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The Holocaust and Human Experimentation: The Nazi Approach to Medicine

The beginning months of 1945 marked the commencement of the swift downfall of the Nazi regime and the end of the tyrannical, oppressive ruling power it held over most of Europe for close to a decade. As Allied Forces invaded Nazi Germany and the remaining Nazi-occupied territories, they undoubtedly expected to encounter the incredible devastation that World War II had left upon most of the Western European continent, from toppled cities, to separated families, to the rising death toll. However, Allied soldiers would soon have to come face to face with another side-effect of the war, something unforeseen and unimaginable, even in their wildest dreams: the reality of concentration camps and the horrors that existed within.

Upon arriving at any given concentration camp, all who passed through the iron gate, be that soldiers or prisoners, read the German phrase "Arbeit Macht Frei" as it was engraved, painted, or wielded into the sign above the entrance, providing the prisoners with the illusion that their hard work would eventually ensure their freedom. Stepping inside the electrically-barbed barricades and stone walls, soldiers had to confront the horrendous conditions in which prisoners were forced to live: disease running rampant, extreme starvation, tediously pointless labor, overcrowding, and the mass executions carried out inside the on-site gas chambers. A member of the United States Army's Third 8th Tank Battalion, Albin Irzyk, was a part of the liberation effort at the Buchenwald camp in April of 1945 and described his findings in ghastly detail, stating that what he saw "looked like bundles of ragged clothing in an elliptical circle. But when I got closer,

I saw it wasn't bundles. It was human beings." The Allied Forces knew very little about the existence of these camps before their discovery and liberation, but they could not fathom the darker secrets that would later come to light in regard to what occurred inside the walls of these electrified fences.

Following the liberation efforts, a litany of information surrounding the camps' atrocious operations was unearthed and was later released to the public during the Nuremberg Trials of 1945 and 1946. These documents were intended to bring forth justice upon Nazi war criminals.² Though the prosecution efforts were largely successful, the most notable consequence of these trials was the exposition of the worst violation of human rights in the modern era: the experimentation on the human beings that were held as prisoners in the Nazi-operated concentration camps. My research is comprised of explicit details of the medical experiments performed on unwilling prisoners, The extreme nationalism of the Nazi Party acted as the motivating and justifying factors. More specifically, I will argue that the propagation of Nazi ideals lead to the acceptance of this form of medical torture to be sanctioned practice, as well as the implications of these experiments in the Nazi war effort and the realm of medicine, as well as the remaining consequences.

I have conducted thorough analysis of many different sources, including books, personal accounts, articles of all kinds, and letters, in which I will have pieced together, in an effort to create an understanding as to why the Nationalist Socialist party rationalized the merciless crimes committed against those they imprisoned, as well as how these ideals trickled down the

¹ Diane C. Lade, "70 Years Later, Liberators Recall Horrors of Concentration Camps," *South Florida Sun Sentinel*, April 21, 2015, accessed 25 February 2020, https://www.sun-sentinel.com/features/fl-liberators-world-war-20150417-story.html.

² George J. Annas & Michael A. Grodin, *The Nazi Doctors and the Nuremburg Code: Human Rights in Human Experimentation* (Oxford: Oxford University Press, 1992).

chain of command. In my research, I have discovered that the Nazis took even further advantage of previously marginalized groups of people, in order to preserve and to perpetuate their own kind, or so they believed. I hope to prove that the conducting of these medical experiments would not have been possible without the intensely bigoted ideology present in Nazism or the concurrent Holocaust, which allowed this evil to operate without any question.

There is an abundance of historiographical sources on this topic, in which Paul Weindling, a professor of medicinal history at the University of Oxford, is one of the leading researchers of the human experimentation efforts at the hands of the Nazi regime. This is a matter in which he has written numerous books and articles. His work primarily encompasses the evolution of the practice of human experimentation and how the Nazis tailored these tests to their specific research-outcome desires. One of Weindling's most significant arguments is that the early euthanasia efforts, that were carried out on the persecuted members of German society, led directly to the genesis of the hellish human experiments that would be implemented by the Third Reich.³ He philosophically analyzes the Nazi perspective and value of human life, which is an avenue no other researcher, in which I have come across, has taken. Beyond the medical aspects, Weindling also dives into the experiments' political facets. Weindling concluded that the Nazis insistently argued against their wrongdoings, claiming that the Allies may have conflated their findings at the camps, to ensure the surrender of Nazi Germany and the conviction of its officials. This is a very unique position to hold, as there has been limited research conducted that would contradict any evidence other than that the Nazis were wholly guilty of their war crimes. Therefore, to simply introduce the argument is incredibly intriguing. Weindling's work is

³ Paul Weindling, *Victims and Survivors of Nazi Human Experiments: Science and Suffering in the Holocaust.* (London: Bloomsbury Publishing, 2015).

⁴ Paul Weindling, "Human Experiments in Nazi Germany," *The German Medical History Journal* 33, no. 5 (1998): 166, accessed January 26, 2020. https://www.jstor.org/stable/25805209?seq=1.

valuable because it draws a clear line of progression and transformation from the extreme, intolerant ideals to an unrecognizable monster, which placed little importance on human life. It also details the lengths the Nazis went to cover up and politicize their actions, as if the outcome would truly benefit the common good of the German people, while also offering an untraditional perspective.

Author Robert Jay Lifton has written upwards of ten books that discuss the many avenues of World War II, but his work is primarily grounded in the psychological capacity of Nazis and those who actively supported the racial hygienic and genocidal principles of the National Socialist regime. Lifton proposes three distinct arguments: that the development and execution of the medical experiments was a gradual process, that it was entirely inevitable that the concentration camps would come to be the perfect environment for Nazi physicians to carry out their testing, and that Nazi socialization led precisely to the justification for violating human rights.⁵ He contends that the experiments' evolution steadily made progress as those involved became increasingly comfortable with the cruelty they inflicted. Concentration camps became the center of these horrific experiments, as Nazi values circulated heavily and were the inspiration for genocidal tendencies. Lifton concluded that without the constant reinforcement of Nazi Party ideals in such a contained environment, the medical experiments would not have progressed in such a frightful way. An additional author, Lawrence A. Zeidman, has written numerous published articles regarding the psychological stance of different groups that resided within Nazi Germany at the time of the second World War. Zeidman asserts that the beginning stages of Nazi medical experiments commenced with the desire to eliminate certain diseases,

⁵ Robert Jay Lifton, *The Nazi Doctors: Medical Killing and the Psychology of Genocide.* (New York: Basic Books, 2017).

especially neurological afflictions, from the German gene pool.⁶ This resource provides a much greater sense of what the precise motivations and desires of the Nazis were in conducting these experiments, as well as allowing for better insight into their perspective of health. This assertion presents the beginning stages for an ideology that would propagate a "racially hygienic" society, which would be the basis of the atrocities on the horizon.

Other historians who have previously written on this subject have primarily researched certain individuals that were involved in these experiments, like Nazi physicians and government officials, as they were equally complicit. William Siedelman, in his work regarding Dr. Josef Mengele, argues that these officials and doctors took part in this medical experiments because they had been entirely brainwashed by the Nazi state into believing their findings were beneficial to the Third Reich's longevity. This resource aids in providing a much clearer understanding of how individuals could readily strip away the humanity from their victims. Naomi Baumslag, a historian who specializes in human and social rights, maintains the idea that Nazis blatantly disregarded the true purpose of medicine, to heal and remedy the sick, by purposely inflicting members of minority groups with torturous afflictions, out of simple disdain. This source offers a unique perspective, that the Nazis were fully aware their experiments truly had no medical benefit, which is an argument that differs from most, as many contend that the Nazis believed they were partaking in work for the common good. When discussing this topic, most researchers have explored the historical data regarding the experience of the prisoners subjected to these

⁶ Lawrence A. Zeidman, "Neuroscience in Nazi Europe Part I: Eugenics, Human Experimentation, and Mass Murder," *Cambridge University Press* 38, no. 5 (2011): 697, accessed January 26, 2020. https://www.cambridge.org/core/journals/canadian-journal-of-neurological-sciences/article/neuroscience-in-nazi-europe-part-i-eugenics-human-experimentation-and-mass-murder/763DE15BF1025CA915C725EB02139FEC."

