

Dr. Mengele, USA Style:
Lessons from Human
Rights Abuses in Post-
World War II America

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Abstract: This paper explores U.S. government activities related to human experimentation after World War II. We emphasize how a proactive foreign policy, even in the pursuit of liberal ends, can undermine the rights and liberties of members the domestic populace. The typical primary justification for a strong military and proactive foreign policy is to protect the person and property of domestic people while reinforcing liberal values. But preparing for and engaging in war and foreign intervention, even if defensive in nature, often does the opposite in unseen and underappreciated ways. We discuss the implications of these tendencies and consider three responses offered by liberals—liberal empire, interstate federalism, and citizen-based defense.

Keywords: citizen-based defense, Cold War, Liberal empire, Interstate federalism, Operation Overcast, Operation Paperclip, World War II

JEL CODES: F50, F52, F54

1. INTRODUCTION

In July 1946, 20-year-old Helen Hutchison walked into the Vanderbilt University prenatal clinic in Nashville, Tennessee. Helen found herself pregnant after her husband had returned from combat in World War II. The pregnancy, however, had not been easy. During her visit to the clinic Helen's doctor handed her a small drink.

“What is it?” she asked.

“It’s a little cocktail,” her doctor replied. “It’ll make you feel better.”

“Well I don’t know if I should be drinking a cocktail,” she responded in jest.

“Drink it all. Drink it all down” (quoted in Welsome 1999, p. 220).

Helen did as her doctor ordered.

Three months later Helen's daughter, Barbara, was born. Not long after, Helen began to experience some frightening health problems; her face swelled, and her hair fell out. She then experienced two miscarriages, one of which necessitated 16 blood transfusions (Welsome 1999, p. 220). Baby Barbara experienced her own health problems from early childhood. She suffered from extreme fatigue and developed an autoimmune disorder and eventually skin cancer.

Unbeknownst to Helen, she and her unborn baby had been subjects in a government-funded experiment. She was one of hundreds of women who received an experimental “cocktail” between 1945 and 1947 during one of their prenatal visits, compliments of the U.S. Atomic Energy Commission (AEC), which provided the materials (Wittenstein 2014, p. 39). As part of a larger study on nutrition, the U.S. Public Health Services also provided the clinic a \$9,000-a-year grant to conduct its research (Advisory Committee on Human Radiation Experiments 1996, p. 214). Like Helen, none of the women knew what was in the drink. Many had been told the cocktail contained some combination of vitamins meant to benefit them and their children—a bald lie (Thomas 2007, p. 39).

In fact, the drinks given to the pregnant women contained various doses of the radioactive isotopes iron-55 and iron-59. In their study with the pregnant women scientists hoped to determine if the radioactive iron would cross the placenta—it did. Not long after the women drank the “vitamin cocktail” they thought would help with fetal development, radioactive material began circulating in the blood of their children (Welsome 1999, p. 221). Like Helen, many of the other women and their babies experienced disastrous health effects—fatigue, hair loss, bruising, and swelling were common. Both the women and their children developed cancers. Research conducted years later found a causal relationship between the women’s radiation exposure and the subsequent health problems that plagued their children (Advisory Committee Staff 1995).

The 829 women of the Vanderbilt clinic were but a few of *hundreds of thousands* of individuals, mostly U.S. citizens, who would be subjected to illegal experiments and suffer human-rights violations during in the post-World War II period at the hands of scientists with funding and materials provided by the U.S. government. These experiments were meant to provide the government with information about the effects of atomic weapons on the human body to advance military capabilities in the name of “national security.”

This paper tells the story of U.S. government activities related to human experimentation after World War II. Our purpose is to emphasize how the pursuit of a liberal world order through a large (in both scale and scope) national security state can undermine the rights, liberties, and wellbeing of members of the domestic populace. Calls for the United States government to maintain or expand its presence in international affairs or to embrace the role of a global hegemon focus on the idea that the exportation of liberal policies and ideas will promote stability, wealth, and peace (see Lal 2002, 2004; Mitchener and Weidner 2004; Ferguson 2004; Ferguson and Schularick 2006). We illustrate how preparing for and engaging in war and foreign intervention, even if defensive in nature or in the name of liberalism, often does the opposite in unseen and underappreciated ways. Such actions are typically justified on the grounds that they are necessary to defend against external threats to the person and property of private persons. This justification, however, does not change the fact that the adopted means are inherently illiberal, resulting in a fundamental tension—the embrace of concrete illiberalism means in the name of potential liberalism ends.

