

Contracting Health: Procurement Contracts, Total Institutions, and Problem of Virtuous Suffering in Post-war Human Experiment

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Summary. The American medical research industry seemed poised to collapse in the wake of the US civil rights movement because of sudden, sharp restrictions on access to human subjects for medical research. Yet research on healthy people continued to expand, eventually taking a new organizational form with the rise of Contract Research Organizations. This surprising outcome emerged because a set of private religious organizations during the 1950s aligned with the US National Institutes of Health (NIH) to produce the legal possibility of a sustained, large-scale civilian market for human subjects and, simultaneously, to create the living reality of that market. NIH made novel use of the government 'procurement contract' mechanism, and the churches offered a logic of suffering to 'volunteers' to make sense of their experiences. Together, they enabled the formal exchange of money for human subjects that anchors medicine in the present day and invites critique beyond the conventional categories of bioethics.

Keywords: medical law; National Institutes of Health; Mennonite; Brethren; Goffman; Korean War; I-W; conscientious objector

Introduction: Clinical Experiment from Cottage Industry to Contact Research Organizations (CROs)

In the middle of the twentieth century, the practice of human experiment changed radically in scale and kind. No longer a cottage industry, medical research broke into prisons and crossed military lines in scientists' effort to find large numbers of healthy bodies on which to test the effects of new drugs, materials and medical techniques, as well as to learn how 'normal' human bodies worked.¹ The medical research industry had grown in

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¹Jordan Goodman, Anthony McElligott and Lara Marks, eds, *Useful Bodies: Humans in the Service of Medical Science in the Twentieth Century* (Baltimore: Johns Hopkins University Press, 2003); Susan Lederer, *Subjected to Science: Human Experimentation in America before the Second World War* (Baltimore: Johns Hopkins University Press, 1995); Jonathan D. Moreno, *Undue Risk: Secret State Experiments on Humans* (New York: Routledge, 2001); Eileen Welsome, *The Plutonium Files: America's Secret Medical Experiments in the Cold War* (New York: Dial Press, 1999); Sydney A. Halpern, *Lesser Harms:*

The Morality of Risk in Medical Research (Chicago: University of Chicago Press, 2004); Rebecca M. Herzig, *Suffering for Science Reason and Sacrifice in Modern America* (New Brunswick, NJ: Rutgers University Press, 2006); Susan L. Smith, *Toxic Exposures: Mustard Gas and the Health Consequences of World War II in the United States* (New Brunswick, NJ: Rutgers University Press, 2017); Erika Dyck and Larry Stewart, eds, *The Uses of Humans in Experiment: Perspectives from the 17th to the 20th Century* (Amsterdam: Clio Medica, 2016).

the late 1940s, capitalising on new research tools such as radioisotopes and the solid infrastructure for mass producing drugs that emerged from the Second World War.² At mid-century, healthy people who had a debt to the US government—thus, primarily men—were the fodder for a new large-scale medical research industry.³

Then, in the late 1960s, the US government threw a wrench into the machine it had created. Advocates for prisoner-rights, riding the crest of the US civil rights movement, pressed for an end to research on people who were incarcerated. The US government eventually obliged. In the early 1970s, the US Congress passed laws for the proper treatment of human subjects prompted by revelations of the horrific Tuskegee Syphilis Studies. Government scientists had for years worked to avoid outside regulation and, by way of acquiescence, extended the ‘institutional review’ procedure of the National Institutes of Health (NIH) to all research institutions that accepted any federal money by embedding NIH’s local model into the 1974 National Research Act.⁴ The medical research industry, reliant on people with a debt to the state for large-scale research on healthy humans, was now restricted from using people rendered ‘vulnerable’ by virtue of their position in the socioeconomic hierarchy or their physical location in institutional space.⁵

At this moment in the early 1970s, the American medical research industry would seem to have been poised to collapse given the sudden, sharp restrictions on access to an essential resource. Yet it did not miss a beat. This article seeks to explain why.

²Angela Creager, *Life Atomic: A History of Radioisotopes in Science and Medicine*, Synthesis: A Series in the History of Chemistry, Broadly Construed (Chicago; London: The University of Chicago Press, 2013); Stephen E. Mawdsley, *Selling Science: Polio and the Promise of Gamma Globulin*, Critical Issues in Health and Medicine (New Brunswick, NJ: Rutgers University Press, 2016); Daniel P. Carpenter, *Reputation and Power: Organizational Image and Pharmaceutical Regulation at the FDA*. (Princeton, NJ: Princeton University Press, 2010); Dominique A. Tobbell, *Pills, Power, and Policy: The Struggle for Drug Reform in Cold War America and Its Consequences* (Berkeley; New York: University of California Press, 2011).

³Laura Stark and Nancy D. Campbell, ‘Stowaways in the History of Science: The Case of Simian Virus 40 and Clinical Research on Federal Prisoners at the US National Institutes of Health, 1960’, *Studies in History and Philosophy of Biological and Biomedical Sciences*, 2014, 48 Pt B, 218–30. Volker Roelcke, Giovanni Maio and Susan Lederer, eds, ‘Research without Borders: The Origins of the Declaration of Helsinki,’ in Volker Roelcke and Giovanni Maio, eds, *Twentieth Century Ethics of Human Subjects Research: Historical Perspectives on Values, Practices, and Regulations* (Wiesbaden: Franz Steiner Verlag, 2004); Melinda Cooper and Catherine Waldby, *Clinical Labor: Tissue Donors and Research Subjects in the Global Bioeconomy* (Durham, NC: Duke University Press Books, 2014). Jon M. Harkness, ‘Research

behind Bars: A History of Nontherapeutic Research on American Prisoners’ (PhD Dissertation, The University of Wisconsin—Madison, 1996); Laura Calkins, ‘Detained and Drugged: A Brief Overview of the Use of Pharmaceuticals for the Interrogation of Suspects, Prisoners, Patients, and Pows in the US,’ *Bioethics*, 2010, 24, 27–34; Irvin Gilchrist, *Medical Experimentation on Prisoners Must Stop: Documents Generated During the Course of a Struggle, Urban Information Series Publications 13* (College Park, MD: Urban Information Interpreters, 1974); Allen M. Hornblum, *Sentenced to Science: One Black Man’s Story of Imprisonment in America* (University Park, PA: Pennsylvania State University Press, 2007); Osagie Obasogie, ‘Prisoners as Human Subjects: A Closer Look at the Institute of Medicine’s Recommendations to Loosen Current Restrictions on Using Prisoners in Scientific Research’, *Stanford Journal of Civil Rights and Civil Liberties*, 2010, 6, 41.

⁴Laura Stark, *Behind Closed Doors: IRBs and the Making of Ethical Research* (Chicago: University of Chicago Press, 2012); James H. Jones, *Bad Blood: The Tuskegee Syphilis Experiment*, New and Expanded Edition, Revised (New York: Free Press, 1993); Allen Brandt, ‘Racism and Research. The Case of the Tuskegee Syphilis Study’, *Hastings Center Report*, 1978, 8, 21–9.

⁵Nancy D. Campbell and Laura Stark, ‘Making up “Vulnerable” People: Human Subjects and the Subjective Experience of Medical Experiment’, *Social History of Medicine*, 2015, 28, 825–48.

This article documents how in the years after the Second World War, science leaders at the US National Institutes of Health created and expanded a second system to supply healthy people for human experiment, in addition to government-based arrangements to access people with restricted civil liberties. NIH leaders anticipated that this second system would also be sustained and reliable, not episodic or piecemeal; they envisaged it for large-scale research, not home-spun experiments; and they did not create it alone. During the early 1950s, NIH aligned with a set of private religious organizations in the USA to produce the legal possibility of an enduring, large-scale civilian market for healthy human subjects.

This sturdy scaffold for the post-war medical research industry was made of paper. During the Second World War, the US government made energetic use of 'procurement contracts' to supply the federal government with all manner of materials deemed necessary for wartime, and into the 1950s the practice dilated largely unregulated.⁶ In keeping with standard government practice, NIH budget offices in the early 1950s used procurement contracts to buy research materials from microscopes to mice. In theory, hardware and hamsters would seem to be a different matter than human bodies, sacred objects restricted from purchase in economic markets.⁷ Yet in February 1954, NIH put this familiar legal tool to new use by signing contracts with two large religious organisations to supply Voluntary Service workers as 'normal controls' for medical experiments. It was an uncertain and monumental outcome from the NIH perspective. At the end of the negotiations one NIH administrator allowed himself a moment to boast: 'As a result of a year and a half's activity, we now have in existence two contracts, the only formal arrangements ever made for obtaining people who have agreed on their own to help out in approved medical research problems'.⁸ As a US government agency, NIH made lawful the practice of paying money to get rights-bearing civilians for medical experiments. The government-approved procurement contract had made it so.

This moment in medical-legal history is important for several reasons. First, the procurement contracts set legal precedent. They allowed a public agency to purchase use of healthy humans for experiments from private organisations; in doing so, the public-private contract for healthy human subjects allowed the lawful purchase of any person's 'man-time', regardless of their civil status, for medical experiments. As a consequence, the procurement-contract mechanism enabled an increase in non-therapeutic research at NIH by an order of magnitude—from 30 to over 300 'normal controls', all of them Anabaptist, in the first 6 years. This growth was possible because the NIH and churches produced the legal possibility of contracting for rights-bearing *civilians* to be used in

⁶F. Trowbridge vom Baur, 'Early Days of Government Contract Practice', *Public Contract Law Journal*, 1988, 18, 446–59; F. Trowbridge vom Baur, 'Fifty Years of Government Contract Law', *Federal Bar Journal*, 1970, 29, 305–58; F. Trowbridge vom Baur, 'The Project for a Model Procurement Code', *Public Contract Law Journal*, 1976, 8, 4–13. Richard Mandel, *A Half Century of Peer Review, 1946–1996* (Bethesda, MD: NIH Division of Research Grants, 1996).

⁷Viviana A. Zelizer, 'Beyond the Polemics on the Market: Establishing a Theoretical and Empirical

Agenda', *Sociological Forum*, 3, 614–34; Viviana A. Zelizer, *The Purchase of Intimacy* (Princeton, NJ: Princeton University Press, 2009); Marion Fourcade and Kieran Healy, 'Moral Views of Market Society', *Annual Review of Sociology*, 2007, 33, 285–311.

