lacks. Nazi medical experimentation. Such events involve the experimental exploitation of individuals either against or simply without their consent and have been considered gross violations of human rights by historians and ethicists alike. Yet how is it that the international community collectively decided that such events are in violation of innate human rights? Key events that transpired during WWII spurred nations and newly created international organizations to establish firmer ethical guidelines for the protection of human rights. The resulting documents, such as the Nuremberg Code of 1947, helped establish and protect a standard of bioethical principles for both medical and scientific purposes, and serve as an inspiration for later codes of ethical conduct and national legislation, such as the 1964 Declaration of Helsinki and the 1979 Belmont Report respectively. Unfortunately, these codes were the result of necessity rather than ethical considerations and hypothetical conjecture. Events throughout history yield the rationale for the creation of such documents through the experience and blood of innocents. Events such as the brutality of the Holocaust. This thesis shall examine the historical context of the Holocaust, the Nazi regime's bastardization of scientific principles and experimentation to serve political motivations, and the role of such events in the creation and implementation of ethical codes of conduct in a post-war society.

Biomedical and scientific codes of ethics exist to establish standards for the protection of individuals. The earliest accepted, and perhaps most well-known, code of ethics is the Hippocratic Oath; originating from 400 BCE Greece, the physician



Hippocrates popularized this solemn vow later undertaken by all ancient physicians.<sup>4</sup> Within it, the physician swore to only use his learned knowledge for the direct benefit of others as determined by his best moral judgement, and not with selfish or ill intent.<sup>5</sup> While not directly containing the phrase “do no harm” as is popularly attributed to it, the Hippocratic Oath provided a general guideline for the morality that physicians should hold and was subsequently treated as the main ethical doctrine for medical professionals for centuries.

However, as technology in the age of the scientific revolution developed, ethical quandaries multiplied at rates faster than this centuries-old oath could accommodate. In Victorian England, physicians and scientists alike performed vivisection experiments involving inhumane acts resulting in the suffering and oftentimes death of animals. They justified their actions by declaring the purpose of their research was to gain better understanding of human anatomy. These experiments raised several ethical questions, and in reaction, in 1876 the British Parliament passed the Cruelty to Animals Act following much lobbying by the Victoria Street Society for the Protection of Animals from Vivisection and other animal activist groups. This act prevented certain experimental procedures and provided necessary guidelines for future experimentation regarding live animals.<sup>6</sup> This was the first instance of a national government instituting legislation regulating scientific practices.<sup>7</sup> However it was not until the Geneva protocol of 1925 that any form of international effort was made relating to the use of scientific-based weapons and practices against other

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<sup>4</sup> The Editors of Encyclopaedia Britannica, “Hippocratic Oath,” Encyclopædia Britannica, December 4, 2019), <https://www.britannica.com/topic/Hippocratic-oath>)

<sup>5</sup> Encyclopaedia Britannica, “Hippocratic Oath.”

<sup>6</sup> Anita Guerrini, *Experimenting with Humans and Animals: From Galen to Animal Rights* (Baltimore, MD: Johns Hopkins University Press, 2003), 88-90.

<sup>7</sup> Guerrini, *Experimenting with Humans and Animals: From Galen to Animal Rights*, 90.

humans. Following the horrific precedence of chemical warfare that combatant nations had established during World War I, members states of the newly established League of Nations created an international declaration banning "...asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices..." essentially, the use of biological and chemical warfare against other human beings, soldiers and civilians alike, during war.<sup>8</sup> Even so, prior to World War II, there was still no true governance or official ethical regulations specifically regarding human experimentation as pertaining to medical and scientific purposes on either national or international levels.

In the absence of formal ethical codes of conduct, individuals often revert to Hippocratic thinking as their primary source of ethical guidance and are thus tasked with the responsibility of acting in their best moral judgment. However, this principle proves dangerous in situations when the morals held by some seek to undermine the morals, health, or even lives of others. The most extreme example of this type of scenario was the horrific experimentation that Nazi researchers and doctors conducted throughout World War II, resulting in the deaths of thousands of concentration camp inmates; many of them political opposition, Soviet prisoners of war, Roma and Sinta, Jews, and other deemed as "asocials" by Nazi racial and eugenic standards. The regime repeatedly took advantage of the most vulnerable groups within society to carry out brutal medical experiments, going so far as to forcibly conduct government-sponsored research on numerous men, women, and children. Following Nazi Germany's defeat, these scientific and medical atrocities served as a catalyst for

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<sup>8</sup> "1925 Geneva Protocol," United Nations, accessed May 21, 2020, <https://www.un.org/disarmament/wmd/bio/1925-geneva-protocol/>

lawmakers and ethicists alike to establish international ethical codes of conduct that served not only to protect patients' rights, but also to regulate scientific experimentation.

### **Historical Context: Establishment of Nazism in pre-WWII German Society**

Before understanding how such experimentation affected moral and ethical considerations of science and medicine in post-war society, it is crucial to first examine the context that facilitated these brutal experiments. The National Socialist German Workers' Party, better known as the Nazi Party or the NSDAP, was established in 1920 and ruled Germany from 1933 to 1945. Nazi leaders sought to unify and restore Germany to its former glory through promoting the ideals of national socialism and eugenic concepts; extremely anti-communist and deeply anti-Semitic, the Nazi party promised to secure a better future of German citizens through concepts best summarized, as historian Doris Bergen argues, with the phrase "race and space."<sup>9</sup> First and foremost Nazis believed in the concept and study of eugenics as defined in the early 20<sup>th</sup> century. Constructed as a pseudo-science blending Kantian philosophical principles with Darwinian principles of evolutionary genetics, eugenics at this time argued that distinct races existed and that only individuals containing hereditarily beneficial traits should be allowed to exist within certain societies, therefore creating genetically "better" individuals and thus population.<sup>10</sup> National Socialist ideology asserted that Germans were the descendants of Aryans, the

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<sup>9</sup> Doris L. Bergen, *War & Genocide: A Concise History of the Holocaust*, 3rd ed. (Lanham, MD: Rowman & Littlefield, 2016), 52.

