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Joshua Reeves & Ethan Stoneman

Abstract This article examines mid-century mind control experiments—carried out by intelligence services like MK-Ultra and the CIA—as biopolitical strategy. This analysis has two main goals: first, to build theory at the boundaries of biopolitical research, examining the conditions under which something like a "programmable subject" can emerge; and second, to reframe a key episode in the scientific management of the US population. In service of these aims, the article builds upon theories of anatomo-politics and dividuated biopower to analyze how subjects are governed via the manipulation of their data-processing faculties. This method of governmentality targets the subject by pre-processing its data inputs and commands, thus managing its conduct at a pre-ideological, sub-representational level. To illustrate, we analyze how this subject appeared in the CIA's psychochemical experiments with LSD, hypnosis, "truth serums," and other methods of behavioral management.

Keywords biopolitics, brainwashing, media, LSD, Central Intelligence Agency, infopolitics

In recent years, many scholars have reflected on the shattering of the liberal subject into "data doubles,"[1] "universal data elements,"[2] "data derivatives,"[3] and "subatomic persons"[4]—i.e., iterations of the Deleuzian "dividual" that becomes fragmented via digital technology's mechanisms for capturing and managing depersonalized data flows. In this article, we describe a complementary yet largely overlooked fragmentation of the subject—one that fragments its target in campaigns of deliberate subjective re-composition. The "brainwashing" and "mind control" experiments carried out by the Central Intelligence Agency (CIA) in the 1950s and '60s exemplify this process: by manipulating their targets' capacity to recall, select, and process data, the CIA and allied agencies strove to create a subject whose behavior was rooted in a comprehensive new information environment (and ultimately in a reprogrammed identity). To make sense of this phenomenon, this article utilizes post-Foucauldian biopolitical

theory—especially Esposito's and Lazzarato's theorizations of dividuated biopower—to analyze how sensory data can be manipulated in the service of subject reformation.

To analyze this problem, we review how CIA initiatives like Project Bluebird and Project Artichoke targeted the individual as a programmable subject—a politically activated variant of the "informational subject"[5] whose identity and behavior can be managed by a comprehensive manipulation of its information environment. A key element in what CIA Director Allen Dulles called "brain warfare,"[6] these projects used data manipulation to activate certain politically desirable tendencies of the reprogrammed subject; this resulted, at the same time, in a deliberate suppression of that subject's undesirable, spontaneous tendencies and characteristics. These initiatives theorized that elements of a target's physiological makeup housed memories, values, and unpredictable vectors of affect, and were thus treated as parts of the "brain" that needed to be "washed." By manipulating the target's data environment, the "assured" part of the subject could be divided from its "exposed" counterparts,[7] thus ensuring its appropriate political function. To make this case, the present article has two main aims: first, to build theory at the boundaries of biopolitical research, examining how a target can become, in certain environments and according to certain experimental arrangements, a "programmable subject"; second, to retell the story of a key episode in the scientific management of the US population. In service of these aims, the article first teases out the intersection of anatomo-politics and dividuated biopower; next, it builds upon this synthesis to theorize the emergence of the programmable subject. Then it demonstrates how this subject appeared in the CIA's psychochemical experiments with LSD, hypnosis, "truth serums," and other methods of behavioral management. Finally, it concludes with a reflection on contemporary manifestations of this biopolitical strategy.

Biopower and Dividuation

In the first volume of *History of Sexuality,* Foucault introduces *biopower*, a political form that takes human "life" as its primary object and terrain.[8] As Foucault worked out this concept in the late 1970s, he argued that it took two predominant and complementary forms, one of which focused on the characteristics and regularities of collective human groupings while the second focused on the capacities of the individual body. The first, Foucault writes, can be called a "biopolitics of the population"[9]: this biopolitics treats the totality of a given group of individuals as a locus of collective biological qualities and processes. From this perspective, biopower takes as its primary

object the biological life of the human grouping at hand: it studies the population as an integrated organic totality with death and disease rates, administers that biological life through security apparatuses such as vaccination campaigns, and generally focuses on promoting the overall health of the population and ensuring its productivity as a collective resource of "biocapital."[10] The other pole of biopower, however, addresses individual bodies and their constituent parts. This "anatomo-political" power, Foucault argues, is "centered on the body as a machine: its disciplining, the optimization of its capabilities, the extortion of its forces, the parallel increase of its usefulness and its docility, its integration into systems of efficient and economic controls, all this was ensured by the procedures of power that characterized the disciplines: an anatomo-politics of the human body."[11]

The target of this individualized form of biopower is the human body: subjects are formed and articulated through productive activities that "extort" their most basic biological capacities to work, walk, utter, and repeat. This biopower approaches the individual as a locus of technological resources—strengths, stabilities, aptitudes, and sensory potential—that together allow the body-machine to carry out various forms of labor. As Brian Pronger has recognized, biopower in this sense represents the "political dispositions towards the body that render it a useful resource" to be deployed toward various ends.[12] Approached as a locus of various competencies, the human subject becomes a modulating stock of organic resources that can be fine-tuned, supplemented, trained, and augmented. Thus Foucault points out that this biopower's operation is not a question of "treating the body, en masse, 'wholesale,' as if it were an indissociable unity, but of working it 'retail,' individually; of exercising upon it a subtle coercion, of obtaining holds upon it at the level of the mechanism itself—movements, gestures, attitudes, rapidity: an infinitesimal power over the active body…. The human body [enters] machinery of power that explores it, breaks it down, and rearranges it."[13] In this raw collection of biocapital, our simplest processes and habits of life—the recall of memories, the movements of our fingers, the activity of our eyes, the vibrations of our vocal cords—are all imbued with extractable political and economic value.

