TOXIC DENIAL AND THE STRUGGLE FOR RECOGNITION: THE EXPERIENCES OF U.S. VIETNAM WAR-ERA VETERANS AND AGENT ORANGE CHEMICAL EXPOSURE

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ABSTRACT

During the Vietnam War, the U.S. military sprayed over 20 million gallons of Agent Orange and other chemical herbicides across Southeast Asia to clear foliage and eliminate enemy cover. These chemicals contained dioxin, one of the most toxic substances to humans. This resulted in a wide range of severe health issues for U.S. Vietnam War-era veterans, including various cancers, heart disease, diabetes, and has also been associated with birth defects in their descendants. Veterans have encountered significant challenges in gaining recognition, accessing appropriate healthcare, and obtaining disability services for their health conditions due to historical and institutional denial of their suffering. This denial has hindered efforts to fully understand the impact of Agent Orange, further complicating the pursuit of accountability and justice for those affected.

This dissertation examines the complex issue of Agent Orange exposure among U.S. Vietnam War-era veterans, focusing on the systemic denial by state institutions and the consequential struggle for recognition and care. Through a biopolitical lens, my research navigates the intertwined military, political, scientific, and medical narratives and processes that have historically minimized or outright denied the sufferings and experiences of veterans. By exploring institutional denial as both a governing strategy and a source of suffering, this dissertation reveals the profound effects such denial has on the lives of these veterans and their families.

Through a combination of archival research and ethnographic fieldwork, I uncover the strategic use of denial by state institutions to control the discourse surrounding Agent Orange exposure. This denial results in the manipulation of scientific information, bureaucratic processes, and political narratives that author and authorize the legitimacy of suffering, often limiting the recognition of veterans' experiences, concealing the causal connections between exposure and health consequences, and reshaping the veterans' perceptions of their own bodies and social

identities. Furthermore, this dissertation explores the personal narratives of veterans and their families, revealing the “toxic residuals” of institutional denial—physical, emotional, social, and intergenerational burdens that underscore the stark contrast between institutional narratives of Agent Orange exposure and the actual experiences of those impacted.

In addition to investigating the formation and effects of institutional denial, my research also highlights the dynamic efforts by veterans to counter institutional denial through developing knowledge networks and resources aimed at alleviating their suffering. These collective actions, rooted in biosolidarity of shared health experiences, demonstrate a powerful commitment to transforming personal experiences of suffering into broader advocacy for change and support. Through these endeavors, veterans and their families have worked to create support systems and foster a community of sufferers united in the pursuit of justice and healing.

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TABLE OF CONTENTS

Chapter 1: Introduction

Introduction

During the Vietnam War, the U.S. government embarked on a massive defoliation campaign, deploying over 20 million gallons of chemical herbicides across Southeast Asia. These chemicals, collectively known as the "Rainbow Herbicides," were designed as tactical weapons to clear jungle vegetation, disrupt enemy crop production, and facilitate reconnaissance missions. Each of these herbicides, distinguished by the color-coded stripes on their storage barrels, served specific purposes. For example, "Agent Blue" was primarily used as an anti-crop defoliant, targeting rice fields to cut off food supplies. "Agent White" was deployed against the dense, woody mangrove forests that provided cover for enemy forces. Whereas "Agent Orange" emerged as the most extensively used and produced herbicide. The environmental and human health impacts of Agent Orange have been profound, sparking decades of research, litigation, and advocacy to address the consequences faced by exposed military personnel, Vietnamese populations, and the environment (Martini 2012).

The composition of Agent Orange[1] inadvertently led to the production of one of the most harmful environmental and human health hazards: the release of 2,3,7,8-tetrachlorodibenzo-p-dioxin, or more commonly known as "dioxin". Dioxins are naturally-occurring; however, they are more common in human activities like industrial manufacturing and farming. They are considered to be "persistent organic pollutants" (POPs), meaning they are resistant to natural degradation processes. Research has linked dioxin exposure to a range of adverse health effects, including reproductive, cardiovascular, and neurological issues (Bertazzi et al. 1998). One of the most concerning aspects of dioxin exposure is its capacity to bioaccumulate in body fat, allowing it to

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[1] Agent Orange is composed of 2,4-D (2,4-dichlorophenoxyacetic acid) and 2,4,5-T (2,4,5-trichlorophenoxyacetic acid). The chemical formulas of the other Rainbow Herbicides also contain various measurements of both 2,4-D and 2,4,5-T.

remain within organisms for extended periods and act as a long-lasting biomarker of exposure in both humans and the environment (Durant et al. 2015). Scientific recognition of these risks has made establishing a minimum risk threshold for dioxin exposure challenging. This difficulty is partly due to the "normal" presence of low levels of dioxin in our bodies and the environment, complicating efforts to delineate the full spectrum of its long-term consequences (Stellman and Stellman 2018; Young and Cecil 2011).