<sup>10</sup> Michael Burleigh and Wolfgang Wippermann, *The Racial State Germany, 1933-1945* (Cambridge: Cambridge University Press, 1991), 28-30.

idealized Indo-European race.<sup>11</sup> As such, “true” Germans were superior to many other races in both intelligence and physical physique, but especially to Jews. Following such thinking, Nazis believed that even “Aryan” individuals who had mental or physical disabilities, as well as anyone belonging to a supposedly inferior race, posed a threat to the overall health and vitality of the German populous.<sup>12</sup> Historian Robert Lifton goes so far as to assert that the government under Nazi Germany was that of a “biocracy”, a term combining the prefix “bio-” in reference to the extreme biological-based ideologies of the party with the term “theocracy” to denote the same perceived divine right to rule as seen in ancient theocratic societies.<sup>13</sup> Therefore, it was the ideological goal of the Nazi party to protect the purity of the Aryan race from the genetically imposed threat of other inferior races through the exclusion of such inferiors from German society. On February 24<sup>th</sup>, 1920, the Nazi party published a twenty-five-point platform that detailed their major tenets, which included: “Only Nationals (*Volksgenossen*) can be Citizens of the State. Only persons of German blood can be Nationals, regardless of religious affiliation. No Jew can therefore be a German National,” and “We demand freedom for all religious denominations, provided that they do not endanger the existence of the State or offend the concepts of decency and morality of the Germanic race.”<sup>14</sup> These radicalized racial theories served as the corner stone for Nazi ideology and laid foundations and allowed for the dehumanization of an entire race as well as horrific acts against those deemed inferior.

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<sup>11</sup> Catherine A. Epstein, *Nazi Germany: Confronting the Myths*, (John Wiley & Sons Inc., 2015), 69-70.

<sup>12</sup> Robert Jay Lifton, *The Nazi Doctors: Medical Killing and the Psychology of Genocide* (New York, NY: Basic Books, 2017), 24.

<sup>13</sup> Lifton, *The Nazi Doctors*, 17.

<sup>14</sup> Platform of the National-Socialist German Workers' Party, accessed May 20, 2020, <https://www.jewishvirtuallibrary.org/platform-of-the-national-socialist-german-workers-party>

The Nazi Party gained an opportunity to reorganize Germany according to these racist principles in early 1933 following President Hindenburg's appointment of Adolf Hitler as German Chancellor. One factor that played a key role in Hitler's appointment was Article 48 of the Weimar Constitution, which granted the German President, Germany's executive authority, emergency powers and allowed him to create and enact decrees.<sup>15</sup> President Hindenburg used Article 48 extensively between 1930 and 1932, when no workable coalition existed within the Reichstag, Germany's legislative branch. Hindenburg initially used Article 48 to pass financial reforms to deal with the declining German economy; Hindenburg and his cabinet increasingly used this emergency clause to pass legislation deemed necessary. They did so without the approval of the Reichstag, which created tension and general distrust between the Reichstag and the executive branch.<sup>16</sup> As tensions between the Nazi and Communist parties in the Reichstag continued to mount throughout this time, advisors to Hindenburg persuaded him to appoint Adolf Hitler chancellor on January 30<sup>th</sup>, 1933 both in an attempt to placate the Nazi majority and an effort to restore working order within the Reichstag.<sup>17</sup> The Reichstag continued to operate as normal until the burning of the building on February 27<sup>th</sup>, 1933, an event that physically and metaphorically threw the political system to the streets. Hindenburg, this time at Hitler's urging, again invoked Article 48 and subsequently suspended key civil liberties while tensions within the Reichstag grew. The Nazis blamed Communists for the fire and successfully united other political parties of the Reichstag behind this

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<sup>15</sup> Bergen, *War & Genocide*, 66.

<sup>16</sup> "The Weimar Republic," United States Holocaust Memorial Museum, accessed May 21, 2020, <https://encyclopedia.ushmm.org/content/en/article/the-weimar-republic>

<sup>17</sup> Bergen, *War & Genocide*, 67.

allegation. Ultimately, the Reichstag banned Communist members from voting under the suspension of civil liberties, thereby allowing the supermajority Hitler had built to pass the Enabling Act on March 23<sup>rd</sup>, 1933. Articles 2 and 3 of the Enabling Act, also called Law to Remove the Distress of the People and the State, stated: “The national laws enacted by the Reich Cabinet may deviate from the Constitution... The national laws enacted by the Reich Cabinet shall be prepared by the Chancellor.”<sup>18</sup> As such, it was democratically written into law that the chancellor and his cabinet could pass legislation without either the President declaring a state of emergency or the permission of the Reichstag. With this new act, the Reichstag essentially made itself obsolete and Hitler was effectively able to circumnavigate the legal system through his Chancellorship. The Enabling Act essentially ended democracy.

With the implementation of Hitler’s absolute control as Chancellor, the Nazi party was free to implement their policies and ideologies in German society as they so desired. In subsequent years, events such as the boycott of Jewish stores and businesses, book burnings, and legislation increasingly segregating and persecuting Jews allowed perverse Nazi ideology to gradually enter German society without overwhelming the majority population. As such, antisemitic ideologies became both a unifying means to express the nationalistic frustrations of faithful Aryan citizens as well as to demonstrate the newly acquired political strength of the Nazi regime. These ideologies then metamorphosized from being simply socially acceptable to legally enforceable with the Nazi government’s adoption of the Nuremberg Laws in September and October 1935. The Nuremberg laws acted in a twofold manner: first

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<sup>18</sup> “The ‘Enabling Act’ (March 24, 1933),” GHDI, accessed May 19, 2020, [https://ghdi.ghi-dc.org/sub\\_document.cfm?document\\_id=1496](https://ghdi.ghi-dc.org/sub_document.cfm?document_id=1496)

they established “Jewishness” based on perceived eugenic hereditary principles in the eyes of the law, and second, they revoked German Jews’ citizenship and imposed social restrictions on them, thus realizing the original NSDAP 1920 platform.<sup>19</sup> Such social restrictions went so far as to impose regulations on Jewish employment of Aryan women and even the criminalization of sexual and marital relations between Jews and Aryans. The Nuremburg Laws legally perpetuated Nazi racial myths of Jews as a danger to Aryan society and furthered the Nazi Party’s eugenic ideals by physical and social separating “Aryans” from Jews.

This concept of physical removal became a key operating concept within the Nazi regime from the very beginning. In early 1933, in order to ensure that their takeover of political power went smoothly, Nazi police forces arrested and detained Communist party leaders, members, accused sympathizers, and anyone else who may have posed a direct threat to the implementation of their policies. They imprisoned many prisoners in newly created concentration camps.<sup>20</sup> Next, the regime targeted Jews for removal from German society. Throughout 1933 through 1935, a series of laws including the Law for the Restoration of the Professional Civil Service, the Law against Overcrowding in Schools and Universities, and the Law for the Protection of German Blood and Honor, also known as the Nuremberg Race Laws, restricted Jewish employment, education, and overall freedoms in German society.<sup>21</sup> With their opportunities for social interaction removed, it was easier for the regime to adopt more extreme strategies during wartime, such as the establishment of Judenhäuser in

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<sup>19</sup> Bergen, *War & Genocide*, 91-92.