⁷ William E. Siedelman, "Mengele Medicus: Medicine's Nazi Heritage," *The Millbank Quarterly* 66, no. 2 (1988): 224, accessed January 27, 2020. https://www-jstor-org.ezproxy.lib.calpoly.edu/stable/3350031.

⁸ Naomi Baumslag, *Murderous Medicine: Nazi Doctors, Human Experimentation, and Typhus* (Westport, CT: Praeger Publishers, 2005).

experiments and what exactly they endured. The majority of these sources do not propose an argument, but rather provide data points about the experiments, operational information, and personal accounts of survivors. However, these sources are incredibly useful to the effectiveness of this project because they demonstrate the long-lasting consequences the human experiments had, not only on those directly affected, but also on the development of medicine into the modern era.

I will argue that not only were the Nazis motivated by their ideology that heavily promoted the dominance of the Aryan race, but also Nazi doctors were seeking the cure for, as well as conducting research on, diseases that affected the German war effort, to ensure the lasting dominance of the Aryan race and their success on the battlefields of World War II. Due to the Nazi's systematic imprisonment of Jews and other minority groups in death camps, Nazi physicians had convenient, unlimited access to innumerable subjects, in which to satisfy their own interests in the limitations of the human body. The human experiments that were carried out within the walls of the concentration camps could not have been devised or executed without the propagation of the deep-seated Nazi ideology, which especially infiltrated the medical community and psyche of physicians. The examination of the human experimentation that occurred throughout the Holocaust and the exploration of the personal testimony provided by its victims forced the world to come to terms with the horrors of Nazism and the abhorrent consequences the ideology induced.

⁹ Vivien Spitz, *Doctors From Hell: The Horrific Accounts of Nazi Experiments of Humans* (Boulder, CO: Sentient Publications, 2005).

Horrendous Idea Turned to Horrific Actions

The political philosophy of National Socialism, or Nazism, is an infamously familiar ideology that has left a scar on the narrative of the Twentieth Century due its tyrannical doctrine, which imposed a creed of racism, oppression, and fascism. The National Socialist Party arose from the aftermath of the first World War, as the German people were desperate for a unifying identity in order to survive the economic and social devastation. Unfortunately, this provided a foundation for the cultivation of nationalistic convictions and for the rise of a hypnotic, yet heinous dictator, which was undoubtedly the most perfect storm. In the years to come, from Adolf Hitler's successful campaign for Chancellor of Germany in 1933, until the eventual end of the second World War in 1945, Hitler and the members of the Nazi Party exhorted ideas of racial-hierarchy, eugenics, and anti-Semitism, all which bolstered their overarching goal of a "superior" long-lasting Aryan race. ¹⁰ The Nazi Party possessed the ambitious objective of making the supremacy of not only their political party, but of the German people, known and exalted, while demeaning every other minority group within Nazi Germany - most notably, the Jewish population.

The Jewish people living in within Germany were continually blamed for the German state's misfortune and immense defeat in the Great War, throughout the decades following the European conflict. The Nazi Party perceived the Jewish population to be "parasites" of Germany, especially in the economic realm, as Jews were imagined to be greedy and to have exhausted the German resources during the war, without aiding in their replenishment. 11 Essentially, Jews were

¹⁰ Cyprian Blamires, World Fascism: A Historical Encyclopedia: Volume One (Santa Barbara, CA: ABC-CLIO Inc., 2006), 62.

¹¹ Cyprian Blamires, World Fascism: A Historical Encyclopedia: Volume One (Santa Barbara, CA: ABC-CLIO Inc., 2006), 65.

the assumed scapegoat and the sole reason as to why Germany's war effort was annihilated, with no responsibility placed on the shoulders of the German forces', whose strength paled in comparison to the Allied Powers. Jewish people were not recognized as contributing to the German wartime society, as they were thought to be actively "war shirking – a term used to describe avoiding military responsibilities at the front lines – and profiteering" while German nationals were earnestly involved in combat. 12 However, in actuality, over 100,000 Jews fought on the side of the Germans, and those that remained far from the combat zones did so to continue to operate necessary business that would prevent a total German economic collapse. Due to this common wartime misconception, Jewish people were further ostracized, with many Germans arguing that the Jewish people were attempting to create their own state within the pre-existing German nation, threatening its eventual downfall. 13 There was such a presence of disdain for Jews in German society that any interaction between them and the German-blooded people was highly discouraged and interracial romantic relationships were not tolerated, as there was a deep desire to keep the genetic pool of Germany and its people "pure".

In order to provide the ideal environment for the German people and the idealized Aryan race to flourish, the Nazi ideological notion of *lebensraum* was conceptualized. The term *lebensraum* translates to "living space" and this was a Nazi policy that was intended to justify the unlawful German expansion into Eastern European nations. ¹⁴ Then, these lands would be claimed as property of the Third Reich, so that rightful Aryans could settle and procreate.

Though the Third Reich was keenly aware that they were displacing millions of people across

¹² JP O'Malley, "How Hitler Used Jews' Failed WWI Idealism to Feed the World's Worst Genocide," *The Times of Israel*, January 16, 2018, accessed 23 April 2020, https://www.timesofisrael.com/how-hitler-used-jews-failed-wwiera-idealism-to-feed-the-worlds-worst-genocide/.

¹³ George J. Annas & Michael A. Grodin, *The Nazi Doctors and the Nuremburg Code: Human Rights in Human Experimentation* (Oxford: Oxford University Press, 1992), 17.

¹⁴ André Mineau, *Operation Barbarossa: Ideology and Ethics Against Human Dignity* (Amsterdam: Rodopi Editions, 2004).

Europe, the Nazi's believed this to be a necessary consequence in order for their survival to be assured. If there was no concept of *lebensraum*, then there would be no chance for Nazism and for the Aryan race to flourish eternally. The forced movement of the native Eastern European people was one of the first steps in genocidal and eugenic practices that were to come, as the Nazis had no concern over the loss of life they would invoke or of the lasting consequences this displacement would have on the indigenous people for generations to come.

To those in power within Nazi Germany, the enduring success of the German people relied upon the purity of the genetic pool in which its people would procreate, as only those constituted of dominant traits would ensure the longevity of the Third Reich. The motive was simple: to rid the German society of those with genetic defects or disease that would lead to the extinction of the Aryan race. Therefore, the Nazis devised the social concept of "racial hygiene", which would allow for the most pervasive eugenics programs in the history of man to flourish. The Nazis prepared to eliminate the "institutionalized and marginalized people by means of such networks significantly facilitated by the policy of racial hygiene." To hone in on the methods they would employ to eventually systematically kill millions of innocent people, the Nazis first applied their prejudiced philosophy to the weakest members of their own Aryan race. Germans targeted members of their own society that were not deemed robust enough to procreate and to contribute to the cause of the Third Reich, due to a disability, a chronic disease, or mental illness.

What the modern-day mind would perceive to be harrowing, but nonetheless treatable, afflictions, the Nazi Party deemed as repugnant and those facing sickness were understood to be deserving of elimination. Among the first to be targeted were those considered to be "feeble-

¹⁵ Gerhard Baader, Susan E. Lederer, Morris Low, Florian Schmaltz, & Alexander V. Schwerin, "Pathways to Human Experimentation, 1933-1945: Germany, Japan, and the United States," *The University of Chicago Press* 20, no. 2 (2005): 211, accessed January 27, 2020. https://www-jstor-org.ezproxy.lib.calpoly.edu/stable/3655257.

minded", which encompassed a wide-range of mental illness and disease, including any sort of physical or intellectual disability, manic and depressive disorders, laziness or poor work ethic, and any issues with addiction. Another indicator of one's racial purity was their level of promiscuity, which would indicate their potential to have or spread venereal disease. One's promiscuity included sexual orientation or identification due to the Nazi's incredible disdain for homosexuality, as they perceived the expulsion of homosexuals from society "as an essential measure for maintaining a German race that was pure". Any sexual act that was performed without the intention of procreating was perceived to be deviant, but more so, there would be no contribution to the population and just an added burden to Nazi Germany. All of the described conditions were assumed to be caused by one's fixed genetic makeup and it was inferred that these afflictions did not have the capacity for treatment, therefore eradication of these individuals was the only option in order for the Aryan race to survive.