Liberalism, from the Latin word “liber” or “free,” is the philosophy of individual freedom (Mises 1996, p. v; McCloskey 2019; Boettke 2021). Liberal values emphasize the primacy of individual freedom, maintain a deep respect for human dignity and intellectual humility, appreciation voluntary choice and association, freedom of expression, economic freedom, toleration, pluralism, cosmopolitanism, spontaneous orders, and peaceful solutions to interpersonal conflict. Efforts to promote liberalism through government planning, military primacy, and the disregard for basic human rights and dignities are at odds with these core values (Coyne 2022).

Our main contribution is to the scholarship exploring the role of foreign intervention on the growth of government (Higgs 1987; Coyne and Hall 2018a). This literature highlights that during interventions, the scale (size) and scope (range of activities) of government grows due to several forces. The first is fear of threats to safety and wellbeing (Higgs 2006). This fear results in a willingness by the citizenry to tolerate, if not demand, extraordinary actions by government. There is also a weakening of constitutional constraints, intended to limit opportunism by government, as the country unifies around the executive branch in the military effort for the good of “the nation.” As F. A. Hayek (1979, p. 124) succinctly noted, “‘Emergencies’ have always been the pretext on which the safeguards of individual liberty have been eroded – and once

they are suspended it is not difficult for anyone who has assumed such emergency powers to see to it that the emergency will persist.” This certainly describes the situation in America for the period we explore.

We proceed as follows. Section 2 discusses the period in which the United States emerged as a global power, paying particular attention to the attitudes surrounding human experimentation and the emergence of international laws aimed at curtailing such practices. This section is divided into two parts. Section 2.1. describes the ways in which Nazi war criminals were to be screened, immigration restrictions, and the adoption of new international codes. Section 2.2 provides a brief discussion of Operation Overcast and how the U.S. government began bypassing these new constraints. Section 3 explores how, beginning of the Cold War era, the U.S. government further eroded the constraints discussed in section 2 while importing Nazi scientists into the United States as part of Operation Paperclip. Section 4 presents a number of human rights abuses that occurred domestically during the Cold War at the behest of the U.S. government. Section 5 concludes with a discussion of the implications and three responses offered by liberals to the “paradox of government”—liberal empire, interstate federalism, and citizen-based defense.

2. NAZI GERMANY AND HUMAN EXPERIMENTATION

2.1 Human Rights Abuses and “Denazification”

At the conclusion of World War II, the world learned of the many atrocities committed by the Nazis. Of the countless crimes uncovered, some of the most heinous involved human experiments. The infamous Nazi doctor, Josef Mengele, for example, performed experiments on some 1,500 sets of twins in the Auschwitz concentration camp, including many children (Nordheimer 1991). He removed organs without anesthetics. If one twin died, the other would be promptly murdered so that simultaneous autopsies could be performed (Walker 2015).

In other experiments, subjects were submerged in water at various temperatures to see how long they could survive. The Nazis hoped the experiments could help the Luftwaffe (the Nazi air force) prevent and treat hypothermia in pilots (Berger 1990). Scientists placed other prisoners in low-pressure chambers to simulate high altitudes to understand how pilots’ bodies reacted when they ejected from aircraft. Of the known 200 subjects forced to participate in these experiments, 80 died. Those who lived were promptly drowned so their brains could be dissected (Cockburn and St. Clair 1999, p. 149).

Following the Nuremberg trials, the U.S. and other Allied governments pursued three goals. First, they wanted to guarantee that those who held the Nazi ideology and committed war crimes were barred from political office, publishing, teaching, and other positions of authority. To accomplish this goal, every adult German was required to provide a verified account of their political affiliations and activities during the war. A “denazification court” reviewed each case and sorted individuals into one of five categories—“Major Offenders”, “Offenders”, “Lesser Offenders”, “Followers” and “Persons Exonerated” (Control Council Directive No. 38. 1946)—depending on their involvement with the Nazi Party, the German Armed Forces, and their involvement in war crimes or related activities.

Second, they sought to ensure that no Nazis would be allowed to leave Germany. President Harry Truman, for example, banned the immigration of former Nazis to the United States, and additional immigration laws strictly prohibited those with fascist ties from setting foot on U.S. soil (Hunt 1991, p. 13).

Third, they strove to ensure that the atrocities committed in the concentration camps were never again repeated. In accordance with this goal, the Allies drafted what came to be known as the Nuremberg Code on scientific research. The Code outlined six (later updated to 10) protocols that define permissible medical experiments, including a provision to “avoid all unnecessary physical and mental suffering and injury” and a provision allowing for subjects to stop an experiment at any time (The Nuremberg Code 1947, p. 1). Most important, however, the Nuremberg Code placed the idea of informed consent at the center of all experiments involving humans. The Code reads in part,

The voluntary consent of the human subject is absolutely essential. *This means that the person involved should have legal capacity to give consent; should be so situated as to be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress, overreaching, or other ulterior form of constraint or coercion; and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to enable him to make and understanding an enlightened decision....* [It] should be made known to him the nature, duration, and purpose of the experiment; the method and means by which it is to be conducted; all inconveniences and hazards reasonably to be expected; and the effects upon his health or person which may possibly come from his participation (The Nuremberg Code 1947, p. 1, emphasis added).