<sup>20</sup> “Concentration Camps, 1933–39,” United States Holocaust Memorial Museum, accessed May 23, 2020, <https://encyclopedia.ushmm.org/content/en/article/concentration-camps-1933-39>

<sup>21</sup> “Antisemitic Legislation: 1933-1939,” United States Holocaust Memorial Museum, accessed May 25, 2020, <https://encyclopedia.ushmm.org/content/en/article/antisemitic-legislation-1933-1939?parent=en%2F7180>

Germany proper, which began the process of physical separation. This concept coevolved into the formation of ghettos in German-occupied territories in Poland and other parts of Eastern Europe during WWII before Nazi officials began relocating Jews to killing centers as means of permanent removal from society.<sup>22</sup> Hitler's regime believed that by removing the Jewish population they were benefiting Aryan society. In fact, when later interviewed, a German doctor named Fritz Klein, declared that "Out of respect for human life, I would remove a purulent appendix from a diseased body. The Jews are the purulent appendix in the body of Europe."<sup>23</sup> To continue the metaphor, Nazi leaders' biocratic thinking later expanded to then removing any and all blemishes on the Aryan body, not just the appendix. Consequently another group the Nazi regime targeted for removal were so-called "asocials." This group included anyone that did not adhere to Nazi ideology whether it be politically, socially, or even so far as pertaining to their racial identities. As early as 1935, the regime targeted asocials before escalating tensions in 1939 warranted their imprisonment in concentration camps. Over the course of the 1930s and into WWII, the regime shifted from imprisoning communists and political conspirators in these camps to incarcerating Russian prisoners of war, physically and mentally disabled people, Roma, Sinti, and Jews.

Nazi officials created the idea of a concentration camp shortly after Hitler's ascension to power as a means of incarcerating individuals outside of the judicial system and instead systemically operating under the joint effort of the *Schutzstaffel* (SS), *Sturmabteilung* (SA), and civilian police.<sup>24</sup> Originally, Nazis used this system to

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<sup>22</sup> "Concentration Camps, 1933–39," United States Holocaust Memorial Museum.

<sup>23</sup> Ella Lingens-Reiner, *Prisoners of Fear* (London: Gollancz, 1948), 2.

<sup>24</sup> "Concentration Camps, 1933–39," United States Holocaust Memorial Museum.



extralegally detain their political opponents and to provide an example to those who may otherwise defy the regime. However, the camp system began to wane in size as the regime released inmates. As such, Hitler promoted Heinrich Himmler as the Reichsfuhrer of the SS in 1935, and Himmler set out to revitalize, refine, and expand the concentration camp system. The SS then claimed sole jurisdiction and succeeded in making the concentration camp system both physically and financially independent of all other previously existing detainment institutions within the Reich.<sup>25</sup> From this point until 1939, the concentration camps became more akin to a labor camp as the SS concluded contractual labor agreements with businesses, especially those involved in munitions and armaments, thus providing the system with its own source of income by taking advantage of prisoners to generate profit as Germany prepared to head to war.<sup>26</sup> During this period of containment there were six main camps within the system in addition to satellite camps located near the businesses they contracted with, spread semi-evenly on the outskirts of German territory in order to physically separate such perceived threats to the German populous from the German interior.<sup>27</sup> However this all changed with the advent of World War II.

With the German invasion of Poland on September 1<sup>st</sup>, 1939 and subsequent invasions of other Eastern European nations, the concentration camp system in Germany and in annexed and occupied territories expanded, as did the regime's need to accommodate the ever-increasing number of so-called "enemies of the state." Between 1939 to 1942, the number of camps within the concentration camp system

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<sup>25</sup> Gellately, *Backing Hitler: Consent and Coercion in Nazi Germany* (Oxford University Press, 2001), 61.

<sup>26</sup> "Concentration Camps, 1933–39," United States Holocaust Memorial Museum.

<sup>27</sup> "Concentration Camps, 1933–39," United States Holocaust Memorial Museum.

doubled to meet containment demands throughout German occupied lands.<sup>28</sup> Similar to the previous camp system after 1935, Nazi leaders used these camps to both imprison enemies and create a labor supply. During the war, the regime exploited prisoners for their physical labor and made them available to companies producing armaments and war goods.<sup>29</sup> However as the war continued, the Nazi regime adopted a more extreme philosophy to implement their ideologies. In 1942 the concentration camp system shifted its attention from labor production to enacting the Final Solution as Nazis built six additional facilities with the explicit purpose of killing such undesirables to permanently remove them from German and European society.<sup>30</sup> These facilities functioned as killing centers. This program alone is directly responsible for the deaths of at least two million from 1942 until their closure in 1945.<sup>31</sup> However during this same period of 1942 through 1945, the camps served another and brutal purpose: to provide test subjects for military and medical experimentation.

### **Medical Experimentation conducted in Concentration Camps**

Ironically, the Nazi party passed a variety of legislation between 1933 and 1943 pertaining to the rights of animals and their welfare, including the German Animal Welfare Act, which explicitly prevented researchers from experimenting on animals unless the research complied with a variety of ethical considerations.<sup>32</sup>

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<sup>28</sup> "Concentration Camps, 1939-42," United States Holocaust Memorial Museum, accessed May 22, 2020, <https://encyclopedia.ushmm.org/content/en/article/concentration-camps-1939-42>

<sup>29</sup> "Concentration Camps, 1939-42," United States Holocaust Memorial Museum.

<sup>30</sup> "Concentration Camps, 1939-42," United States Holocaust Memorial Museum.

<sup>31</sup> Henry Friedlander, "Physicians as Killers in Nazi Germany," in *Medicine and Medical Ethics in Nazi Germany: Origins, Practices, Legacies*, ed. Francis Nicosia and Jonathan Huener (New York, NY: Bergham Books, 2002), 59.

<sup>32</sup> Arnold Arluke and Boria Sax, "Understanding Nazi Animal Protection and the Holocaust," *Anthrozoös* 5, no. 1 (1992), 29. <https://doi.org/10.2752/089279392787011638>

Regime leaders did not extend this same consideration to the thousands of innocent victims subjected to medical experiments while imprisoned within the concentration camp system. Rather, their racial status, according to eugenic ideologies, made such prisoners less than humans, and therefore considered their treatment to be for the greater good of the Aryan population. As such, the people who were subjected to such experimentation were dehumanized by the guards, supervisors, and Nazi physicians and referred to as “subjects”, “rabbits”, or even simply “material.”<sup>33</sup> Depending on the purpose and type of experiment conducted, officials selected different groups of prisoners based upon relevant physiological conditions needed for testing. The SS contracted with individual physicians as well as established its own branch of resident physicians inside the camps to carry out these experiments, however, officials would often force camp inmates with previous medical experience, either as doctors or nurses, to act as impromptu research teams and actually conduct experiments on their fellow prisoners. This was done in an attempt to save time and resources as well as to allow doctors to not “dirty” themselves from interactions with such undesirables.<sup>34</sup> These experiments were to serve a twofold intent. First was to advance scientific understanding of the human body in extreme wartime conditions and to improve the effectiveness of German military strategies. And second, to increase general medicinal and scientific knowledge so as to perpetuate the idea of German scientific superiority as a means to validate their racial and eugenic beliefs.