The development and evolution of eugenic practices did not happen suddenly, but throughout a gradual process, in which the methods of "cleansing" became increasingly inhumane. The beginning of Nazi eugenics and experiments was sparked with the passing of the Law for the Prevention of Hereditarily Diseased Offspring, which was enacted on July 14th, 1933. This piece of legislation states that anyone "suffering from a hereditary disease may be rendered incapable of procreation by means of surgical operation." This law legalized the

¹⁶ Robert Proctor, *Racial Hygiene: Medicine Under the Nazis* (Cambridge, MA: Harvard University Press, 1988), 46.

¹⁷ James Q. Whitman, *Hitler's American Model: The United States and the Making of Nazi Race Law* (Princeton, NJ: Princeton University Press, 2017), 76.

¹⁸ James Q. Whitman, *Hitler's American Model: The United States and the Making of Nazi Race Law* (Princeton, NJ: Princeton University Press, 2017), 74.

¹⁹ Robert Proctor, *Racial Hygiene: Medicine Under the Nazis* (Cambridge, MA: Harvard University Press, 1988), 108.

²⁰ The Law for the Prevention of Hereditary Diseased Offspring ("Gesetz zur Verütung erbkranken Nachwuchses"), July 14, 1933. Legislation. From Jewish Virtual Library. https://www.jewishvirtuallibrary.org/genetic-screening-and-genetic-therapy-in-judaism. Accessed (May 10, 2020).

forced sterilization of thousands of marginalized Germans, because if they were to procreate, they would then produce children with the same disabilities, who would not be a healthy member of the Nazi collective or an effective soldier in the Nazi armed forces. One of the largest minority groups that fell victim to this legislative act were those that were of Afro-German descent due to the presence of north African members of the French Army that were stationed in Germany in the post-World War I era, who were derogatorily referred to as the "Rhineland bastards." They were considered to have "the genetic inheritance of animalistic, unrestrained savages", therefore they were determined to be unfit to reproduce, especially with pureblooded German women.²² Their involuntary sterilization was a result of the notion that any genetic mixing between Afro-Germans and "pure" Germans would contaminate the ancestry and further compromise the advancement of the Aryan race. In addition, the "Rhineland bastards" and their children were considered to be physically degenerate, thus they could not be drafted in the Nazi army or fight on behalf of Germany, for fear that visceral inferiority would incite failure on the battlefield. Though the Nazis forced Afro-Americans to undergo compulsory sterilization, they were not the only group harshly persecuted in the beginning stages of German eugenics programs.

Though they are often seen as the most vulnerable members of society, the mentally ill of Nazi Germany were understood to be the most intolerable, the most disposable, due to their lack of contribution to the Third Reich in any capacity. This judgment directly led to the methodical murder of the mentally ill within asylums throughout Germany, with its first remnants present at the Hadamar Clinic, located in center of the country. The Hadamar Clinic operated under the Action T-4 Program, which "authorized six major institutions as the sites for immediate

²¹ Sander L. Gilman & Anson Rabinbach, *The Third Reich Sourcebook: Colored Blood in the Rhineland* (Oakland, CA: University of California Press, 2013), 168.

²² Sander L. Gilman & Anson Rabinbach, *The Third Reich Sourcebook: Colored Blood in the Rhineland* (Oakland, CA: University of California Press, 2013), 169.

euthanasia of people with disabilities". ²³ Methods of euthanasia included carbon monoxide poisoning, premeditated drug overdoses, and intentional starvation of patients. Hundreds of unsuspecting patients were killed each day and their deaths were seen as mercy killings because their lives were considered "lives not worth living." ²⁴ Clinic records reported that 70,273 Germans with physical disabilities and mental illness were euthanized between 1940-1941, but it is estimated that the number of deaths was closer to 240,000, due to the covertness and secrecy of these killings. ²⁵ At the Hadamar Clinic, primitively-designed gas chambers were constructed below ground to quietly murder its unsuspecting patients and victims. This killing technology, initially developed at the Hadamar Clinic precisely paved the way for the enacting of the Nazi's "Final Solution", as the methods of murder they perfected were reworked to be effected on an immense scale, to massacre millions of Jewish people throughout World War II. After all, these practices of euthanasia and sterilization were experiments themselves.

Human Experiments Conducted in Nazi Concentration Camps: The War Effort

The distinct ideology of the Third Reich provoked the desire of the Nazis to monopolize all aspects of society, in order to assert their command. The dominance of the German armed forces was the overarching goal of the Nazi Party. If they were successful on all fronts, then there would be no hindrance of the spread of their empire. However, the Nazi's were well aware

²³ Brenda Jo Brueggemann, *Economics, Euthanasia, Eugenics: Rhetorical Commonplaces of Disability in the Nazi T-4 Program* (New York: NYU Press, 2009), 142.

²⁴ Brenda Jo Brueggemann, *Economics, Euthanasia, Eugenics: Rhetorical Commonplaces of Disability in the Nazi T-4 Program* (New York: NYU Press, 2009), 142.

²⁵ Brenda Jo Brueggemann, *Economics, Euthanasia, Eugenics: Rhetorical Commonplaces of Disability in the Nazi T-4 Program* (New York: NYU Press, 2009), 142.

²⁵ Brenda Jo Brueggemann, *Economics, Euthanasia, Eugenics: Rhetorical Commonplaces of Disability in the Nazi T-4 Program* (New York: NYU Press, 2009), 143.

that their advancements on the battlefields had the potential to be crippled by external forces that were essentially out of their control, like disease, injury, and the limitations of the human body. Therefore, the Nazis thought it necessary to try to combat these possible impediments by determining, through human experimentation, the exact conditions a person's body can survive and possible cures to maladies contracted on the front lines. Unfortunately, the Nazis had a virtually unlimited pool of test subjects in which to experiment upon, as simultaneously to their fight against the Allied Powers, the Nazis imprisoned millions of minority peoples, namely those of Jewish descent, within the numerous concentration camps spread throughout the Third Reich.

The German war effort had their sights set on entirely destroying the enemy forces of the United States, Great Britain, and the Soviet Union, yet an invisible attacker could have just as easily caused a significant rise in the German death toll and dwindle their numbers in the European Theater. The Nazi soldiers' susceptibility to deadly disease had the wherewithal to paralyze their armed forces and lead to the downfall of the Third Reich, which was incomprehensible to Nazi leaders and consequently, attempts to thwart disease became a nonnegotiable. The most notorious site for Nazi medicine was Auschwitz, a concentration camp located in southern Poland. Auschwitz is infamous for the countless different categories of experiments that were performed on its prisoners at this camp, but it also played a significant role in the testing of vaccinations. According to Nazi historian Naomi Baumslag, the men fighting in the name of the Third Reich were prone to various diseases, some inconvenient and some lethal, including malaria, typhus, tuberculosis, and hepatitis. ²⁶ In the pursuit of a cure to these afflictions, Nazi scientists began inoculation experiments on unwilling Jewish prisoners of Auschwitz, injecting them with primitive forms of vaccinations, with side-effects like full-body

²⁶ Naomi Baumslag, *Murderous Medicine: Nazi Doctors, Experimentation, and Typhus* (Westport, CT: Praeger Publishers, 2005), 125.

rashes, extreme vomiting and nausea, dangerously high fevers, and most often, death. Nazi physicians disposed of their medical ethics for the sake of aiding in the chances of Nazi success on the battlefield, no matter the cost or the human lives lost, especially if those subjected to the experiments were "considered enemies of the state." After all, Nazi physicians only perceived Jewish prisoners to be expendable test subjects, not as human, and justified these killings as essential to the Nazi cause, as killing a few Jews is undoubtedly admissible if it saves millions of German lives.

A second German concentration camp, that of Buchenwald, a camp located in central Germany, outside of the town of Weimar, specifically conducted experiments focusing on an inoculation and eradication for the typhoid fever, in which German forces encountered after their invasion of Russia in 1941. The German military was unprepared for a disease with a death rate of this magnitude, as it caused coughs, chills, high fevers, bouts of delirium, and eventual death.²⁸ Understanding that the Typhoid fever may be the largest threat to their power, the Nazis took full advantage of those imprisoned at Buchenwald, almost immediately beginning vaccination trials. The process of the inoculation experiments comprised of prisoners being forced to ingest the Typhoid-infected blood of a human or of a mouse, as well as being forced to ingest Typhoid-infected lice. Then healthy prisoners would be "confined to the same quarters as those inoculated to then determine the 'passage of persons', or the infection rate." Due to the lack of standardization or medical evidence that these experiments were effected, it implies that

²⁷ Naomi Baumslag, *Murderous Medicine: Nazi Doctors, Experimentation, and Typhus* (Westport, CT: Praeger Publishers, 2005), 129.