Building upon Foucault's insights into these "breakdowns" and "rearrangements," Roberto Esposito argues that the collectivist biopolitical divisions between "assured" and "exposed" populations—or those between pure/impure, human/animal, and so forth—are in liberal regimes reintroduced at the level of the individual. That is, while collectivist biopolitics addresses the population as a whole and divides it at the level of human sub-groupings, in liberal regimes the individual human subject also becomes a target of hierarchical dissociation. In a brilliant description of this division, Esposito explains, "For

liberal culture—unlike Nazism—the dividing line between animal and human passes through the individual, and not through a racial hierarchy of peoples. . . . To the extent that this language [of the human] identifies, inside the human, an extracorporeal core defined in terms of will and reason, it necessarily ends up thrusting the body into an animal or vegetal dimension."[14] National Socialist Germany—a collectivist regime—constituted the human via instituting a racially exclusive citizenship—and then, of course, by segregating and eliminating those internal "enemy" groups that found themselves thus dehumanized. Yet liberal biopower, on the other hand, directs this apparatus of segregation at another level: that of the dividuated human subject, whose undesirable characteristics and qualities are targeted for elimination.

While Esposito's analysis has a historically specific dimension (viz., that collectivist and liberal regimes have their own biopolitical specialties), ultimately it is clear that we are looking at liberal and collectivist *approaches* to biopower—approaches that can emerge with varying degrees of intensity and emphasis in any political or economic system. Far from being mutually exclusive, these forms of biopower are complementary and operate in largely hybrid systems of behavioral management. Hence the mechanisms of normation that characterize population-level biopolitics do not disappear, and bandwidths of acceptable conduct are still continuously remeasured and enforced—even, of course, in liberal societies.[15] Yet in current iterations of digital liberalism, we are seeing increasing emphasis on mechanisms of conduct regulation that are bolstered and diffused at the sub-individual level, where the target finds itself de-composed according to dividuating logics of subjective management. Thus the sovereign individual, which was the object of classical liberal government, becomes the "dividual": in Deleuze's classic description, "individuals become '*dividuals*,' and masses become samples, data, markets, or '*banks*.'"[16] The dividual lacks the united subjectivity of the governed individual; the dividual, rather, becomes a variously integrating and disintegrating confluence of hybridized biological and informational properties.

This dividuation thrusts the shattered subject into a calculable universe of other accretions, remnants, and shards. For Lazzarato this situation arises from digital technology and its inseparable methods of population intelligibility and population management, which together transform the subject into a dividuated constituent of a machinic assemblage: "Not only is the dividual *of a piece with* the machinic assemblage but he is also *torn to pieces* by it: the component parts of subjectivity (intelligence, affects, sensations, cognition, memory, physical force) are no longer unified in an 'I,' they no longer have an individuated subject

as reference. Intelligence, affects, sensations, cognition, memory, and physical force are components whose synthesis no longer lies in the person but in the assemblage."[17] The dividuated subject, even in its imagined unity, is the product of an assemblage that specializes in the production of pre-personal impulses—a constantly de-forming locus of inputs, outputs, suggestions, attractions, repulsions, and commands. This state, for Lazzarato, "activates *pre-personal*, *pre-cognitive*, and *preverbal* forces (perception, sense, affects, desire) as well as *suprapersonal* forces (machinic, linguistic, social, media, economic systems, etc.), which, beyond the subject and individuated relations (intersubjectivity), multiply 'possibilities.'"[18] This method of managing conduct, therefore, operates at multiple levels: at the precognitive level, it pre-processes subjectivity via manipulating affects, desires, and sensory impressions; at the "suprapersonal" level, it conditions subjectivity via manipulating ideology and macrosocial processes of behavioral governance. Therefore "the governmentality of dividuals, managed by flows, networks, and machines, not only plays a part in the individual's representations and conscious behavior but in the desires, beliefs, and sub-representational reality of subjectivity."[19] This governmentality of the dividual targets the subject by pre-processing its data inputs and commands, thus managing its conduct at a pre-ideological, sub-representational level. It is this innovation on Lazzarato's part, in particular, that provides special insight into the formation of the "brainwashed," programmable subject.