The growing awareness of dioxin exposure, notably among veterans, ignited widespread concern over health implications. Political and scientific authorities faced criticism for their delayed response in disseminating information about the effects of such exposures. This slow release of information was attributed to the lengthy bureaucratic processes in determining new chemical knowledge, scientific research, and policy-making decisions. As a result, initial reactions from state institutions leaned towards denial and rejection, stemming from a combination of divergent institutional interests and the absence of definitive evidence linking exposure to adverse health outcomes. Although exposure effects were gradually accepted over time as *potential* causes to ill health, political authorities did not take responsibility or guarantee solutions to mitigate suffering (Martini 2012; Young 1991). Veterans and advocates collectively protested, lobbied, and formed advocacy groups to push for accountability and reparations to alleviate their suffering. The efforts of these collective actions varied in degree of success, and often left the legal, medical, and political outcomes falling short of the expectations of sufferers (Schuck 1987; Gough 2003; Camacho and Sutton 2007).

Exposure to Agent Orange has led to a variety of unusual health outcomes and illness symptoms, which are categorized under specific disease labels but are often disconnected from a common cause. Decades of scientific research have reviewed these effects, yet only a few of these effects are officially acknowledged as linked to Agent Orange exposure. As a result, the vast majority of exposed veterans are left facing medical uncertainty and a denial of recognition for their longstanding suffering. Recognizing the cause of such suffering not only alleviates the burden of uncertainty for those affected but also enables access to subsidized services and assign responsibility for illness care to government agencies.

The health of veterans is managed politically by the state through bureaucratic agencies, such as the Department of Veterans Affairs (VA). Veterans who have been honorably discharged may qualify for a range of benefits, including medical care, financial assistance, housing subsidies, and compensation for health issues linked to their military service. Accessing these benefits, however, involves navigating a complex and often daunting bureaucratic challenges. To claim these benefits, veterans are required to file paperwork and substantiate their health conditions with documentation that establishes a direct connection to Agent Orange exposure during their service. The approval of these claims by the VA is crucial for veterans and their families, as it opens access to monthly compensation and significant benefits, such as disability status and unemployment assistance. Conversely, the denial or rejection of claims places veterans in a precarious position, leaving them without additional support despite the evidence they may have presented in connection to chemical exposure. This aspect of the process, characterized by stringent and sometimes opaque federal guidelines, demands considerable effort from veterans, both physically and mentally.

This bureaucratic system developed by the VA for recognizing and compensating the health effects of Agent Orange exposure is marked by distinct disparities among the veterans, their children and other affected groups. Approximately 20 health conditions are officially recognized as related to Agent Orange exposure to date. Additionally, one specific condition is recognized in children of male veterans, while 18 conditions are recognized in children of female veterans. There are currently no research efforts by the VA on intergenerational effects; therefore, the aforementioned 19 conditions are the only pathways available for children of veterans to pursue for official recognition. A significant gap in recognition and compensation exists for the Vietnamese civilians, troops exposed during the war, individuals near manufacturing facilities, as well as their descendants. There are limited pathways for non-veterans to seek assistance, primarily through international funding and NGOs. However, these exceptions are few, leaving the majority of non-veterans without recognition or support.

In recent years, the momentum behind research of and policy-making about Agent Orange exposures has significantly decelerated, primarily because the affected veteran population is aging, and their health conditions are deteriorating. This decline in research and policy activity is compounded by the challenges faced in studying the potential intergenerational and mutagenic effects on the children and grandchildren of those directly exposed (Stellman and Stellman 2018). The historicity of conflicting evidence, political delay, and medical uncertainty has resulted in multigenerational challenges, where not only those directly exposed but their descendants face formidable barriers in linking their illnesses to their ancestor's exposure. The ambiguity surrounding exposure effects highlights the need for continued and focused research efforts. Such research is crucial for informing policy decisions, improving and expanding assistance programs, and ultimately providing justice and support to all affected parties.

Veterans encounter an institutional marginalization that exists within state practices and policies that lead to a denial of knowledge, care, and recognition of Agent Orange exposure effects. This marginalization stems from a complex interplay of scientific uncertainty, bureaucratic inertia, and the politicization of military health issues (Scott 2004; Scott 2017). Despite the mounting evidence linking exposure to a range of serious health conditions, many veterans find themselves entangled in a web of institutional procedures that seem designed more to obfuscate than to assist (Maguire et al. 2022).