⁸12 April 1954. Memo: Normal Volunteer Participation in Clinical Research by Mr Irving Ladimer. Unprocessed historical materials. NIH Office of Patient Recruitment and Public Liaison, Bethesda, MD (hereafter PRPL).

experiments—women as well as men with no debt to the state. NIH's first contract with the Church of the Brethren would serve as the explicit model for later contracts that the agency signed through the 1980s with additional private organisations, including union-backed community organisations and dozens of universities. More broadly, making it lawful to exchange money for medical use of healthy civilians underpinned the increase in scale, rather than the collapse, of clinical experiment and, as a result, the growth in the medical marketplace in the post-war period.⁹

Also as a consequence, the public–private contract for healthy humans brought women's bodies, not only men's bodies, systematically and reliably into medical experiments. NIH and private religious organisations had negotiated the contracts so that women could be experimental subjects, too. By including women (rather than Conscientious Objectors alone, as originally imagined) medical research yielded knowledge about both male and female bodies—but in the process naturalised the sex binary and the notion of essential differences between men and women.

Additionally, the particularity of organisations from which NIH 'procured' its first 'normal controls' was important because the organisations were also an important source of an enduring popular sentiment and legal willingness to imagine people's participation in medical experiments as virtuous suffering. NIH's first and only procurement contracts in the 1950s were with two Anabaptist organisations, which sent people to NIH through their existing 'Voluntary Service' programmes that specifically socialised people to accept pain and suffering as spiritually valuable. As a result, the paper tool of the contract was able to produce in the world a flesh-and-blood exchange of money for bodies because the contractors, namely churches, channelled a particular disposition towards human experimentation: that of virtuous suffering. For prospective Anabaptist 'volunteers', the NIH experience was analogous to a host of other experiences through which they could be 'living witness' to the life of Jesus, which included self-sacrifice for others. For NIH, the Anabaptist habitus of virtuous suffering became a resource, which justified—and solidified—the exchange in its early, uncertain years. In NIH experiments, Anabaptists' church-given disposition encouraged compliance, which allowed the unprecedented procurement contract to get continued approval from US government leaders and to allow the exchange of money for civilians to become routine. In addition, by coding the experience of human experiment in terms given to them by Anabaptist churches, NIH taught American publics through its media efforts to understand government experimentation on healthy civilians as virtuous suffering: pain and suffering in medical experiments was an experience that subjects valued and sought out. During the 1950s, all of the human experiments at the NIH Clinical Center—and thus legal queries and newspaper headlines—were on Anabaptist Voluntary Service workers.¹⁰ As a result, the specific organisations with which NIH contracted allowed the agency to make its unprecedented exchange legible to its leaders, lawyers and taxpayers as a source of valuable and desired experiences for subjects of experiment. The specificity of the original procurement

⁹Nancy Tomes, *Remaking the American Patient: How Madison Avenue and Modern Medicine Turned Patients into Consumers* (Chapel Hill: The University of North Carolina Press, 2016).

¹⁰J. Kenneth Kreider, *A Cup of Cold Water: The Story of Brethren Service* (Elgin, IL: Brethren Press, 2001).

contracts has been obscured over time. However, the practical success of the original procurement contract depended on its original use with Anabaptist service workers.

The story orbits around an exemplar institution: the US government's main research facility on the campus of the National Institutes of Health in Bethesda, Maryland, called the NIH Clinical Center. It has been the physical and organisational centre of non-military US government clinical research since it opened in 1953. As such, policies designed for the Clinical Center have served as models for federal rules that bind all researchers and organisations subject to US law, including research overseas.¹¹ I draw evidence from federal and church archives and from an unprecedented 'vernacular' archive I created with more than 100 people who served as human subjects of NIH experiments from 1950 to 1970.¹² In this article, I hold my focus on Anabaptist perspectives on the NIH Clinical Center as a 'caring institution' to document how the contract mechanism enabled the formal exchange of money for human subjects.

To explain the success of the procurement contract on paper and in practice, I use Erving Goffman's concept of 'total institutions', but I also show the limits of Goffman's theory and seek to refine it. Total institutions, for Goffman, were distinctive kinds of social-physical spaces in that all of the basic activities of living were carried out in the same space with the same people. One consequence was that people who were subjects of a total institution gradually relinquished the self-understanding they had when they entered, and they came to see themselves in terms given by the institution—specifically by the people who were making and enforcing the rules, such as staff. The NIH Clinical Center fits Goffman's definition of what he called a 'total institution'.¹³ At the Clinical Center, patients (both sick and 'healthy patients') ate, slept, played, worked and socialised in the same place with the same people. It was a physical place that was simultaneously a social space, and as a result it imparted local ways of acting and habits of feeling that were bound up with an institutional identity. If the definition seems uncannily well suited to the Clinical Center, it would stand to reason. Goffman conducted part of the ethnographic research that he would write up for his essay on 'total institutions' in the wards of the NIH Clinical Center in 1954, the same year the first Anabaptist arrived.

Goffman's theory predicts that total institutions break down and rebuild a person's identity into the shape of the institutional space, a process he calls 'mortification of the self'. Yet in my analysis, the 'mortification of self' that Goffman predicts does not appear among Anabaptists. The process did not come to pass, I argue, because Anabaptists' institutional identity inside the Clinical Center remained that of a religious witness—the church-based identity that was reinforced by the Voluntary Service training camps they came from immediately before arriving at the Clinical Center and by the network of Voluntary Service workers transplanted together in the Clinical Center. Goffman's theory, as he originally conceived it, fails to imagine how two total institutions—religious

¹¹Stark, *Behind Closed Doors*; Adam Hedgecoe, 'Research Ethics Review and the Sociological Research Relationship', *Sociology*, 2008, 42, 873–86.

¹²Laura Stark, "Vernacular Archive of Normal Volunteers (VANV), 1954–2017 (inclusive)". 2017. <<https://doi.org/10.7910/DVN/OD6DVW>, <https://doi.org/10.7910/DVN/GUAZDH>, and <https://doi.org/10.7910/DVN/WFFS4W>>. Harvard Dataverse, V1. Collection H MS c464, Harvard Medical Library in the Francis A. Countway Library of Medicine, Boston, MA.

¹³Erving Goffman, *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates* (Piscataway, NJ: Aldine Transaction, 2007).

training camps and hospitals, for example—might map onto the same physical space. And Goffman leaves little room to consider the vexing possibility of willing submission to authority.

Three analytic positions orient my analysis. First, I treat the authority of medicine as a question, not a premise. In this analysis, I am interested in practices of consent in the broad sense of compliance, not exclusively in the narrow bioethical sense that is preceded by the modifier, 'informed'. This orientation, considered within the space of the NIH Clinical Center around 1950, invites scholars to rethink the villain–victim dichotomy common in histories of experiment and to rewrite the Manichean narratives, which, I worry, restrict rather than open the political imagination. Secondly, I take seriously the claims of some people who served in medical experiments that they at times willingly submitted to painful and dangerous research, a claim that challenges villain–victim narratives. The puzzle of willing submission to authority is an enduring problem. It can be understood in new ways by looking at how, for Anabaptists, the semiotics of virtuous suffering joined with the embodied experience of pain and privation that the medical research industry delivered—while holding on, as historians, to a hearty respect for source criticism and alertness to actors' intended audiences. Thirdly, I treat this episode in which the procurement contract crystallised, not as a causal narrative but as a catalytic moment. The alignment of organisations, each with problems in need of solution, produced a new historical circumstance that neither group could have produced alone.

This article follows the story of Arthur Birk, a young Indiana native and member of a tight-knit Anabaptist community, as he merged with the stream of scientists, staff and other Anabaptists that flowed into the NIH Clinical Center during the 1950s. He was a Conscientious Objector to the Korean War draft, and I explain how Anabaptist organisations created Voluntary Service programmes to manage church members' conscription in military drafts as well as to shore up young people's faith. While the history of conscientious objection in medical settings is well known,¹⁴ Birk's story is particularly instructive. It offers a window into the wider world of contemporary Anabaptism to show the large consequences for medical experiment of one crucial feature of churches' Voluntary Service programmes: they included women, as well as men. During the early 1950s, the popularity of Voluntary Service for Anabaptist women and men prompted church leaders to find more Voluntary Service placements for their religious workers, a process I explain in the following two sections. The subsequent section looks at how church administrators actively sought out NIH administrators in the hope of finding placements for Voluntary Service workers as human subjects, not vice versa. Thus, Birk's story suggests how the research hospital figured as a space of religious witness, with virtuous suffering seen as a possible opportunity for Anabaptists rather than a necessary drawback of Voluntary Service in government medical experiments which I document in the fifth section. So as Birk and his friend, John Klein, packed the their bags to move to the NIH Clinical Center as Voluntary Service workers in medical experiments, two young Anabaptist women

¹⁴Todd Tucker, *The Great Starvation Experiment: Ansel Keys and the Men Who Starved for Science*, (Minneapolis: Univ of Minnesota Press, 2008); Alison

Bateman-House, 'Men of Peace and the Search for the Perfect Pesticide', *Public Health Reports*, 2009, 124, 594–602.

packed their bags along with them. Their presence registers the start of the large-scale civilian market for human subjects and puts into new relief the modern life of the clinic.

Organizing 'Volunteers': Anabaptist Churches and Voluntary Service after the Second World War

Art Birk knew early on that he wanted to join the Brethren Voluntary Service. 'I see the value this experience has given others', he told church leaders when he graduated high school, 'and also of the work of which I would like to share in'. He was a faithful Anabaptist, no doubt, but the timing of his request in the fall of 1951 was far from coincidental.

Birk was born during the Great Depression into one of the many tight-knit rural Anabaptist communities in the American Midwest. Two of the largest Anabaptist churches in mid-century America were the Mennonite Church, headquartered in Goshen, Indiana, and the Church of the Brethren located in Elgin, Illinois. There were scores of specific denominations within these two churches (the most iconic being the Old Order Mennonites in Pennsylvania) and thousands of local congregations throughout the country. But the national organisations wrapped them together in a classic bureaucratic structure with staff, budgets, policies and plans.

Growing up in the Church of the Brethren during the Second World War, Birk was part of a community in which members watched Brethren men leave their homes to serve their two-year military obligations as Conscientious Objectors (COs) and reabsorbed the men back into their Anabaptist communities when they returned. The Anabaptist faith centred on two major principles drawn from the life of Jesus: peace and service.¹⁵ Anabaptist theology emphasised boots-on-the-ground 'witnessing' rather than knowledge of God through revelation. Actions in the world were evidence of the truth of Jesus's teaching, and so Anabaptist leaders and many families valorised conscientious objection. Within other white middle-class American communities, however, patriotism was high and sympathy low for COs.¹⁶ Anabaptist communities worked with remarkable success to maintain their independent enclaves—spiritual, political and economic—organised around the church. Refusing to fight was its own form of heroism in communities that organised their lives around Jesus rather than Uncle Sam.

