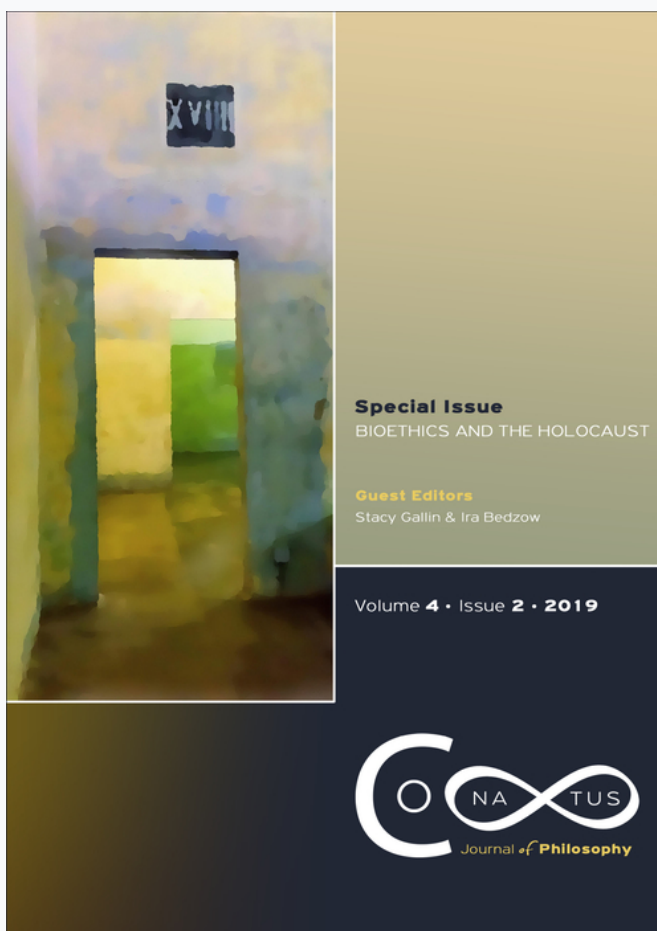


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The Medical Manipulation of Reproduction to Implement the Nazi Genocide of Jews*

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Abstract

Holocaust literature gives exhaustive attention to direct means of exterminating Jews, by using gas chambers, torture, starvation, disease, and intolerable conditions in ghettos and camps, and by the Einsatzgruppen. In some circles, the term “Holocaust” has become the ultimate description of horror or horrific events. The Nazi medical experiments and practices are an example of these. Nazi medical science played a central and crucial role in creating and implementing practices designed to achieve a “Master Race.” Doctors interfered with the most intimate and previously sacrosanct aspects of life in these medical experiments – reproductive function and behavior – in addition to implementing eugenic sterilizations, euthanasia, and extermination programs. Manipulating reproductive life – as a less direct method of achieving the genocide of Jews – has been less acknowledged. The Nazis prevented those regarded as not meeting idealized Nazi racial standards – and particularly Jewish women – from having sex or bearing children through legal, social, psychological and biological means, as well as by murder. In contrast, they promoted reproductive life to achieve the antithesis of genocide – the mass promotion of life – among those deemed sufficiently “Aryan.” Implementing measures to prevent birth is a core feature of the UN Convention on the Prevention and Punishment of Genocide. As with many other aspects of the Holocaust, science and scientists were inveigled into providing legitimacy for Nazi actions. The medical profession was no exception and was integrally involved in the manipulation of birth to implement the Holocaust.

Key-words: *Nazi; medicine; reproductive life; medical experiments; eugenics; euthanasia; sterilization; medical ethics*

The Nazis used, and abused, reproduction and sexuality to achieve their ideological goal of creating a so-called Master “Aryan” Race. On the one hand, they prohibited or prevented women and men regarded as not meeting idealized Nazi racial standards – and particularly Jewish women

* This manuscript is based on Beverley Chalmers’ multiple-award winning book *Birth, Sex and Abuse: Women’s Voices under Nazi Rule* (Surrey, UK: Grosvenor House Publishers, 2015).

– from having children through legal, social, psychological and biological means, as well as by murder. On the other hand, they promoted reproductive life and sexuality to achieve the antithesis of genocide – the mass promotion of life – among those deemed sufficiently Aryan.

The Jew in Nazi ideology was an “embodiment of everything considered evil, and fit only for extermination.”¹ Not only were Jews regarded as biologically impure, but they were also depicted as socially, economically, and politically contaminating and, moreover, responsible for all the world’s ills, including the loss of World War I. Viewed – remarkably – as simultaneously, and impossibly, Marxist, Capitalist and Democratic, they were seen as bent on world domination.² Such dehumanizing views of Jews were not new although the biological component of Nazi anti-Semitism, based on their racially focused ideology, was a novel addition to traditional anti-Semitic views.

The literature on the Holocaust gives exhaustive attention to direct means of exterminating Jews, including the use of gas chambers, torture, starvation, disease, and intolerable conditions in the ghettos and camps as well as through the actions of the *Einsatzgruppen*. The manipulation of reproductive lives – as a less direct method of genocide – has not yet received the same exhaustive attention. Imposing measures to prevent births is, however, included in the internationally accepted definition of genocide found in Articles II and III of the 1948 United Nations Convention on the Prevention and Punishment of Genocide.³

Nazi policies preventing pregnancy and birth among Jewish women were a constantly evolving combination of ideology and practice. As with other extermination processes under the Third Reich, the manipulation of Jewish reproductive life was neither static in its conceptualization nor consistent in its application.

I. The Eugenics Program

Doctors played a central role in manipulating reproductive and sexual lives to achieve Nazi goals. The Nazis implemented eugenics and euthanasia programs, medical experimentation and extermination to achieve their goal of eradicating those perceived as *lebensunwertes Leben* (lives unworthy of life). The Nazis manipulated reproductive life to promote the births of racially pure Aryan babies through prohibiting abortion and restricting contraception for

¹ Dana Lori Chalmers, “The Influence of Theatre and Paratheatre on the Holocaust” (Master Thesis, Concordia University, 2008), 16.

² Ibid., 17.

³ Adam Jones, *Genocide: A Comprehensive Introduction* (Routledge/Taylor & Francis Publishers, 2006), 13.

those considered to be of sufficient Aryan purity. They also approved interruption of pregnancy if the future child was likely to inherit 'defects' such as mixed Jewish and non-Jewish parentage, and forced sterilization of so-called 'undesirable life.' Negative eugenics was focused on the threat posed by mental illness in particular as well as other undesirable medical and social ills: it was not directed specifically at Jews but at all Germans, although Jews were frequently identified as having such unwanted characteristics.