Given these objectives, the SS collaborated with a variety of governmental and private institutions outside the concentration camp system, including various

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<sup>33</sup> Vivien Spitz, *Doctors from Hell: The Horrific Account of Nazi Experiments on Humans* (Boulder, CO: First Sentient Publications, 2005), 115-117.

<sup>34</sup> Nyiszli Miklós, *Auschwitz: A Doctors Eyewitness Account* (New York: Arcade Publ., 1993).19, 24-25.

military and private research institutions, for what purpose? Doctors at institutions such as Kaiser-Wilhelm Institute for Anthropology, Human Genetics, and Eugenics in Berlin often collaborated with doctors working within concentration camps in order to share data, acquire new specimens for research archives, and validate racial theories that the institution itself lacked the resources to test.<sup>35</sup> However, a majority of the experimentation that Nazi researchers conducted between the years 1942 and 1945 was done in collaboration between camp doctors and branches of the German military, specifically the Luftwaffe and Kriegsmarine (Nazi Airforce and Navy respectively). These institutions requested scientific information they might utilize to develop both offensive and defensive strategies during World War II. This included data collection and thus experimentation related to the physical extremes soldiers may face on the battlefield, experimental treatments for battle wounds, and even the effectiveness of new weaponry.<sup>36</sup> As such, SS medical staff conducted a variety of experiments to acquire new knowledge intended to secure the physical and racial safety of the Aryan population in accordance with the Nazi state's racial ideologies.

Perhaps the best documented cases of Nazi medical experiments occurred at the Auschwitz-Birkenau concentration camp and killing center in German-occupied Poland. This is in no small part due to the work of one Dr. Joseph Mengele, frequently referred to as "the angel of death." During his tenure at Auschwitz, which lasted from May 1943 through January 1945, Mengele served as a SS captain, a medical officer, and, starting in November 1943, Chief Camp Physician of Auschwitz

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<sup>35</sup> C Kurbegovic, "Kaiser Wilhelm Institute of Anthropology, Human Heredity, and Eugenics (KWI-A)," The Eugenics Archives, September 14, 2013, <https://eugenicsarchive.ca/discover/connections/5233cdc25c2ec500000000a8>

<sup>36</sup> Spitz, *Doctors from Hell*, 65, 139, 213.

II (Birkenau).<sup>37</sup> His ever-increasingly responsibility afforded him ample power and resources to conduct horrific experiments on concentration camp inmates in the name of science. Mengele focused primarily on the physiology and biology of young Roma and Jewish twins as well as women pregnant with multiple children. He conducted a variety of experiments to determine the basis of heredity among twins especially with the aim of promoting the faster production of the Aryan race through multiple births and manipulating hereditary factors in a manner so as to prevent undesirable physical traits, such as darker eye colors indicative of inferior races, from entering the gene pool. Other experiments performed at Mengele's direction focused on limb amputations, disease transmission, physically altering phenotypic traits of individuals to more closely resemble ideal "Aryan" types, and other associated experiments related to testing and perfecting Nazi eugenic ideologies. Historians estimate that 1,500 children died from these experiments.<sup>38</sup> He shared the contents and results of his research with the Kaiser-Wilhelm Institute for Anthropology, Human Genetics, and Eugenics in Berlin, which operated under the direction of Mengele's former mentor Dr. Otmar von Verschuer.<sup>39</sup>

Operating between 1933 and 1945, the Ravensbruck camp was unique in that it housed primarily female prisoners. From July 1942 through August 1943, medical researchers working here conducted bone, muscle, and nerve regeneration and transplantation experiments primarily on Polish prisoners. During such time, approximately 60 women in fair physical condition were subjected to forced

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<sup>37</sup> Gerald L. Posner and John Ware, *Mengele: The Complete Story* (New York, NY: Cooper Square Press, 2000), 20. ; "Joseph Mengele: Mengele and Other Physicians at Auschwitz," United States Holocaust Memorial Museum (United States Holocaust Memorial Museum), accessed May 23, 2020, <https://encyclopedia.ushmm.org/content/en/article/josef-mengele>

<sup>38</sup> "Joseph Mengele: Mengele and Other Physicians at Auschwitz," United States Holocaust Memorial Museum.

<sup>39</sup> Posner and Ware, *Mengele: The Complete Story*, 33.

amputations and mutilations involving their arms and legs so as to test for possible regeneration and transplantation methods. Researchers also used these women for an additional experiment testing Sulfanilamide as a possible treatment for staphylococcus and tetanus; doctors purposefully infected the victims' newly inflicted wounds with such diseases to test the pharmaceutical's effectiveness.<sup>40</sup> The Waffen SS coordinated these experiments in order to examine the healing processes of wounds similar to battlefield injuries and to test for possible treatments.

Doctors working in the Dachau concentration camp focused primarily on completing military research for various branches of the German military and accordingly conducted a variety of human experiments between February 1942 and April 1945. They performed high altitude experiments by subjecting prisoners to sealed low pressure chambers. Their goal was to duplicate atmospheric extremes such as low atmospheric pressure, low oxygen concentration, or other such conditions that German air force pilots might have encountered in order to determine physical limitations of the human body.<sup>41</sup> They also conducted freezing experiments, once again for the German air force, and subjected inmates to both cold water freezing and dry freezing to determine both the progression and severity of onset hypothermia.<sup>42</sup> They performed sea water experiments to document deterioration of health following conditions of no water, pure saltwater, and experimentally treated saltwater for the use of German Navy.<sup>43</sup> Lastly, Dachau served as home to Malaria experiments as

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<sup>40</sup> Spitz, *Doctors from Hell*, 115,139.

<sup>41</sup> Spitz, *Doctors from Hell*, 65.

<sup>42</sup> Spitz, *Doctors from Hell*, 85.