To manage and advocate for COs at the start of the Second World War, the two Anabaptist churches, along with the Society of Friends (or Quakers), worked to create an umbrella organisation: the National Service Board of Religious Objectors (NSBRO). The point of NSBRO was to allow the peace churches to negotiate collectively with the US government—about how COs would be compensated, what kind of work was acceptable for COs while still counting as work 'of national importance' for the government and under what terms thousands of COs would be shipped around the country to work in hospital wards, fight forest fires or simply take over the work that other conscripts had

¹⁵James Stayer, 'The Anabaptist Revolt and Political and Religious Power', in Benjamin W. Redekop and Calvin Wall Redekop, eds, *Power, Authority, and the Anabaptist Tradition* (Baltimore, MD: Johns Hopkins University Press, 2001).

¹⁶Leo P. Crespi, 'Public Opinion toward Conscientious Objectors: IV. Opinions on Significant Conscientious Objector Issues', *The Journal of Psychology*, 1945, 19, 277–310.

left behind.¹⁷ During the First World War, the government had managed COs' work outside of combat zones and for many COs and communities, the experience was notoriously devastating—financially, logistically, physically and spiritually.¹⁸ In the 1940s, as the peace churches prepared for another draft, the lessons of the First World War were close to mind.

Civilian Public Service (CPS) was one result. It was formally controlled by the Selective Service Administration, and it was a massive bureaucratic undertaking. For the churches, CPS was also an experiment to answer the question of how (and whether) the peace churches might collaborate with a (militarized) government, rather than to resist its authority altogether. But it was only a temporary solution specifically designed for the Second World War and ended with the war's end.¹⁹ NSBRO leaders had hardly caught their breath from the Second World War when the US government started its first 'peace time' draft.

As a direct consequence of the US government's renewal of the draft in 1948, the two Anabaptist churches each created 'voluntary service' programmes. Many Anabaptists' worried that the draft might not be temporary, and the so-called peace might become even more violent (which, indeed, proved an accurate prediction). At the national conferences following the Second World War, the churches' youth delegations pleaded for the organisations to create an enduring structure that could physically, legally and spiritually coordinate thousands of conscripts as they manoeuvred two years of service as COs. The churches' annual national conferences were important events where thousands of members came together to 'confer': to worship and socialize, but also to strategise as a group. At the national conference of Birk's Church of the Brethren, the youth delegation made a formal request that church leaders start what would become the Brethren Voluntary Service. 'We recommend that a broad plan of volunteer service be instituted for Brethren, especially those of conscription age, at once', they wrote. 'We further recommend that this plan carry over into any crisis period as the core of our alternative service program.' They requested that the 'volunteer service' programme they proposed would not wax and wane, reacting to government caprice.²⁰ The Anabaptist churches originally imagined their voluntary service programmes as hinges that would again put the peace churches and a militarised government into relatively smooth contact, this time for the long term.

The post-war voluntary service programmes had additional appeal. They eased the worry among Anabaptist families and figureheads that young Anabaptists' faith might

¹⁷Melvin Gingerich, *Service for Peace: A History of Mennonite Civilian Public Service* (Akron, PA: Mennonite Central Committee, 1949); Martin E. Marty, *Modern American Religion* (Chicago: University of Chicago Press, 1986); Albert N. Keim, *The CPS Story: An Illustrated History of Civilian Public Service*.

¹⁸Stephen M. Kohn, *Jailed for Peace: The History of American Draft Law Violators, 1658–1985* (New York: Praeger, 1987); Keim, *The CPS Story*; Leslie Eisan, *Pathways of Peace, a History of the Civilian Public Service Program, Administered by the Brethren Service Committee* (Elgin, IL: Brethren Pub. House, 1948).

¹⁹Civilian Public Service was the name given to the US government programme by Executive Order 8675 on 6 February 1941, two months after the US entered the Second World War. Donald F. Durnbaugh, *The Brethren Encyclopedia* (Philadelphia, PA: Brethren Encyclopedia, Inc., 1983); Keim, *The CPS Story*; Nicholas Krehbiel, 'A Protector of Conscience, Proponent of Service' (PhD Dissertation, Kansas State University, 2009), 21.

²⁰James H. Lehman, *Living the Story: 50 Years of Brethren Volunteer Service* (Elgin, IL: Church of the Brethren General Board, 1998).

erode. The Second World War had threatened the relative cohesion of Anabaptist communities around the meaning of service and possible limits to a commitment to peace. The seemingly unprecedented war against Fascism drew some Anabaptists into military service.²¹ And although most Anabaptist conscripts had entered CPS to serve their Second World War draft terms, some leaders and locals regarded compliance with the draft—even for civilian service—as a failure of peace principles. To accept the category of ‘civilian’ to carry out ‘civilian public service’ required Anabaptists to accept an identity given by the government that figured them as subjects of the state.²²

Thus, in the late 1940s within the geopolitical context of an active US military presence around the world, the churches formalised their Voluntary Service programmes. But they had an important feature: they were open to women. Conscripts had served as the original impetus for the programmes, but the programmes also accepted men who had *not* been conscripted as well as women, who consistently comprised half of the volunteers from the programme’s outset. The implication was that placement sites that the government deemed acceptable for COs would also be available to anyone in Voluntary Service—a group not limited to conscripts.

Birk was 17 years old when he applied for the Brethren Voluntary Service (BVS) in 1951. He had graduated from high school in May of that year, by which point the USA was nearly one year into the Korean War.²³ Over the summer, he worked as a grounds keeper at Camp Alexander Mack, a kids’ camp and retreat affiliated with the Church of the Brethren (indeed named after its founder) near his home in northern Indiana. At 17, Birk was footloose, and so when autumn came he applied to BVS—with strategic purpose, as well as religious intent. He was, to be sure, firmly rooted in his religious family and community. (When asked on his application ‘Are members of your family willing for you to serve the church?’ Birk answered ‘Yes’.) Still, Birk had no vocation, no property, no family of his own. Military service was a two-year commitment, and it was often wrenching for men with adult responsibilities to be pulled from a settled life. Like many Anabaptists and with the guidance of his church, Birk enlisted in the military, rather than wait to be conscripted, to fulfil an immanent draft obligation while still a teenager.

The application for the Brethren Voluntary Service (BVS) asked applicants to describe themselves, list their special skill and note their hopes and desires. Birk’s profile was a portrait of rural mid-western Anabaptist community through the life of one boy. He was slightly built but apparently strong: nearly six feet tall, only 150 pounds, and handy with farm machinery. His favourite reading material over the past year was the Brethren *Gospel Messenger* and the *Saturday Evening Post*; and he listed as his personal references his school principal and his minister.

²¹Marty, *Modern American Religion*; Guy Franklin Hershberger, *War, Peace, and Nonresistance* (The Herald Press, 1944); Lydia Harder, ‘Power and Authority in Mennonite Theological Development’, in Benjamin W. Redekop and Calvin Wall Redekop, eds, *Power, Authority, and the Anabaptist Tradition* (Baltimore, MD: Johns Hopkins University Press, 2001).

²²Marty, *Modern American Religion*; J. Kenneth Kreider, *A Cup of Cold Water: The Story of Brethren Service* (Elgin, IL: Brethren Press, 2001); Durnbaugh, *The Brethren Encyclopedia*.

²³Bruce Cumings, *The Korean War: A History*, Modern Library Chronicles. (New York: Modern Library, 2010); David Halberstam, *The Coldest Winter: America and the Korean War* (New York: Hyperion, 2007).

Per his church's instructions, Birk went to the local draft board to get classified as I-W—which was a new designation for COs as of February 1952. President Truman created two new designations for COs that allowed them to serve either through *civilian* work that they proposed or that they arranged with a non-profit organisation, such as their church (I-W); or through non-combat *military* placements (1-O-A).²⁴ This subtle split was consequential. For the government, the hope was that the greater variety of options would ensure that COs did not undercut the draft as an institution by refusing to serve and perhaps encouraging others. For the churches, the designations broadened the range of agencies and placements where Anabaptists could find assignments, endorsed multiple ways for Anabaptists to exercise conscientious objection given disagreements over the meaning of 'pacifism', and promised to expose Americans to Anabaptist theology 'thus increasing the possibility of Christian witness', as one church historian put it.²⁵

The next step was Brethren Voluntary Service. At the end of August 1952, Birk left his home in Indiana for New Windsor, Maryland, site of the national training camp, where the church gathered together I-Ws, like Birk, along with civilian men and women before they selected their volunteer placement sites.²⁶ The two-week 'orientation school' ran at regular intervals throughout the year, and there Birk met up with the latest crop of Anabaptists who had also joined the BVS. They came from across North America, some from Canada, others from nearby towns. Most volunteers were college-aged, a few were retirees, and all shared a relationship to the formal economy. They had no job, nor were they looking for one.

The Anabaptist voluntary service training camps in New Windsor, Maryland (Church of the Brethren) and Akron, Pennsylvania (Mennonite Church) had paid staff, who were employed by the national church organisations headquartered in the Midwest. From the perspective of the Anabaptist staff, the camps were their work place, where they were employed to train the newest arrivals and coordinate the logistics for the next batch of volunteers they would be sending to a placement on their fluctuating list of sites around the USA and the world. Birk, like many people who joined voluntary service, worked at one placement site for several months, then moved on to another site as he was needed or preferred. Some volunteers went to Mexico; others to Israel. Birk was eager to travel ('constantly'), ideally to Texas or Florida, although he had never been out of the country and could speak no languages other than English. Anabaptists had to join voluntary service for at least three months; many joined for a year; and COs were obliged to serve for two.

The point of the training camps was to develop the habitus of virtuous suffering, which their lives as Anabaptists up to that moment had already instilled, to carry them through their terms as volunteers. Camp staff and church administrators learned to anticipate that volunteers would at some point wonder why they were living and labouring as

²⁴Nicholas A. Krehbiel, *General Lewis B. Hershey and Conscientious Objection during World War II*, (Columbia, MO; London: University of Missouri, 2012).