While the U.S. government was quick to adopt standards like the Nuremberg Code, it violated its commitments before the ink was dry. After World War II the U.S. government engaged in its own flagrant human-rights violations in conducting experiments in the name of building military capabilities to protect the country.

2.2 Operation Overcast

On June 6, 1944, the Allied Powers landed on mainland Europe, marking the beginning of the end for Hitler's Third Reich. Having seen the capabilities and technologies of the Germans, the U.S. government sought to shorten the war by learning what knowledge the Nazis possessed. To uncover this information, the government sent some 10,000 intelligence personnel into Europe directly behind the D-Day troops. Among other things, their mission was to find and question German scientists (Cockburn and St. Clair 1999, pp. 168-169). It would not be long before the mission's objectives changed—from finding and interrogating Nazi scientists to recruiting them to work for the U.S. government.

At the start of the Allied invasion of Europe, the United States government feared that the Nazis were close to developing and using nuclear weapons. On moving further into the continent and questioning German scientists, however, U.S. agents learned that the Nazis were far behind the Americans in their nuclear program. Interrogations revealed, however, that the Nazis had developed impressive biological and chemical weapons (Hunt 1991, p. 11).

The U.S. government viewed understanding and using the scientists' unique human capital (knowledge, skills, etc.) as a way to efficiently combat the Japanese and future threats. One telegram to the Pentagon on May 22, 1945, stated that bringing the German scientists to the United States was most "important for [the] Pacific war" (McGovern 1964, p. 173). Secretary of War Robert Patterson stated, "The laboratories of America have now become our first line of defense. I cannot make too strong, or too emphatic, the interest of the War Department in the promotion of scientific research and development" (Lasby 1971, pp. 92-93). William J. Donovan, a decorated veteran and head of the Office of Strategic Services, along with Allen Dulles, the head of intelligence operations in Europe (and future head of the CIA), urged President Franklin Roosevelt to approve the emigration of Nazi scientists to the United States. While he formally rejected the request (Cockburn and St. Clair 1999, pp. 169-170), German scientists were already being moved to the United States.

By July 1945, the Joint Chiefs of Staff (JCS) had authorized the Joint Intelligence Objectives Agency (JIOA) to launch Operation Overcast (also known as Project Overcast), a program to bring of some 350 Nazi scientists to the United States (Cockburn and St. Clair 1991, p. 146). Operation Overcast was supposed to be limited to a select number of scientists whose knowledge of rocketry and atomic energy could help end the war. General Henry H. Arnold, chief of the U.S. Army Air Forces, expressed this sentiment saying, "Every day that goes by where we wait for something to happen [with regard to the German scientists] deprives us and the Air Forces of that additional punch to give us the most advanced weapons quicker" (Lasby 1971, p. 93). It would not be long before preparations for a new conflict would incentive the rapid expansion in government activities involving human experimentation.

3. FEAR, COLD WAR, AND OPERATION PAPERCLIP

The end of World War II meant the death of two adversaries and the birth of another, which would enable the U.S. government to neglect denazification and related immigration policies. The U.S. government shifted attention away from Europe and the Pacific and toward the Soviet Union and the communist ideology. Less than a year after dropping two atomic bombs on Hiroshima and Nagasaki, people within the government warned that the “United States needed to prepare for ‘total war’ with the Soviets—to include atomic, chemical, and biological warfare” (Jacobsen 2014a, p. 36).

The possibility of war with the Soviet Union further expanded the power of the U.S. government by increasing resource flows and providing officials more control over the everyday lives of citizens. This centralization and expansion of government activity was perpetuated by the fear felt by many U.S. citizens. Schoolteacher John Driscoll, recalling this period, stated, “It seems surreal now. Every summer when I heard heat lightning over the city and the sky would light up, I was convinced it was all over. My whole childhood was built on the notion the Soviets were the real threat” (quoted in Brinkley 1992). For decades the U.S. government implemented programs to teach school children to “duck and cover,” supposedly to protect themselves from Soviet air raids. School systems across the country issued identification bracelets or dog tags to students—to help identify lost or dead children if the Russians attacked. Thousands of Americans, prompted by the Federal Civil Defense Administration (FCDA), installed bomb shelters in their backyards (Greenberg 2003).