Infopolitics and the Programmable Subject

Lazzarato's take on the precognitive management of subjectivity, therefore, complements Foucault's anatamo-political analysis of the individual subject, clarifying how that subject's conduct can be governed via dividuation. In fact, under certain conditions this dividuated subject undergoes articulations aimed at "reduc[ing] human life to mere biology."[20] Factory workers' arms and legs, for example, are technologized according to the task at hand: whatever potential they have as assemblages of blood, nerves, bones, and tissue is honed to a mechanical, predictable source of physical output. This can also result, of course, in targeting the subject's sensory apparatus. The organic function of the eye, for example, can be transcended and transformed into a technology of labor: it can be targeted, isolated, augmented, and instructed how to see. The ear can likewise be technologized, complementing and directing the musculoskeletal realities of the body (e.g., its motility and limbs) and thereby increasing the target subject's performative possibilities. Speech, sight, and hearing, accordingly, are instrumentalized: the mouth, vocal cords, cochlea, fingers,

and other generators of discourse are disciplined by the demands of the commands they are to carry out. As the comrades of the eye, they conspire in creating *useful* memory—that is, not a biological memory for conserving the past, but a memory "straining toward the future," transformed by inscribing various protocols for the retrieval and performance of heteronomous directives.[21] Borrowing a phrase from Nietzsche's *Genealogy*, Deleuze and Guattari emphasize that such a process is not a natural disposition, but part of an ancient "system of cruelty" updated to fit the needs and sensibilities of societies of control.[22] This process ensures that the organs are "hewn into the socius" in such a way that "man ceases to be a biological organism and becomes a full body, an earth, to which his organs become attached, where they are attracted, repelled, miraculated, following the requirements of a socius."[23] Useful memory is thus essential to the "becoming" of the data-processing subject. It results from the putting-to-work of communication—the regulated, coordinative control of the body's organs and potentialities—and serves as the linchpin of transforming the targeted human being into a data/command subject. By directing the organs of speech, hearing, and recollection toward a mnemonic-communicative serviceability, liberal biopolitics inaugurates a noetic economy of the individual that is adaptable to the imperatives of contemporary information capitalism.[24] Biopolitics thus melds with what Colin Koopman calls "infopolitics," as we are constituted as subjects who are "inscribed, processed, and reproduced as subjects of data."[25] Ultimately, the subject is not just targeted *through* data; it can only be conceived of *as* data.[26]

This coincides with Katherine Hayles's observation that throughout the last century, human subjects have been increasingly reimagined as "a set of informational processes,"[27] as programmable loci for the capture, storage, and processing of data. Hayles offers an account of how this informational subject was gradually imagined and cultivated, arguing that with cybernetics and complementary intellectual movements there arises "a new way of looking at human beings. Henceforth, humans were to be seen primarily as information-processing entities essentially similar to intelligent machines."[28] Hayles also turns to Norbert Wiener, reminding us that he "proposed it was theoretically possible to telegraph a human being."[29] Humans are thus re-figured as essentially informational beings—that is, as mere collectors and processors of data. Accordingly, the human's defining qualities have often been reinterpreted through the grid of the data machine. Styles of governance, of course, have followed this reconceptualization: once subjectivity has been theorized as a complex yet ultimately copiable and manipulable network of data, governance addresses the subject according to those essential faculties.[30]

Crucially, this approach to subjectivity provides an ideal substrate for the kinds of anatomo-political division discussed above—i.e., privileging those biological characteristics and capacities that can be managed by addressing the subject as an articulable locus of informational processes. As a machinic mode of ethical-political subjectivation/ subjugation, therefore, liberal biopower anticipates or aspires to what Byung-Chul Han terms neoliberal *psychopower* or *psychopolitics*.[31] Designating at once a technology of domination and a system of rule, psychopolitics differs from and succeeds the previous biopolitical regime of disciplinary, industrial modernity. Instead of targeting human groups or individuals from the outside, psychopolitics intervenes in psychological processes themselves, "stabiliz[ing] and perpetuat[ing] the prevailing system by means of psychological programming and steering."[32] Whereas liberal biopower assumes an ergonomic and physical point of view for the differential training of docile bodies and bodily/communicative capacities—disciplining bodies to perform the job of a worker in, say, the chemical or mechanical industry—psychopolitics adopts an affective-cognitive perspective, infiltrating the mind (or spirit or soul) of the subject. Rather than modulating physical gestures, abilities, and performance, as in the case of industrial labor, psychopolitics aims for systematic techno-social engineering of human thoughts, needs, and desires. To that end, psychopower bypasses the localized disciplinary apparatuses, relying instead on digitally-governed automated media, from social media news feeds and AutoPlay to smart cars and the Internet of Things. By enabling limitless freedom and communication, these technologies "intervene in psychological processes themselves,"[33] anticipating desires before they arise, encouraging new forms of self-monitoring and self-exhibition, transforming leisure into what Tiziana Terranova describes as free labor,[34] and so on. To the disciplinary capture of the individual's biopower, psychopolitics superimposes the capture and exploitation of freedom, such that people voluntarily subordinate themselves to the system of rule: "Now communication and control have become one, without remainder. Now, everyone is his or her own [warden]."[35] Everyone feels free, and this feeling, according to Han, is the preeminent ploy of psychopolitics.