²⁵The Anabaptist organization qualified as 'employers' of COs under Truman's 1952 executive order 10328. Albert N. Keim, 'Military Service and Conscription', in

Donald B. Kraybill, ed., *The Amish and the State* (Baltimore, MD: Johns Hopkins University Press, 1993); Tatum Lyle, ed., *Handbook for Conscientious Objectors* (Philadelphia, PA: Larchwood Press, 1952).

²⁶Art Birk Personnel File. Brethren Historical Library and Archives, Elgin, IL (hereafter BHLA).

volunteers in circumstances that were uncomfortable, lonely, impoverished, or painful, depending on which placement site they selected. The training camp built an *esprit de corps* and prepared volunteers with theological answers. Their time was planned into activities designed, superficially, to let them enjoy themselves, but intended, at the core, to convey the sour message that their intentions (working hard, sticking out their commitment to a placement site) would be easier to announce than to accomplish. 'The work is hard, it will tax your strength, your mind, your loyalty', one slim yellow Voluntary Service flier explained, more by way of acknowledgement than sales pitch. In doing so, the training process sought to reaffirm that they were in voluntary service to witness—that is, to be living models of the teachings of Jesus and, in the process, to demonstrate the Anabaptist faith to others. Although not strictly evangelical groups, Anabaptist churches taught that one's actions in the world simultaneously communicated and was evidence of the truth of the faith. Importantly for volunteer programmes that accepted men and women, the idea of service for others through virtuous suffering could be coded as masculine or feminine. In war and medicine, masculine heroism was often defined by suffering and self-sacrifice.²⁷ At the same time, suffering for others and self-sacrifice were familiar tropes of the domestic sphere.

The Anabaptist training camps were quintessential 'total institutions'. Goffman distinguished five types of total institutions, the last of which included 'those establishments designed as retreats from the world even while often serving also as training stations for the religious', he wrote, 'examples are abbeys, monasteries, convents, and other cloisters'. The Anabaptist training camps were physically bounded, relatively small spaces with clear rules that were firmly enforced, whether through self-discipline, peer pressure or oversight by a staff that was, while perhaps genial and appreciated, nonetheless divided socially and organisationally from what Goffman called the 'inmate class'. In these institutional spaces separated from the rest of the world, new arrivals carried on all of the activities of living that would otherwise be done in separate spaces—work, friendship, sustenance and entertainment—all tended to within a rigidly bounded space.²⁸

By the time Birk arrived in September 1952, the churches had arranged a number of voluntary service placement sites, but not enough and not without glitches. These gaps were especially daunting for COs who faced consequences from the Selective Service if they failed to follow through on their service obligations. Thus, on 16 November 1951, the same autumn that Birk applied to the BVS, the head of NSBRO had a hushed meeting with the head of the Selective Service Administration to discuss the options.²⁹

Initiating an Exchange

By the time Birk arrived at the New Windsor training camp in September 1952, the churches' voluntary service programmes were flourishing, almost to a fault. Open to women and men—conscripts and civilians—the programmes scrambled to find enough

²⁷Lederer, *Subjected to Science*; Herzig, *Suffering for Science*.

²⁸Goffman, *Asylums*.

²⁹Confidential Report by A. Stauffer Curry, Exec Sec of NSBRO, 17 December 1951. National Service Board

for Religious Objectors 16/32, 1951. Mennonite Central Committee Archive, Goshen, Indiana (hereafter MCC). Krehbiel, *General Lewis B. Hershey and Conscientious Objection during World War II*.

placement sites, and ideally sites that could help pay the bills for the training camps, too. Birk was handy, so camp leaders decided to keep him around. Their choice reflects not only Birk's skill—he was, after all, an experienced grounds keeper at the delicate age of 18. It also points to the dearth of outlets for Anabaptist bodies flowing into the training camps.

The volunteers were solutions in need of more problems. At the same time, 50 miles to the south of the training camp, the US National Institutes of Health (NIH) was building its first premier research hospital on its main campus in Bethesda, Maryland, and its new director, Jack Masur, was mired in troubles.³⁰ From the time the US Congress authorised the hospital in 1948, Masur worked to build the paper infrastructure that would undergird the brick-and-mortar structure. Researchers would need supplies when the Clinical Center opened, especially research materials like chemicals, beakers and mice. Human materials were essential, too. But while hard goods and animals could be bought, humans were tricky to procure since, as one contemporary put it, 'There is no open market for "guinea pigs"'.³¹

Adding to the complication, researchers at the Clinical Center would need 'normal controls' for researchers' human experiments. This meant that Masur needed to find healthy people who would move into the research hospital for extended periods of time during which they could not be employed. The scientists' protocols, not work schedules, were to be the highest priority for 'normal controls'. Plus many studies required constant medical observation (psychotropic drug experiments), had awkward demands (urine collection), or debilitated people for days (surgery, contagious diseases). The people nearest to hand—Clinical Center staff—were off limits because of legal restrictions on experimenting on employees, as well as concerns about coercion. Nor could NIH employ people with the job description of 'normal control'. Federal employees got civil benefits (pension, insurance, holidays) and were protected under labour laws—a level of legal commitment and expense that NIH preferred to avoid. Masur needed to find people who would come to the Clinical Center while they were lingering contentedly outside the private labour market to spend their days having researchers run experiments on them.

To encourage both sick and 'healthy patients' to become experimental subjects, Masur proposed to the Office of General Council that researchers could give people perks in the form of bonus care while at the Clinical Center: elective medical services, like dental, vision or cosmetic care, for matters other than those that would bring a patient to the Clinical Center. At this time in the 1950s, health insurance in America was available almost exclusively to people with stable, traditional, full-time jobs. Employers offered health insurance to their (typically male) workers and family members, a circumstance that reflected and reinforced middle-class privilege and expectations of a domestic life organised around a male breadwinner.³² The legal response to Masur's proposal was, in a word, no. The Clinical Center was federally authorised to do research. That was it. Scientists could give a patient medical services only if her 'condition is itself complicating

³⁰Richard Mandel, *Beacon of Hope*. <http://www-dev.ors.od.nih.gov/medart/Stetten/becon_of_hope/founding_years_Pg2.htm>, accessed 15 April 2015.

³¹NSBRO 1954.

³²Jill S. Quadagno, *One Nation, Uninsured Why the U.S. Has No National Health Insurance* (Oxford; New York: Oxford University Press, 2006).

and impairing the individual's value to [the] study'. As a result, 'such [medical] work based only on the fact that the patient needs it for the improvement of his health would not be authorized', government lawyers informed Masur. Researchers could only 'maintain the health of the patient to the degree enjoyed by him upon his admission in order to assure his continued usefulness to, or his cooperation in, the study'. Out of the question was 'complete rehabilitation of the patient'. Scientists could treat patients only within the bounds of the research protocol to retain them as human subjects, lawyers explained. 'Beyond this, the plea should be addressed to Congress.'³³

With no pay and no perks, Masur's efforts to find a solution to the problem of how to procure healthy civilians stalled—until a solution found him. On the Tuesday before Christmas 1952, Stauffer Curry drove to NIH's Building 1 and sat down with the agency's top science administrators. Curry was the chair of the Board of Directors of NSBRO, the organisation of peace-churches that managed, guided and advocated for their conscientious objectors. By the time Curry arrived at NIH, the scientists had got a lawyer on their side of the negotiating table: Irving Ladimer. He had an allegiance to the researchers by virtue of his position within NIH. The lawyers in the Office of General Council worked for the US executive Department of Health, Education and Welfare and, as a result, saw the world as an impending liability for the Clinical Center. Ladimer was not only on the scientists' team, he was their legal coach.

On that day, Curry told Ladimer and seven scientists about NSBRO's vision for managing the Korean War draft in light of Anabaptists' commitment to non-violence. Curry conjured for the scientists the 'guinea pig unit' that the churches had overseen during the Second World War for their pacifist conscripts.³⁴ Curry proposed on behalf of NSBRO that COs might again be able to serve their draft obligations as 'guinea pigs' in medical research.

Curry had gauged his audience well. The scientists seated around the conference table were part of the first cohort of researchers at the Clinical Center who had served their military obligation through the Public Health Service by leading government-sponsored medical studies at universities and hospitals across the country for the US Office of Scientific Research and Development. They had studied malnutrition, infectious disease and a range of practical problems to protect or heal troops in Europe, in Asia, on the ocean and in the air by running experiments on COs assigned to the 'guinea pig unit'.³⁵ When the Second World War had ended, this cadre of medical researchers accepted jobs with the Public Health Service at the new, expanded home of the National Institutes of Health in Bethesda. They became the first science administrators for the new Clinical Center, where they were confronted with a problem of how to get human research materials.³⁶

³³Masur raised the possibility in 1951 to Rourke, 24 May 1951, Intra-2-1-a doc #023215.

³⁴See National Academy of Sciences' collection on the Office of Scientific Research and Development.

³⁵See Center on Conscience and War (DG 025), Peace Collection, Swarthmore College; Tucker, *The Great Starvation Experiment*; Edwin Cowles Andrus, *Advances in Military Medicine, Made by American Investigators*, United States Office of Scientific

Research and Development; Committee on Medical Research, vol. 2 (Boston, MA: Little, Brown and Company, 1948).

³⁶Report: Interview with US Public Health Service, National Institutes of Health. 23 December 1952. MCC. See Also, 23 December 1952. NIH Office of the Director, Building 1, National Institutes of Health, Bethesda, Maryland (hereafter NIHOD).

As Curry anticipated, NIH researchers recognised the arrangement he proposed. ‘They of course were oriented to the pattern of CPS [Civilian Public Service], where they went into a camp for some men and had their services without pay’, he reported to the three churches he represented.³⁷ In 1952, it had only been 8 years since NIH scientists had themselves lived this arrangement: free, healthy, obedient human research materials that were legally, openly, reliably delivered to their laboratory doors. It was also an option that scientists had brainstormed themselves. Prior to Curry’s visit, NIH scientists had recalled how they had got healthy humans during the Second World War: the Selective Service Administration had sourced these clinical supplies for them from NSBRO’s peace-church conscripts.³⁸

One scientist at the 1952 meeting, Dr Donald Whedon, had been a young researcher during the Second World War in a metabolism laboratory at Cornell Medical School, where COs had subsisted on unusual diets and exercised steadily. During the war, Whedon’s metabolic unit had a counterpart laboratory at the University of Michigan run by Dr Jerome Conn.³⁹ Remarkably, only one of the dozens of laboratories that comprised the the Second World War guinea pig unit had continued to get COs after the government closed the Civilian Public Service camps. Informally through the 1940s and early 1950s, the Church of the Brethren had continued to send men from the Brethren Voluntary Service programme to the University of Michigan’s metabolism research laboratory, just as it had when the laboratory was a government sanctioned ‘guinea pig project’. The arrangement operated more as a gentleman’s agreement after the Civilian Public Service closed, outside of US government constraints. There was no formal legal mechanism—a contract for example—to uphold the arrangement. What this meant was that the head of the Michigan metabolic lab, who was the beneficiary of the arrangement to get ‘normal controls’ from the Church of the Brethren both during the Second World War and at the time of the 1952 meeting, was one of Whedon’s colleagues in the field of endocrinology.