Fear of communists and sympathizers within the United States—a fear fueled by the U.S. government—contributed to an environment where many Americans encouraged and accepted expansions in domestic government power in the name of combating communism. These sentiments existed even before the Cold War started. A June 1938 Gallup poll, for example, found that 97 percent of Americans favored the freedom of speech protected by the First Amendment, but only 38 percent believed in this right “to the extent of allowing communists to hold meetings and express their views” (White 1998). An April 1941 poll found that 64 percent of Americans believed that “repressive measures” should be used against communists living in the United States. At the start of the Cold War, in June 1946, 16 percent stated they wished to “curb or make [communists in the U.S.] inactive” (Ibid.). More than a third, however, took a much stronger stance. Thirty-six percent said communists in the United States should be immediately killed or imprisoned (Ibid.).

There was also a great deal of fear about the spread of communism outside of the USSR. A 1943 Roper survey found that 41 percent of Americans believed that Russia would try to spread communism throughout Europe after the war’s end (see Roper Center Public Opinion Archives 1991, p. 29). In a 1950 survey, the National Opinion Research Center found that a plurality of Americans thought the U.S. government should curtail such efforts. When asked, “[H]ow important do you think it is for the United States to try to stop the spread of communism in the world,” 83 percent stated such efforts were “very important” (see Roper Center Public Opinion Archives 1991, p. 30).

In September 1946, President Truman approved Operation Paperclip, also called Project Paperclip. A revamping of Operation Overcast, Operation Paperclip would import over a thousand German scientists to the United States (Callahan 2014). As part of the new operation, even those categorized as “Major Offenders” by denazification courts were placed into a variety of position, including in every branch of the military. The U.S. government’s goal was the further development of its military capabilities by leveraging the knowledge of these German specialists whose backgrounds included nuclear energy, rocketry, chemical and biological weapons, and aviation medicine (Gimbel 1990, p. 38; Coyne and Hall 2018b, p. 185).

The U.S. government instituted other domestic programs throughout the Cold War which involved the imported German scientists. Project National Interest, which began in 1947, brought former Nazi scientists to the United States to work for a variety of universities and defense contractors (Hunt 1991, p. 76). Operation Bloodstone started in 1948 to recruit Nazis who had fled primarily to Russian territories. In its original proposal, Bloodstone was to bring 250 people to the United States. One hundred were to be placed in the Department of State and 50 were to work for each branch of the military (Yeadon 2008, pp. 383-84).

By 1950, the CIA had asked Congress to expand the program to allow for up to 15,000 additional immigrants (Yeadon 2008, p. 384). Yet another program, Project 63, started in 1950 to allow the government to further employ former Nazis, including some still serving prison sentences for war crimes (see Hunt 1991, p. 101; Yeadon 2008, p. 385). Many recruits were not intended for the military, but rather for university appointments where administrators were enticed by the promise of faculty with federally subsidized (and in many cases classified) research projects (Yeadon 2008, p. 385).

The government brought in more than 1,600 scientists under Operation Paperclip (Lower 2014). The government, fearful that their recruits' former work and affiliations would anger the public, took care to whitewash their backgrounds. As Major General Hugh Knerr, the commanding general at the Air Technical Service Command at Wilbur Wright Field, stated in a memo to the War Department, the backgrounds of scientists should be ignored because, "pride and face saving have no place in national insurance" (quoted in Jacobsen 2014a, p. 52).

Paperclip scientists went to a variety of private and public institutions. For instance, a large group worked at Wright Air Force Base (Hunt 1991, p. 114). Two other groups were sent to work at Edgewood Arsenal and Fort Detrick in Maryland and to the Air Force in Texas. Scientists brought in under Paperclip and other programs worked for Martin Marietta (a leading chemical, aerospace, and electronics company, now Lockheed Martin), other defense contractors, and numerous colleges and universities (Hunt 1991, p. 72, 114). In many cases those employed at institutions of higher learning also received security clearances.

Two brief examples will illustrate the type of scientists knowingly imported by the U.S. government. Dr. Herbert Bruno Gerstner dissected the human brains of "undesirables" during the war and conducted a variety of experiments involving electrocution and burns as part of the "T4 program" (Albarelli 2010b). Under Paperclip, he worked at the School of Aviation Medicine in Texas where he continued his experiments. He experimented on some 263 cancer patients at MD Anderson Hospital, subjecting his victims to total body radiation without their consent (Albarelli 2010a).