Although psychopolitics marks a conceptual advance over the biopolitical framework of discipline, Han overlooks the possible and, indeed, actual historical coordination of these technologies of power. Beyond the inversion of freedom, psychopolitics implies a mode of control that annexes the biopolitical reapportioning of the dividuated subject into its privileged and superfluous elements. Such a system would augment, rather than supplant, the cultivation-suppression of living capacities by making it possible to "*penetrate or mold the* psyche,"

to grasp and control it in "subtle fashion."[36] Psychopolitics, in other words, is a necessary component to the accomplishment of the cybernetic vision of an informational-computational model of subjectivity, according to which the subject is an executable but virtual machine, a programmer-defined template. Divisional apparatuses of subjectification—the modulating suppression-activation of organic resources—can only go so far in terms of the range of executable tasks. Some form of psychic steering is needed if the subject is to be made to correspond to what Alexander Galloway describes as "the interface effect" of computer software—namely, the simulation—by means of logical relation, of "the worldly logic of essences and instances."[37] By the same token, a shifting articulation of biopower is necessary for effective psychic control. "The right hand cannot know what the left hand is doing," even as the two coordinate with each other in the execution of a programmable task.

Borrowing a conceptual distinction from Hayles,[38] we could say, then, that the ideal form of psychopolitical control is the programmable subject who is at once cognitive but *nonconscious*, psychosomatically integrated while simultaneously susceptible to noetic *dissociation*. For instance, a subject trained to surveil a person or place could subsequently retrieve and disclose the information gleaned but without the conscious memory either of its training or observations. The computational analogue to such a programmable subject is what software studies refers to as an object-oriented system. According to McKenzie Wark, the "ontology" of object-oriented programming (OOP) "sees the world as a collection of things interacting with things but where the things share inputs and outputs only."[39] The things or objects interact with each other as more or less black boxes. Transposed to the subject, this ontology instantiates "a practice not a presence, an effect not an object."[40] This modulation of the psyche enables a cognitive "division of labor" controllable at a higher level external to the subject. At the same time, it offers the ability to mask the disjunctive coordination of capacities and states as well as the informational control this shifting articulation affords those responsible for programming the inputs.

The CIA, Brainwashing, and Behavioral Modification

The harnessing of biopower by psychological programming is not limited to the analogy between psychopolitics and OOP. Nor is the subject as computational interface or executable machine a mere abstraction. Both have historical precedents in the quasi-legal human experimentation programs designed and undertaken by the Central Intelligence Agency in the mid twentieth century, programs classified under titles such as Bluebird, Artichoke, and the more widely known

MK-Ultra. These programs, writes Rebecca Lemov, "funneled research into 'behavioral modification' in the service of American geopolitical and ideological interests."[41] More to the point, they were secret mind-control initiatives designed, in the words of their head Sidney Gottlieb, "to investigate whether and how it was possible to modify an individual's behavior by covert means"—or, in the still more frank language of project documents, to explore whether hypnosis and drugs could "[control] an individual to the point where he will do our bidding against his will and even against such fundamental laws of nature as self-preservation."[42] Originating in a string of experiments begun in the late 1940s as the Cold War set in, these behavioral research programs eventually mushroomed into what the historian of torture Alfred McCoy calls "a veritable Manhattan Project of the mind,"[43] with costs for psychological research and operations reaching a billion dollars a year.

Each of these programs predated, by decades, the conceptualization of bio- and psychopower, emerging at a time when key social-science initiatives such as the burgeoning behavioral sciences and learning theory were consolidating.[44] It is not a stretch, however, to claim that these behavioral conditioning initiatives were all implicitly guided by a rationale that, retrospectively, can best be described as psychopolitical, with the caveat that this logic subsumed a liberal, anatomo-political form of biopower. Indeed, much of the "brainwashing" research conducted under cryptonyms like Artichoke approached the psyche through the lens of a kind of late-date behaviorism cross-fertilized with cybernetics. Scottish-born psychiatrist Dr. Ewen Cameron, whose work on the "psychic driving" technique was funded during the 1950s and 1960s by an MK-Ultra subproject, is representative in this regard. For Cameron, the psyche was not an entity but rather "a series of complexly interacting patterned mechanisms and feedback functions that a skilled researcher could disassemble. An even more skilled researcher could later reassemble these mechanisms and functions according to design specs."[45] On this dividuated view of the psyche, the inner workings of the mind are rendered as surface phenomena that could be measured and changed, much like an informational grid, where the "cause" of a problem is regarded as a particular node that might be successfully rebooted. Thus while terms like "mind control" and "brainwashing" might seem conceptually antiquated today, their signature biopolitical technologies and methods—for example, dosing psychopharmacological agents, and related efforts to manipulate a target's information environment—have played an essential role in postwar experiments in liberal behavior management. If, as Timothy Melley observes, "the theory of brainwashing… preserves the intentionality at the heart of individualism by understanding social control

as the work of an exceptionally powerful, willful, rational, and malevolent human agent—the brainwasher,"[46] then actual covert experiments in mind control also worked to subsume individualism under a liberal form of biopower that transposed agency into matrices of data inputs and commands.