Within months of the Nazi party coming to power, the *Law for the Prevention of Genetically Diseased Offspring* was promulgated and took effect on January 1, 1934.⁴ The removal of earlier restrictions preventing the compulsory sterilization of those with hereditary mental or physical defects, or other social or racial "undesirables," opened the door for enthusiastic cooperation by doctors and psychiatrists to work in collaboration with police and local government authorities through the so-called Hereditary Health Courts. Not only Nazis, but also professionals in a range of fields could take advantage of this, justifying their actions through recourse to the wishes, intentions or aims of the *Führer*, the interests or needs of the national community and racial health.⁵ The law targeted both mental and physical illness.⁶ Compulsory sterilization was implemented for congenital feeble-mindedness, schizophrenia, manic-depressive psychosis, hereditary epilepsy, Huntington's chorea, hereditary deafness, blindness or severe deformity, or severe alcoholism.⁷ Definitions of these categories were narrow at first but later became loosely defined and broadly interpreted. People who were unaffected by any of the illnesses that were specified by the Law and who were perfectly capable of passing the intelligence tests which were required for selection were nevertheless compulsorily sterilized.⁸ Many victims simply deviated from "normal" behavior, as judged by their apparent social "superiors." For example, people who failed to be monogamous, thrifty, clean, efficient, tidy, responsible, and striving upwards were designated "socially feeble-minded" on the basis of intelligence tests, spurious diagnoses or, more usually, gossip or hearsay.⁹ A considerable number of the victims were from the poorer sections of society or were those discharged from asylums.¹⁰ Regardless of their actual state of

⁴ Richard J. Evans, *The Third Reich in Power* (USA: Penguin Books, 2006), 507-509.

⁵ Ian Kershaw, *Hitler: Profiles in Power*, ed. Keith Robbins (London: Longman, 1991), 103.

⁶ Mark Mazower, *Dark Continent: Europe's Twentieth Century* (New York: Vintage Books, 1998), 97.

⁷ Michael Burleigh and Wolfgang Ipperman, *The Racial State: Germany 1933-1945* (Cambridge: Cambridge University Press, 1991), 507-509.

⁸ *Ibid.*, 168.

⁹ *Ibid.*, 49.

¹⁰ Gisela Bock, "Racism and Sexism in Nazi Society: Motherhood, Compulsory Sterilization,

health the latter were alleged to have recessive genes. Roughly two-thirds of those sterilized were the inmates of mental hospitals. The scope of sterilization, organized and administered by the medical profession, widened as time passed to include convicts, prostitutes and even children in orphanages who were considered uncooperative. Eventually, even social problems like poverty were attributed to genetics.¹¹ Between 1934 and 1936 about 250 special sterilization clinics were established and race hygiene experts along with judges decided on the desirability of sterilizations. Doctors had to undergo training in recognizing hereditary degeneracy, for example though the shape of the patient's earlobes, the patient's gait, or the configuration of the half moon at the base of the patients fingernails.¹² Doctors were required to record all cases of serious alcoholism and what were termed incurable hereditary or congenital diseases such as imbecilism, and highly contagious diseases like venereal diseases, except in women over forty-five who were regarded as less of a threat to the potential racial pool, and could be fined for failing to do so.¹³ These people were termed "useless eaters" and a burden to the German war machine.¹⁴ The Nazis implemented a ruthless sterilization program that ultimately victimized approximately 350,000 Germans¹⁵ divided equally between men and women, including an unknown number of Jews. Also included were Roma and Sinti, classed as "disorderly wanderers," and approximately 500 "Rhineland bastards" – children of liaisons between German women and black French soldiers.

II. The Euthanasia Program

In 1939 the Nazis moved from sterilization to mass murder. Virtually the entire medical profession had been involved in the sterilization program. For an unknown number, moving to euthanasia was but a short step.¹⁶ The lawyer Karl Binding and the forensic psychiatrist Alfred Hoche coined the phrase "life unworthy of life" in their writings, and argued that what they called "ballast

and the State," in *Different Voices: Women and the Holocaust*, ed. John K. Roth, and Carol Rittner, 161-186 (New York: Paragon House, 1993), 161-180; 70-75.

¹¹ John Cornwell, *Hitler's Scientists: Science, War and the Devil's Pact* (New York: Viking, 2003), 348.

¹² Evans, *The Third Reich in Power*, 145.

¹³ Richard J. Evans, *The Coming of the Third Reich* (USA: Penguin Books, 2005), 145.

¹⁴ Vivien Spitz, *Doctors from Hell: The Horrific Accounts of Nazi Experiments on Humans* (Boulder: Sentient Publications, 2005), 46.

¹⁵ Evans, *The Coming of the Third Reich*, 508.

¹⁶ James M. Glass, *Life Unworthy of Life: Racial Phobia and Mass Murder in Hitler's Germany* (New York: Basic Books, 1997), 34.

existences” – people who were nothing but a burden on society – should be killed. They proposed that as the incurably ill and mentally handicapped were costing millions of marks and taking up thousands of needed hospital beds, doctors should be allowed to put them to death. Those targeted for euthanasia included children born with congenital anomalies including Down’s syndrome/mongolism and vaguely defined conditions such as “idiocy,” especially when associated with blindness or deafness; mental retardation; hydrocephaly; microcephaly; spina bifida; muscular dystrophy; limb malformations of all kinds; and paralysis including spastic conditions such as cerebral palsy.¹⁷ All Jewish patients were to be killed regardless of illness.¹⁸ Doctors and midwives were paid 2 Reichsmarks for every case they reported.¹⁹ In December 1939, questionnaires were sent to every German mental institution to be completed for each inmate.²⁰ Inmates with stays of five years or longer were at particular risk.²¹ At first concerned with physical issues, the reports were considerably expanded in June 1940 to include: details about a person’s birth and family history, especially concerning such things as hereditary illness and excessive use of alcohol, nicotine or drugs, evaluation of the illness including expectations for improvement and life expectancy, prior institutional observations and treatment, details of physical and mental development, and descriptions of convulsions and related events.²² After this time, the questionnaires also inquired about the ability of the inmate to work.²³ Eventually all physicians, not only psychiatrists, were allowed to complete the questionnaire.²⁴ The methods of killing involved injections of morphine and cyanide, or carbon monoxide gassing in sealed chambers, chemical agents including luminal and veronal in addition to morphine and scopolamine, and occasionally the injection of phenol directly into the heart,²⁵ all of which were the responsibility of the medical profession.