Just weeks before Curry met with NIH researchers in Bethesda, Art Birk had met with Jerome Conn at the Brethren Voluntary Service camp in New Windsor. Conn had travelled from his laboratory in Ann Arbor to the camp in New Windsor to recruit Anabaptists for his ongoing metabolic studies. While there, he met Birk still tending the grounds to fulfil his two-year draft term. Birk was soon to head to Texas—as he had hoped—to work through the winter on the Brethren Service Farm in Falfurrias. But they talked about the possibility of Birk joining Conn’s unit as a ‘guinea pig’. The informal exchange between Conn’s Michigan laboratory and the Brethren Voluntary Service was a live and active endeavour in 1952—and thus a model for NIH.

At Curry’s meeting with NIH, he had conjured the fond, familiar analogy of the Second World War guinea pig unit, but then slid in a few differences in NSBRO’s current proposal. COs would now have to be paid and would need more flexibility in the length of

³⁷Report: Interview with US Public Health Service, National Institutes of Health. 23 December 1952. MCC.

³⁸12 April 1954. Memo: Normal Volunteer Participation in Clinical Research by Mr Irving Ladimer, PRPL.

³⁹1945 June 1 List, by NSBRO, ‘Medical Research projects—office of scientific research and development—CPS 115’ lists the guinea pig projects, including Conn’s work at Michigan; Center on Conscience and War (DG 025), Peace Collection, Swarthmore College.

time spent as human subjects. 'The matter of pay seemed to offer a drawback', Curry gathered, 'as did the problem of short-term service and where the men would serve before and after their period of time in these institute experiments.' On the upside, the churches already had up to 800 COs who needed placements as of 1952. Adding to the appeal for NIH, they would be relatively cheap to transport since many of them, before they started their service, would be consolidated nearby for orientation at the Anabaptist voluntary service camps in Akron, Pennsylvania and in New Windsor, Maryland, just a few miles north.

Curry pressed for details from the scientists, but at the moment his questions caught them off guard. The NIH contingent was certain that they would need the men to live inside the Clinical Center and the men 'could probably not leave the spot for a period of many months', Curry reported. 'For the most part, men would be subjects of the experimentation for three to five months, with the possibility of being recalled for future experimentation.' From the churches' perspective, this was brief. The draft required I-Ws to serve two years. To accommodate this, the scientists 'suggested they might work with mental hospitals', Curry explained, 'and have arrangements that men would begin work in a given mental hospital as soon as the period of being a guinea pig ended'. Scientists also pointed out that NIH is part of the Public Health Service, a strategic move on their part. Curry perked up. 'US Public Health Service is a "uniformed" service, just as is the Coast Guard, but is not a part of the military since the signing of the peace treaty last summer.' Curry replied 'that this fact might be a deterrent to some objectors, but perhaps not to others'. To the untrained ear, 'non-combat service' and 'alternative service' might have sounded similar, but the peace-churches were alert to the difference between not-fighting while serving in the military, and not serving in the military at all.⁴⁰

Ninety minutes had passed, and it was time for Curry to go home with Christmas Eve only a few hours away. He left Building 1, its halls decked for the Christian holiday, for his own celebration of the birth of Jesus, the figure of service and peace who brought him to Bethesda that day. For the time being, scientists could offer supposition, but few specifics. 'Mr Ladimer, the secretary of the Research Committee, will send to us a complete description of the experimentation as these various institutes envisage it', Curry reported to church leaders. Scientists also promised to prepare a description of a model study that might serve as a pilot for the arrangement. The insight that the Church of the Brethren was currently sending I-Ws to the University of Michigan Metabolic Lab made a lateral move easy. Whedon's research was the quick, easy choice for the pilot proposal, and Whedon pulled together his study description when he returned from the Christmas holiday.

Curry saw the NIH leaders again nearly ten months later, in September 1953. By this time, Art Birk had received a letter at the Brethren Service Farm in Texas from the director of voluntary service. 'Before you left New Windsor you had an interview with Dr Conn of the University of Michigan Hospital and he indicated he would like to have you as one of the guinea pigs in his research. This letter is to see whether you would be interested in joining the next unit somewhere around the 4th of May', the director wrote. 'I think we

⁴⁰23 Dec 1952. Summary of meeting, Intra-2-1-a doc #023215, NIHOD.

might get four out of the present group if necessary. I thought I would give you a chance at this if you are interested. . . . I think there is a fairly good possibility that we will take you into the unit if you are interested in it.⁴¹ Birk replied a few days later. 'I will leave the decision up to you and Dr Conn. It makes no difference to me where I am.' Birk was concerned to get a bit closer to home but submitted to their judgement and authority. 'You will not offend me on your decision either way you put it', he said. 'I will work where I'm needed most.'⁴² He arrived in Ann Arbor a week later.

Curry next met with NIH leaders on a Friday afternoon in late September 1953, this time on the churches' turf: the Mount Vernon Place Methodist Church blocks from the White House and the US Capitol building. To do researchers' bidding, NIH sent Ladimer and Whedon. Now the NIH contingent was prepared with specifics and presented their vision of the arrangement to the NSBRO Board of Directors, which included Curry and 13 other peace-church men. Ladimer and Whedon led with gratitude and invoked the the Second World War 'guinea pig unit', an analogy that again served the group well. 'They observed that the interests and cooperation of men during World War II at the Cornell Medical College project in New York were very refreshing', the church secretary recorded, referring to Whedon's war-time laboratory work, 'and the COS would again be the best source of personnel for certain projects'. Whedon described two studies in his laboratory for which conscripts would be on special diets. He wanted men between 18 and 25 years old who were healthy and available to live in hospital rooms at the Clinical Center for 2–12 months. There were other study possibilities, too. Ladimer and Whedon pitched all of NIH's planned experiments with the men as exciting and new, but they also assured that such experiments on healthy humans had been done in the past—indeed were familiar and routine. In doing so, they marked the inherent and enduring paradox of medical experimentation on people. In one register, the experiments were necessary because the outcomes were excitingly unknown, which lent value to the undertaking for the churches as well as the scientists. In another register, the experiments were predictable, nearly mundane and certainly harmless, which assured their legal plausibility and appeal to pastoral groups. 'Mr Whedon explained that the projects would be observational and that no germs were to be injected into the patients.' They made the bottom line clear: 'Experiment is not hazardous.'

Church leaders were concerned about the political dimensions of the proposal as much as the scientific aspects. 'James Crain asked if NIH is related to HEW [Department of Health Education and Welfare]. Answer: Yes'. It was important to be clear what federal agency NIH fell within (a civilian service) since some men wanted to serve in the military (in non-combat posts) and others wanted specifically to avoid the military (in favour of civilian service, the 'alternative' to military service). Logistically, doctors would plan to come to the churches' voluntary service training camps in Akron, Pennsylvania and New Windsor, Maryland to check the health of conscripts and explain the studies. Conscripts would have a hospital bed in the Clinical Center and 'be under 24-hour supervision'. From time to time, they might be allowed to leave.

⁴¹23 April 1953. Huston to Birk, Birk file, BHLA.

⁴²26 April 1953. Birk to Huston, Birk file, BHLA. See also 13 May 1953. Huston to State Director of Selective Service, Austin Texas, Birk file, BHLA.

The financial offer came next. I-Ws would get room and board, assuming they proved 'normal' in doctors' medical examinations when they were admitted. The churches would be expected to arrange and pay for return travel from the Clinical Center to the Voluntary Service camps. And although they would not get 'wages' and could not be considered employed, NIH would pay the churches money that the churches could pass on as an 'allowance' although NSBRO continued to refer to I-Ws' 'work' and churches would list their voluntary service participants in long lists of 'personnel'. This seemingly small clarification signalled the enormous legal importance for NIH of how they agency paid 'volunteers'.⁴³ Instead of wages, Ladimer offered \$50 to be paid as a lump sum at the end of each month, prorated on a man-month metric. In later years, the practice of paying people at the end rather than at the beginning of studies came to be seen as coercive since it deters people (often by design) from withdrawing from studies and affects poorer people disproportionately. Importantly, the churches would get a 10 per cent cut to cover the administrative costs of running the exchange.

Ladimer was pleased with the meeting. Returning to his desk at NIH, he told his boss that he had 'proposed arrangements under which I felt we could "purchase" service from the organization on a man-month basis', and that the church representatives 'received the proposal very well and agreed to cooperate'.⁴⁴ Indeed, the NSBRO directors were satisfied with NIH's answers and their plan, so they referred NIH's proposal to the churches' I-W programme directors, who would be meeting the following Tuesday. To Ladimer their approval seemed a forgone conclusion. After approval from the I-W programme directors, however, the NIH proposal would need approval from the overall leaders of the three churches. NSBRO could liaise, but each of the churches would have to sign the contracts to document a legal agreement. This point is where the the Second World War analogy broke down: the arrangement was not between federal agencies as it had been in the Second World War; NIH hoped to sign contracts with private organisations to exchange money for man-time.

Negotiating Procurement Contracts, 1953–4

The response from the churches was split. The Quakers said no for reasons that are unclear. But the leaders of the Mennonite Church and Church of the Brethren were open to the experiments in science and in the law. In the fall of 1953, the negotiations and gift exchange between the organisations picked up pace. The churches leaders sent books about Anabaptist faiths and about NSBRO's guinea pig unit in the Second World War. 'I did not realize that the public service workers engaged in such a wide variety of activity and that they participated so fully during the progress of the war', replied Ladimer, who was NIH's primary recipient of Anabaptist reading material in the fall of 1953. The Mennonite Voluntary Service leader posted a small package to Ladimer and pointed him to an entry several hundred pages into the book he enclosed. *Service for Peace* described the experiences of peace-church conscripts during the Second World War and included a summary of the many human experiments at different sites done on

⁴³Laura Stark, 'Work, Welfare, and the Values of Voluntarism: Rethinking Anscombe's "Action under a Description" in Postwar Markets for Human

Subjects', *American Journal of Cultural Sociology*, 2017, 5, 181–224.