Psychochemical Experiments in Subject Formation

On April 10, 1953, the Central Intelligence Agency's Director Allen Dulles spoke to a group of fellow Princeton University alumni gathered in Hot Springs, Virginia. At the time, he was considering a proposal coauthored by Richard Helms, chief operations for the CIA's Directorate of Plans, and Sidney Gottlieb, chief of the newly formed Chemical Division of the Technical Services Staff. The memorandum proposed that the CIA launch a newly broadened covert mind-control project that would expand, intensify, and systematize the already operational mind-control research project, Bluebird (begun in 1950 and renamed Artichoke in 1951). Helms forwarded the proposal to Dulles on April 3, and the director formally approved the research project on April 13.[47] In his speech Dulles described the contents of the proposal, but he did so esoterically, claiming to be speaking about a Soviet research program in extreme behavioral modification rather than an American one.[48]

Convinced that the Soviets (and perhaps the Chinese) had developed brainwashing techniques that would allow for the transformation and control of personality, Dulles began his speech by asking "whether we realize how sinister the battle for men's minds has become in Soviet hands."[49] He avoided mentioning the violently abusive techniques his Bluebird interrogation teams were using, but did refer to "endless interrogation by teams of brutal interrogators while the victims are being deprived of sleep."[50] The goal of this and other forms of abuse, he argued, was "the perversion of the minds of selected individuals, who are subjected to such treatment that they are deprived of the ability to state their own thoughts": "Parrot-like, the individuals so conditioned can repeat thoughts which have been implanted in their mind by suggestion from outside. In effect, the brain under these circumstances becomes a phonograph playing a disc put on its spindle by an outside genius, over which he has no control."[51] Dulles proposed calling this new form of manipulating the human psyche "brain warfare":

> The human mind is the most delicate of instruments. It is so finely adjusted, so susceptible to the impact of outside influences, that it is proving malleable in the hands of sinister men. The Soviets are now using brain perversion as one of their main weapons in prosecuting the Cold War. Some of these techniques are so subtle and

> so abhorrent to our way of life that we have recoiled from facing up to them.[52]

Dulles concluded his speech on a plaintive note, lamenting that, "We in the West are somewhat handicapped in brain warfare. We have no human guinea pigs [on which] to try these extraordinary techniques."[53] The opposite was in fact true. The CIA, in coordination with Special Operations Division chemists at Camp Detrick, had been brutally experimenting on unwilling human subjects for years. Experiments included the use of hypnosis, sensory deprivation, electroshock, shifting combinations of stimulants and sedatives, radiation, extreme temperatures and sound, and various "truth serums" like sodium amytal and refined forms of marijuana, mescaline, cocaine, and heroin.[54] These wide-ranging experiments were explicitly undertaken for the purpose of "investigating the possibility of control of an individual by application of Special Interrogation techniques."[55]

Amidst the subterfuge, Dulles acknowledges the biopolitical application of brain warfare techniques to two different objects or terrains: collective human groupings (e.g., crowded environments, concentrated populations) and the individual human subject. "The target of this warfare," he argues, "is the minds of men on a collective and on an individual basis." In both variants, however, the aim is identical— "to condition the mind so that it no longer reacts on a free will or rational basis, but a response to impulses implanted from the outside."[56] From Dulles's perspective, which represents that of the national security state, behavioral modification for operational purposes promised both defensive aspects as well as offensive possibilities.[57] Even so, while the covert worlds of intelligence and military research shared a paranoid enthusiasm for the broad-based strategic capabilities of "brain warfare," they differed in their preferred targets of administration: whereas US Army scientists tasked with waging and defending against psychochemical and biological warfare were primarily interested in researching the potential of chemical and biological weapons to incapacitate enemy armies or civilian populations, Central Intelligence operatives were more focused on the ways that chemical and biological agents could be used to control the minds of individuals.

For military scientists, the study of pathogens, toxins, bacteria, and psychopharmacological agents functioned in the service of a collectivist form of biopower aimed at a population's biological qualities and processes. Beginning in the late 1940s, these qualities and processes came to include the workings of consciousness itself as well as mind-body interactions. In 1949, six years after Dr. Albert Hoffman compounded LSD, Dr. L. Wilson Greene, technical director of the Chemical and Radiological Laboratories at Edgewood Arsenal, authored a long report entitled "Psychochemical Warfare: A New

Concept of War."[58] Fascinated by the promise of a drug that could produce vivid hallucinations and suicidal tendencies in humans, Greene articulated a seminal vision for "psychochemical warfare"—a term he coined—concluding with a strong recommendation that the government begin systematically testing LSD, mescaline, and fifty-nine other mind-altering compounds that might be weaponized for use against enemy populations: "There can be no doubt that their will to resist would be weakened greatly, if not entirely destroyed, by the mass hysteria and panic which would ensue."[59] He believed that such "hallucinogenic or psychotomimetic drugs"—whose effects mimic insanity or psychosis—would induce the same adverse mental side effects as nerve gas but without causing any fatal outcomes.[60] Symptoms that Greene considered to be of considerable value in strategic and tactical operations included fits or seizures, dizziness, fear, panic, hysteria, hallucinations, migraine, delirium, extreme depression, notions of hopelessness, lack of initiative to do even simple things, and suicidal mania (Kinzer 2019: 36). Speaking at a conference at Edgewood Arsenal in 1952, he ventured a few thoughts about ways that psychochemicals might be used in war: aerosol techniques could spray chemical compounds over large, populated areas, inducing mass hysteria, while multiple bombs or generating devices could blanket the densest portion of urban areas with clouds.[61] For Green, mind-altering drugs promised to usher in a new era of humane biopolitical warfare, one in which psychopharmacological agents could incapacitate entire enemy armies or civilian populations merely through the temporary induction of hallucinations or delirium. No death or property destruction required. In that belief, he proposed America's military scientists be given a new mission. This would manifest the next year in an "informal agreement"—a joint program later code-named MK-NAOMI—which partnered two of the most secret covert teams in Cold War America: Special Operations Division (SOD) chemists at Camp Detrick and officers in the CIA's Technical Services Staff (TSS).[62]