²⁸ Naomi Baumslag, *Murderous Medicine: Nazi Doctors, Experimentation, and Typhus* (Westport, CT: Praeger Publishers, 2005), 138.

²⁹ Naomi Baumslag, *Murderous Medicine: Nazi Doctors, Experimentation, and Typhus* (Westport, CT: Praeger Publishers, 2005), 145.

that the vaccinations had no capacity to cure Typhoid fever. Yet, though the vaccination attempts were largely unsuccessful, their continuous conduction does demonstrate the Nazis' self-perception of supremacy, as they would be the ones to eradicate detrimental disease. The effectiveness of inoculations would prevent the sheer number of soldier deaths on and off of the front lines, also stalling the continuous spread of disease in urban areas upon the end of the war. Thus, protecting the Aryan race, as a whole. Altogether, these inhumane inoculation tests were performed on unwilling Jews for the sake of the Nazi's war effort and the safety of the general German public once the soldiers were to return home. However, experiments with a preventative goal were not the only measures taken to ensure the Third Reich's prosperity, as they shifted their focus to pushing past the physical restraints of the human body.

A method of defying the bodily limitations of its soldiers so that the German forces would reach victory come the end of World War II was a significant war strategy of the Third Reich. The Nazi Party desperately wanted to devise measures in which to physically enhance each member of its armed forces in every environment that they could potentially face, like extremely high altitudes, sub-zero temperatures, and toxic sea water. Unfortunately, to precisely determine visceral capacity and the exact point of bodily deterioration, human experiment trials were once again necessary, with Jewish concentration camps repeatedly acting as the test subjects. According to Kenneth Mellanby, a British journalist who was present at the Nuremburg Trials in 1947 and reported on the proceedings, the many confessions of the convicted Nazi war criminals, as well as the numerous testimonies of the Nazi's surviving victims, included accounts of "inmates being subjected to cruel experiments, as victims were immersed in cold water until

their body temperature was reduced to 28 degrees Celsius, when they immediately died."³⁰ The sub-zero temperature experiments were most consistently carried out at the concentration camp, Dachau, which was positioned outside of the southern German Bayarian city of Munich. For a period of ten months between 1942-1943, immersion-hypothermia experiments were performed on Dachau's Jewish prisoners, with the purpose of finding an effective form of treatment for "victims of immersion hypothermia, particularly crew members of the German air force who had been shot down into the cold waters of the North Sea."31 During numerous conflicts with Russian forces over the North Sea since the start of the second World War in 1939, dozens of Luftwaffe planes and hundreds of German air force men had been forced from the skies due to foreign ammunition. Luftwaffe men, at least those who survived, were left floating in frigid water, for hours, even days, depending on when German rescue boats could reach them. As a result, many German soldiers who were left in this environment developed hypothermia and frostbite, often leading to the loss of limbs due to gangrene infections and the death of healthy bodily tissues.³² To recreate this environmental scenario in the experimental labs at Dachau, somewhere between 280 to 400 prisoners were forcibly submerged into baths ranging in "temperatures between 2 and 12 degrees Celsius" for undetermined periods of time, but most often resulting in the death of the subject.³³ Those that survived were warmed with immediate submersion in hot, usually boiling water, with other warming methods including placing the hypothermic person between another

³⁰ Kenneth Mellanby, "Medical Experiments on Human Beings in Concentration Camps in Nazi Germany," *The British Medical Journal*, January 25th, 1947, 148.

³¹ Robert L. Berger, "Nazi Science: The Dachau Hypothermia Experiments," *The New England Journal of Medicine* 322, no. 20 (1991): 1435, accessed May 2, 2020. https://www.nejm.org/doi/full/10.1056/NEJM199005173222006. ³² Robert L. Berger, "Nazi Science: The Dachau Hypothermia Experiments," *The New England Journal of Medicine* 322, no. 20 (1991): 1437, accessed May 2, 2020. https://www.nejm.org/doi/full/10.1056/NEJM199005173222006.

³³ Robert L. Berger, "Nazi Science: The Dachau Hypothermia Experiments," *The New England Journal of Medicine* 322, no. 20 (1991): 1437, accessed May 2, 2020. https://www.nejm.org/doi/full/10.1056/NEJM199005173222006.

two naked prisoners, often never successful.³⁴ The motivations of the Nazis were to accurately predict the German body's response to the trauma of sub-zero water temperatures and how they could prevent the effects of onset hypothermia. The findings of the Third Reich's human experiments would benefit their extreme war effort, as they would be able to identify precise physical limitations, environmental stressors of certain battle theaters, and the lasting consequences, allowing for the examination of the overall risk to German forces.

Another natural impediment that constrained the physical capacities of the German forces, especially that of the Luftwaffe, is the intense heights of altitude they faced while in flight. Altitude sickness and the adverse effects of elevation on the fighter pilots caused dizziness and fatigue, but in the worst cases, swelling of the brain would ensue, causing death. This affliction surely had great repercussions on the effectiveness of the military operations, especially in regard to the numbers of healthy German service men who had the physical ability to take part in warfare. In effort to combat this inconvenient side effect of airborne battle, the Nazis repeated their atrocious cycle of experimenting upon the prisoners of Dachau by implementing a series of tests, which required prisoners to be placed in pressurized chambers that could mimic the same environmental conditions of altitudes reaching almost 70,000 feet. The During the entire year of 1942, 200 prisoners were placed in these chambers, with 80 of them dying whilst the experiment was being performed, as their bodies could not withstand the pressure, therefore essentially imploding, as well as suffocating due to lack of oxygen. In a letter written by Nazi physician Karl Brandt to the SS-Standartenführer Sievers, an overseer of

³⁴ George J. Annas & Michael A. Grodin, *The Nazi Doctors and the Nuremburg Code: Human Rights in Human Experimentation* (Oxford: Oxford University Press, 1992), 74.

³⁵ John B. West, *High Life: A History of High-Altitude Physiology and Medicine* (Oxford: Oxford University Press, 1998). 7

³⁶ Alexander Cockburn & Jeffrey St. Clair, *Whiteout: The CIA, Drugs, and the Press* (New York: New Left Books, 1998), 149.

concentration camp operations, reports were made of vivisections preformed on the victims of these experiments, with edemas found in the brain and "in the veins and arteries of the brain a considerable quantity of air was discovered."³⁷ These findings were reported to the Luftwaffe bases, so that the results would be assuredly "used in time for the troops" and their next mission.³⁸ The goal was to determine the atmospheric stressors in which a German soldier could survive. The Nazis wanted to definitively delineate how far the fighter pilots could be physically pushed and still be successful in their campaigns, as well as the subsequent ramifications on their bodies. Though the pressurized experiments conducted on the prisoners of Dachau were said to be performed with the intention of building a physically enduring, robust German military, there is the implication that these tests were carried out simply as a mode of torture, with the benefit of the war effort used as a guise to hide the true motives of those who held high positions within the Third Reich, who were the masterminds behind Nazi medicine.

Sigmund Rascher was one of the Third Reich's most notorious physicians, as he was responsible for the planning and implementation of the "appalling human experiments at Dachau."³⁹ Rascher was intimately involved in the altitude pressure experiments and in the temperature experiments, as he was eager to support the Nazi's empire through his research. Rascher had an especially close relationship with Heinrich Himmler, a prominent leader within Nazism and the commander of the Schutzstaffel protection unit, whom he had met during his time in the SS in 1939. Himmler "personally assumed the responsibility for supplying asocial individuals, criminals and useless lives that only deserve to die", which prompted Rascher to

³⁷ Karl Brandt, *Letter to SS-Standartenfürher to Dr. Brandt, November 2, 1942*. Letter. From Jewish Virtual Library, *Nazi Medical Experiments: Documents Regarding Medical Experiments*, https://www.jewishvirtuallibrary.org/documents-regarding-nazi-medical-experiments (accessed February 12, 2020).