<sup>43</sup> Spitz, *Doctors from Hell*, 157.

doctors knowingly infected over a thousand inmates with malaria and then subjected them repeatedly to various experimental treatments.<sup>44</sup>

While not quite as organized as those described above, researchers and physicians working in a variety of other camps, including Sachsenhausen, Natzweiler, and Buchenwald, also conducted brutal experiments in the name of science. These experiments did not always reflect specific themes or goals as in the aforementioned camps did, but did typically focus on infectious diseases, such as Hepatitis and Typhus, exposure to wartime weapons such as incendiary bombs and Mustard gas, and the relative effectiveness of new poisons.<sup>45</sup> The Nazi regime also devoted a substantial amount of resources towards the development of sterilization techniques within concentration camps to determine the cheapest and fastest method to forcibly sterilize so-called racial enemies.

### **Historical Context: Post WWII Fallout and Ethical Reconciliation**

As of January 1945, Germany faced major military pressures from Allied military power on their eastern front. In a state of emergency, they began evacuating prisoners from the concentration camps located in areas they had occupied in Eastern Europe and into camps located in the German interior. Camp guards forced those inmates that were still ambulatory to walk westward. As these infamous “death marches” took place, Germans sought to destroy all evidence of the experiments that researchers had conducted within these concentration camps. Simultaneously, American, and Soviet forces began to liberate concentration camps in parts of Eastern

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<sup>44</sup> Spitz, *Doctors from Hell*, 104.

<sup>45</sup> Spitz, *Doctors from Hell*, 65-109.

Europe and in Germany. As they did so, they encountered evidence of both genocide and medical atrocities.<sup>46</sup>

Even before Germany's unconditional surrender on May 7, 1945, the Allied powers made arrangements to prosecute Nazi war criminals for their actions. The newly established United Nations approved such a plan involving the creation of US Army trials for low-ranking war criminals, an International Military Tribunal for high ranking Nazi officials, and subsequent Nuremberg proceedings to prosecute other war criminals based on the precedence established by these courts.<sup>47</sup> The International Military Tribunal itself consisted of a judge and prosecution teams representing each Allied nation—the United States of America, United Kingdom, France, and the Soviet Union, and sought to establish justice that was not defined by any one legal system.<sup>48</sup> The tribunal took place within Germany itself so that the criminals might be tried in their own nation. The Allies selected the city of Nuremberg because it had facilities that were large enough to house such proceedings and had not been damaged by Allied bombing. Nuremberg also held symbolic significance: this was the very same location where the Nazi party held their annual party rally and Hitler enacted the aforementioned Nuremberg Laws nearly a decade prior. The Constitution of the International Military Tribunal established four major crimes for which Nazi officials could be tried: crimes against peace, war crimes, crimes against humanity, and the conspiracy to commit such acts.<sup>49</sup> After establishing such mandates, the Allies

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<sup>46</sup> "Death Marches," United States Holocaust Memorial Museum, accessed May 24, 2020, <https://encyclopedia.ushmm.org/content/en/article/death-marches>

<sup>47</sup> Rebecca Wittmann, "Punishment," in *The Oxford Handbook of Holocaust Studies*, n.d., 525.

<sup>48</sup> "International Military Tribunal at Nuremberg," United States Holocaust Memorial Museum, accessed May 21, 2020, <https://encyclopedia.ushmm.org/content/en/article/international-military-tribunal-at-nuremberg>

<sup>49</sup> "Constitution of the International Military Tribunal," The Nuremberg Trials: Charter of the International Military Tribunal (Jewish Virtual Library), accessed May 23, 2020, <https://www.jewishvirtuallibrary.org/charter-of-the-international-military-tribunal>



issued indictments that summoned twenty-four major Nazi political, military, and economic leaders.<sup>50</sup> The trials commenced on November 20<sup>th</sup>, 1945 and lasted until October 16<sup>th</sup>, 1946. Following the IMT trials, subsequent tribunals took place in each of the occupation zones. The American zone encompassed Bavaria and included the city of Nuremberg. Most of these trials targeted secondary tier Nazi leaders and followed recently established precedents. The trials themselves were organized in an open court fashion, thereby making all proceedings and condemnations public knowledge on an international level.<sup>51</sup> The American-run subsequent proceedings, again held in the city of Nuremberg, consisted of twelve separate cases, the first of which was the Medical Trials.

The Medical Trial, also known as the Doctor's Trial, began on December 9<sup>th</sup>, 1946. Composed of four civilian judges serving as members of Military Tribunal I, the American officials indicted a total of twenty-three medical officials, all of whom served as major physicians and administrators deemed responsible for the orchestration of the medical experimentation conducted within concentration camps.<sup>52</sup> Those accused represented sponsoring institutions, including the SS, Luftwaffe, the Waffen SS, the Reich Physician SS, the Department for Aviation Medicine, and other internal camp physicians.<sup>53</sup> The trial involved in-depth analysis and recounting of the experiments detailed above, with in-person testimony and evidence by survivors whenever possible on part of the prosecution.<sup>54</sup> All the accused maintained their innocence throughout the duration of the trial and asserted that the

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<sup>50</sup> "International Military Tribunal at Nuremberg," United States Holocaust Memorial Museum.

<sup>51</sup> Spitz, *Doctors from Hell*, 52.

<sup>52</sup> Spitz, *Doctors from Hell*, 41-43.

<sup>53</sup> Spitz, *Doctors from Hell*, 47-51.

<sup>54</sup> Spitz, *Doctors from Hell*, 25.

Hippocratic Oath was outdated and therefore in the absence of any modern formal guidelines and regulations they acted as they best saw fit for the intentions for the Fatherland. The US court delivered varying sentences to those on trial. Judges convicted sixteen of the twenty-three defendants, sentenced seven to death by hanging, five to life in prison, and the remaining four to prison sentences ranging in length from ten to twenty years.<sup>55</sup>

However, arguably the greatest impact of the resulting Doctor's Trial came in the form of new ethical code of conduct: The Nuremberg Code. Building on the testimony of Dr. Andrew Ivy, medical consultant and expert witness on behalf of the prosecution, the court released the document as a set of guidelines for "permissible medical experiments" that should guide future research globally and the protection of patient rights therein.<sup>56</sup> While Dr. Ivy still argued that the Hippocratic Oath is not obsolete in its function as a philosophical guideline for physicians, as some defendants claimed it to be, the court produced the document with the intent to promote ethical moral practices, and first and foremost assert patients' rights to consent and bodily autonomy as had been robbed from them throughout the Nazi experimentation. Composed of ten unique declarations, the Nuremberg code includes such points as: "The voluntary consent of the human subject is absolutely essential"; "The experiment should be conducted as to avoid all unnecessary physical and mental suffering and injury"; and "The degree of risk should never exceed that determined by the humanitarian importance of the problem to be solved by the experiment".<sup>57</sup> Therefore acting to reaffirm the innate human right to life of individuals partaking in

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<sup>55</sup> Spitz, *Doctors from Hell*, 264-265.