At the heart of this issue is the challenge of proving a direct causal link between the chemical exposure and subsequent health problems — a requirement that is often unattainable for the individual veteran. The burden of proof placed on veterans is not only technically demanding but also emotionally draining, requiring them to navigate a labyrinth of bureaucratic processes, medical records, military documents, and scientific studies. This process is further complicated by the shifting sands of scientific consensus and the often slow-moving machinery of policy implementations.

Denial is a pervasive theme with Agent Orange discourse and the experiences of veterans. Denial enables state institutions to minimize the perceived impact of institutional activities, thereby reducing immediate accountability and the potential for public outcry or demands for compensation. This form of denial is not merely about rejecting evidence but strategically managing information to shape public discourse, policy responses, and the allocation of resources in ways that deflect institutional responsibility. Moreover, denial is employed to control the narrative surrounding the suffering of veterans, effectively depoliticizing their experiences and framing them as isolated incidents rather than products of systemic violence or the results of deliberate policy choices. Denial influences the governance of veteran bodies, determining which bodies are cared for, which sufferings are recognized, and how the health of veterans is managed overall.

Iterative use of denial as an institutional practice emerge from political, military, and scientific institutions and take various forms, from the outright rejection of harm from exposure to the passive neglect within bureaucratic processes. Such denial is not merely administrative but carries deep implications in the everyday lives of the affected veterans. It translates into a lack of access to crucial healthcare services, financial assistance, and social recognition, exacerbating the physical and psychological burdens associated with their suffering. Moreover, denial reflects a broader biopolitical strategy of managing a sensitive issue in a tactical way that minimizes state responsibility and financial liability. By erecting barriers to recognition and assistance, institutions can effectively limit the number of individuals eligible for compensation and care, thereby controlling the political, economic, and social costs associated to military operations and their burdens in the aftermath.

The consequences of denial extend beyond veterans directly, impacting families and contributing to a broader sense of injustice and betrayal within veteran communities. It underscores the need for a more equitable and responsive system that acknowledges the sacrifices of those who have served, and which ensures that they are not further victimized by the very institutions meant to support them. Recognizing and addressing institutional marginalization of Agent Orange exposure and its everyday effects experienced by veterans is a critical step toward rectifying the culture of denial.

Yet, a plethora of denial or lack of recognition does not silence all sufferers; it prompts some to use their suffering as a lens through which to critique broader political and social issues connected to exposure. Veterans have historically engaged in persistent resistance and advocacy efforts to gain recognition and reparations for the health consequences they endure (Hunt 1999; Scott 2017). These efforts range from organizing grassroots campaigns to filing class-action lawsuits, and lobbying Congress for legislative change. These veterans, alongside their families, have tirelessly worked to bring the issues associated with Agent Orange exposure to the forefront of public and political discourse. Their efforts have been instrumental in pressuring state institutions to reconsider policies, improve the VA claim system, and expand the list of presumptive conditions associated with Agent Orange exposure (Hay 2021). These efforts have not only improved support and recognition for the affected veterans but have also challenged the institutional practices of denial that have historically restricted the understanding and acknowledgement of chemical exposures. Within this dissertation, I focus on the lived experiences of institutional denial and the ways in which veterans contemplate and negotiate their bodily damage to receive political, social, and medical recognition of their disease, illness, and suffering.

Exploring the everyday lives of those affected by chemical exposure is crucial for a comprehensive understanding of Agent Orange and its impacts. This exploration focuses on the embodied experiences of veterans who are marked by institutional denial and medical uncertainty. It involves an intimate examination of how veterans manage and are managed by their suffering, from remembering and articulating military experiences to navigating personal, clinical, and bureaucratic landscapes, and engaging with other sufferers to share and compare experiences. Such an approach challenges the traditional emphasis on relying on state interpretations of the long-term effects of chemical exposure, which often neglects the voices and bodies of those directly affected (Fischer 2000; Petryna 2013; Davies 2018).

The everyday experiences of veterans are also essential for understanding the intricate effects of biopolitical governance on chemical knowledge and its impact on human lives. Their personal accounts shed light on the nuanced ways in which state policies, scientific research, and military practices intersect, balancing out the recognition, compensation, and treatment of chemical exposure-related disease, illnesses, and suffering. By delving into the lived experiences of veterans, I uncover the gaps between policy-making decisions and actual outcomes, revealing how bureaucratic processes often fail to address and accommodate the complex burdens of veterans in the post-war period. This approach not only humanizes the abstract concepts of biopolitical governance but also highlights the discrepancies between scientific knowledge production and its application in policy implementation and healthcare practices. Moreover, it provides a critical perspective on how chemical exposure is managed and understood within and outside of institutional settings, a lens that is entirely missing within scholarly research on Agent Orange.