Although by and large a collectivist biopolitical project, the implementation of MK-NAOMI nudged it beyond a biopolitics of the population, as exemplified in the concentration camp model, toward a more liberal, anatomo-political form of biopower. To begin with, some of the scientists assigned to MK-NAOMI carried out field tests to learn how pathogens or biological agents could be spread in a concentrated population and what the effects of such an attack would entail. For six days at the end of September 1950, they launched a large-scale outdoor test, code-named Operation Sea Spray, in which (mostly) harmless, traceable germs were released into San Francisco's coastal mist via minesweepers equipped with large aerosol hoses.[63] Samples taken afterward at forty-three sites indicated that the city's 800,000 resi-

dents had each been exposed to the spray, inhaling millions of bacteria through the testing period.[64] A 1951 military report on the experiment noted "that a successful BW [biological warfare] attack on this area can be launched from the sea, and that effective dosages can be produced over relatively large areas."[65] What is biopolitically significant about such bio-weapons field tests is that while they take as their primary object the biological life of a collective human grouping, the targeted population simultaneously represents the population to be defended against actual biological warfare—i.e., that integrated organic totality for whose sake and in whose name such tests were undertaken.[66] This doubling aspect both exemplifies the paradigm of modern collectivist biopolitics (with its separation of an "exposed" from an "assured" population) while also maintaining a distinction with respect to the liberal biopolitical rupture that reapportions the dividuated subject into different living capacities. The segregative apparatus at play here thus represents a commonly seen biopolitical hybrid, occupying a liminal space between collectivist and liberal forms of biopower.

What is more, under MK-NAOMI, and in line with L. Green's proposal, bio-warfare research was to take an operational backseat to the research, testing, and development of mind-altering drugs or chemicals (LSD in particular) as weapons of war. Even though Green approached psychochemicals as potential weapons for incapacitating populations—both civilian and military—the effectivity of psychopharmacological agents targets both the material elements and immaterial competencies of human biopower. Symptoms like delirium, hysteria, fear, panic, and the like disrupt the human subject in its functioning as a conscious and sensitive organism, a thinking-speaking being. A subject incapacitated through the use of psychoactive agents is thus prevented from materially resisting oppositional forces but also from performing the observational and communicative functions necessary for the coordination of counterstrategies and defensive maneuvers. While this psychopharmacological approach to warfare approaches the individual body and human sensorium instrumentally, as a locus of exploitable technological resources—albeit one to be disrupted, "amputated" rather than augmented and enhanced—it does not quite (or not yet) strictly comply with the dividuated, liberal form of biopower conceptualized by Foucault, Esposito, and Hayles. It does not, for instance, partition the human subject into privileged and superfluous elements per se, cultivating and suppressing its various living capacities; rather, it indiscriminately views all competencies through the lens of negativity: that is, as aptitudes whose operational utility solely consists in their potential—via the strategic deployment of psychochemicals—to be made non-useful and inoperative. The psychochemical concept of war may make porous the demarcation

between collectivist and liberal biopolitical regimes, but it does not do away with it entirely. Despite the formalistic variations, Greene's vision of a new era of "humane" psychochemical warfare leans more toward a "biopolitics of the population," in Foucault's sense of the term.

Nested within the history of MK-NAOMI, however, are the covert origins of a more distinctively individualistic, anatomo-political form of biopower. This was in fact the model that Dulles had in mind when delivering his speech in Hot Springs. While the joint program between SOD chemists and officers in the TSS resulted in the coordination of research and application, in field tests like Operation Sea Spray CIA officers played only an observer's role. As Stephen Kinzer relates, "Full-scale warfare was not its [the CIA's] business. Its officers were more interested in the ways that chemical and biological agents could be used to control the minds of individuals."[67] In 1950, Central Intelligence Director Roscoe Hillenkoetter created a new program principally concerned with the psychological manipulation of individual subjects, one that would investigate the operational potential of psychopharmacological agents as well as hypnosis, electroshock therapy, sensory deprivation, fatigue, isolation, lobotomies, and physical torture. The program was code-named Bluebird, supposedly after someone at a planning meeting described its goal as finding ways to make prisoners "sing like a bird."[68] The following year, on August 20, 1951, Dulles (then Deputy Director for Plans) directed that Bluebird be expanded, intensified, and centralized as project Artichoke.[69] Internal proposals and memos from this period indicate not only the extreme nature of Bluebird/Artichoke but also a liberal iteration of biopower, according to which the human subject becomes the object of what Esposito regards as an "instrumental conception of life." Through the use of psychoactive drugs, hypnosis, and unconventional interrogations, Bluebird/Artichoke researchers, experimenters, or interrogators segregated the dividuated human subject as a collection of varyingly useful (and malleable) potentialities, any of which could be procedur-alized through operations aimed at controlling individuals to perform specific tasks.