Dr. Friedrich Hoffmann spent his time during the war conducting experiments with chemical agents and nerve gas. Following the war, he was brought to the United States and worked for the Army Chemical Corps in Maryland (Jacobsen 2014b). Posted at Edgewood Arsenal and Fort Detrick, he worked to refine nerve agents for use by the U.S. military, building a gas chamber to conduct experiments. At least 25 servicemen were used in experiments, but it is unclear that they provided informed consent. It has been reported that several servicemen died during these experiments, though attempts to compel government agencies to release the pertinent documents have been unsuccessful (Albarelli 2010a). Hoffmann built a second chamber to conduct "oxygen deprivation experiments," (Albarelli 2010b) and he became involved in a CIA program to test possible uses of LSD, which led to human trials. Hoffmann was integral to the development of a variety of chemical agents for the U.S. military, including Agent Orange (Albarelli 2010b).

With the aid of these scientists, the U.S. government engaged in human experimentation in the name of U.S. national security. The animating idea was that the wellbeing of certain members of the domestic citizenry needed to be sacrificed for the "greater good." The sad irony is that this mentality required members of the U.S. government to adopt the collectivist mentality they purported to combat through their Cold War operations.

4. CITIZEN GUINEA PIG

With the aid of imported Nazi scientists, the U.S. government carried out three distinct kinds of experiments during the Cold War—biological agent testing, large-population and open-air testing, and radiation and nuclear experiments.¹

Chemical Agent Testing

One of the first chemical agents used widely in warfare, the mustard gas of World War I, was studied by the U.S. government throughout the Second World War, and beyond, with enlisted military personnel as experimental subjects. Throughout the 1940s, at least 60,000 U.S. soldiers were used as test subjects to observe the effects of mustard gas as well as lewisite, a vesicant chemical agent (Rockefeller 1994; Coyne and Hall 2018b, p. 185). Evidence indicates that Otto Ambros, who was known as “Hitler’s favorite chemist” and brought to the United States as part of Operation Paperclip, used around 7,000 American soldiers as test subjects in experiments employing these chemical agents (Yeadon 2008, p. 384; Coyne and Hall 2018b, p. 185).

Subjects were uniformed about the specifics of the experiment and not receive follow-up care related to their exposure to the chemical agents (Moreno 2001, p. 40). Those who questioned participants were met with rebuke. As indicated in a report from the Naval Research Laboratory on the mustard-gas experiments, “[O]ccasionally there have been individuals or groups who did not cooperate.... A short explanatory talk, and, if necessary, a slight verbal ‘dressing down’ has always proven successful. There has not been a single instance in which a man has [successfully] refused to enter the gas chamber” (Moreno 2001, p. 48).

In addition to mustard gas and lewisite, test subjects were exposed to a variety of diseases including rabbit fever, hepatitis A, and the black plague (Levy and Sidel 1997, p. 104; Coyne and Hall 2018b, p. 186). At the Edgewood Arsenal, where Hoffmann and other Paperclip scientists worked, researchers tested nerve agents, such as VX and sarin gas, on military personnel (see Hackley et al. 1964; Ketchum et al. 1964; Coyne and Hall 2018b, pp. 186-7). Army Private Tim Josephs was 18 when he volunteered for a two-month rotation at Edgewood, eager to be closer to home. In his telling

It was like a plum assignment. The idea was they would test new Army field jackets, clothing, weapons ... but no mention of drugs or chemicals. [When I had second thoughts after seeing the facilities and personnel in white lab coats, an officer said to me,] ‘You volunteered for this. You’re going to do it. If you don’t you’re going to jail. You’re going to Vietnam before or after’ (quoted in Martin 2012).

He claims that he never knew what was happening to him and that his experience permanently altered his health. Joseph’s medical records indicate he was likely exposed to sarin or some other nerve agent. Before his two months at Edgewood were complete, he developed symptoms similar to Parkinson’s disease, requiring hospitalization. He was ordered never to speak of his experiences at the base. He was diagnosed with Parkinson’s years later. When discussing his feelings about Edgewood, he said, “I felt a real duty to my country to go and serve.... You believed in your government. And you wouldn’t think they would give you something that would harm you intentionally” (quoted in Martin 2012).

Large-Population and Open-Air Tests

Beginning in the 1960s, the U.S. Army initiated Project Shipboard Hazard and Defense, also referred to as Project SHAD, which was part of Project 112, a large-scale biological and chemical weapons project.² The purpose of this program was to evaluate the vulnerability of U.S. ships to Soviet attacks. As part of the initiative, U.S. Navy seamen were exposed to Q fever, rabbit fever, zinc cadmium sulfide, sarin nerve gas. They were also exposed to VX, a toxic human-made chemical compound classified as a nerve agent which

the Centers for Disease Control describes as “the most potent of all nerve agents” (Center for Research Information 2004; see also, Blum 2005, pp. 152-53; Coyne and Hall 2018b, p. 187).

It wasn't just members of the U.S. military who were test subjects, so too were large portions of the American public. There is evidence that the U.S. government conducted at least 239 “open-air tests” throughout the country (Levy and Sidel 1997, p. 104; Coyne and Hall 2018b, p. 187). In these tests, chemical agents would be dispersed in order to evaluate how the subjects responded.