<sup>56</sup> Spitz, *Doctors from Hell*, 247, 253.

<sup>57</sup> "The Nuremberg Code," Trials of War Criminals before the Nuremberg Military Tribunals under Control Council Law No. 10.

medical or research practices in any capacity. While the language of the Code made research more restrictive, it acted in that moment to secure the rights of consent and bodily autonomy for individuals and prevent such crimes involving such from recurring. The Nuremberg Code and subsequent proceedings therefore changed the very basis of medicine and scientific experimentation and enriched what would become the principles of bioethics.

## Historiography

When examining the topic of the medical experiments the Nazi regime conducted, very little literature is devoted to detailing the events of the experiments themselves. In fact, most information available on the subject originates from primary accounts of witnesses and survivors. Through such recounting, the information is presented through a variety of perspectives to subsequently capture the fear and uncertainty through such events and acts as a reminder that these horrific experiments came at the cost of thousands of human lives. *Children of the Flames* incorporates the firsthand accounts from fifteen survivors of Mengele's experiments within the concentration camps while providing physical details of the events in order to capture the nature of the day to day life within the horrific circumstance.<sup>58</sup> Similarly, Dr. Miklos Nyiszli provides unique insight into the physical operations of the experiments and camp system after forced to act upon his fellow prisoners through his forced participation as chief pathologist at Auschwitz.<sup>59</sup> Such resources choose to focus on the conditions and physical occurrences with the intent to educate future

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<sup>58</sup> Lucette Lagnado, Sheila Cohn Dekel, and Josef Mengele, *Children of the Flames: Dr. Josef Mengele and the Untold Story of the Twins of Auschwitz* (New York: Penguin Books, 1992).

<sup>59</sup> Nyiszli Miklós, *Auschwitz: A Doctors Eyewitness Account*.

generations. Even regarding the tribunals and justice proceedings, the most complete information on the medical experiments originates from primary accounts of journalists like Vivian Spitz. As the youngest American reporter present, Spitz constructs a clear picture on the subsequent Nuremberg proceedings through the inclusion of personal testimony while utilizing court transcripts to reconstruct a full image of the proceedings.<sup>60</sup> As such, personal memoirs revolving around the medical experiments provide the most complete idea of the historical event as they are not pre-occupied with providing or explaining additional context, rather they focus on the innate human nature to survive. These sources underscore the often-overlooked human element involved within such horrific medical atrocities.

Inversely, professional historians tend to minimize the amount of details pertaining to the experiments, and instead focus on the context and rationale that allowed such events to occur. Bergen's *War & Genocide* encapsulates this idea as the medical experiments are merely a single entry in a long line of atrocities conducted throughout the events of the Holocaust as predicated by decades of mounting racial and social tensions, before choosing to conclude with the notion that there is still much reparation to be done in order for rational society to heal from the transpired events.<sup>61</sup> Similarly, Robert Lifton, perhaps one of the most well-known and respected Holocaust historians on the subject of the medical killings, barely touches the subject of the medical experiments themselves. He instead focuses on explaining the psychological movement involved within the Nazi regime and, as his book entitled *The Nazi Doctors: Medical Killing and the Psychology of Genocide* suggests, the

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<sup>60</sup> Spitz, *Doctors from Hell*.

<sup>61</sup> Bergen, *War and Genocide*, 306-308.

overall psychology behind the events.<sup>62</sup> This accurately represents the duality of the historian's quest for understanding the prerequisite occurrences necessary for historically relevant events to occur and the subsequent lessons that can be learned from them.

### **Resulting Impacts on Post-WWII Societies**

The medical experiments Nazi researchers and physicians conducted within concentration camps provided a necessary context for such documentation that may otherwise have not come to fruition. In other words, the heinousness of Nazi crimes motivated international jurists to create this ethical code. International knowledge and attention thus serve to hold nations accountable both for their own actions and in witness to others as exemplified in the United States' lack of action against lesser known Japanese biological experiments. Between 1933 and 1945, roughly at the same time that the Nazi researchers were performing medical experiments on concentration camp inmates, Japanese Military Unit 731 was conducting biological and chemical experimentation on captured Chinese prisoners of war at the Epidemic Prevention Research Laboratory based at the Japanese Army Military School in Tokyo.<sup>63</sup> Researchers used similar arguments and rationalizations to those of the Nazis, claiming that such atrocities conducted in the name of science and medicine for the betterment of the nation were justifiable. These experiments focused on data that might have military application and were similar to Nazi experimentation in terms of

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<sup>62</sup> Lifton, *The Nazi Doctors*, 432.

<sup>63</sup> Jing Bao Nie, Nanyan Guo, and Mark Selden, *Japans Wartime Medical Atrocities: Comparative Inquiries in Science, History, and Ethics* (New York, NY: Routledge, 2010), 24.  
<https://books.google.com/books?hl=en&lr=&id=l0VZBwAAQBAJ&oi=fnd&pg=PA23&dq=Unit+731&ots=IWQUwbfe2t&sig=PwQVkr51yPvjnz8h339KosSeQk0#v=onepage&q&f=false>

brutality and their violation of human rights. Yet when American operatives discovered the operation following Japan's August 1945 surrender, they traded their silence and protection from prosecution in order to obtain exclusive use of the experimental results for the American military.<sup>64</sup> This was done with the intent to keep such information out of the hands of their Soviet allies as tensions continued to escalate between the two nations on the eve of the Cold War. So when proceedings of the International Military Tribunal of the Far East (also known as the Tokyo Trials) were conducted from April 1946 through November 1948 by eleven independent nations, the Americans ensured that there was no criminal proceedings for the medical professionals or researchers involved or even any mention of the biological and chemical warfare experiments in the trial, despite urging by their Soviet counterparts.<sup>65</sup>

This complete disregard for ethical considerations on both the part of Japan for conducting such experiments and on the United States for condoning them through their silent support resulted in war criminals walking free, despite 3,000 innocent deaths, and the burial of such information until 1985 when the Japanese government finally admitted to the atrocities.<sup>66</sup> This differs from the context following the Nazi perpetrated experiments with the international media publicly revealing and condemning the events that transpired in the concentration camps. The fact that the German experiments occurred on a much larger scale and the Allies discovered them simultaneously allowed for a greater deal of ethical accountability on part of both the perpetrator and prosecutor. These parallel events with vastly

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<sup>64</sup> Nie, Guo, and Selden, *Japans Wartime Medical Atrocities*, 21

<sup>65</sup> Nie, Guo, and Selden, *Japans Wartime Medical Atrocities*, 2.