Some CIA mind-control researchers, like Morse Allen, were especially fascinated with hypnosis. An early Bluebird memo, for instance, directs researchers to investigate ways that a person "can be made to commit acts useful to us under post-hypnotic suggestion," along with ways to "condition our own people so they will not be subject to post-hypnotic suggestion, while another asks, "Can a person under hypnosis be forced to commit murder?"[70] In general, experiments involving hypnosis sought to suppress aspects of the "extracorporeal core" of free will and reason, which liberal culture ascribes to human subjectivity. This often involved the attempt to modulate subjects'

sense of morality. As one CIA memo asks, "Can we create by post-hypnotic control an action contrary to an individual's basic moral principles?"[71] The modulation of such a "superfluous" faculty, however, was not purely experimental but was tested for the purpose of executing or controlling the execution of covert activities in the field—with or without the subject's conscious awareness of having carried out a task. That is to say, the dividuated, post-hypnotic subject was treated as a locus of exploitable resources, an assemblage of machinic as well as immaterial labor, which could be broken down and rearranged, fine-tuned, and augmented as per the tactical or strategic demands of a given covert operation. As Allen concluded in one of his memos, "If hypnotic control can be established over any participant in clandestine operations, the operator will apparently have an extraordinary degree of influence, a control in order of magnitude beyond anything we have considered feasible."[72] The general public and the scientific community tend to be quite skeptical of the notion that a person may be induced into a state of consciousness in which he or she loses the power of voluntary action and is highly responsive to suggestion or direction. At project Bluebird/Artichoke, however, a conviction in the possibility of post-hypnotic mind control grew into an article of faith. For CIA operatives, hypnosis constituted (and perhaps still constitutes) an essential technique in the modular articulation of subjective capabilities into a system of covert biopolitical control. As Allen suggests, what could be more operationally effective than a dividuated subject who programmatically and without compunction observes, listens, speaks, and acts—and does so without the memory of having seen, heard, said, or done anything at all? An individual subjected to Artichoke would be entirely cooperative, passive, lethargic but at the same time exceedingly efficient.[73] That person would be the ideal form of a clandestine laboring subject—an unknowing citizen spy.[74]

The supreme tactical value of implementing hypnosis as a divisional apparatus of subjectification thus consists in creating and then controlling an enhanced dissociative state. Indeed, that is essentially what the term "mind control" refers to: namely, the process of first *enhancing* an (un)witting subject's natural ability to experience dissociate states (e.g., fugue states, amnesia) and then *controlling* that subject's dissociative states by creating, in effect, one or more alter personalities that are effectively under the control of others but unknown to the "core" personality. In biopolitical terms, hypnotic mind control augments or extends the naturally occurring ability to dissociate while suppressing conscious awareness that such a split has occurred. Within that provisional configuration, the human assemblage can be algorithmically formatted for the implementation of covert communicative-surveillant practices, as well as more material,

executionary ones; hypnosis, in other words, breaks down conceptually and in actuality the distinction between hardware and wetware, transforming the subject into an inscribable medium for the storage, automatic processing, and "transmission" of programmable procedures. For researchers who did "Artichoke work," this process would allow the intelligence community to create unwitting "Super Spies," agents willing to follow any orders unquestioningly.[75] Among other duties, such spies would make ideal couriers, since they could be fed sensitive information while in a controlled dissociative state and thereafter have no conscious awareness that they were transporting important data. Even under torture, the Super Spy would reveal nothing: as far as the agent was aware, there was nothing to disclose. However, someone on the receiving end who was familiar with the spy's programming could easily extract the information, after which the spy would remain unaware that a mission had been successfully completed. As dubious as this scenario may at first appear to be, it is not so very different from the common phenomenon of "driving on autopilot," with the qualification, however, that the something that is doing the piloting is a covert application program installed by unseen and unremembered actors.

The CIA's transformation of the human subject into a programmable informational machine did not culminate in the application of hypnosis (in coordination with other sundry mind-control techniques) but expanded into the universe psychopharmacology. Led by Gottlieb, Bluebird/Artichoke teams acted on the belief that psychoactive drugs would be the key to mind control and thus the ultimate covert action weapon. As one CIA officer wrote, mind-altering drugs like LSD contained "the secret that was going to unlock the universe."[76] As technical-mediatic apparatuses, mind-altering agents promised to transform and denude the capacities of speech and sight—but also hearing and memory—into reliably secure instruments of information storage and exchange. Most experimentation with psychochemicals was aimed at finding a miraculous *truth serum*: "a 'truth serum' that would loosen recalcitrant tongues, a potion that would open the mind to programming, an amnesiac that would allow the wiping away of memory."[77] Piles of reports on experiments with various truth-serum candidates detail the variety of psychoactive agents that had been tested as possible avenues into the human psyche. But as per the biases of liberal biopower, this was a psyche reconceptualized in terms anticipating what Hayles[78] describes as the *cognitive nonconscious*; that is, a technical-noetic economy of material and immaterial labor that puts cognition to work while suppressing high-level reasoning, including language-based thought, consciousness, and even memory. Refined marijuana (tetrahydrocannabinol, THC), cocaine, heroin, mescaline,

and, eventually, LSD—all were tested for their potential to function as *dispositifs* in the reconfiguration of human subjects into nonconscious sensing/signaling machines, and of citizens into neutral, depoliticized media of biopolitical command and control. Some drugs were deemed promising (or not) with respect to their utility as reliable aids to hypnotic suggestion, others for their possible value in inducing amnesia and wiping away memory of things seen and spoken. Above all, however, drugs and chemicals were strategically valued for their potential to enhance the interrogation of unwilling subjects—specifically, of enemy combatants, prisoners of war, and suspected double agents.