The chemical agents dispersed were supposed to be harmless to the subjects, but in numerous instances it is unclear that this was actually the case. In Minneapolis, for instance, the tests involved dispersing a bacteria in an elementary school. Years later the students exposed reported abnormally high rates of stillbirths and miscarriages (*New York Times* 1994; Harris and Paxman 2002; Coyne and Hall 2018b, p. 187). The U.S. Navy initiated Operation Sea Spray, a secret biological warfare program, in 1950. As part of this experiment, the U.S. Navy released two types of bacteria—*Serratia marcescens* and *Bacillus subtilis variant niger*—over San Francisco. People living in the area experienced, relative to the general population, unusually high numbers of urinary-tract infections and pneumonia-type symptoms, with at least one person dying (see Wheat, Zuckerman, and Rantz 1951; Coyne and Hall 2018b, p. 187). In 1955, the CIA engaged in at least one open-air test with whooping cough around Tampa Bay, Florida. The cases of whooping cough in the state jumped considerably, from 339 and one death in 1954 to 1,080 cases and 12 deaths in 1955 (Blum 2005, p. 150; Iov 2006, p. 2).

Radiation and Nuclear Experiments

Some of the German scientists who came to the United States as part of Operation Paperclip had significant experience with quantum mechanics, radiochemistry, and nuclear fission. The U.S. government sought to leverage this knowledge to advance its weapons arsenal and to understand the effects of radiation on human beings. As in the case of chemical and open-air tests, this involved experiments involving members of both the military and the general American populace.

The U.S. government conducted over a thousand nuclear tests during the 1945 to 1992 period (United States Department of Energy Nevada Operations Office 2000; Coyne and Hall 2018b, p. 188). It is estimated that over 455,000 Americans were exposed to one or more atmospheric bomb tests, with some exposed to harmful levels of radiation (Uhl and Ensign 1980, p. 97; Coyne and Hall 2018b, p. 188). While the knowledge of the nefarious health effects of radiation was not as advanced then as it is today, scientists at the time were still aware that the side effects of nuclear exposure were significant and dangerous, as was exposure to even low levels of radiation (Uhl and Ensign 1980, pp. 15, 29).

To provide one illustration of the harms from exposure, consider the case of Jim O'Conner who was 19 years old when the military stationed him at a nuclear test sites in Nevada. Following exposure, he experienced severe medical problems.

I was petrified [when the bomb went off], with my hands clasped tightly to my eyes and head between my knees... The sizzling flash stung my body. The bones in my hands glowed through my closed eyelids.... [Now] I'm dying of Polymyositis [muscle weakness throughout the body that can lead to difficulty swallowing, pneumonia, and other breathing problems]. It's eating away at my muscles, and it's a slow, painful, expensive way to die (quoted in Uhl and Ensign 1980, pp. 4-5).

O'Conner was not the only veteran to suffer consequences as a result of his exposure to high levels of radiation. Studies of the “Smoky” nuclear test, conducted on August 31, 1957, as part of the “PLUMBBOB” series, show that those present later had significantly higher rates of leukemia, relative to the general population (see Caldwell et al. 1980; Coyne and Hall 2018b, p. 188). Years later, during hearings on the tests, Rep. Tim Lee Carter noted that the scientists in charge were fully equipped with protective clothing and other

gear (Uhl and Ensign 1980, p. 99). Most military personnel, however, were given nothing to protect themselves from the blasts (Uhl and Ensign 1980, pp. 95-96).

In a 1963 experiment, scientists exposed the genitals of prison inmates to high levels of radiation. Subjects received 600 rads (“rad” stands for “radiation-absorption dose”) of direct radiation to their testicles; it was known that as few as eight rads could reduce reproductive capabilities. According to the doctor’s long-time assistant,

[H]e felt uncomfortable about doing 600 [rads because it] was probably around [the dose that produces sterility in 50 percent of those exposed].... [T]hey wanted to start in there and see, okay, where are you going with your population survival. Are they going to be able to have children? And what are their children going to be like, and so forth (quoted in Welsome 1999, p. 372)

Subjects experienced a number of immediate negative effects—rashes, blisters, and peeling of the skin—as well as long-term effects—difficulty maintaining erections, pain during sexual intercourse, and a decrease in the size of their testicles (Welsome 1999, p. 370; Coyne and Hall 2018b, p. 189).