Biopolitical Framework: Managing Bodily Experiences

To examine the institutional response and management of various chemicals used during the war, the concept of biopolitics can be used to understand how regulatory practices and policies shape the handling of environmental and health crises, including Agent Orange exposure. Biopolitics examines the ways in which biosocial phenomena are interpreted, controlled, and negotiated by governing bodies. Michel Foucault, a pivotal figure in twentieth-century social theory, introduced biopolitics to describe how authoritative regimes harness strategies and mechanisms to orchestrate human life processes, emphasizing the role of knowledge and power dynamics (Foucault 2003). Examining a biopolitical perspective, he posits that the state alongside its diverse institutions exercises dominion and influence over the physiological and existential aspects of individuals, such as monitoring mortality and birth rates of its populations. This control is often justified by objectives purported to enhance health, increase productivity, and maintain social order (Foucault 1995). The concept of biopolitics is therefore indispensable to dissect the implications and consequences of governmental practices, offering insights into the exercise of power in shaping human populations and health outcomes.

Within the biopolitical framework, the body is not merely a biological entity but a politicized one, deeply embedded in the social, cultural, and political determinants of health and well-being. Biopolitics scrutinizes how governmental and institutional practices shape our perceptions of health, disease, and bodily norms, often leading to hierarchies and disparities rooted in bodily differences, such as race, gender, sexuality, and class (Happe et al. 2018). Practices like epidemic management, regulation of reproductive rights, and medicalization of conditions such as alcoholism exemplify biopolitical management, underscoring the institutional control over bodily autonomy (Foucault 1976). Therefore, the body emerges as a crucial site where societal norms and values are imposed, contested, and negotiated, exemplifying the profound connection between the governance of populations and the intimate experiences of individual bodies.

The exploration of the body as both a site of personal experience and an instrument for institutional power offers in-depth insights into the dynamics of suffering. From an anthropological perspective, bodies emerge not as passive entities but active participants in the construction of social reality and meaning. Thomas Csordas's (1990) concept of the body as a "field of perception and practice" underscores its pivotal role in our existential engagement with the world, or our "being-in-the-world"— a term that captures the "existential immediacy of being a body" while also being a body that is "temporally and historically informed through cultural systems and practices" (Csordas 1994:10). In comparison, Foucault (1995) presents the body as a passive receptable inscribed societal norms, values, and power, where the body is disciplined into a "technology of the self," or the transformation of bodies and ways of being to achieve certain goals. Foucault's perspective suggest that bodies internalize and manifest the expectations of authority, becoming conduits for the social and material realities deemed appropriate by those in power (Foucault 1988). This framing is particularly pertinent in military contexts, where the bodies and minds of soldiers are intentionally molded to meet the demands and ideologies of military institutions.

Csordas' theory of embodiment, which centers on the body's lived experiences as a primary means of engaging with the world, adds to Foucault's concept of biopolitics, where individual experiences intersect with collective governance. Veterans, for instance, find themselves under the surveillance and regulation of both military institutions and external entities like the VA health system. Yet, their personal interactions within these systems are deeply influenced by larger socio-economic power structures, resulting in varied interactions within these regulated spaces. This example reveals the intersection between individual subjectivities, bodily experiences and the broader state mechanisms of control, highlighting the intricate ways in which personal and collective experiences of health, bodies, and governance are interconnected, negotiated, and institutionalized.

However, the body is not merely an object that passively absorbs and enacts institutional directives. The body is also a subjective medium for meaning-making and an active participant in resisting or negotiating biopolitical power. For example, as Laurence Kirmayer (1992) writes, medical diagnoses are interpretive acts that shape our understanding of health. The authority of medical professionals and their diagnostic frameworks often intersect with, and sometimes challenge, the lived experiences and agency of patients. In this power dynamic, illness is not merely a biological fact but a site of negotiation and contestation, reflecting broader discourses of power, authority, and resistance within medical spaces. Elaine Scarry (1987) further challenges the notion of bodily passivity by highlighting how experiences, particularly those of physical pain and suffering, disrupt our capacity to communicate and share our realities, thus widening the gap between subjective and objective renderings of bodily understandings. This interplay situates the bodily experiences of those exposed to Agent Orange within a complex dialogue of negotiation, where personal and institutional narratives intertwine, bringing to light the intricate ways in which these narratives navigate and contest the discursive terrain of health, suffering, and bodily autonomy.