³⁸ Karl Brandt, *Letter to SS-Standartenfürher to Dr. Brandt, November 2, 1942*, Letter, From Jewish Virtual Library, *Nazi Medical Experiments: Documents Regarding Medical Experiments*, https://www.jewishvirtuallibrary.org/documents-regarding-nazi-medical-experiments (accessed February 12, 2020).

³⁹ Eric Kurlander, *Hitler's Monsters* (New Haven, CT: Yale University Press, 2017), 232.

directly report his findings to Himmler's office. 40 Rascher's substantial rapport with and dedication to Himmler was an enormous influence, especially in regard to the category of experiments he performed. Rascher continuously conducted experiments that, with the desired results, would benefit the Third Reich's war effort and aid him in finding favor within the Nazi chain of command. Rascher was a dedicated member of the Nazi Party and wanted to provide his medical knowledge in a way that would only proliferate their lasting success. Though Sigmund Rascher's experiments are some of the most notable that were said to contribute to the support of the German armed forces, there are additional experiments that are entirely more gruesome.

It is apparent that the Nazi Party thoroughly recognized their largest obstacle in reaching battlefield success to be the body's physical limitations when faced with certain environmental conditions. However, the egregious injuries soldiers encountered on the frontlines was an incredible interference to the effectiveness of the German advancement. During World War II, artillery and bombs inflicted the majority of the injuries, leaving soldiers acute damage to virtually every part of the body, often resulting in amputations and infections, if not death. The treatment of these devastating, often life-ending, injuries was critical for the survival rate of German soldiers, to maintain steady numbers of healthy, able-bodied men, and to increase the chances of victory. In order to develop life-saving treatments and therapies, the lives of the Jewish prisoners in Ravensbrück, a concentration camp in the outskirts of Berlin, were sacrificed. Varying types of transplant experiments were ordered, including that of nerves, bones, and muscles, as well as antibiotic testing. Nanda Hebermann was a prisoner in the women's

⁴⁰ William E. Siedelman, "Mengele Medicus: Medicine's Nazi Heritage," *The Millbank Quarterly* 66, no. 2 (1998): 227, accessed January 27, 2020. https://www-jstor-org.ezproxy.lib.calpoly.edu/stable/3350031.

⁴¹ M.M. Manring & Alan Hawk, "Treatment of War Wounds: A Historical Review," *The US National Library of Medicine & National Institutes of Health* 467, no. 8 (2009): 2162, accessed May 2, 2020. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2706344/.

⁴² Nanda Hebermann, *The Blessed Abyss: Inmate #6582 in Ravensbrück Concentration Camp for Women* (Detroit, MI: Wayne State University Press, 2000).

sector of Ravensbrück from 1941-1943, in which she was forced to participate in these sort of experiments. On multiple occasions, bones in her arms and legs were intentionally broken and reset in assorted positions to determine the exact manner of healing.⁴³ Other than the breaking of bones, Nazi physicians also performed the removal, dissection, and transplantation of bone fragments, as well as nerve and muscle tissue to study possible methods of regeneration after injury. 44 Often, these procedures comprised of "sections of bone being removed, legs were removed at the hips, arms were removed from healthy concentration camp inmates, and then the attempt was made to transplant these body parts to other victims."⁴⁵ These horrifying tests were performed without any local anesthesia or pain-reducing medication which prompts the argument that more than desire to find methods of injury healing, there was an element of sheer torture that the Nazi physicians planned to inflict upon their so-called patients. Those who did survive these abhorrent operations were left permanently maimed, disfigured, and disabled. There was a grievous misjudgment regarding the value of a human life, especially in the sense of a Jewish life versus that of an Aryan life, which was due to an incredible incentive for Nazi camp physicians to execute human experiments of this magnitude, as they wanted to conceive of expedited healing measures and test their efficacy. These experiments were preformed to treat war-induced traumatic injuries that afflicted the Third Reich, yet there was no concern for the anguish and suffering of those with lives considered to be dispensable. However, the grisly transplant operations were not the only tests implemented for the advancement in the science involving wound treatment and healing on the grounds of Ravensbrück.

⁴³ Nanda Hebermann, *The Blessed Abyss: Inmate #6582 in Ravensbrück Concentration Camp for Women* (Detroit, MI: Wayne State University Press, 2000), 81.

⁴⁴ Joshua A. Perper & Stephen J. Cina, *When Doctors Kill: Who, Why, and How* (New York: Springer Publishing Company, 2010), 74.

⁴⁵ Vivian Spitz, *Doctors From Hell: The Horrific Accounts of Nazi Experiments of Humans* (Boulder, CO: Sentient Publications, 2005), 115.

On the frontlines, the men who fought on behalf of the Third Reich were no stranger to bacterial infections, either as a result of injury or transmission throughout the soldiers' camps. After the German campaign in Russian territory, in 1941 through 1942, many developed gangrene due to battle wounds left untreated in the field that became infected once they eventually reached healthcare. 46 A new drug, sulfanilamide, nick-named "German penicillin", had been developed, and it had not yet been researched through clinical trials, but Nazi official Heinrich Himmler "wanted its production under SS control." ⁴⁷ Consequently, certain cell blocks of men and women imprisoned in Ravensbrück were selected as the test subjects in the sulfanilamide tests. These experiments are some of the most macabre, as they involved bringing "about gangrene infection artificially", then "an incision ten centimeters long was made into the muscle, and wood shavings or fragmented glass were added to the infectious bacteria forced into the wounds."48 After letting the infection fester for days, sometimes weeks, sulfanilamide was then administered, either orally or through injection, in effort to bring the prisoners back from the edge of death. ⁴⁹ More often than not, prisoners were not cured and death followed suit, but for those that survived, were left with deep scarring and physical disabilities that lasted for the rest of their lifetimes, which was described in the Nuremburg testimony of Ravensbrück prisoner, Jadwiga Dzido, as the operations resulted in "immobilization of the right foot, secondary to the muscles, and especially the paralysis of the perineal nerve, and evidently,

⁴⁶ Vivian Spitz, *Doctors From Hell: The Horrific Accounts of Nazi Experiments of Humans* (Boulder, CO: Sentient Publications, 2005), 139.

⁴⁷ Paul Weindling, *Victims and Survivors of Nazi Human Experiments: Science and Suffering in the Holocaust.* (London: Bloomsbury Publishing, 2015), 72.

⁴⁸ Vivian Spitz, *Doctors From Hell: The Horrific Accounts of Nazi Experiments of Humans* (Boulder, CO: Sentient Publications, 2005), 140.

⁴⁹ Naomi Schaeffer, "The Legacy of Nazi Medicine," *The New Atlantis*, no. 5 (2004): 58, accessed January 25, 2020. https://www-jstor-org.ezproxy.lib.calpoly.edu/stable/43152101.

arthritis."50 Though a few prisoners withstood the experiments, they were left with a lifetime of disability, which seemed to be an incredibly minor consequence that was unquestionably morally tolerable for the Nazi physicians, especially if their research conclusions brought about a manner in which to enhance the Third Reich's chances of battlefield triumph. This thought process permeated the Nazi psyche, which is evident in the Nuremburg court affidavit of Nazi official, Karl Gebhart, as he deposed that the sulfanilamide experiments were "entirely necessary as their achievement would serve the treatment of wound infections of German soldiers normally contacted during the course of the war."51 The administration and the physicians of the Third Reich altogether justified their torturous experimentation on the prisoners of concentration camps through their ambition to find curative and preventative measures for potential impediments on the front lines of World War II. There was no consideration given to the value of the lives of those imprisoned in Nazi-operated concentration camps, as the prisoners were perceived to be nothing more than an endless supply of test subjects, or more simply put, less than human. Though the primary rationale for the implementation of the human experiments was for the sake of the all-encompassing Nazi war effort and the German soldiers, there was another substantial motivating factor: the identification of and the prevention of those considered to be racially inferior.

Human Experiments Conducted in Nazi Concentration Camps: The Racially "Inferior"

One of the most considerable, most egregious principles of Nazism is the concept of total racial purity within the Third Reich and the deep desire to rid minority groups from not only

⁵⁰ Vivian Spitz, *Doctors From Hell: The Horrific Accounts of Nazi Experiments of Humans* (Boulder, CO: Sentient Publications, 2005), 155.