One of the subjects, Dale Hetland, who received two direct radiation treatments to his testicles, 24 biopsies, and two injections of tritiated thymidine, stated that

They brought a little box in.... [T]hey said it had a syringe with some radiation in it.... [H]e said it wouldn’t hurt me or nothing.... [It] wasn’t the truth. It stung a whole lot and hurt a whole lot.... It was no better than the experiments conducted by the Germans on prisoners in the concentration camps.... [T]his experiment on me with live radiation has caused me over twenty years of pain and it has nearly destroyed my body (quoted Welsome 1999, p. 372).

Hetland later developed degenerative bone disease of the spine and had part of his stomach was removed because of his exposure (Welsome 1999, p. 372; Coyne and Hall 2018b, p. 189).

Overall, at least 4,000 known radiation experiments were carried out within the United States during the Cold War period (Welsome 1999, p. 216; Coyne and Hall 2018b, p. 189). This likely understates the overall number given that much of the information surrounding radiation testing remains classified. What we do know is that the U.S. government, in conjunction with input from imported Nazi scientists, supported and carried out human experiments on the domestic populace in the name of advancing the “public interest.”

5. CONCLUSION—THREE LIBERAL RESPONSES

The post-World War II experience discussed above offers another piece of evidence to the well-known fact that war places severe strain on the protection of individual freedom (Corwin 1947; Higgs 1987; Linfield 1990; Porter 1994; Rehnquist 1998; Walker 2012; Coyne and Hall 2018a). As one legal scholar noted, “[f]oreign affairs, and its close relation national security, have been a graveyard for civil liberties” (Dorsen 1989, p. 840). Indeed, perhaps the most enduring challenge in constitutional political economy is this—can governments be simultaneously empowered and constrained? This is especially important in matters of foreign affairs and war. Among liberals, three possible alternatives have been offered as a means of protecting and extending liberal values.

One proposal alternative is that the American government must embrace its role as a liberal empire. While this position does not reject the importance of constraints on government, it does tend to deemphasize their importance because the U.S. government needs discretion to act for the national and global good. From this perspective, abuses of government power may occur, but on the net the benefits from empire outweigh these, and other, costs.

Those who argue in favor of the United States as a modern-day empire offer several arguments for their position. These include enhanced global peace, gains from trade and access to credit, the unification of, and greater ease of achieving foreign policy objectives, and a range of “public goods” for other societies. Proponents of this position often suggest that failing to embrace its current position is an unequivocal loss to global society (see Mitchener and Weidenmier 2005; Ferguson and Schularick 2006).

Lal (2002, 2004, 2005), for instance, claims that the United States *is* an empire and there would be extensive benefits to embracing the title. Multinational organizations and Non-Government Organizations (NGOs), he argues, have been ineffective, outlived their usefulness, and been crippled by bureaucratic processes. Imperial powers, according to Lal, have worked to promote prosperity and peace in a variety contexts. The fall of the British empire, he suggests, led to the decline of the liberal orders. By taking on the role of global hegemon, the United States possesses the ability to reinstate liberal institutions. “In our own times,” writes Lal (2002), “the death nineteenth-century liberal international economic order (LIEO) built by Pax Britannia...led to nearly a century of economic disintegration and disorder, which has only been repaired in the last decade, with the emergence of the United States as the world leader.” He contends that the United States should exert its influence regardless of the feelings any objections or misgivings within the international community. Seeking approval or support, he contends, detracts from implementing worthwhile policies in a timely manner.

Boot (2001) makes similar claims—“It is striking—and no coincidence—that America now faces the prospect of military action in many of the same lands where generations of British colonial soldiers went on campaigns” (n.p.). He suggests that some of the problems faced by the United States government today are the result of *too little* intervention as opposed to too much. “[T]roubled lands today cry out for the sort of enlightened foreign administration once provided by the self-confident Englishmen,” he writes. “Building a national consciousness, while hardly impossible..., is a long-term task....Unilateral U.S. rule may no longer be an option today. But the United States can certainly lead an international occupation force under U.N. auspices...This would be a huge improvement in any number of lands” (Ibid.).

Lal and Boot are not alone in their suggestion. Ferguson (2004), for example, is explicit in his assertion that the United States can, and should, export liberal institutions abroad. “[L]iberal empire,” he writes, “[is] the political counterpart to economic globalization. If economic openness—free trade, free labor movement and free capital flows—helps growth, and if capital is more likely to be formed where the rule of law exists and government is not corrupt, then it is important to establish not only how economic activity becomes globalized but also how—by what mechanism—economically benign institutions can be spread around the world” (Ferguson 2004, pp. 183-4). He continues, “[I]n many cases of economic “backwardness” a liberal empire can do better than a nation-state...[W]e may therefore make...an altruistic argument for the United States to engage in something resembling liberal imperialism...[Many countries] would benefit immeasurable from something like an American colonial administration” (Ibid., p. 198).