<sup>66</sup> Nie, Guo, and Selden, *Japans Wartime Medical Atrocities*, 2.

diverging results demonstrate that the international fallout after the Holocaust was necessary in the passage of the Nuremberg Code, and therefore needed in the creation of international codes of conduct and national legislation regarding ethical practices in post-war societies.

Unfortunately, the United States has proven time and again, through its repeated failure to observe the very bioethical principles it helped write into existence following WWII, that accountability and code enforcement are critical. Some of this failure predates the Nuremberg Code, to an era when the Hippocratic Oath was supposed to guide doctors and researchers. For example, beginning in 1932, the national Public Health Service, in conjunction with the Tuskegee Institute, initiated a research study in which doctors knowingly infected African American servicemen with syphilis, a disease that can be fatal if left untreated, in order to observe the infection patterns of the disease in an observed population.<sup>67</sup> While this study predated the passage of the Nuremberg Code, it lasted well beyond the document's enactment, only concluding in 1972.<sup>68</sup> In 1951, during a possible cancer screening, doctors excised malignant cells from a tumor located on the cervix of Henrietta Lacks, a thirty-one year old African American woman. Without her knowledge or consent, her doctor used these cells in cell and tissue development experiments, resulting in the creation of the first immortal cell line. Direct descendants of these first cells taken from Mrs. Lacks are still used to this day around the globe as the standard for cellular experimentation creating in and of itself millions of dollars in

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<sup>67</sup> "Tuskegee Study: Timeline," U.S. Public Health Service Syphilis Study at Tuskegee (Centers for Disease Control and Prevention, March 2, 2020), <https://www.cdc.gov/tuskegee/timeline.htm>

<sup>68</sup> "Tuskegee Study: Timeline," U.S. Public Health Service.

medicinal research with no compensation given to the family of Mrs. Lacks.<sup>69</sup> These are unfortunately not isolated events as others experiments have been unknowingly conducted on American citizens without their consent on behalf of the government. Scientists conducting cold war human experiments between the 1940s and 1950s involved exposing American children in a school for the disabled, incarcerated prisoners, and even pregnant women through a university study to radioactive elements to observe the potential health impacts and resulting fallout.<sup>70</sup> Such experiments perpetuated the cycle of systematically taking advantage of minorities and vulnerable populations within society under the guise and rationalization of acting in the scientific benefits for the rest of the American populous. Researchers' rationalization is reminiscent of the defense Nazi researchers and doctors used to explain their experiments. These repeated violations of the Nuremberg Code prove the necessity for both more defined bioethical standards and practices as well as official legislation on such topics in part by national governments.<sup>71</sup>

Dissatisfied with the resulting Nuremberg Code in the following decades, many scientists, physicians, and ethicists argued that such documentation written with the exclusive intent for preventing medical atrocities in part by the physician inherently did not act for the benefit for constructing guidelines for practicing ethical research. As such, the World Medical Association (WMA) took it upon itself to create the Helsinki Declaration. First proposed and accepted in 1964, the Declaration served as the first set of major ethical guidelines specifically for the conduct involved

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<sup>69</sup> Rebecca Skloot, *The Immortal Life of Henrietta Lacks* (New York, NY: Broadway, 2011), .37-41.

<sup>70</sup> "Human Radiation Experiments: Cold War Human Experiments," Atomic Heritage Foundation, July 11, 2017, <https://www.atomicheritage.org/history/human-radiation-experiments>

<sup>71</sup> Guerrini, *Experimenting with Humans and Animals*, 137.



within clinical research trials.<sup>72</sup> The WMA has since updated and revised these guidelines at least seven times to more accurately reflect new attitudes and developments in the field of clinical medicine. Most notably, the Helsinki Declaration recognizes that patient consent may not be possible in all situations and instead recognizes the possibility of obtaining proxy consent through power of medical attorney or other means.<sup>73</sup> This concept demonstrates a difference from the Nuremberg Code, which dealt in absolutes and offered unyielding principles in the attempt to protect inalienable rights of individuals. It is important to note that while the Nuremberg Code acted as a general ethical guideline for preventing unethical practice by general physicians, the Helsinki Document exists to promote ethical practices among clinical research practitioners. This is a revolutionary distinction that serves as guidance for the creation of both new organizations and legislation on the topic of research both nationally and internationally. One such document, the Belmont Report of 1976, acted to establish good research practices within the United States specifically following the establishment of The National Committee for the Protection of Human Subjects of Biomedical and Behavioral Research under the Department of Health, Education, and Welfare under the National Research Act.<sup>74</sup> Rather than a clinical physician's perspective, the Belmont Report acted from the perspective of a bioethicist and established main principles of ethical practice and related appropriate protocols back to them. The document focused on the establishment of three primary ideals: respect for persons (the establishment and

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<sup>72</sup> Bryan J. Dik and Timothy J. Doenges, "Declaration of Helsinki," *Encyclopædia Britannica* (Encyclopædia Britannica, inc., February 7, 2019), <https://www.britannica.com/topic/Declaration-of-Helsinki>

<sup>73</sup> Dik and Doenges, "Declaration of Helsinki."

<sup>74</sup> "The Belmont Report," U.S. Department of Health & Human Services (The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, n.d.), <https://www.hhs.gov/ohrp/sites/default/files/the-belmont-report.pdf>

respect of bodily autonomy), beneficence (the intent to maximize possible benefits), and justice (the fair and equitable treatment involved therein).<sup>75</sup> These principles, along with that of non-maleficence (the intent to minimize possible harm), represent the four foundational pillars of the field of bioethics as studied today.<sup>76</sup> While both of these documents depart from that of the Nuremberg Code in their intended audience, practice, and application, their inherent goals of making research more ethically sustainable and promoting patient rights embody the same philosophy as the Nuremberg Code. Each document builds on the prior, for they are inherently independent and complimentary, supplementing the shortcomings in their predecessors.

These new codes and guidelines raised troubling questions for researchers and physicians, namely, what should we do with data collected from unethical medical practices? Unsurprisingly, many of these arguments focused on, and continue to focus on, the usage of experimental results from Nazi experiments conducted on concentration camps inmates. Those who oppose use of this information argue that utilizing such data gives validity to the experiment itself, completely undermining the ethical principles set forth in the various ethical documents described above. That is, by using the data collected from such experiments, researchers may be indirectly validating the underlying ideologies of the Nazi party.<sup>77</sup> The secondary argument against the use of unethically collected data stems from the scientific process itself: for an experiment to be accepted in modern scientific communities, all data collected

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<sup>75</sup> "The Belmont Report," U.S. Department of Health & Human Services.