⁵¹ Vivian Spitz, *Doctors From Hell: The Horrific Accounts of Nazi Experiments of Humans* (Boulder, CO: Sentient Publications, 2005), 156.

German society, but from the genetic pool. To the Third Reich and the members of the Nazi Party, the Aryan race was considered to be the most dominant race in regard to physical stature and intellect when compared to any other marginalized ethnic group in Nazi Germany, but especially when in contrast to those of Jewish descent. To be thought of as a part of the Aryan race, one must possess a light complexion, blonde hair, blue eyes, and practice traditions in alignment with Western European culture. The Jews who did not conform to these ideals, in their physical appearance or in their ancient Semitic customs, became the principal target for immense acts of discrimination, oppression, and later, imprisonment, experimentation, and execution. The Nazi's perceptions of the Jewish people was inherently negative, rendering "these marginalized groups more vulnerable to illness", as well as a threat to national security and an overall "diseased race". 52 The Nazi's understood that Jewish presence, alone, in the Third Reich would be a danger to the general health of the German public and threaten the total collapse of the Nazi Party's reign. To ensure the long-lasting existence of Nazism, the leaders of the Third Reich came to the conclusion that there were very few options when managing the Jews in their empire, discerning that "their eradication was a necessary condition for the healthy development of the master race."53 This racially-driven mindset was the catalyst for the efforts of human experimentation, sterilization, and genetic research efforts conducted within the walls of the concentration camps, by the virtue of the proliferation of the Aryan race.

One of the largest attempts by the Nazis to heavily control the genetic variation of the German people was through active sterilization efforts of minority communities, especially

⁵²Paddy Rawlinson, "Of Mice and Men: Violence and Human Experimentation," *State Crime Journal* 2, no.1 (2013): 76, accessed January 24, 2020. https://www-jstor-org.ezproxy.lib.calpoly.edu/stable/10.13169/statecrime.2.1.0072.

⁵³ Paddy Rawlinson, "Of Mice and Men: Violence and Human Experimentation," *State Crime Journal* 2, no.1 (2013): 76, accessed January 24, 2020. https://www-jstor-org.ezproxy.lib.calpoly.edu/stable/10.13169/statecrime.2.1.0072.

Jewish and Roma Gypsy women, to prevent them from procreating with full-blooded Germans, but even within their own ethnic group. There was a great attempt, on the behalf of the Nazi government and doctors, to develop methods of mass sterilization to essentially eliminate entire races deemed "inferior", in which they took full advantage of the millions of innocent, defenseless people detained in the various concentration camps positioned throughout the Nazi regime's expanse. The first of these pursuits in sterilization began in March of 1941, at the camp of Ravensbrück, under the leadership of Dr. Carl Clauberg, in which physicians inundated "concentration camp inmates with radiation, drugs, and surgery." Though surgical sterilization was performed, as it was a much more cumbersome process and could not be completed quickly. Therefore, the most common form of sterilization was radiation exposure through x-rays, which "x-rays were applied in a dosage high enough to produce castration with all its consequences, since high x-ray dosages destroy the internal secretion of the ovary, or of the testicles, respectively."55 In the height of these experiments, which lasted until 1945, thousands of men and women in Ravensbrück underwent these sterilization experiments, which resulted in many forms of radiation sickness, intense burns, and different types of reproductive cancers. ⁵⁶ Another method Dr. Clauberg employed during his time of sterilization experimentation was that of the injection of a "caustic substance into the cervix in order to obstruct the fallopian tubes", as he chose test subjects that were "women between the ages of twenty and forty, preferably those who had borne children."57 The Nazi's overt motive and purpose was to chemically disfigure and

⁵⁴ Vivian Spitz, *Doctors From Hell: The Horrific Accounts of Nazi Experiments of Humans* (Boulder, CO: Sentient Publications, 2005), 191.

⁵⁵ Vivian Spitz, *Doctors From Hell: The Horrific Accounts of Nazi Experiments of Humans* (Boulder, CO: Sentient Publications, 2005), 194.

⁵⁶ Robert Jay Lifton, *The Nazi Doctors: Medical Killing and the Psychology of Genocide*. (New York: Basic Books, 2017), 272.

⁵⁷ Robert Jay Lifton, *The Nazi Doctors: Medical Killing and the Psychology of Genocide.* (New York: Basic Books, 2017), 271.

purposely create lesions to obstruct the reproductive path of women's anatomy, and thus, prevent any procreation of those regarded as having impure blood. These experiments were necessary, in the eyes of the Nazis, to restrict the reproduction of non-Aryan peoples and to especially impede any interbreeding with German nationals, which would contaminate the overarching Aryan race. In the eyes of the Third Reich, these sterilization attempts were also perceived to be a precautionary, as they would prevent flaws in health from being spread, at the behest of faulty genetics, throughout future generations of the German people.

Dr. Carl Clauberg, like other physicians in the Third Reich, was in consistent contact with the aforementioned Nazi commander Heinrich Himmler, who was one of the many overseers of concentration camp experiments, but also a considerable proponent and supporter for policies that would protect the racial purity of his German constituents. In a letter written to Himmler in June of 1943, Clauberg reports the findings of his sterilization research, boasting of the success he found in the cervical injection method by stating that the process was "as good as perfected" and that "one adequately trained physician in one adequately equipped place will most likely be able to deal with several hundred, if not even one thousand per day." As a high-ranking leader of the regime, Heinrich Himmler's influence over the ideological principles of Nazism was inescapable and his desire for an uncontaminated Aryan race was shared by those who were in auxiliary positions. Therefore, it was no large task to prompt Nazi doctors to volunteer to undertake such a gruesome task, as were the human experiments. Himmler wanted to sterilize as many enemies to the German people as quickly as possible, as the more numerous their enemies were, the larger the chance that they could threaten not only their safety, but also

⁵⁸ Carl Clauberg, *Letter to Himmler, June 1943*, Letter, From Jewish Virtual Library, https://www.jewishvirtuallibrary.org/memoranda-to-himmler (accessed February 12, 2020).

threaten their genetic purity. The most signification justification of these sterilizations was to prevent the "lesser" minority groups from having children, as they were perceived as only a burden, likely draining the Third Reich's resources and threatening the over-arching existence of Nazi Germany. Though these experiments of sterilizations were conducted on the largest scale of all tests performed and were planned to be enacted on the largest number of people, they were not the only experiments carried out by the regime in furtherance of genetic understanding.

Within the confines of Auschwitz, the most infamous of all concentration camps, the arguably most abominable human experiments were performed on the most innocent of all, children. Under the pretenses of purifying the Aryan race and to substantiate the Nazi ideological platform, small children, but more specifically twin children, were analyzed, experimented upon, and researched to determine a strategy to procreate perfect generations of Aryan people in a hastily manner. The one placed at the head of these operations, who acted as the supervisory authority, was Dr. Josef Mengele, who has since "come to represent all of Nazi evil in Auschwitz."⁵⁹ Josef Mengele began his affiliation as a member of the Schutzstaffel service group in 1938, joining the service as a volunteer physician, until 1943, when he was transferred to Auschwitz after an injury on the frontlines. 60 The years Mengele spent as part of the active armed forces was a time of immense ideological indoctrination, as he was consistently and fiercely exposed to the foundational concepts of Nazism, like anti-Semitism and Aryanism.⁶¹ These racially charged, racially hygienic beliefs allowed Mengele to justify the experiments he would later perform, as it is apparent he had no qualms in massacring hundreds of children that were the progeny of those deemed inferior. Mengele began experimenting on the prisoners of

⁵⁹ William E. Siedelman, "Mengele Medicus: Medicine's Nazi Heritage," *The Millbank Quarterly* 66, no. 2 (1988): 221, accessed January 27, 2020. https://www-jstor-org.ezproxy.lib.calpoly.edu/stable/3350031.

⁶⁰ Helena Kubica, *Anatomy of the Auschwitz Death Camp* (Bloomington, IN: Indiana University Press, 1994), 317.

⁶¹ Richard J. Evans, *The Third Reich at War* (New York: The Penguin Press, 2009), 8.