Exploring the concept of biopolitics reveals that state influence transcends governmental boundaries, incorporating the pivotal roles of scientific and medical institutions in the governance of biosocial phenomena. These entities, although not always directly connected to governmental apparatuses, wield significant authority in framing bodily experiences as medical issues. They often navigate within the boundaries set by state policies, such as public health regulations and contribute to the advancement of knowledge concerning the human body (Moss and Teghtsoonian 2008). Furthermore, their collaborations with government authorities, notably in sectors like the military-industrial complex, underscore their influential role in shaping health and medical practices (Relman 1980). This expansive view of biopolitical governance reveals a complex web of power relations, where the authority to delineate, manage, and intervene in bodily experiences is dispersed across a range of actors and entities, highlighting the collective effort in the biopolitical control and management of populations.

Biopolitics serves as a critical theoretical framework for scholars aiming to dissect the intricate interplay between political and social systems, entities, and policies that significantly impact health, bodies, and populations. This approach has proven particularly insightful in case studies focusing on diverse issues, from the management of HIV/AIDS epidemics to the complexities surrounding reproductive technologies and environmental crises like lead contamination in water supplies. In the context of HIV/AIDS, biopolitical analysis sheds light on how epidemic management encompasses political surveillance of bodies, the implementation of public health policies, and the stigmatization of specific groups (Halperin 2016). Studies on reproductive technologies and surrogacy reveal how the commercialization and commodification of reproductive health transform bodily experiences. These developments provoke discussions of bodily autonomy, individual rights, and the legal and ethical considerations of emerging technologies, reshaping societal understandings of bodily experiences (Whittaker 2015). Comparatively, environmental issues highlight how bodies are jeopardized by political and bureaucratic challenges. The disproportionate impact on impoverished and minority communities, as seen in situations like the Flint Water Crisis, underscores the consequences of governance failure and institutional neglect (Gaber 2019). These case studies reveal profound biopolitical effects on individual bodies and entire communities due to bureaucratic mismanagement within political and social systems.

Biopolitics offer an essential theoretical lens for understanding the complex dynamics of Agent Orange exposure, focusing on the confluence of power, governance, and bodily experiences. Biopolitics illuminates the complex ways in which political, military, scientific, and medical decisions impacted individual health, societal norms, and institutional accountability (MacLeish 2019). It allows for a critical analysis of how chemical knowledge is produced, contested, and utilized within power structures, revealing the dynamics between scientific uncertainty, policy-making, and the recognition of veterans' suffering (Brown et al. 2011). This perspective not only highlights the power relations between institutions and veterans but also identifies the mechanisms through which biosocial phenomena are interpreted and managed by political and social authorities. This framework deepens our understanding of the institutional responsibilities and systemic failures in addressing or contributing to the consequences faced by those exposed to Agent Orange.

Moreover, a biopolitical framework unpacks how bodily experiences are negotiated and locally transformed within political and social systems. Biopolitical management of chemical exposure effects intersects with personal health struggles, shaping lived experiences of those affected (Wiebe 2016; Krupar and Ehlers 2020). Veterans' struggle for recognition and care exemplify the multifaceted exercise of power that shapes their bodily existence, influencing which health conditions are recognized, their access to treatment, and how veterans navigate their health amidst institutional limitations. This perspective elucidates the impact of biopolitical governance on individuals and the ways in which societal and institutional frameworks influence the lived experiences of health and suffering.

Biopolitics intricately connects the themes of power, governance, and state influence, through disciplining and militarizing bodies, particularly those of soldiers and veterans. This process not only prepares individuals for military service but also ingrains them within a complex web of political and social expectations (Foucault 1995). The transformation of these bodies extends into post-military life, where they are further shaped by health complications, identity shifts, and the challenges of reintegration into civilian life, highlighting the persistent influence of biopolitical governance (Armitage 2003). Veterans, as subjects of continuous biopolitical surveillance and management within military and the VA systems, exemplify the intricate ways state power is exerted over veterans (MacLeish 2021). Through these lenses of biopolitics, the treatment and documentation of veterans' bodies reveal broader power dynamics in shaping personal and collective experiences.

The biopolitical dimensions of Agent Orange offer a fascinating case study through which we can explore the intricate relationships between political, military, scientific, and medical institutions as they manage, regulate, and respond to the health consequences of chemical exposure. This complex interaction encompasses rigorous surveillance, medical research, and health care interventions aimed at detecting, managing, and mitigating health conditions resulting from such exposure. At the same time, there is a concerted effort to retain control over the narratives that shape scientific knowledge and influence public discourse. This situation underscores the nuanced balance these institutions must strike between effectively addressing health consequences and governing the knowledge that contextualizes these issues.