Eventually 30 killing centres were established including some of Germany’s most prestigious hospitals – Hadamar, Hartheim, Sonnenstein and

¹⁷ Richard J. Evans, *The Third Reich at War* (New York: The Penguin Press, 2009), 80.

¹⁸ Frank Chalk and Kurt Jonassohn, *The History and Sociology of Genocide* (New Haven: Yale University Press, 1990), 534.

¹⁹ Evans, *The Third Reich at War*, 84-85.

²⁰ Chalk and Jonassohn, 534.

²¹ Ibid.

²² Robert Jay Lifton, *The Nazi Doctors: Medical Killing and the Psychology of Genocide* (New York: Basic Books, Inc, 1986), 270-278.

²³ Chalk and Jonassohn, 534.

²⁴ Ibid.

²⁵ Lifton, 100.

Grafeneck – which were set up as medical schools conducting classes, not in curing, but in killing.²⁶ The main killing centers were in isolated areas and had high walls although onlookers could see and smell the crematory smoke and could view the buses transporting patients to them. Between 70,000 and 93,000 inmates of asylums were gassed by medical professionals before the euthanasia program (the T4 program) was shut down after opposition from Church leaders. On or about August 24, 1941, Hitler gave a verbal order to end or at least to “stall” operation T4.²⁷ Only the visible aspects of the program were discontinued – the large scale gassing of victims which resulted in obvious smoke from burning bodies in the crematoria – while the killing by other means continued.²⁸ The special gas chambers were dismantled and shipped to the east where they were re-assembled in such places as Belzec, Maidanek and Treblinka. The program continued on a lesser scale for the remainder of the war,²⁹ with killing now by drugs, lethal injection or by starvation.³⁰ Many of these doctors spoke with pride about their work after the war, maintaining that they had been contributing to human progress.³¹

III. Other manipulations of reproductive life

In addition to the eugenics and euthanasia programs, the Nazis manipulated birth and factors contributing to birth to implement the Shoah of the Jews and the genocide of all those deemed *lebensunwertes Leben*. These actions included preventing social and sexual contact between those regarded as “desirable” and those deemed “undesirable,” to avoid contamination. More severely, the Nazis prevented those they regarded as “undesirable,” from reproducing through segregation of the sexes in camps, forbidding births in ghettos and camps on pain of death, and enforcing abortion amongst those who did conceive. Among Jews, reproduction was, in addition to the actions described above, prevented by murdering pregnant women on arrival at concentration or extermination camps or later, if pregnancy manifested after admission to the camps. Mothers and their newborns were murdered if a birth occurred. The Nazis gassed Jewish children on arrival at the camps to prevent them from growing into adults who could then reproduce. Nazis also inflicted significant sexual degradation and humiliation such as forced nudity and

²⁶ Glass, 9.

²⁷ Lifton, 95-97.

²⁸ Ibid.

²⁹ Glass, 62.

³⁰ Lifton, 95-97.

³¹ Evans, *The Third Reich at War*, 82.

shaving of all bodily hair, contributing to a dehumanization of these psychologically significant components of reproductive self-concept.

To promote the achievement of a “pure Aryan” race among those deemed to meet racial purity criteria; on the other hand, the Nazis rewarded motherhood socially with distinctive medals and respectful salutes being awarded to mothers with many children, and financially, with grants (e.g. marriage loans) for those likely to produce “pure Aryan” offspring. More drastically, among Aryans, the Nazis supported childbirth outside of marriage and divorce on the grounds of being past childbearing age; condoned infidelity within marriage; officially promoted interpersonal relationships and sexual practices (‘joyful heterosexuality’)³² that were deemed to be acceptable (e.g. among those deemed racially ‘pure’ enough); forbade birth control and abortion; and even kidnapped “desirable” children in occupied lands to promote the Aryan racial pool.

IV. Doctors Roles in the Camps

Doctors fulfilled numerous roles during the Holocaust that contributed significantly to achieving Nazi goals.³³ For instance, their role in the eugenic sterilization and euthanasia programs was extensive. In the camps they selected prisoners from the incoming transports and supervised the extermination process in the gas chambers by overseeing the application of Zyklon B and ensuring that the extermination process had been carried out once the doors were opened. Doctors also ensured the removal of all gold teeth and valuables that might have been hidden in bodily orifices from the gassed victims, as well as the melting of the teeth and their safekeeping until delivery to the SS. They selected prisoners who could no longer work or those with infectious diseases for extermination and decided which bedridden inmates they would kill with lethal injections or which would be sent to gas chambers. Doctors certified that the prisoners to whom they administered lethal injections had died and had to be present at executions to verify that the executed were dead. They were required to examine prisoners sentenced to receive corporal punishment for reasons that might prevent this punishment, and had to be present when this was carried out. They were also expected to perform abortions on foreign women at least up until the fifth month of pregnancy. In addition, many doctors and medical institutes were directly involved in ghastly medical experimentation and some, like Professors Clauberg, Schumann, and Mengele, worked on medical experiments involving reproductive function.

³² Dagmar Herzog, “Hubris and Hypocrisy, Incitement and Disavowal: Sexuality and German Fascism,” *Journal of the History of Sexuality* 11, no. 1/2 (2002): 9.

³³ Rudolf Höss, *Death Dealer: The Memoirs of the SS Kommandant of Auschwitz*, trans. Andrew Pollinger ed. Steven Paskuly (New York: Da Capo Press, 1996), 223-224.

V. Sterilization Experiments

The period between the arrival of prisoners in the camps and their ultimate murder provided the Nazis with an opportunity to conduct medical experiments on them – mostly hidden from public view. These experiments gave the Nazis the opportunity to implement both of their ideological goals – the refinement of the “Master Race” and the elimination of the sub-human Jews and others categorized as undesirable.

A great deal of scientific attention was dedicated towards determining ways of mass sterilization. Sterilization experiments were conducted from March 1941 to January 1945 in Auschwitz, Ravensbrück and other camps.³⁴ Women subjected to such experiments were called “rabbits” or “guinea pigs.”³⁵ Carl Clauberg requested permission from Himmler to conduct sterilization experiments in Auschwitz on May 30, 1942. Himmler agreed, through his assistant Rudolf Brandt, on July 10, 1942, indicating that he would be “interested to learn [...] how long it would take to sterilize a thousand Jewesses.”³⁶ He also advocated a practical follow-up experiment “locking up a Jewess and a Jew together for a certain period and then seeing what results are achieved,”³⁷ and whether the sterilization procedures had been effective in preventing conception. Three methods were tried: sterilization by medication, x-rays and chemicals.