Auschwitz immediately upon his arrival at the camp in 1943 and made his preferences for children as experiment subjects, especially twins, well known. Mengele would enlist Auschwitz's medical staff and the Schutzstaffel guards to meander through the thousands of Jews arriving to the camp by train, while ordering his minions to separate Jewish children from their families. This was a scene of pain and chaos, accompanied by the "strident whistle of the locomotive." From this initial selection, Mengele would rescue the children he chose from instantaneous death in the gas chamber, earning him the nickname "Uncle Mengele". However, Mengele would soon morph from the seeming protector of the children to the one that would be the source of their greatest pain.

At the beginning of their duration of stay under the watchful eye of Mengele, the young twins and children were kept in a separate housing unit from the rest of Auschwitz's inmates, with marginally improved living conditions, as their "food was good, their bunks were more comfortable, and possibilities for hygiene were provided." These false pretenses of comfort and the minute sense of safety felt by the children Mengele had chosen provoked them to let their guard down and to trust he had their best interests in mind. The segregation of the of the children from the rest of Auschwitz's inmates served a purpose other than simply wanting to provide young ones with a higher standard of living. Mengele was acutely aware that by separating his test subjects from the rest of the camp, he had an increased chance of keeping his medical experiments from being exposed, as if he were to return a mangled child to the main camp barracks, there was no telling what horrors and secrets of his would be divulged. In addition, since the twins and children were in his direct care, Mengele or one of "his anthropological"

⁶² Miklós Nyziszli, Auschwitz: A Doctor's Eyewitness Account (New York: Arcade Publishing, 2007), 16.

⁶³ Lucette Lagnado & Sheila Cohn Dekel, *The Children of the Flames: Dr. Josef Mengele and the Untold Story of the Twins at Auschwitz* (New York: Penguin Group, 1991), 9.

⁶⁴ Miklós Nyziszli, Auschwitz: A Doctor's Eyewitness Account (New York: Arcade Publishing, 2007), 57.

assistants were known to do measurements" once or twice per week, in order to document precise side-effects and direct results of the experiments.⁶⁵ Mengele wanted to chronicle any potential progress or change to the process of his human experiments on young sets of twins, which quickly developed into a meticulous operation.

After Mengele had rounded up the children he desired and confined them to isolated quarters, Mengele inaugurated his experiments with testing that was considered minor in comparison to what was to come. According to Nazi historian, Robert J. Lifton, the first stage in experimenting upon the twins was the taking of their blood at "an estimated ten cubic centimeters at every session."66 Oftentimes, this drawn blood would be transfused to the subject's twin or to different sets of twins, which would usually invoke death due to unparalleled blood types or small virulent matter present in the transfused blood. However, if the twins survived the initial sanguine experiments, their future, still in Mengele's hands, was grim. In the days after she endured an intense loss of blood, Eva Mozes Kor, one of Mengele's surviving twins, was unsure of her fate, but "what I was not prepared for was that this injection would make me sick. My head pounded. My skin burned dry. My body shook so hard that I could not sleep, despite my fatigue. They gave the shot only to me, not my twin. Years later I guessed that they chose me for the shot because they had observed that I was stronger."67 Eva's response to this injection was analyzed and her declining health was compared to that of her twin sister. Eva's sister acted as the baseline in this experiment, and if Eva was to have died from the effects of the injection, her sister would have been subsequently murdered to then compare their innards.

⁶⁵ Robert J. Lifton. *The Nazi Doctors: Medical Killing and the Psychology of Genocide* (New York: Basic Books, 2017), 349.

⁶⁶ Robert J. Lifton. *The Nazi Doctors: Medical Killing and the Psychology of Genocide* (New York: Basic Books, 2017). 350.

⁶⁷ Eva Mozes Kor, *Surviving the Angel of Death: The True Story of a Mengele Twin in Auschwitz* (Terre Haute, IN: Tanglewood Publishing, 2009), 51.

Most likely to be a side-effect of the unknown compound administered to her, Eva has suffered immensely with kidney trouble, as they never grew "beyond the size of a ten-year-old's" and could never function properly. 68 Amputations of arms and legs, to be transplanted onto another twin, were commonplace in Mengele's medical department, causing torturous bouts of infection gangrene, which was recorded as the largest cause of death within the twins' ward.⁶⁹ Yet, there were numerous other instances of amputation other than that of the extremities, as depicted by Eva Mozes Kor, in stating that Mengele "wanted to discover a way to change girls into boys and boys into girls, Many of these details I learned forty years later, such as the twin teenage boys who had some of their private parts cut off in Mengele's quest to see if he could turn them into girls."⁷⁰ Mengele had a macabre fascination with the removal and transplantation of body parts onto other living human beings, which would eventually lead to a failed attempt to surgical combine two identical twins to create his own form of a conjoined twin, but this experiment was a failure, resulting in the subsequent death of both subjects due to a gangrene infection and necrotizing flesh.⁷¹ Mengele expected, even wanted, for his test subjects to perish in the midst of experimentation, as he had a deep yearning to analyze the physical consequences on their bodies post-mortem.

The young sets of twins were more durable then Mengele initially considered, so he understood that to have enough bodies in his inventory, in order to perform the amount of autopsies desired, he must intentionally murder healthy children. To methodically murder dozens

⁶⁸ Eva Mozes Kor, *Surviving the Angel of Death: The True Story of a Mengele Twin in Auschwitz* (Terre Haute, IN: Tanglewood Publishing, 2009), 128.

⁶⁹ George J. Annas & Michael A. Grodin, *The Nazi Doctors and the Nuremburg Code: Human Rights in Human Experimentation* (Oxford: Oxford University Press, 1992), 57.

⁷⁰ Eva Mozes Kor, *Surviving the Angel of Death: The True Story of a Mengele Twin in Auschwitz* (Terre Haute, IN: Tanglewood Publishing, 2009), 46.

⁷¹ Eva Mozes Kor, *Surviving the Angel of Death: The True Story of a Mengele Twin in Auschwitz* (Terre Haute, IN: Tanglewood Publishing, 2009), 49.

of individual twins, Mengele devised an especially deadly plan, in which he "prepared a 10cc and a 5cc syringe. From a box he took evipan, and from another box he took chloroform."⁷² Then, Mengele would "inject the evipan in the right arm intravenously. After the child had fallen asleep, he felt for the left ventricle of the heart and injected 10cc of chloroform."⁷³ The children would die instantaneously and Mengele was never phased by the death of innocence, which may attributed to a psychological numbness that was cultivated during his time on the German war front. In the hours following the chloroform murders, Mengele would dissect their small bodies on the operating table, in which he was assisted by Dr. Miklós Nyziszli, a Hungarian Jew and prisoner in Auschwitz. Together, the two worked in tandem, but Mengele trusted the opinion of Dr. Nyziszli to the point where he allowed the Jewish physician to perform the entire amount of autopsies, to then report he findings to Mengele. 74 Nyziszli referred to Dr. Mengele as "the most dangerous type of criminal doctor, especially when he is armed with powers such as those granted to Dr. Mengele."75 Dr. Nyziszli conceptualized Josef Mengele as the most evil kind of person that could have ever existed, as he took the power gained through his position to conceive of methods in which to torture, maim, and kill thousands of innocent prisoners at Auschwitz. Mengele brought his morbid fantasies to fruition at the expense and suffering of subjects unfairly provided to him by the Nazi regime and the Holocaust. In the words of Miklos Nyziszli, Mengele "sent millions of people to death merely because, according to a racial theory, they were inferior beings and therefore detrimental to mankind."⁷⁶ Nyziszli was complicit in aiding Mengele in his human experiments and dissections out of fear for his own life. His skills were understood to be

⁷² Robert J. Lifton, *The Nazi Doctors: Medical Killing and the Psychology of Genocide* (New York: Basic Books, 2017), 350.

⁷³ Robert J. Lifton, *The Nazi Doctors: Medical Killing and the Psychology of Genocide* (New York: Basic Books, 2017), 351.

⁷⁴ Miklós Nyziszli, Auschwitz: A Doctor's Evewitness Account (New York: Arcade Publishing, 2007), 60-61,

⁷⁵ Miklós Nyziszli, Auschwitz: A Doctor's Eyewitness Account (New York: Arcade Publishing, 2007), 60.