Biopolitics and Institutional Denial

In this dissertation, I investigate denial as a biopolitical mechanism controlling the production of knowledge about Agent Orange, while positioning it as a strategic approach employed by the state to mitigate accountability for suffering caused by chemical exposure. Denial serves not only to shape the narrative around the use and effects of Agent Orange but also to set the limits of what is considered valid knowledge and scientific investigation into its effects. By minimizing or dismissing the health consequences from exposure, state, military and scientific institutions obscure their involvement and liability, constraining research that could contest their actions or demand greater responsibility and compensation. While Foucault's work on biopolitics delves into the regulation of life and bodies by state power, it does not specifically tackle the role of denial. This dissertation builds upon Foucault's framework, introducing denial as a pivotal concept for exploring the biopolitics of Agent Orange exposure and its effects on veterans. By doing so, it aims to broaden the discourse on governance, bodily experience, and suffering.

To facilitate these discussions, I explore the relationships between biopolitics and denial, alongside their tangible impacts on veterans. It investigates how institutions facilitate or exacerbate denial, the various outcomes of such denial, and its deep-seated effects on the suffering of those exposed. Through this analysis, the study uncovers how denial operates as a mechanism by which state institutions manage and often negate the lived experiences of the exposed veterans.

This denial results in “toxic residuals”, or the enduring historical consequences and lived realities faced by the veterans and other sufferers, shaped significantly by institutional denial of Agent Orange exposure. These residuals from the practices of denial have impact beyond environmental and physical health; they deeply infiltrate the lives of veterans and their families. These residuals lead to persistent challenges in seeking recognition and care from medical and governmental systems, which often hesitate to acknowledge the link between military service and health issues. Furthermore, denial strategically introduces scientific uncertainty regarding veterans’ suffering, thereby hindering access to recognition and support. This uncertainty is not merely an accidental consequence of limited knowledge but is deliberately fostered by a pervasive denial that prioritizes institutional interests over the well-being of individuals. Consequently, the enduring legacy of denial, coupled with scientific ambiguity, forces veterans and their families into a continual struggle to navigate the intergenerational repercussions of military service.

Denial, when examined through the prism of biopolitics, emerges as a crucial instrument in delineating the interplay of power that governs veterans’ lives, health, and bodily autonomy. This dissertation highlights how state institutions have historically minimized and contested the effects of Agent Orange on veterans, thus obscuring the direct links between exposure and adverse health outcomes. This form of denial not only obscures the causal links between exposure and health but also reinforces the biopolitical control over who receives recognition, care, and compensation. Although discussions on Agent Orange have seldom focused on denial, scholarly works from David Zierler (2011) and Edwin Martini (2012) highlight denial as part and parcel to understanding the production of knowledge and its influence on collective remembrance of Agent

Orange exposure. This study underscores its significance in shaping the production of knowledge and the collective understanding of biosocial issues.

In psychological literature, denial is often posed as a defense mechanism that allows individuals to cope with reality by refusing to acknowledge threatening aspects of that reality. This concept, originating from Freudian psychoanalytic theory, suggests that denial serves as a way to protect the self from distressing information or emotions that are difficult to face. For instance, studies have examined how cancer patients use denial to maintain hope and positivity, despite the gravity of their diagnosis (Weisman & Worden 1976). Similarly, research on grief and bereavement has highlighted the role of denial to cope with the death of a loved one as a temporary measure that helps individuals gradually adjust to their loss (Kubler-Ross 1969). These psychological perspectives place denial within a broader framework of human behavior and emotional regulation, contributing to a nuanced understanding of how people confront and process difficult realities.

However, denial is not only a personal means to negotiate truth statements. In comparison, social scientists use denial to refer to the processes and mechanisms through which both individuals and institutions neglect, disregard, or refute the validity of certain phenomena, experiences, or evidence. This concept has been extensively used across various fields to explore how individuals and societies confront uncomfortable truths (Duschinksi and Hoffman 2011; Worsdale 2018). Stanley Cohen's work (2001) provides a comprehensive examination of denial at both individual and societal levels, arguing that denial functions as a psychological and sociopolitical strategy to avoid confronting painful realities, such as acknowledging the Holocaust and other human rights issues. Cohen delineates different forms of denial to reveal the multifaceted ways in which social and political institutions engage with knowledge and accountability and how they are normalized or rejected within society.

In environmental sociology, the concept of denial has been instrumental in analyzing responses to climate change and environmental degradation. Kari Norgaard (2011) explores the paradox of public silence on climate change, despite widespread knowledge and concern, illustrating how social norms and cultural values facilitate collective inaction through denial. Similarly, research on social implications of technological and industrial hazards use denial to understand how communities and corporations negotiate exposure effects (Brown & Mikkelsen 1990; McCulloch & Tweedale 2008). Denial operates not only as an individual defense mechanism but also as a structured, institutional approach to downplay risks, evade responsibility, and hinder policy changes.