VI. Sterilization by Medication Experiments

The first approach involved using drugs that were designed to induce infertility developed from a South American plant *caladium seguinum* (American arum) and tested on animals by the firm Madaus and Co., Dresden-Radebeul. Dr. Karl Tauboeck at the University of Vienna was ordered by Himmler in 1942, to produce sizeable quantities of a drug obtained from the Brazilian plant of the same family, *dieffenbachia seguina* (Dumb cane), which he was informed was to be used for the mass sterilization of the mentally-ill Polish and Ukrainian populations.³⁸ The drug was believed to reduce sexual excitation

³⁴ Hester Baer and Elizabeth Baer, “Introduction,” in *The Blessed Abyss: Inmate #6582 in Ravensbrück Concentration Camp for Women*, eds. Hester Baer, and Elizabeth Baer, 13-51 (Detroit: Wayne State University Press, 2000), 1-30.

³⁵ Wanda Poltawska, *And I Am Afraid of My Dreams*, trans. Mairy Craig (London: Hodder and Stroughton, 1964), 80.

³⁶ Lifton, 270-278.

³⁷ Ibid.

³⁸ British Intelligence Objectives Sub-Committee, “Interrogation Report No 518. Ref No Aiu/

and to induce impotency in males at least: for females, the effect appeared to be temporary. Dr. Tauboeck reported destroying all the available plants by allowing them to freeze as he thought the research unethical. In addition, Dr. Adolf Pokorny testified after the war that he had worked on a second series of experiments using these plants, and had also used delaying tactics to prevent such research from being successful: he was acquitted at the Nuremberg trials.³⁹ Mitscherlich and Mielke report that a sworn statement of Rudolf Brandt, Himmler's personal adjutant, explains that experiments with *caladium seguinum* were actually performed on concentration camp inmates, but all efforts to discover the details proved fruitless at the time of the 1947 Nuremberg trials.⁴⁰

In contrast to these experiments designed to reduce fertility, Dr. Tauboeck was also ordered by Himmler to produce a drug that would excite the sexual desires of women to facilitate the actions of spies in cases where women might have desired information.⁴¹ This manipulation is yet another manifestation of the Nazi's willingness to use or misuse women, as sexual and reproductive beings, to facilitate their cause.

VII. Sterilization by X-Rays Experiments

A second method tried to provide a method of mass sterilization explored the use of x-rays in both men and women. Dr. Horst Schumann's experiments were directed towards castrating Jewish men by means of x-rays to the genital organs. Schumann was the director of Grafeneck euthanasia centre and later Sonnenstein. Following this, he became active in project 14f13 as a member of the medical commissions visiting camps.⁴² Victims of his experiments reported having their sperm collected, being forced to masturbate, having their prostate glands brutally massaged by means of wooden or iron instruments inserted into the rectum to induce ejaculation, and having operations to remove one or both testicles, or even a portion of a testicle. They were questioned about the result of the "treatment," their desires, nocturnal emissions, and loss of memory. Brutality and minimal anaesthesia made their

Pir/137. Target No: C24/744, Bwce/N/Int/"T"/1 162 " (London: Imperial War Museum, 12 June 1947).

³⁹ US Government, "Trial of the Major War Criminals before the International Military Tribunal. Official Text in the English Language. Published at Nuremberg, Vol. XXIX," (1947).

⁴⁰ Alexander Mitscherlich and Fred Mielke, *Doctors of Infamy: The Story of the Nazi Medical Crimes*, trans. Heinz Norden (New York: Henry Schuman Inc, 1949), 131-135.

⁴¹ British Intelligence Objectives Sub-Committee, "Interrogation Report No 518. Ref No Aiu/Pir/137. Target No: C24/744, Bwce/N/Int/"T"/1 162."

⁴² Lifton, 278.

experiences disastrous. Haemorrhage and septicaemia often followed as well as absence of muscle tone from wounds so that the men died rapidly.⁴³ Robert Jay Lifton also reports castration experiments on a group of healthy Polish men to whom unusually high doses of x-rays were given causing their genitals to rot away. After long suffering, the men were sent to the gas chambers.⁴⁴

Prof. Schumann's experiments on women involved the use of x-rays of the pelvic organs to induce sterility. He forcibly sterilized women by positioning them between two x-ray machines aimed at their sexual organs. Ovarietomies were later performed – often by a Polish prisoner Dr. Wladyslaw Der-ing. Most women died after suffering greatly.⁴⁵ Schumann and his co-workers performed 90 sterilizations in one day on at least one occasion.⁴⁶ Operations were done without sterile procedures for hands or instruments and executed extremely rapidly – in about 10 minutes – followed by hasty and rough suturing. In women, symptoms induced by x-rays included the cessation of menstruation, changes in body hair, and changes in metabolism. As it was not possible to prevent irradiation of other body parts, irradiation sickness also ensued together with burning of the skin.⁴⁷ Danuta Czech testified that 15 of the girls experimented on by Dr. Schumann on November 2, 1942 were between 17 and 18 years of age: only a few survived. Because of the experiments, the girls completely changed in appearance and resembled old women.⁴⁸

Victor Brack reported to Himmler, on the basis of Schumann's experiments, that men or women could step up to a window where they could be asked questions or have to complete a form thus detaining them for the desired time needed to expose them to the x-rays. The official behind the window could operate the x-ray tubes. He reported that "a two-tube installation could thus sterilize 150-200 persons a day, twenty installations some 3,000 to 4,000 persons a day."⁴⁹ Schumann himself, however, reported on April 29, 1944, that castration of men by this method was not feasible and probably

⁴³ Ibid., 282.

⁴⁴ Ibid., 283.

⁴⁵ Hartmut M Hanauske-Abel, "Not a Slippery Slope or Sudden Subversion: German Medicine and National Socialism in 1933," *BMJ: British Medical Journal* 313, no. 7070 (1996): 137, note 11.

⁴⁶ Gerald L. Posner and John Ware, *Mengele: The Complete Story* (New York: Cooper Square Press, 2000), 31-32.

⁴⁷ Mitscherlich and Mielke, 136.

⁴⁸ Danuta Czech, *The Auschwitz Chronicle 1939-1945*, trans. Barbara Harshav, Martha Humphreys, and Stephen Shearier (New York: Henry Holt, 1990), 172.