⁴⁴21 Sept 1953. Ladimer to Shannon. Intra-2-1-a doc# NIHOD.

conscripts in the 'guinea pig unit'. 'We were much impressed', Ladimer replied. Through the autumn, Ladimer read reams of materials about the guinea pig projects, as the churches called them—or, as Ladimer preferred, 'the so-called' guinea pig unit. He replied with admiring thank-you notes. 'The so-called guinea pig unit was just a small, although not inconsequential, activity', he praised.⁴⁵

Amid the stream of materials, the churches sent a remarkable offer. Ladimer rushed the news to his supervisors: 'at least one of the churches would be able to provide women as well as men as part of their peace-service activity'.⁴⁶ From the churches' perspective, the exchange of women would allow the churches to have another placement site for half of their volunteer pool. For NIH, the exchange of women, not only COs, would allow researchers to multiply their experiments and to learn about what they regarded as the distinctive physiology of the female body and the effects of drugs, biologics and other interventions on it (Figure 1).

The churches' offer of women and NIH's acceptance of it would yield an unprecedented exchange of healthy civilians for money through a public–private market. Previous large-scale sources of human subjects were arrangements internal to the US government. They predominantly involved men by virtue of the agencies involved, such as the military and prison system. And they specifically enrolled men with a debt to the state, not those with the more robust rights of civilians. In the history of medicine, 1954 is a crucial year. It marks the moment when a paid market for healthy civilian human subjects in a modern democracy became morally imaginable and legally possible.

NIH worked to negotiate a vocabulary to refer to this new practice and an appropriate disposition towards it, sensing that the exchange of money for bodies might look unseemly to the media-alert public—that is, the taxpayers on whom the agency budget depended. One of NIH's more stubborn public relations projects was to scrub the 'guinea pig' metaphor from the Anabaptists' vocabulary. The figure of the guinea pig had long been the caged hero in absurd circumstances. After the Second World War, however, the focus shifted from the heroic guinea pig to its dastardly keeper. The Nazi doctors' trial was well known among researchers, although the trial changed their language more than their research practices. As most American researchers saw it, the 1947 Nuremberg Code that resulted from the trial was intended for Nazi evil-doers, not democratically minded researchers in the USA who were presumed to have good moral judgement by definition. In 1954, the film adaptation of Orwell's barnyard allegory of the Cold War, *Animal Farm*, was released. Although NIH administrators had long used the 'guinea pig' term themselves, in the early 1950s they dropped the phrase and pleaded with Anabaptists to also dispense with the language given its Nazi resonances. 'As a special favour, if you can possibly avoid using the "guinea pig" label, please do so', the NIH Information Officer finally begged. 'There is a Buchenwald connotation in the phrase which is totally false, and we are doing everything possible to discourage it'.⁴⁷ Yet the image of the guinea pig continued to delight and amuse the churches, despite ruffling

⁴⁵12 Oct 1953 Ladimer to Graber, National Institutes of Health, 1954. MCC correspondence, IX-6-3. MCC.

⁴⁶24 Sept 1954. Ladimer to Shannon, Intra-2-1-a doc# 023222, NIHOD.

⁴⁷2 Aug 1954. Hardy to Kleiwer, National Institutes of Health, 1954 (MCC correspondence, IX-6-3). MCC.



Fig. 1 For NIH scientists, a major advantage of the contracts with the Anabaptist churches was that the civilian organizations provided women, not just men, which was a shortcoming of previous arrangements for getting healthy human subjects through the military. Anabaptist women were used in metabolic research and other studies at NIH to learn how the 'normal' female body worked. (See author citation.) *Source:* Mennonite Central Committee Archive. Goshen, Indiana.

the fur of NIH administrators. The term was also, simply, the standard phrase to refer to a person being experimented upon before the bioethical term 'human subject' was

invented. There was no alternative vocabulary, and although NIH asked Anabaptists to cease with the reference, NIH failed to suggest a replacement.

In the deliveries of Anabaptist books, pacifist newsletters, friendly letters and amazing offers he received from the churches, Ladimer was waiting for something else. He awaited a specific letter, postmarked Goshen, Indiana, headquarters of the Church of the Brethren. Its administrators had agreed to send the contract with the University of Michigan, which hosted Dr Jerome Conn's metabolic research, the counterpart to Whedon's Cornell laboratory and to the facility Wheadon now directed at the Clinical Center. NIH leaders and lawyers wanted to use the Church of the Brethren's existing contract with the University of Michigan as a model for NIH's pilot procurement contract with the churches. 'When this information is received', Ladimer encouraged, 'we shall be in a position to take care of all the administrative matters here and I am certain we will work out a satisfactory plan'.⁴⁸

Art Birk had arrived at Conn's laboratory in May 1953 to have experiments done on him for his voluntary service work. By late summer he was ready to leave. In August, Birk was back at the New Windsor training camp for a month's rest from the experiments while Conn closed the laboratory for a summer holiday. Birk anticipated voluntary service leaders would send him back to Ann Arbor in September when the laboratory reopened—more out of inertia and the dearth of other placement options, than a coherent plan. Birk, however, wanted to be assigned elsewhere and created a plan of his own. He arranged an *ad hoc* assignment at Camp Alexander Mack, where he had been working as a grounds keeper before he enlisted and joined Voluntary Service. Birk had learned that it had once been an approved placement site and announced his plan—and his reasoning. He had written to the camp leader, who, he reported to the Voluntary Service director 'has an opening for myself and one other person for that period if it is OK with you'. Birk presented his arguments—spiritual, emotional and financial. 'I have worked there before', he explained, so compared to Conn's laboratory, 'I feel that I can offer more to the Camp'. He knew that I-Ws were restricted from serving too near to their families and hometowns. The US government designed alternative service to clip the ties of kin and community so religious objectors would suffer the same homesickness as combat servicemen and not get special treatment. 'It is fairly near home. But', he lobbied, 'the work is such that every day is required on the job'. Sitting in Ann Arbor writing this letter, Birk knew from experience how voluntary service magnified the feeling of distance. 'Here I am just 130 miles from home. But it seems as far away as Texas'. He slipped in his economic argument last. 'Also, I'm finding out what time does to clothes. I understand that we will receive no clothing allowance'. Camp Mack would pay a modest salary, instead of a stipend, which the Selective Service Administration allowed. 'If there would be no objections I would like to work there. I would understand that if I do I would pay my traveling expenses', he wrote, 'IF?'⁴⁹

The answer was no. The director explained that Birk was right: Camp Mack had once been an approved placement site. But, he informed Birk, 'Camp Mack was approved as a

⁴⁸12 Oct 1953. Ladimer to Graber, National Institutes of Health, 1954 (MCC correspondence, IX-6-3). MCC.

⁴⁹29 June 1953. Birk to Huston, Birk file, BHLA.

special unit under unusual conditions and [I] will not be able to send Indiana people into Indiana projects'.⁵⁰ The director's hands were tied by Selective Service rules but he did register Birk's plight as well as his eagerness to work for a salary rather than stipend.⁵¹ Birk returned to Conn's laboratory in September for the indefinite future. He had another year of I-W service to complete.

As Birk continued as Conn's experimental subject in Ann Arbor, Irving Ladimer received unexpected news. The Church of the Brethren had no contract with Conn nor with the University of Michigan. It was a revelation that put a belated wrench in the machinery of the NIH bureaucracy. For money to change hands, NIH required a legal instrument, and in this instance wanted a legal instrument that detailed financial responsibility for all the practical costs of enacting the exchange (Who pays for transportation? Who pays for food?) and, importantly, one that clarified legal responsibility in the event an Anabaptist was hurt or died at the Clinical Center.

Thus, from the fall of 1953 through the early spring of 1954—as Birk endured his second stint as Conn's 'guinea pig'—the church and NIH staff negotiated a contract *de novo*, which they regarded as a formalisation of the arrangement already in place at the University of Michigan (Figure 2). For this undertaking, NIH passed the task to a seasoned professional whose office was one step higher in the organisational structure: the Procurement Office in the Office of the Surgeon General for the Public Health Service. On 16 February 1954, NIH representatives signed the first procurement contracts with the Church of the Brethren and the Mennonite Church.⁵² The negotiations lasted more than a year, but in the space of 48 hours, the legal possibilities and the practical operation of human experimentation fundamentally changed. The final contract with the Church of the Brethren would serve as a model for other organisations for years to come.⁵³ Once committed to paper, the agreement in contract form ascended the church and NIH hierarchies for approval. The documents' long bureaucratic journey attests to the sense among church leaders and NIH alike that the procurement contract for healthy civilians was unprecedented, promising and perilous.

Enacting Procurement, 1954

As the final contract travelled the bureaucratic hierarchy, Irving Ladimer travelled to the churches' voluntary-service training camps in Akron, Pennsylvania and New Windsor, Maryland. His goal was to find Anabaptists for the new programme NIH was calling its 'Normal Volunteer Patient Program'.⁵⁴ The churches already had specific Anabaptists in mind, particularly I-Ws who needed short-term placements to finish their two-year Selective Service commitments. At the New Windsor camp, Ladimer heard about Art Birk, who in the new year of 1954 remained in Ann Arbor having experiments run on him in Conn's metabolic laboratory. Birk was perhaps the perfect 'normal control' for NIH researchers. 'Birk was first assigned to Texas', Ladimer reported, 'where they worked with the Mexicans to raise standards of living and teach them how to build new homes. Later he served as a "guinea pig" at Ann Arbor, Michigan. He was on a constant diet for

⁵⁰6 July 1953. Huston to Birk, Birk file, BHLA.

⁵¹6 July 1953. Huston to Birk, Birk file, BHLA.

⁵²Ladimer to Graber. 15 February 1954, National Institutes of Health, 1954, MCC.

⁵³Stark, 'Work, Welfare, and the Values of Voluntarism'.

⁵⁴12 April 1954. Memo: Normal Volunteer Participation in Clinical Research by Mr Irving Ladimer, PRPL.