In this dissertation, I situate denial as a biopolitical mechanism with a range of discursive effects on veterans affected by Agent Orange exposure. As a biopolitical mechanism, denial is seen as an institutional tool that produces toxic bodily and social outcomes that are experienced by veterans. State institutions, including military, political and scientific authorities, and the VA, employ denial to various ends: refuting or obscuring essential information, limiting access to resources and rights, and diminishing recognition of veterans' health, bodies, and lives. This denial not only negates the immediate needs of veterans but also shapes their biological and social existence within the power structures that define and manage their lived experiences. The VA's bureaucratic and medical systems serve as prime examples of how denial operates within established power relations to objectify and control bodily experiences of the veterans. Through these arrangements, the experiences of veterans are filtered, categorized, and often minimized, affecting critical decisions regarding eligibility for social, economic, and medical benefits. This process of denial is not merely administrative but deeply biopolitical, affecting how veterans' bodies and health are perceived, treated, and valued within society.

The role of denial extends beyond institutional policy-making into the very lives and bodies of those affected. This denial is felt most acutely at the personal level, where it manifests as systemic neglect. Veterans face difficulties that hinder their access to essential healthcare and economic support. Denial actively reshapes their lived experiences, and social dynamics. Veterans are compelled to navigate a bureaucratic process and practice of denial, using their bodies and military experiences as tools to contest and counteract the limitations imposed on the recognition of their suffering. This struggle is not confined to the veterans but extends to families and descendants, who share the burden of caregiving and grapple with uncertainties related to the potential long-term health consequences of Agent Orange exposure on themselves. Denial therefore becomes an everyday reality for those affected, shaping their interactions with institutions, their access to care, and their understanding of their own health and history.

Denial serves as an institutional barrier, fundamentally asserting authority over the recognition of the veterans' bodily experiences, symptoms, and suffering in official, social, and medical contexts. Recognition — or the lack thereof — plays a pivotal role in determining how the health issues of veterans are addressed, validated, and compensated by state and medical institutions. The struggle for recognition by affected veterans and their families exemplifies a critical aspect of biopolitical management, where the state exercises control over which conditions are deemed worthy of attention, allocate research funding, and allow access to resources to alleviate suffering.

The concept of recognition offers a lens through which to understand the dynamics of personal and social experiences and identities, particularly in the context of illness. Social theorists, such as Charles Taylor (1992), situate recognition as the importance of "being seen", or acknowledged, as a validation of an individual's experiences and identity. He posits that the negotiation for recognition is integral to personal and social acceptance, arguing that nonrecognition or misrecognition can lead to harm or a diminished state of being. Axel Honneth (2016) expands on this framework by identifying specific domains— laws, love, and solidarity— where recognition is crucial for social well-being. Honneth suggests that failing to achieve recognition can lead to personal distress and the marginalization of experiences. Building on the theories of Taylor and Honneth, Laurence Kirmayer (2011) examines how recognition operates as a sociopolitical tool in the realm of medical knowledge and illness experiences. He notes that the power to recognize or dismiss illness experiences is not just a medical or scientific issue but is deeply intertwined with the underlying power relations that influence how illnesses are named, categorized, and treated within healthcare systems.

Through this concept, it becomes evident that the struggle for recognition is a complex interplay of individual experiences, societal norms, and institutional practices. Recognition provides a foundational basis for understanding the sociopolitical dimensions of illness and the imperative for healthcare and other institutional systems to recognize and validate the discursive experiences of the sufferers. Denial, then, becomes an important mechanism that alters how recognition is perceived and performed, thereby impacting the ability for individuals to receive different forms of recognition, such as healthcare services, monetary benefits, and official and social acknowledgement of suffering.

Denial, while central to the discourse and policymaking surrounding Agent Orange, paradoxically acts as a driving force for unity and resistance within veteran communities. This dynamic resonates with Foucault's observation that the mechanisms of biopolitical governance inherently provoke opposition (Foucault 1976)[2]. By challenging the established narratives and

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[2] Foucault argues that resistance is not located in a position outside of power relations but is an integral part of the field of power. He shifts the concept of power away from a direct exercise by dominant groups

seeking due recognition and compensation, veterans and advocates underscore the inherent value of the lives and health compromised by institutional policies. The activism and collective efforts of veterans highlighted within this research serve as pivotal counters to the prevailing biopolitical frameworks, pushing for enhanced healthcare services, broader awareness, and formal recognition of their suffering.