⁴⁹ Elie Cohen, *Human Behaviour in the Concentration Camp* (London: Free Association Books, 1988), 97.

too expensive. He suggested that castration by surgical means was cheaper and took no more than 6-7 minutes but that this method was not fast or inconspicuous.⁵⁰

VIII. Experiments on Sterilization with Chemicals

Prof. Clauberg, an SS Brigadier-General and MD from Köningshütte, working under the supervision of the chief SS physician Dr. Eduard Wirth, was particularly involved in a third approach to sterilization: the injection of chemical irritants into the uterus.⁵¹ On April 1, 1943 Commandant Höss, put Block 10 at Auschwitz at his disposal for these experiments. By May 5, 1943, there were 243 women prisoners – Jews and Roma or Sinti – housed in Block 10 who were to be used for this research. Both Jews, Roma and Sinti were subjected to these experiments.⁵² In addition to wards, Block 10 had an elaborate x-ray machine and four experimental rooms, one of which served as a dark room for developing x-rays.⁵³ Clauberg's program began on December 18, 1942 with about 350-400 Greek and Dutch women. He injected iodiprin, F12a, which was diluted Novocain, and citobarium or barium sulphate into the uterus and subjected the women to x-rays. This resulted in peritonitis, inflammation of the ovaries, and high fever, causing closure of the fallopian tubes and permanent sterility. Sometimes the belly of the woman was opened to observe the lesions. The ovaries were then removed, usually in two separate operations, and sent to Berlin for analysis. Clauberg reassured women that he would not return them to Birkenau but would send them to his private research clinic in Königshütte a few kilometers from Auschwitz. After the successful experiment Clauberg planned that every one of the female prisoners at the end of a year undergo sexual intercourse with a male partner chosen especially for this purpose in order to carry out a practical test of Clauberg's sterilization method. This test was never performed "because of the course of the war" and most of the women were later sent to the gas chambers.⁵⁴ On June 7, 1943, Clauberg reported to Himmler – under whose direct orders he was working – that he could sterilize, without an operation, as many as a thousand women a day. He suggested that a single injection into the cervix was sufficient and it could be administered during the "usual gynaecological examination familiar

⁵⁰ Höss, 350.

⁵¹ Leni Yahil, *The Holocaust: The Fate of European Jewry*, trans. Ina Friedman and Haya Galai (Oxford: Oxford University Press, 1990), 369.

⁵² Guenter Lewy, *The Nazi Persecution of the Gypsies* (Oxford: Oxford University Press, 2000), 161-162.

⁵³ Lifton, 270-278.

⁵⁴ Ibid.

to every physician.” X-ray photographs made during certain preliminary tests performed at Ravensbrück showed that Clauberg’s injections “penetrated to the end of the ovarian duct; in several cases even to the abdominal cavity.”⁵⁵

IX. Other Experiments on Reproductive Organs

A further series of experiments were conducted on menstruation and the menstrual cycle in women, largely using the bodies of women to be executed by the Gestapo. German scientist Hermann Stieve of the University of Berlin was notified of the date of execution of women of reproductive age. During her period, the prisoner was also informed: “You will be shot in two days.”⁵⁶ Stieve then studied the effects of the impending trauma on the woman’s menstrual cycle. Upon her death, her pelvic organs were removed for histological examination. Stieve continued to lecture on his research in Berlin after the war and was sought after by Russian scientists.⁵⁷

A series of additional experiments involved the reproductive organs and behaviours of prisoners. Lengyel reports that experiments on artificial insemination were tried although the experiments yielded no results.⁵⁸ In alternative experiments, a Dr. Treite performed surgical tying of the oviducts.⁵⁹ Further experiments in Buchenwald and Neuengamme attempted to counteract homosexuality by gland implants and synthetic hormones. These experiments were suggested and executed by the Danish SS Major Dr. Carl Vaernet.⁶⁰ In Buchenwald, 15 inmates were treated of whom two died. No positive findings emerged.⁶¹ Dr. Franz Blaha testified at Dachau during the war trials that the infamous freezing water experiments conducted by Dr. Sigmund Rascher utilized either a heating apparatus to re-warm frozen prisoners or – at Himmler’s suggestion – the person was placed in a bed between two women.⁶² In eight

⁵⁵ Cohen, 97.

⁵⁶ Olga Lengyel, “Scientific Experiments,” in *Women and the Holocaust: Different Voices*, eds. Carol Rittner, and John K. Roth, 119-129 (New York: Paragon House, 1993), 121.

⁵⁷ William E. Seidelman, “Medicine and Murder in the Third Reich,” *Dimensions: A Journal of Holocaust Studies* 13, no. 1 (1999): 1-9.

⁵⁸ Olga Lengyel, *Five Chimneys: A Woman Survivor’s True Story of Auschwitz*, First Academy Chicago edition, 1995 ed. (Chicago: Ziff-Davis Publishing Company, 1947), 190.

⁵⁹ Hanauske-Abel, 138.

⁶⁰ United States Holocaust Memorial Museum, “Homosexuals: Victims of the Nazi Era, 1933-1945,” fcit.usf.edu/holocaust/people/USHMMHOM.HTM.

⁶¹ Eugen Kogon, *The Theory and Practice of Hell: The German Concentration Camps and the System Behind Them*, trans. Heinz Norden (New York: Berkeley Books, 1950), 172.

⁶² Joshua M. Greene, *Justice at Dachau: The Trials of an American Prosecutor* (New York: Broadway Books, 2003), 49.

cases the subject was placed between two naked women: they were supposed to nestle close to the subject to warm him up. All three were then covered with blankets. Consciousness returned earlier than with other methods of warming, such as using hot baths or blankets. The temperature rose rapidly in four of the experimental subjects who engaged in sexual intercourse. Additional experiments involving re-warming by one woman indicated that return to consciousness and re-warming occurred even more quickly compared to when two women were involved, possibly due to fewer inhibitions.⁶³ Himmler considered these experiments as entertaining and, on occasion, brought friends to view them.⁶⁴

X. Mengele's Twin Studies

Twins, Dr. Josef Mengele's primary concern, were regarded as the ideal experimental subject. Twins were valued because of their potential in promoting multiple births, in order to create the "Master Race."⁶⁵ Mengele's twin studies were not simply about increasing fertility through multiple births but also about perfecting the replication of the ideal features of the desired Aryan race: blue eyes, blond hair and strong bodies.⁶⁶ To this end, Mengele tried to change the pigmentation of eyes by injecting them with substances such as methylene blue. The procedure did not cause any permanent change in eye color but did cause considerable pain, vision damage and on occasion death.⁶⁷ Mengele was also believed to have experimented with sexuality among his twin subjects:⁶⁸ Several twin survivors believe that Mengele had twins mate although no twins have elaborated on what they knew about this. Some female twins were, however, sterilized and some males castrated. Rumors suggest that Mengele wanted to use twins' sperm to impregnate German women to see if they would also bear twins and to see if male twins who had intercourse with female twins would again bear twins.⁶⁹ At the end of 1944, a new block was being built in Auschwitz for experiments with artificial

⁶³ Cohen, 87.