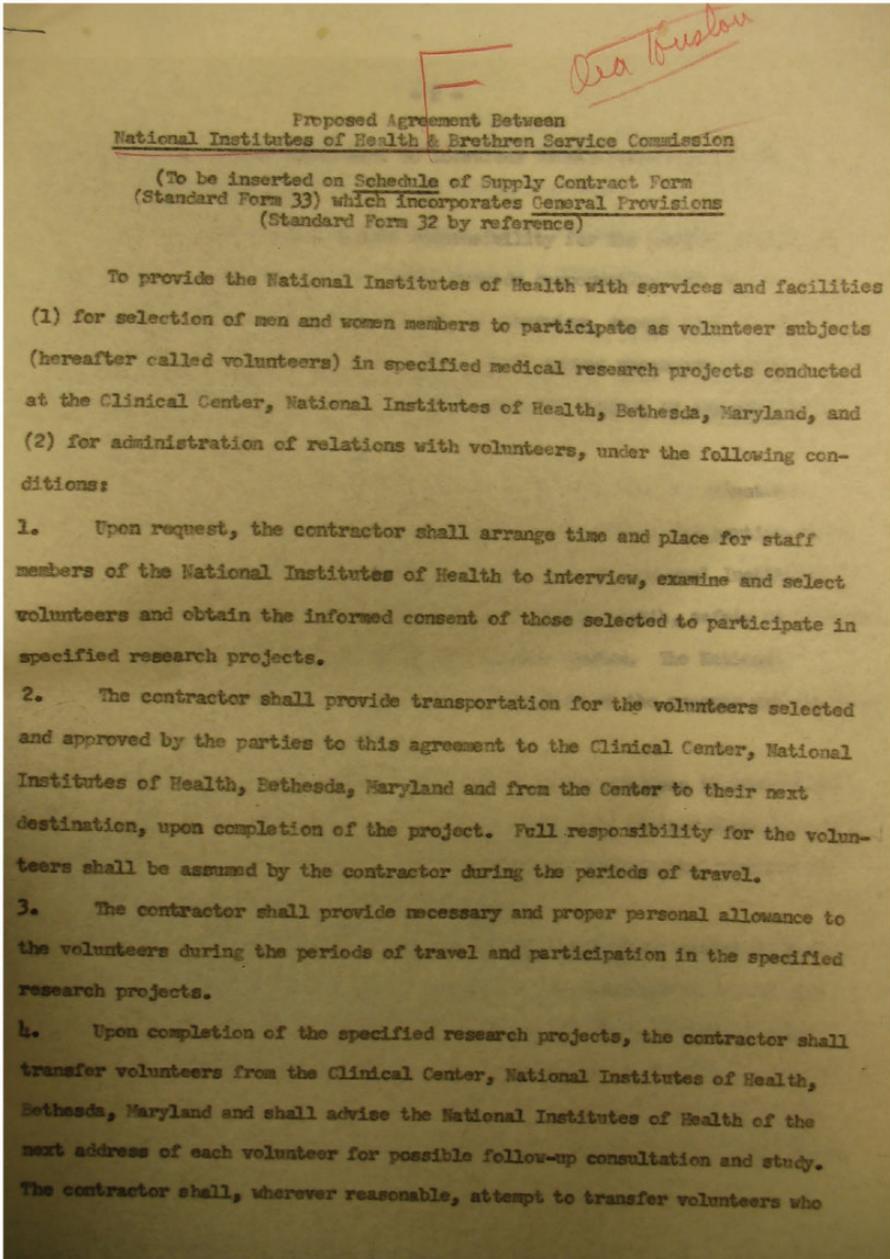


Fig. 2 The Church of the Brethren procurement contract was the model for future contracts NIH signed with additional organisations to supply human subjects. *Source:* Unprocessed documents, US National Institutes of Health, Office of Patient Recruitment and Public Liaison, Bethesda, Maryland.

nine months, where all food he ate was weighed'.⁵⁵ Thus Birk's most recent Voluntary Service assignment had been as a 'guinea pig' at the very site that had been the model for the arrangement NIH now had with the churches. Birk was already trained as a normal control. In all, Ladimer recruited four Anabaptists, two men (including Birk) and two women. They would be the first ever healthy civilian 'normal controls' at the NIH Clinical Center.

The day after churches and NIH leaders signed the procurement contracts in February 1954, Birk and his three fellow BVS unit members arrived at 10 Clinical Center Drive, the address of their new home for the next several months. Birk's father got a letter with an update from the director of the Brethren Voluntary Service. 'As you have probably already heard, Art has gone to the National Institutes of Health, Bethesda, Maryland, for a couple of weeks in a research project there much like the one he was in at Ann Arbor, Michigan', he explained. 'This will be for only a short period of time, four to six weeks'. Still, there was urgent business to attend to: 'The Institutes of Health (sic) require that anyone coming into the program who is under legal aids (sic) must have a statement from their parents that it is satisfactory for them to go'. There was, however, no standard form for parental assent so the church created one. 'We have prepared one that I think will serve the purposes and if you will sign this and return it to our office, we would appreciate it very much'. In closing, he affirmed Birk's commitment but also signalled his desire already to leave: 'We appreciate the fine work that Art has been doing and plan to assign him to another job before too long. He has indicated that he is interested in spending the rest of his period on a salaried job, and we are glad to transfer him to such in the near future.'⁵⁶

The church intended Birk's stay to be a few weeks, but he would stay for half a year.⁵⁷ During that time, Anabaptists who came to the Clinical Center slept in hospital beds on nursing wards while researchers used them continuously in medical experiments designed to treat heart failure and schizophrenia. When Birk was not on studies NIH put him to work as unpaid labour (his NIH 'career assignment') alongside paid government employees fixing the machinery used to maintain the NIH grounds. In March, NIH's Head of Purchasing wrote to the churches with instructions on how to prepare invoices to get paid for the 'man-time' that Birk and the others provided.⁵⁸

Yet the February contracts were pilot operations, set to expire on 30 June 1954, the end of the government's fiscal year. Ladimer and the clinical scientists who had brokered the exchange needed to demonstrate to NIH leaders and federal lawyers that the arrangement was going well—and deserved to be renewed and routinised. Art Birk had been serving in the two months since he arrived as a Normal on the wards allotted to the National Heart Institute. Researchers adored him: they found him wholesome and charming, well-spoken and deferential. He made the perfect example of the happy subject of experiment. So as spring arrived in Washington and time wound down on the pilot contracts, Ladimer asked Birk to come with him to a meeting to testify for the procurement system.

⁵⁵12 April 1954. Memo: Normal Volunteer Participation in Clinical Research by Mr Irving Ladimer, PRPL.

⁵⁶23 Feb 1954. Huston to Delbert Birk, Birk file, BHLA.

⁵⁷5 April 1954. Huston to Young, Birk file, BHLA.

⁵⁸16 March 1954 Green to Graber, National Institutes of Health, 1954 (MCC correspondence, IX-6-3), MCC.

Ladimer and Birk sat down with the NIH Administrative Officers, a powerful group at the agency. The officers were tasked to evaluate how the procurement contracts were working in practice and were keen to sniff out any potential liability concerns or any threats to the public reputation of this taxpayer funded agency. The last thing their budget needed was a scandal. 'As a result of a year and a half's activity, we now have in existence two contracts, the only formal arrangements ever made for obtaining people who have agreed on their own to help out in approved medical research problems', Ladimer told the group. Since the pilot phase would soon be ending, NIH needed to decide whether to continue with the exchange—ideally to promote it and grow it—as the source of an essential resource for researchers' experiments. If not, NIH would have to look elsewhere for a supply of healthy humans, more a threat than a neutral alternative. Ladimer described the original contacts and their negotiation with the Anabaptist churches over the past two years, then passed the floor to Birk. 'Young people often wonder what they can do', Birk told them to explain the Anabaptist tradition, and 'through this organization [Voluntary Service] they find that they can do something worthwhile'. Birk witnessed and the NIH secretary jotted his words: 'he would not trade his experience for anything. He has learned about the importance of medical research and has the feeling that he is contributing to something worthwhile'. Birk's testimony prompted a volley of sceptical optimism with NIH administrators:

Mr Siepert asked Mr Birk what factors influenced his coming here, although he and 2 other boys had said they would not be guinea pigs again. Mr Birk explained that the boys who served at Ann Arbor considered the strict diet unpleasant and felt restrained because they were not allowed much activity, but NIH seemed to offer more freedom. Mr Siepert asked how important it is for the volunteer to have explained to him the complete research problem (sic) to which he is assigned. Mr Birk said it was very important to know before volunteering so an interest will be created and problems ironed out. Our staff has done a reasonably good job of explaining as they go along. Mr Ladimer stated that explanations are made to groups and to each individual later to insure complete understanding. Mr Ladimer said that on the last trip [to recruit at Anabaptist Voluntary Service training camps] some of the people declined to come, indicating that there is no coercion and that the NIH project was purely voluntary.

Mr Janus asked whether Mr Birk had any suggestions concerning Clinical Center facilities and services. At first the volunteers had to wait for an attendant whenever they wanted to go anywhere. This seemed unnecessary for normals. The facilities were here, but they had to look at them through locked doors; the gymnasium, occupational therapy, and outside facilities were not open. Now these problems have been solved.

Mr Birk said that he never knew much about NIH before and that he had a great appreciation for what is being done for people. He sometimes thinks that the volunteer service has done more for him than he has done for it. Mr Snow summarized for the group, saying that NIH was grateful for the service that this group was giving to the Nation'.⁵⁹

⁵⁹12 April 1954. Memo: Normal Volunteer Participation in Clinical Research by Mr Irving Ladimer, PRPL.

The meeting and Birk's witness were a success. Three months after NIH signed the pilot contracts with the Anabaptist churches, NIH's Head of Procurement wrote to church leaders requesting them to renew their contracts. From 1954 through the 1970s, the churches and NIH renewed the procurement contracts annually. Along with the legal contracts, the informal agreements and local relationships produced the practical success of the exchange.

Birk's testimony is best understood in terms of the space in which he gave it. At the Clinical Center, Birk was part of two total institutions, as Goffman defined them, that overlapped in one physical space. NIH actively sought to teach American taxpayers—or the reading public—an appropriate disposition towards the exchange of civilians for money. Rather than downplay the appearance of pain and suffering, however, NIH strategically instructed Americans how to understand the fact that their government was inflicting pain and suffering on healthy civilians in experiments. NIH handled the media and federal journalists with stories published under headlines like 'They Volunteer to Suffer'.⁶⁰ The agency pitched the exchange as an opportunity for agony for selfless people who sought it out. NIH amplified the discomforts of the research for church volunteers yet minimised the physical danger, assuring that the Clinical Center and its researchers stayed within the boundaries of good moral judgement.