The suggestion that the United States should use its position to implement liberal institutions abroad is not universally accepted. Chomsky (2003a,b, 2005), for example, argues that U.S. imperialism, far from a harbinger of peace, is a direct threat to it. By propping up ruthless regimes, the United States has failed to consider the consequences of its global footprint. Coyne and Davies (2007) discuss nineteen distinct negative consequences of empire. Coyne (2022) further explores the various negative consequences—domestic and foreign—of a proactive American empire. Coyne and Hall (2016) and Coyne (2022) argue that the implementation of “liberal” policies abroad requires the adoption of illiberal means which are at odds with the liberal values they purport to uphold.

Elsewhere, Coyne and Hall (2014) argue that imperialism—whether antiquated or contemporary—the ideas supported by Boot, Ferguson, Lal, and others fail when examined within the context of robust political economy. “In order to make the case for imperialism,” they write. “[O]ne must relax the assumptions of (1) omniscience and (2) benevolence in order to see how an imperial system would likely respond in the face of less than perfect conditions. As no political system operates under conditions of pure benevolence and complete omniscience, such considerations offer us a new way in which to examine the feasibility of

American Empire” (pp. 372-3). Using this framework, they analyze U.S. foreign policy performance and conclude that we cannot be confident that U.S. interventions abroad are a net benefit.

Given the concerns with a global empire, a second alternative is the creation of an interstate federation which would, in principle, reign in aggressive governments while promoting international peace. The idea of interstate federalism is often associated with F. A. Hayek who noted that

[T]he main purpose of interstate federation is to secure peace: to prevent war...by eliminating friction between [states] and by providing effective machinery for the settlement of any disputes which may arise between them and to prevent war between the federation and any independent states by making the former so strong as to eliminate any danger of attack from without (1948, p. 255).

For Hayek, the creation of such a federation would not be without difficulty. It would require the elimination of regional protectionism, a common foreign and economic policy, and likely a common monetary policy. The interstate federation would, for Hayek, necessitate the existence of liberal economic administrations and the rejection of nationalism. The result, he posits, would be constrained government. “[A]n essentially liberal economic regime is a necessary condition for the success of any interstate federation,” writes Hayek (*Ibid.*, p. 269). “[T]he converse is no less true: the abrogation of national sovereignties and the creation of an effective international order of law is a necessary complement and the logical consummation of a liberal program” (*Ibid.*, p. 269).

But how would a liberal interstate federation be implemented across so many diverse nation-states? How do illiberal regimes come to adopt liberal ideals? Hayek’s does not offer any solution to these questions. Picking up on Hayek’s initial proposal Christensen (2021) explores the benefits of a system of interstate federalism, grounded in the principles underpinning the American system, for facilitating international peace and prosperity. He argues that such a system would tame Leviathan, both within the United States and globally, while granting freedom to a large number of people. In addition to establishing interstate federalism another issue is its maintenance. Analyzing the U.S. experiences with federalism, some scholars have noted the tendency towards “cartel federalism” As Wagner (2014, p. 3) argues, “A system of competitive federalism stands in opposition to a system of monopolistic federalism, in which political entities act in cartel-like fashion to promote the interests of their supporters over the interests of the rest of society” (see, also, Greve 2012). Whether mechanisms can be established to prevent interstate federalism from sliding into cartel federalism is an open question.

A third and final alternative is reducing the reliance of citizens on the nation-state for the provision of security (Coyne and Goodman 2020; Coyne 2022). Such systems of citizen-based defense recognize that security is not a homogenous, one-size-fits-all good. Instead, security varies from context to context. Given this variation and the threat posed by centralized political power, proponents of this alternative advocate for a shift from a top-down “monocentric system”—one in which there is a single centralized unit of decision-making—is a polycentric system—one where there are numerous decision-making units with autonomy in decision-making. Polycentric defense already exists and operates parallel to state-provided defense. It also takes on a variety of forms involving force, or the threat thereof, and non-violence to combat threats (see, Coyne and Goodman 2020; Coyne 2022).

How far polycentric defense can effectively extend is an open question, but some liberals argue it must be considered as a viable option to address the core constitutional paradox of the state. If, as Thomas Jefferson (1788) noted, “the natural progress of things is for liberty to yield and government to gain ground,” then thinking of alternatives to the government-provision of goods and services—including defense—is of the utmost importance. And given their emphasis on self-governance and the ability of entrepreneurial people to effectively resolve collective action problems, liberals are well positioned to engage in this project.³

NOTES

- 1 This section draws on and extends the material in Coyne and Hall 2018b.
- 2 For more on Project 112 see United States Government Accountability Office 2008.
- 3 We would like to thank three anonymous referees and the guest editor for useful comments and suggestions.

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