⁶⁴ Lord Russell of Liverpool, *The Scourge of the Swastika* (London: The Military Book Club, 1954), 186-187.

⁶⁵ Edwin Black, *Nazi Nexus: America's Corporate Connections to Hitler's Holocaust* (Washington D C: Dialog Press, 2009), 66-74.

⁶⁶ Posner and Ware, 31-32.

⁶⁷ *Ibid.*, 34.

⁶⁸ Lucette Matalon Lagnado and Sheila Cohn Dekel, *Children of the Flames: Dr Josef Mengele and the Untold Story of the Twins of Auschwitz* (New York: William Morrow and Company, Inc, 1991), 70-71.

⁶⁹ Lifton, 357-359.

insemination, for the greater population of Germany; but the evacuation of Auschwitz prohibited their implementation.

XI. The Value of this Experimentation

Referring to these experiments as research credits them with some scientific validity. There is however, considerable doubt as to whether any research conducted on starving prisoners living under appalling concentration camp conditions and without consistently following appropriate medical standards is of any value. In addition, some of the activities of camp doctors under the guise of research, and later testified to by survivors, raise images of sheer morbid curiosity rather than science.

At the Nazi doctor's trial following the war commencing on October 25, 1946, none of those charged with the most heinous of these programs expressed remorse or regret: they remained convinced of the value and normalcy of their actions.⁷⁰ Their research appeared, to them, to have achieved the highest goals of purifying and removing degeneracy from the superior German Aryan race and they believed they should be honored for their achievements rather than criminalized.⁷¹ Estimates suggest that between 200 and 350 German doctors, including university professors and lecturers, had been direct participants in research, while hundreds or perhaps thousands had stood silently by.⁷² Among these doctors, the power of ideological conviction, combined with selfish achievement motivation, clearly outweighed the humanitarian underpinnings of their Hippocratic Oath.

XII. The Aftermath of the Nazi Medical Experiments

The so-called medical experiments conducted in the camps in association with many of the top research facilities in Germany at the time were horrendous. They have, however, stimulated a process of developing and refining ethical guidelines for research on human subjects that commenced shortly after the war and is still in progress. While this in no way justifies their occurrence, it is, at least, one optimistic outcome of these disastrous events.

Debates around issues related to the medical experiments of the Nazi era are, however, difficult. Using the "Nazi analogy" is a persuasive argument and tends to result in moral bulldozing.⁷³ In the medical world, a lack of un-

⁷⁰ Spitz, 266.

⁷¹ Ibid.

⁷² Cornwell, 357.

⁷³ Arthur Caplan, "The Relevance of the Holocaust in Bioethics Today," in *Medicine, Ethics, and the Third Reich: Historical and Contemporary Issues*, ed. John J. Micahalczyk, 3-12 (Kansas City: Sheed and Ward, 1994), 6.

derstanding of Nazi medicine results in the “Nazi analogy” being a powerful force preventing careful examination of the merits and demerits of current medical developments such as cloning, or the use of stem cells, or assisted dying. It is only in recent decades that bioethicists have analyzed the ethical issues raised by the brutal experiments in the camps and the eugenics and euthanasia programs.⁷⁴ The German medical community in particular has been reluctant to confront its role in the Nazi era: Mitscherlich⁷⁵ was rejected by German medical bodies for editing the documents produced at the 1946-1947 Doctor’s Trial at Nuremberg. Of 422 articles on Nazi Medicine published between 1966 and 1979, only two originated in Germany.⁷⁶ The reluctance of post-war scientists to examine the Nazi experiments and to dismiss them as irrelevant has led to a disregard for their implications for our current medical and scientific activities.⁷⁷ Exposing the extent and horror of the Nazi era is important if a balanced view of current medical developments can be obtained in relation to the faulty science underlying Nazi ideology. This is important because what took place in Germany was grounded not only in racism, as occurs in many current day conflicts and genocides, but also in science and medicine. Nazi racism was implemented using scientific and engineering technology administered by doctors and other health care providers.

XIII. Consequences of Not Examining Nazi Medicine after 1945

Our unwillingness to examine Nazi medicine in the decades following the end of World War II might have contributed to the ability of scientists to proceed with research that was, on occasion, questionable. For example, Jay Katz reports that the mustard gas experiments conducted by the U.S. armed forces between 1950 and 1970 continued patterns of abuse and neglect where subjects were recruited through lies and half-truths for experiments using chemicals known to cause debilitating long-term effects.⁷⁸ Similarly, Katz asserts that the Tuskegee Syphilis studies conducted between 1932 and 1972, by the U.S. public health service allowed for the monitoring of the natural history of untreated syphilis from its inception until death in 400 African-Americans, de-

⁷⁴ Michael Grodin, “Historical Origins of the Nuremberg Code,” in *Medicine, Ethics and the Third Reich: Historical and Contemporary Issues*, ed. John J. Michalczyk, 199- 209 (Kansas City: Sheed and Wade, 1994).

⁷⁵ Mitscherlich and Mielke.

⁷⁶ Henry David, Jochen Fleischhacker, and Charlotte Hohn, “Abortion and Eugenics in Nazi Germany,” *Population and Development Review* 14 no. 1 (1998): 82.

⁷⁷ Jay Katz, “The Concentration Camp Experiments: Their Relevance for Contemporary Research with Human Beings,” in *Medicine, Ethics and the Third Reich* ed. John J. Michalczyk, 73-86 (Kansas City: Sheed and Ward, 1944), 73.

⁷⁸ *Ibid.*, 74-78.

nying them treatment. Katz further reports that as recently as 1994, consideration was given to the use of Alzheimer patients – who were unable to give consent – in research that would expose them to greater than minimal risk. As he elucidates, these studies share a common disregard of the human subjects' interests for the noble, scientific purpose of alleviating the pain and suffering of others. Nazi doctors might well have used the same argument. It need be noted, however, that while these questionable research instances have occurred in the decades since the end of World War II, these are nowhere near equivalent to Nazi era experiments and are not in any way representative of North American research in general.