<sup>76</sup> Tom L. Beauchamp, "The 'Four Principles' Approach to Health Care Ethics," in *Principles of Health Care Ethics*, 2nd ed. (John Wiley & Sons, Ltd., n.d.), 4-7.

<sup>77</sup> Arthur Caplan, ed., *When Medicine Went Bad: Bioethics and the Holocaust* (Totowa, NJ: Humana Press, 1992), 104. <https://archive.org/details/whenmedicinewent0000unse/mode/2up>

must be reproducible. However, if a researcher conducted an experiment using unethical means, it cannot be reproduced. Therefore, the research does not meet standard scientific practices, rendering the data unusable.<sup>78</sup> Those who argue in favor of using these experimental results adopt a utilitarian approach: the data collected could be used to better lives in the present and future. While this may seem like something of a slippery slope justifying unethical practices, some may argue that the atrocity of the action has already been conducted, and instead restoration may be made through the use of data from such experiments for the objective benefit of others.<sup>79</sup> It is the unfortunate reality that some of the information Nazi researchers collected by conducting these horrific experiments could be valuable to practicing physicians and scientists today. In fact, a recent *New York Times* article reported that a physician at the Hadassah Medical Center in Jerusalem used the “Atlas of Topographical and Applied Human Anatomy,” a medical textbook that Nazi physicians created based on experimentation conducted in concentration camps, to assist in performing a difficult peripheral nerve surgery on a Jewish man. Prior to using the atlas, the doctor obtained the patient’s consent to do so.<sup>80</sup>

While historians, scientists, doctors, and bioethicists continue to argue over the state of data collected from such medical experiments, there is no clear resolution in sight. In the meantime, the American Medical Association currently allows the inclusion of unethically collected data within medical manuscripts provided that the

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<sup>78</sup> “Oxford Uehiro Prize in Practical Ethics: Can Science Ethically Make Use of Data Which Was Gathered by Unethical Means?,” Bioethics.net (Practical Ethics, March 26, 2020), <http://www.bioethics.net/2020/03/oxford-uehiro-prize-in-practical-ethics-can-science-ethically-make-use-of-data-which-was-gathered-by-unethical-means/>

<sup>79</sup> “Can Science Ethically Make Use of Data Which Was Gathered by Unethical Means?,” Bioethics.net.

<sup>80</sup> Isabel Karshner, “In Israel, Modern Medicine Grapples with Ghosts of the Third Reich,” *The New York Times*, May 12, 2020, <https://www.nytimes.com/2020/05/12/world/middleeast/nazi-medical-text-israel.html?rref=collection/issuecollection/todays-new-york-times&action=click&contentCollection=todayspaper@ion=rank&module=package&version=highlights&contentPlacement=2&pgtype=collection>

researcher, peer reviewer, and/or journal editor provides adequate information regarding the unethical circumstances surrounding the experiment, rationale for why the data could not be substituted for comparable data of ethical studies, and proper respect to the victims of such experimentation.<sup>81</sup> The Vienna Protocol proposed by a counsel of Holocaust historians, Rabbis, and physicians and endorsed by the Yad Vashem organization in 2017, provide similar recommendations as well as guidelines for respecting Jewish remains and additional artefacts from the Holocaust.<sup>82</sup>

## Conclusions

Perhaps the most dangerous lesson we can learn from Nazi medical experiments was that seemingly civilized people can turn a blind eye to or personally enact such barbaric acts. The Nazis' deliberate integration of racial and eugenic principles into German society facilitated the dehumanization of several groups of people through the cultivation and careful recalibration of moral and ethical codes in a collective societal conscience, notably among doctors and researchers.<sup>83</sup> Morality was twisted in such a way as to violate patients' innate rights in the name of science. As such, the story of the Holocaust serves a two-fold purpose: a lesson and a warning.

These atrocities teach us that it is crucial that individuals no longer allow blanket ideologies to rationalize their thought in the pursuit of knowledge, and that such information should not come at the cost of another individual. Thus, scientists

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<sup>81</sup> "Release of Data from Unethical Experiments," American Medical Association, accessed May 23, 2020, <https://www.ama-assn.org/delivering-care/ethics/release-data-unethical-experiments>.

<sup>82</sup> Joseph A Polak, "'Vienna Protocol' for When Jewish or Possibly-Jewish Human Remains Are Discovered" (Jerusalem, Israel: Boston University), accessed May 24, 2020, [https://www.bu.edu/jewishstudies/files/2018/08/HOW-TO-DEAL-WITH-HOLOCAUST-ERA-REMAINS.FINAL\\_.pdf](https://www.bu.edu/jewishstudies/files/2018/08/HOW-TO-DEAL-WITH-HOLOCAUST-ERA-REMAINS.FINAL_.pdf)

<sup>83</sup> Claudia Koonz, *The Nazi Conscience* (Cambridge, MA: Belknap Press of Harvard Univ. Press, 2005), p.192-193. <https://archive.org/details/naziconscience00koon/page/4/mode/2up>

and medical professionals must always be weighing the possible implications of their actions for both the patient in front of them and for those that their research may directly impact. As for the warning, Nazi experiments conducted on concentration camp inmates continue to serve as extreme examples of cruelty. However, an action does not need to meet this same standard of brutality to be ethically wrong. That is, in using the Holocaust as a benchmark, there is the danger of ignoring other moral and ethical abuses occurring in society that may not quantifiably meet this same extreme under the notion of “it could be worse,” thereby creating a standard within society for the acceptance of ethical violations and abuse of morality within a certain threshold. Therefore the overall purpose of the Nuremberg Code and such ethical codes of conduct is to recalibrate the morality of post-war society. While it may be easy to forget this idea and become annoyed at perceived inconveniences caused by additional bureaucratic training or paperwork for scientists and physicians today, it is important, now more than ever, to remember the context from which such documents grew and that the overall purpose serves to protect the physical, mental, and emotional well-being of the patients in medicinal and scientific practices.

Overall the medical atrocities Nazi doctors and researchers conducted during the Holocaust acted as a catalyst in the formation and solidification of the field of bioethics and the creation of ethical codes of conduct held within post-war societies. Such documentation and principles would not have been possible or nearly as successful without the context and lessons of the Holocaust, which serve as a warning about the delicate relationship between politics, science, and ethics. As society becomes further removed from such historical events, it is crucial to remember the

origins of the ethical documents and practices followed today in order to facilitate the creation and growth of ethically responsible scientists and doctors in their practice.

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I understand that my project will become part of the permanent collection of Oregon State University, Honors College. My signature below authorizes release of my project to any reader upon request.

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Samantha Carrothers, Author