Likewise, the churches publicised the Clinical Center placement site for their specific audience of Anabaptist readers. The churches were trying to recruit Anabaptists into Voluntary Service generally and the Clinical Center specifically. 'Up until now it has been like "pulling teeth" to get new volunteers to come here', one Anabaptist explained.⁶¹ The Church of the Brethren had plans to make a recruiting film, which NIH did as well. The church requested glossy professional photographs of women sacrificing their own comforts in doctors' experiments (Figure 3). The Church of the Brethren commissioned an article from one of Birk's contemporaries to help with recruitment. To make the Clinical Center placement sound enticing, he amplified the pain and suffering, coded as masculine heroism. 'Here the battle of faith goes on continuously for these patients', he wrote. 'Into this battle of faith go many I-W men who volunteer as normal control patients.'⁶² In both masculine and feminine registers, pain in the context of medicine was legible to Anabaptists—individually and as a microcosm of the church—as virtuous suffering.

Anabaptists' prior self-understanding before entering the Clinical Center held firm, not despite, but because of the institutional arrangement. Voluntary Service workers arrived in small groups, often shared rooms and all came directly from the Voluntary Service training camp that reinforced the religious meaning and importance of suffering and sacrifice. Even more, Anabaptists took *themselves* to have the potential to reshape the self-understanding of medical staff—by actively working to expose them to Anabaptists beliefs. One of Birk's hospital mates and a fellow I-W enumerated the benefits of serving at the Clinical Center, among them the chance to spread the gospel to NIH staff and

⁶⁰Anon, 'Normal Volunteers Take Part in Research', *NIH Record*, 1954, 6, 4.

⁶¹6 July 1954. Miller to Meyers, Bill Miller file, BHLA. See also, Laura Stark, 'Accounting for Esther Smucker', *Accounting for Health*, forthcoming.

⁶²Article draft by Bill Miller, 11 April 1955, Miller file, BHLA.



Fig. 3 In the 1950s, NIH commissioned professional photographers to shoot staged scenes of Anabaptists in human experiments at the Clinical Center to be used in recruitment materials for ‘normal volunteers’. The churches were eager to place women ‘voluntary service’ workers at the Clinical Center, as well as (male) conscripts. In 1954, the year the churches and NIH signed the first procurement contract, the Mennonite Church Information Office wrote to NIH that ‘I am eager to get such pictures to present the need for such personnel to our constituency. Photographs would do a great deal to make this project more appealing. . . . I appreciate your sending clippings giving sympathetic and accurate accounts of this project’. *Source*: 1 September 1954. Kliewer to Hardy, Folder: National Institutes of Health, 1954—MCC correspondence, IX-6-3. Mennonite Central Committee Archive. Goshen, Indiana.

patients. ‘In my experience as a “normal control” at Bethesda, I have found numerous occasions to witness to the peace testimony’. He explained how it was done: ‘Daily you talk with other patients, doctors, nurses, and lab technicians, and they are curious to know why you are there and why you volunteer for such a duty. There you have the “opening” you need to tell others of your beliefs in your own way.’

The volunteers came to the Clinical Center in groups that sustained their disposition towards their experiences in medical experiments as religious endeavours laden with theological significance, community value and personal meaning. Thus, Birk and the other Anabaptists at the Clinical Center reveal the limits of Goffman’s theory.

Together and over time, Anabaptist volunteers configured the Clinical Center to correspond to the space of religious witness. The churches’ Voluntary Service training camps,

as total institutions, cultivated in volunteers the habitus of virtuous suffering and the imperative to witness. The pain and suffering they experienced was neither surprising nor inimical to Voluntary Service, but the reason and the reward. Birk's experience was, furthermore, the manifestation of an organisational arrangement underwritten by the US government's improvisational use of the classic procurement contract. Birk finally left the Clinical Center and Brethren Voluntary Service in August 1954, the end of his two-year term in Selective Service. At a church get-together, he told an Anabaptist leader about his NIH experience, who wrote him a note. 'It was good to see you at Anderson and talk with you a little about Bethesda', the church leader said. 'I am glad that through that you had the opportunity to make your witness for peace.'⁶³ In future decades, healthy civilians' actions and experiences were extensions of the Anabaptist procurement contract; the legal instrument they lived within.

Conclusion: Procuring Justice

The twentieth century marked two important shifts in clinical research: an increase in the scale of research and a shift in the legal status of the people enrolled as 'human subjects'. Prior to the 1940s, clinical research was a small-scale operation, and research on healthy, rights-bearing civilians was both morally prohibited and legally unfathomable. Instead researchers regularly experimented on sick people, occasionally on intimates, such as family members or students, and often on wards of the state. Yet in the present day, millions of people across the globe are paid to serve as 'human subjects' of medical research each year. The remarkable post-war expansion of the medical research industry was enabled, I argue, through a new contract mechanism: namely, the procurement contract. This insight encourages historical attention to organisational-level legal contracts to explain consent, not only to individual-level 'informed consent' documents. Often imagined as a dyadic relationship in micro-time, this article specifies the organisational relationships and multiple scales of times—over the life course of organisations, not only of individuals—within which human experiment takes place. What appears in the historical record as individuals' consent—to all manner of authority from state, to market, to church—is the embodiment of organisational goals that were coordinated through the legal mechanism of the procurement contract and temporarily stabilised in human lives.

US government administrators used the legal mechanism of the procurement contract in an unprecedented way to supply healthy humans for researchers when the Clinical Center opened. The contracts were originally designed and negotiated with two Anabaptist organisations and plugged into their existing Voluntary Service programmes. As a result, for all healthy experimental subjects at the Clinical Center until 1960, the twin roles of religious service worker and of human subject were simultaneous and inseparable. I have emphasised the perspective of the church organisations, rather than the medical agency, to invoke the logic that oriented 'voluntary service' and to demonstrate that this logic defined people's embodied experiences of their activities. Matter and meaning came together in the clinic for a distinctly religious experience of suffering, one coveted, cultivated and amplified. The logic of suffering itself served a regulatory function to manufacture compliance at the Clinical Center in that the disposition towards

⁶³Rice to Birk, 31 August 1954, Birk file, BHLA.

religious sacrifice shaped the stories people told themselves and each other about the activities under way. If accounts of subversive Anabaptist ‘human subjects’ were rare, it was in part because the logic of virtuous suffering foreclosed the possibility of feeling an experience such as pointless pain in the first place.

This case suggests that ‘procuring’ healthy people from other total institutions was key to the NIH’s success in establishing and building its human-subjects recruitment system. These supply-side organisations, as total institutions, framed recruits’ sensibilities, which they took with them into the clinical setting. In the 1960s, the number of participants in the Normal Volunteer Patient Program soared to several thousand, and the number continued to grow, despite increased regulation and public concern about human experimentation starting in the early 1970s in the wake of the public outcry over the Tuskegee Syphilis Studies. Through the 1980s, people who were used in experiments at the Clinical Center understood themselves as missionaries, pacifists, students and workers; their primary identity was not the ‘human subject’ that researchers would seem to have imposed.

By considering the experiential and organisational dimensions together, this article explains the paradoxical rise of large-scale research on healthy civilians and argues that the procurement contract was key to the shift. After the 1970s, a new organisational form, called the Contract Research Organization (CROs), emerged as a key player in the growth of drug research and development of new therapeutics.⁶⁴ CROs allowed drug developers to pay other medical firms to recruit ‘human subjects’ into studies and to collect the raw data that developers needed to get regulatory approval for new products—and thereby get broad access to medical markets. I suggest that the procurement contract set the legal infrastructure that later enabled this organisational arrangement, currently freighted and morally debated. Thus, the concept of total institutions helps historians rethink how organisations innovate new legal arrangements and shape experience—for good and for ill, producing better health as well as great harm.

The NIH Clinical Center is one place among many in the topography of human experiment in mid-century America and understanding the multiple organisations operating in the space shows how a new systemic arrangement was upheld, not only by the state or the medical profession, but also by the major institutions of post-war America including churches, labour unions and universities. It invites scholars to map spaces of power and to consider how different configurations of power that spaces allow can yield multiple, distinctive patterns of interaction and experience. This account of the legal and moral underpinnings of the logic of virtuous suffering clarifies how people with restricted freedom and limited alternatives have been disproportionately disadvantaged in medical research. Observing the church perspective during the 1950s points to the necessity of understanding the well documented abuses in medical experimentation not as exceptions to a routine, nor as part of an inherently exploitative system, but rather as possibilities unfolding within a larger topography of spaces that concentrate, enable and constrain various forms of authority.

⁶⁴Adriana Petryna, *When Experiments Travel: Clinical Trials and the Global Search for Human Subjects* (Princeton, NJ: Princeton University Press, 2009); Jill

A. Fisher, *Medical Research for Hire: The Political Economy of Pharmaceutical Clinical Trials* (New Brunswick, NJ: Rutgers University Press, 2009).

Neither an apology for suffering nor a justification for medical harm, this article features the clinic as a catalytic space where meaning and matter were thrown into productive relation. It is important to consider because the contract mechanism validated exchanges of people in far different circumstances, marked by few options and little information. For example, the racialised field experiments underway simultaneously in Tuskegee, Alabama were of a piece with the clinical experiments in Bethesda, Maryland—which were no less racialised as an exclusively white space. At the Clinical Center, the medical construct of ‘normalcy’ was organised around white lives, a legacy that continues to inflect medicine with race-based discrimination and disparities.⁶⁵

Unless scholars refine villain–victim narratives, histories of medicine risk building into their analyses the universalising categories—and therefore the assumptions—of modern bioethics, a field that serves to uphold rather than destabilise the medical enterprise. The language of ‘human subject’ is derived from historians’ important efforts to give account of abuses in the past, but in doing so deploys a bioethical category that homogenises rather than diversifies studies of the clinic. By folding the narrow categories and limited sensitivities of orthodox bioethics into our analyses, scholars ratify the very domain of medicine that critical histories aim to interrogate. This article is an effort to enrich the principles of critique that undergird social histories of medicine. By disassembling the figure of the human subject and the standard arc of the villain–victim narrative, this article works towards a more precise understanding of harm, hope and human experience in the age of modern medicine.

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⁶⁵Christopher Crenner, ‘Race and Laboratory Norms: The Critical Insights of Julian Herman Lewis (1891–1989)’, *Isis*, 2014, 105, 477–507; Steven Epstein, *Inclusion: The Politics of Difference in Medical Research* (Chicago: University of Chicago Press,

2007); Steven Epstein, ‘The Rise of “Recruitmentology”: Clinical Research, Racial Knowledge, and the Politics of Inclusion and Difference’, *Social Studies of Science*, 2008, 38, 801–32.