XIV. A Code of Medical Research Ethics

What is most remarkable is that these studies were conducted long after a medical code of research ethics emerged from the ashes of the Holocaust. The Nuremberg Code of 1947, emerging from the Nuremberg trials, had as its first and most significant clause that the voluntary consent of human subjects in research is absolutely essential.⁷⁹ Remarkably, the 1964 World Medical Association Declaration of Helsinki removed this requirement and emphasised the importance of the scientific research instead. Later versions of the code, in 1975, 1983 and 1989, did once again include informed consent but this was listed as principles 9, 10 or 11 respectively.⁸⁰ As George Annas points out, judges and lawyers devised the Nuremberg Code, while physicians developed the Helsinki Code for their own guidance.⁸¹ In conflict here is the principle of doing the best for the individual versus the broader population good. As Katz mentions we are now more concerned with the science of medicine than the art of healing.⁸² In 1982, the World Health Organization together with the Council for International Organization of Medical Sciences (WHO/CIOMS) developed further guidelines, which, to an extent, may replace the requirement for individual consent with an independent impartial perspective review of all protocols. A 1992 version from this same body continued moving away from an individual rights approach to a prior group review approach.⁸³ To compound the problem, the Nuremberg Code, the Helsinki declaration and the WHO/CIOMS guidelines are

⁷⁹ Ibid., 82-83.

⁸⁰ Ibid.

⁸¹ George Annas, "The Changing Landscape of Human Experimentation: Nuremberg, Helsinki and Beyond," in *Medicine, Ethics and the Third Reich: Historical and Contemporary Issues*, ed. John J. Michalczyk, 106-114 (Kansas City: Sheed and Wade, 1994), 107.

⁸² Katz, 82-83.

⁸³ Annas, 111.

advisory only: they have no legal standing in most countries and do not carry any ability for sanction of researchers who disregard them.⁸⁴

Economic pressures are currently forcing doctors to make research related decisions based on economic constraints, including lucrative sources of research funding and pharmaceutical companies' interests, and not necessarily in the best interests of patients – pressure that might well lead physicians down a wrong path.⁸⁵ Michael Grodin also emphasises that the fundamental relationship between physician and patient must not become subordinate to the needs of the state, as it did in Nazi times. As Katz notes, medical ethics should never allow research experiments on persons whose lives the state considers expendable including those in prisons, serving as soldiers or in hospitals or similar institutions.⁸⁶

Drawing analogies between present actions and Nazi Holocaust behavior arouses strong emotive reactions and may result in the moral argument discounting any possibility of logical analysis as to when, where and why some lives might be terminated. Dónai O'Mathúna notes that James Watson (winner of the shared Nobel prize for discovering the structure of DNA; the first director of the Human Genome Project) believes that society needs to eliminate defective genes. Such thinking might justify embryo selection, abortion and infanticide as well as gene altering techniques.⁸⁷ Debates about the ethics of such actions continue; while many countries allow for abortion on some grounds, and embryo selection in particular circumstances, emotional and religiously based arguments abound decrying each of these possible steps and making constructive development of guidelines for the appropriate use of these techniques difficult. O'Mathúna further notes that prenatal caregivers and women worldwide have long accepted the value of routine prenatal screening with the intention of terminating some pregnancies. Even infanticide – which is, emotionally, perhaps the most difficult to accept of the three methods – needs consideration with regard to when, where and if it should be supported. According to O'Mathúna, Prof. John Harris, a member of the British Medical Association ethics committee, notes that there is widespread acceptance of infanticide in some countries and questions the difference between aborting late term fetuses and infanticide. The acceptability of giving lethal injections to

⁸⁴ Ibid., 122.

⁸⁵ Michael A Grodin, George J Annas, and Leonard H Glantz, "Medicine and Human Reich: A Proposal for International Action," in *Medicine, Ethics and the Third Reich: Historical and Contemporary Issues*, ed. John J. Michalczyk, 199- 209 (Kansas City: Sheed and Wade, 1994), 198.

⁸⁶ Katz, 74-78.

⁸⁷ Dónai P. O'Mathúna, "Human Dignity in the Nazi Era: Implications for Contemporary Bioethics," *MBC Medical Ethics* 7, no. 2 (2006): 1-16.

patients with terminal and debilitating or painful illnesses is also currently debated in many countries with varying degrees of approval of this action.⁸⁸ Seen as merciful by some it runs contrary to the religious or moral beliefs of others. While we have the technological ability to implement many such actions, we currently still lack the guidelines that determine when, how and under what circumstances such actions are acceptable. The importance of discussing and determining ethical guidelines for the implementation of such actions remains a challenge for today's world.

Distinctive in almost all of these situations, however, is the requirement for patient consent for any of these procedures, which is in stark contrast to the practices of the Nazi era that imposed forced experimentation and killing. These sensitive issues reinforce the importance of maintaining the requirement of informed consent in all research and clinical practice medical guidelines. Unfortunately, informed consent is also open to abuse. To be truly ethical, informed consent should be both evidence-based and unbiased by the traditional superior doctor-inferior patient hierarchy that is commonly prevalent in both society and in medical care.⁸⁹ Yet not all doctors are fully aware of the most up-to-date evidence underlying their advocated practices, and not all provide information to their patients in a manner that is truly non-coercive, thereby diminishing the high moral grounds underlying the requirement to obtain informed consent for procedures.

Whether we examine childbearing today, matters of life and death, or Nazi medicine, it appears that lessons from the Nazi Holocaust have yet to be learned.

References

Annas, George. "The Changing Landscape of Human Experimentation: Nuremberg, Helsinki and Beyond." In *Medicine, Ethics and the Third Reich: Historical and Contemporary Issues*, edited by John J. Michalczyk, 106-114. Kansas City: Sheed and Wade, 1994.

Baer, Hester, and Elizabeth Baer. "Introduction." In *The Blessed Abyss: Inmate #6582 in Ravensbrück Concentration Camp for Women*, edited by Hester Baer and Elizabeth Baer, 13-51. Detroit: Wayne State University Press, 2000.

⁸⁸ Ibid., 7.

⁸⁹ Beverley Chalmers, *Family-Centred Perinatal Care: Improving Pregnancy, Birth and Postpartum Care* (Cambridge: Cambridge University Press, 2017).

Black, Edwin. *Nazi Nexus: America's Corporate Connections to Hitler's Holocaust*. Washington DC: Dialog Press, 2009.

Bock, Gisela. "Racism and Sexism in Nazi Society: Motherhood, Compulsory Sterilization, and the State." In *Different Voices: Women and the Holocaust*, edited by John K. Roth, and Carol Rittner, 161-186. New York: Paragon House, 1993.

British Intelligence Objectives Sub-Committee. "Interrogation Report No 518. Ref No Aiu/Pir/137. Target No: C24/744, Bwce/N/Int/"T"/1 162." London: Imperial War Museum, 12 June 1947.