⁷⁶ Miklós Nyziszli, Auschwitz: A Doctor's Eyewitness Account (New York: Arcade Publishing, 2007), 60.

of value by Mengele, and therefore, out of gratitude for this salvation from the gas chambers, Nyziszli was complicit in these crimes against humanity. Nonetheless, Nyziszli realized its unquestionable immorality and Mengele's twisted scheme, which uncovered the abhorrent understanding Nazis possessed of non-Aryan life. The ideological indoctrination Mengele had been exposed to in his life prior to his time at Auschwitz undoubtedly influenced the experiments he would later conduct, as the coveted outcome was to eliminate the ethnic groups deemed lesser by the Nazis, who wanted to make room for new generations of Aryan-blooded German people within the lands of the Third Reich. Through his experiments, Mengele wanted to discover new methods to bolster rates of German reproduction, as well as determine how to effectively manipulate the gene pool to achieve the desired outcome. Dr. Mengele used the resources of Auschwitz to analyze hereditary techniques in order to spawn great numbers of German people, to potentially restore the Aryan population to a state that mirrored the pre-World War II era. Through the use of twins, double the amount of Aryan genes could be reproduced, which unlocked the "secret of multiplying the race of superior beings destined to rule." Dr. Josef Mengele perceived himself to be God-like, as he presumed that undue authority was given to him, along with the knowledge and the resources, to be the creator of a new, everlasting race and contributing to the Nazi concept of *lebensraum*, more living space for the German people. The work of Josef Mengele has never been assumed to be innocently conducted at the behest of the Third Reich's orders, as he was given the opportunity to put is innately evil curiosities into practice. In essence, Mengele was a promulgator of scientific evil and medical corruption, but rather exists in direct opposition to a savior for all humanity.

⁷⁷ Robert J. Lifton, *The Nazi Doctors: Medical Killing and the Psychology of Genocide* (New York: Basic Books, 2017), 359.

Auschwitz was not the only site of grievous human experimentation based on a motivation in which to eliminate those considered racially inferior. At the concentration camp of Buchenwald, in central Germany, SS Commandant Karl Koch oversaw the experimentation conducted on homosexuals and members of the LGBTO+ community. 78 In the Third Reich, Nazis had an intense disdain for against the LGBTQ+ community and had a social agenda in which to prevent homosexual acts from taking place, which would commence in grave experiments and disfigurements upon their arrival at Buchenwald. At this concentration camp, homosexual prisoners would be injected with a slew of hormones to attempt to "cure" them and to transform their sexual orientation. ⁷⁹ However, the most inconceivable form medical treatment at Buchenwald was the forced castration of male homosexuals, either chemically or physically, which often resulted in severe infection and death.⁸⁰ After homosexuals have died from these experiments, Commandant Koch's wife, Ilse, would then remove the skin from the corpses and would proceed to make furniture and lampshades out of the biological material, which would act as décor for the Koch family residence.⁸¹ Homosexuals were especially targeted by the Nazis because of their lack of ability to procreate and to aid in expanding the German population. Therefore, unless they could be cured of their homosexual tendencies, then there was simply no need for them to exist in German society. Homosexuals, especially gay men, were seen as the most indigent of the LGBTQ+ community to Nazis, as they were perceived to be less of a biological man, not even worthy enough or physically strong enough to be effective on the

⁷⁸ Flint Whitlock, *The Beasts of Buchenwald: Karl & Ilse Koch, Human-Skin Lampshades, and the War Crimes Trial of the Century* (Brule, WI: Cable Publishing, 2011).

⁷⁹ Wolfgang Röll, "Homosexual Inmates in the Buchenwald Concentration Camp," *The Journal of Homosexuality* 31, no. 4 (1996): 5, accessed June 1, 2020. https://www.tandfonline.com/doi/abs/10.1300/J082v31n04 01.

⁸⁰ Paul Weindling, *Victims and Survivors of Nazi Human Experiments: Science and Suffering in the Holocaust* (London: Bloomsbury Publishing, 2015), 180.

⁸¹ Flint Whitlock, *The Beasts of Buchenwald: Karl & Ilse Koch, Human-Skin Lampshades, and the War Crimes Trial of the Century* (Brule, WI: Cable Publishing, 2011), 81.

battlefield. These homosexual-directed human experiments seem to be the precursor for gay conversion therapy that would emerge later in the Twentieth Century. Nonetheless, those deemed racially inferior were subjected to the worst human rights violation and torture recorded in modern human history, at the hands of the Nazis, which would set the scene for the downfall of the Third Reich and the reorientation of acceptable medical ethics.

The Conclusion: The Aftermath & The Legacy of Nazi Experiments in Medicine

At the end of World War II, when Auschwitz was liberated by American forced in early 1945, the extensive records of the thousands human experiments performed inside the walls of its medical unit were brought to light. The Nazis kept extensive documents of every aspect of their secretive operations, but thought these records were beneficial at the height of their regime, they would later be the catalyst of their demise, as these findings would be utilized as condemning evidence at the war crimes trial at Nuremberg of 1945 and 1946. According to Kenneth Mellanby, a British reporter who was present at the proceedings of the Nuremburg, the trials had "drawn public attention to the vast numbers of human experiments of human beings, many of which proved fatal to the victims, which were carried out on the prisoners in the concentration camps." This was the first time that any information regarding the nature of the Nazi's atrocious crimes against humanity was made available to the public. The plethora of grotesque details that came to light at trial played a key role in the conviction of Nazi criminals

⁸² Stephen G. Post, "The Echo of Nuremberg: Nazi Data and Ethics," *Journal of Medical Ethics* 17, no. 1(1991): 42, accessed January 28, 2020. https://www-jstor-org.ezproxy.lib.calpoly.edu/stable/27716996.

⁸³ Kenneth Mellanby, "Medical Experiments on Human Beings in Concentration Camps in Nazi Germany," *The British Medical Journal* (London), January 25th, 1947. https://www.bmj.com/content/1/4490/148.

and their subsequent death sentences.⁸⁴ Though the Allied victory and the Nuremberg Trials put a stop to Nazi medicine and human experimentation in the late 1940s, its effects still linger in modern-day medicine.

In the post-World War II era, reforms were made within the field of medicine to reconstitute which practices were ethical or unacceptable, as a clear line had to be drawn in order to prevent any future instances of eugenic practices. This period in history sparked the debate about ethical vs. unethical human experiments that would occur later in the Twentieth Century, like the moral soundness of specific procedures like amniocentisis or plastic surgery operations. 85 It is said that these procedures have derived from the research gathered through the efforts of Nazi doctors and their medical experiments on concentration inmates. The Nationalist Socialist Party and the members of the Third Reich were profoundly motivated by their extreme ideology, which was designed to promulgate the endurance of the Aryan race. Physicians were enlisted to practice medicine under these pretenses and political beliefs, so that they would be inclined to discover cures for and conduct research that would benefit the German war effort and promote the long-lasting preeminence of the Aryan race. Due to the Third Reich's genocidal operation of the Holocaust, the Nazis possessed unrestricted access to an enormous subject pool, in which, through the performance of experiments, tortured, brutalized, and murdered thousands of Jewish people alone. The medical experiments conducted on live human beings allowed for Third Reich physicians to bolster the deeply-rooted, internalized Nazi ideology. Through the examination of the human experiments that transpired during the second World War and the Holocaust, the evil that existed with Nazism was unveiled, to never be ignored again.

⁸⁴ Kenneth Mellanby, "Medical Experiments on Human Beings in Concentration Camps in Nazi Germany," *The British Medical Journal* (London), January 25th, 1947. https://www.bmj.com/content/1/4490/148.

⁸⁵ Naomi Schaeffer, "The Legacy of Nazi Medicine," *The New Atlantis*, no. 5 (2004): 59, accessed January 25, 2020. https://www-jstor-org.ezproxy.lib.calpoly.edu/stable/43152101?seq=6#metadata info tab contents.

As the 75th anniversary of the liberation of Auschwitz has just passed, on January 25th, 2020, the information discussed in this paper is ever relevant in the remembrance of the victims of human experimentation, torture, and human rights violations, as well as the millions of innocent lives lost due to the unjust cause of Nazism. Though the gruesome details of human experimentation may be not be easily stomached and are not often explicitly discussed for that reason, it is critical to recognize the egregious deeds committed at the hands of the Nazis. In keeping these events at the front of our psyche, each person will keep the memory of those lost in this period alive, so that grave injustices that mirror the ones of World War II are never repeated and they are never forgotten.

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