The application of psychochemicals to unconventional interrogations was aimed primarily at extracting data from subjects who had been rearticulated as technologized language and vision machines. For instance, one of the first directives sent to Artichoke teams, says, "Our principal goal remains the same as it was in the beginning: the investigation of drug effects on ego control and volitional activities, i.e., can willfully suppressed information be elicited through drugs affecting higher nervous systems? If so, which agents are better for this purpose."[79] Another memo reported that "drugs are already on hand (and new ones are being produced) that can destroy integrity and make indiscreet the most dependable individual."[80] These "research" directives stemmed from earlier Bluebird interrogations that occurred in a network of secret prisons in Japan (which was based on a similar network in West Germany).[81] There, Bluebird teams injected captured North Korean soldiers with a cocktail of sodium amytal (a barbiturate drug used as a sedative and a hypnotic) and three potent stimulants: Benzedrine, which affects the central nervous system; Coramine, which acts on the lungs; and Picrotoxin, a convulsant that can cause seizures and respiratory paralysis. While the subjects were in a state of transition between the effects of depressants and stimulants, interrogators would subject them to hypnosis, electroshock, and debilitating heat. Their goal, according to one report, was "to induce violent cathartic reactions, alternately putting subjects to sleep, then waking them up until they were sufficiently confused to be coerced into reliving an experience from their past" (quoted in Kinzer 2019, 44). These experiments were sufficiently promising to CIA researchers and experimenters that in 1951 Gottlieb flew to Tokyo to take part in them.[82] At a secret location, CIA doctors injected four Japanese men suspected of working for the Russians with a variety of depressants and stimulants. Under extreme questioning, they confessed to working for the Russians, were taken out into Tokyo Bay, shot, and dumped overboard. The CIA team then flew to Seoul and repeated the experiment on twenty-five North Korean prisoners of war. They were asked to denounce

Communism but refused and were executed. Throughout the winter of 1952-53 Gottlieb's team tested massive amounts of mind-altering drugs on scores of "expendables."[83] The goal remained the same: to see if subjects' minds could be altered. Significantly—for the test subjects and the future of mind-control research—each experiment failed. The "expendables" were killed and their bodies burned.

Rather than abandon the universe of psychopharmacology, the CIA convinced itself that it should launch a newly broadened mind control project in order to snatch victory from the jaws of defeat. In that regard, MK-ULTRA not only intensified and systematized project Bluebird/Artichoke, but also expanded the ongoing recession of an affirmative politics by further cultivating the psycho-technical modulation of the communicative-surveillant subject. In the relentless search for mind-control techniques, CIA operatives could only view the subject as an instrument for the capture, storage, and transmission of data: a neutral medium that in the event of its failure could simply be neutralized.

Conclusion

This article has traced a little-explored biopolitical logic at work in a little-known episode of US public management: the CIA's mind control experiments in the 1950s. The goals of this analysis were both scholarly and political. First, we aimed to contribute to the conceptual development of post-Foucauldian biopolitical research. Esposito's framework of "liberal biopolitics," particularly when synthesized with Lazzarato's Deleuzian analysis of biopower, offers a compelling rejoinder to predominant theorizations of biopolitics in cultural and political theory. The ongoing global political crisis, which in many parts of the world is characterized by a populist cynicism and a growing recognition of the epistemological chasms separating different sectors of the population, has likewise manifested in a growing cultural preoccupation with "brainwashing" and its history; this essay has offered some conceptual tools for thinking more seriously about brainwashing and related methods of population management.

The political implications of this analysis are not limited to concerns about secret agents and agencies. Even for those who are not highly concerned about "brainwashing" in the twenty-first century, we can analyze subtler methods of liberal biopolitical management that approach the subject as a divisible and manipulable confluence of desirable and undesirable characteristics and capacities. As many societies' security apparatuses increasingly turn their attention inward—to target the citizens marginalized and disillusioned by the present epistemological chasm alluded to above, we might add—we are reminded

of the dividuated subject of contemporary biopower. The subject thus divided is both a target and a technology of biopower. As Esposito would have it, this "division of man's nature . . . allows the biopower of the individual to be more easily captured by either the State or, today, the market through the mediation of the neoliberal subject intent on augmenting his own biopower."[84] This capture relies on divvying up the target subject; thus, *ipso facto*, the subject is incomplete, awaiting a sign, a velocity, an impulse—even a special code word or phrase—for its achievement. Contra Byung-Chul Han, the achievement-subject does not supplant the subject of biopolitics, but constitutes the horizon of its realization.

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