Burleigh, Michael, and Wolfgang Wipperman. *The Racial State: Germany 1933-1945*. Cambridge: Cambridge University Press, 1991.

Caplan, Arthus. "The Relevance of the Holocaust in Bioethics Today." In *Medicine, Ethics, and the Third Reich: Historical and Contemporary Issues*, edited by John J. Micahalczyk, 3-12. Kansas City: Sheed and Ward, 1994.

Chalk, Frank, and Kurt Jonassohn. *The History and Sociology of Genocide*. New Haven: Yale University Press, 1990.

Chalmers, Beverley. *Birth, Sex and Abuse: Women's Voices under Nazi Rule*. Surrey, UK: Grosvenor House Publishers, 2015.

Chalmers, Beverley. *Family-Centred Perinatal Care: Improving Pregnancy, Birth and Postpartum Care*. Cambridge: Cambridge University Press, 2017.

Chalmers, Dana Lori. "The Influence of Theatre and Paratheatre on the Holocaust." Master Thesis, Concordia University, 2008.

Cohen, Elie. *Human Behaviour in the Concentration Camp*. London: Free Association Books, 1988.

Cornwell, John. *Hitler's Scientists: Science, War and the Devil's Pact*. New York: Viking, 2003.

Czech, Danuta. *The Auschwitz Chronicle 1939-1945*. Translated by Barbara Harshav, Martha Humphreys, and Stephen Shearier. New York: Henry Holt, 1990.

David, Henry, Jochen Fleischhacker, and Charlotte Hohn. "Abortion and Eugenics in Nazi Germany." *Population and Development Review* 14 no. 1 (1998): 81-112.

Evans, Richard J. *The Coming of the Third Reich*. USA: Penguin Books, 2005.

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

Evans, Richard J. *The Third Reich in Power*. USA: Penguin Books, 2006.

Glass, James M. *Life Unworthy of Life: Racial Phobia and Mass Murder in Hitler's Germany*. New York: Basic Books, 1997.

Government, US. "Trial of the Major War Criminals before the International Military Tribunal. Official Text in the English Language. Published at Nuremberg, Vol XXIX." 1947.

Greene, Joshua M. *Justice at Dachau: The Trials of an American Prosecutor*. New York: Broadway Books, 2003.

Grodin, Michael. "Historical Origins of the Nuremberg Code." In *Medicine, Ethics and the Third Reich: Historical and Contemporary Issues*, edited by John J. Michalczyk, 169-194. Kansas City: Sheed and Wade, 1994.

Grodin, Michael A, George J. Annas, and Leonard H. Glantz. "Medicine and Human Reich: A Proposal for International Action." In *Medicine, Ethics and the Third Reich: Historical and Contemporary Issues*, edited by John J. Michalczyk, 199-209. Kansas City: Sheed and Wade, 1994.

Hanauske-Abel, Hartmut M. "Not a Slippery Slope or Sudden Subversion: German Medicine and National Socialism in 1933." *BMJ: British Medical Journal* 313, no. 7070 (1996): 1453-1463.

Herzog, Dagmar. "Hubris and Hypocrisy, Incitement and Disavowal: Sexuality and German Fascism." *Journal of the History of Sexuality* 11, no. 1/2 (2002): 3-21.

Höss, Rudolf. *Death Dealer: The Memoirs of the SS Kommandant of Auschwitz*. Translated by Andrew Pollinger. Edited by Steven Paskuly. New York: Da Capo Press, 1996.

Jones, Adam. *Genocide: A Comprehensive Introduction*. Routledge/Taylor & Francis Publishers, 2006.

Katz, Jay. "The Concentration Camp Experiments: Their Relevance for Contemporary Research with Human Beings." In *Medicine, Ethics and the Third Reich* edited by John J. Michalczyk, 73-86. Kansas City: Sheed and Ward, 1944.

Kershaw, Ian. *Hitler: Profiles in Power*. Edited by Keith Robbins. London: Longman, 1991.

Kogon, Eugen. *The Theory and Practice of Hell: The German Concentration Camps and the System Behind Them*. Translated by Heinz Norden. New York: Berkeley Books, 1950.

Lagnado, Lucette Matalon, and Sheila Cohn Dekel. *Children of the Flames: Dr Josef Mengele and the Untold Story of the Twins of Auschwitz*. New York: William Morrow and Company, Inc, 1991.

Lengyel, Olga. *Five Chimneys: A Woman Survivor's True Story of Auschwitz*. Chicago: Ziff-Davis Publishing Company, 1947.

Lengyel, Olga. "Scientific Experiments." In *Women and the Holocaust: Different Voices*, edited by Carol Rittner and John K Roth, 119-129. New York: Paragon House, 1993.

Lewy, Guenter. *The Nazi Persecution of the Gypsies*. Oxford: Oxford University Press, 2000.

Lifton, Robert Jay. *The Nazi Doctors: Medical Killing and the Psychology of Genocide*. New York: Basic Books, Inc, 1986.

Liverpool, Lord Russell of. *The Scourge of the Swastika*. London: The Military Book Club, 1954.

Mazower, Mark. *Dark Continent: Europe's Twentieth Century*. New York: Vintage Books, 1998.

Mitscherlich, Alexander, and Fred Mielke. *Doctors of Infamy: The Story of the Nazi Medical Crimes*. Translated by Heinz Norden. New York: Henry Schuman Inc, 1949.

Museum, United States Holocaust Memorial. "Homosexuals: Victims of the Nazi Era, 1933-1945." fcit.usf.edu/holocaust/people/USHMMHOM.HTM.

O'Mathúna, Dónai P. "Human Dignity in the Nazi Era: Implications for Contemporary Bioethics." *MBC Medical Ethics* 7, no. 2 (2006): 1-16.

Poltawska, Wanda. *And I Am Afraid of My Dreams*. Translated by Mairy Craig. London: Hodder and Stroughton, 1964.

Posner, Gerald L, and John Ware. *Mengele: The Complete Story*. New York: Cooper Square Press, 2000.

Seidelman, William E. "Medicine and Murder in the Third Reich." *Dimensions: A Journal of Holocaust Studies* 13, no. 1 (1999): 1-9.

Spitz, Vivien. *Doctors from Hell: The Horrific Accounts of Nazi Experiments on Humans*. Boulder: Sentient Publications, 2005.

Yahil, Leni. *The Holocaust: The Fate of European Jewry*. Translated by Ina Friedman and Haya Galai. Oxford: Oxford University Press, 1990.