The biopolitics of Agent Orange exposure therefore embodies a complex dynamics of health management, scientific research, and regulatory governance, illuminating the intricate ways power and life converge in the wake of military chemical exposure. It underscores the enduring challenges in addressing the long-term effects of chemical exposures and the critical role of institutional power in shaping the recognition and management of those impacts. Through this lens, the struggle of veterans and their advocates reveal a broader story about the contestation of power, the fight for recognition, and the importance of solidarity in confronting the institutional biopolitics and bodily suffering.

"Studying Up" and Down

This study critically examines the multifaceted nature of denial, recognition, and the biopolitics surrounding Agent Orange exposure, juxtaposing institutional mechanisms against the personal experiences of the affected veterans. From the perspective of the state, denial operates within a framework that seeks to formalize policy responses, adjudicate compensation claims, and set evidentiary standards, all while minimizing state responsibility for the harm caused. This institutional approach underscores the political and administrative efforts to manage the fallout from chemical exposure, often privileging scientific validation over the firsthand experiences and

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to understanding power as a network of forces that operates throughout society, with the potential for resistance existing within power relations themselves.

narratives of veterans. This focus on administrative processes and political maneuvering reveals a disconnect between institutional policy-making and actual needs of the sufferers.

Conversely, for veterans and other stakeholders, denial and recognition conceptually extend beyond bureaucratic processes, manifesting as embodied experiences of the sufferers. These concepts act as enduring markers of the protracted discourse on Agent Orange, influencing everyday life for the veterans, specifically through impacting their bodily identity, social inclusion, and access to resources to improve quality of life. The struggle for recognition transcends the mere acquisition of compensation; it fundamentally seeks the emotional and existential acknowledgement of their experiences, aiming to secure a sense of belonging and validation within their bodies, communities, and the society at large.

This dissertation bridges the gap between individual narratives and institutional frameworks, focusing on lived experiences of the veterans affected by Agent Orange. It delves into how veterans perceive their health in the context of chemical exposure and navigate through institutional systems that shape the understanding and management of their health. To achieve this, I utilize the methodological approach of "studying up" and "studying down," examining both the discursive construction of Agent Orange exposure and the personal experiences of those impacted. This dual approach enables a comprehensive view of how power dynamics and authority influence and are contested by the experiences, perceptions, and actions of veterans.

The methodological approach of "studying up," a term coined by anthropologist Laura Nader (1972), involves focusing on those in positions of power and authority— such as government officials, corporate executives, and other elite groups— rather than solely on marginalized or less powerful communities. It seeks to view both top-down and bottom-up perspectives to analyze a comprehensive understanding of social phenomena. This approach offers valuable insights into biopolitical issues by examining how decision and policies at the upper echelons of power impact the regulation, control, and management of bodies and populations. Applying the "studying up" approach to biopolitical issues enables researchers to uncover the mechanisms through which power operates in the creation and implementation of health policies, environmental regulations and scientific research priorities.

While Nader does not explicitly mention it, studying both "up" and "down" offers a holistic view of power dynamics, revealing how decisions from higher echelons influence those at lower levels and vice versa. "Studying down" focuses on the lives, cultures, and communities of those in less powerful or marginalized positions, shedding light on how power impacts everyday experience and is subject to contestation. This approach highlights the intricate relationships within power hierarchies, showing how authority is both wielded and opposed, allowing for a deeper analysis of power relations, responsibility, and the discursive effects of governance.

In the context of Agent Orange, studying up can reveal how military strategies and government policies have intersected to influence the acknowledgement and management of exposure effects. By focusing on the trajectory of institutional narratives and response, we can better understand the systemic biases and interests that shape the lived experiences of veterans, their families, and other sufferers. Moreover, studying up challenges the traditional power dynamics inherent in research by holding those at the top of institutional hierarchies accountable. It shifts the narrative from one that often positions affected individuals as passive victims to a more complex analysis of how structural power dynamics contribute to the existence of health disparities, particularly among the veterans.

Similarly, studying down considers the impact of institutional decisions on affected groups, namely the veterans who rely on state, military, and scientific institutions for determining VA healthcare and compensation policies. These policies directly influence veterans' access to benefits and their recognition as victims of exposure. Furthermore, veterans challenge these power dynamics by engaging in lobbying and advocacy efforts. They aim to sway political authorities and the broader society, bringing attention to their experiences, sufferings, and struggles amidst slow bureaucratic processes. This approach highlights the agency of veterans in navigating and contesting the structures of power that shape their lives.

Employing the method of studying both up and down provides a rich, multi-dimensional approach to examine Agent Orange, offering insights into the intersection between biopolitics, denial, and suffering inflicted on the Vietnam War-era veterans. By examining the structures of power and authority from both the perspectives of those who wield it and those subjected to it, this approach allows for a nuanced understanding of how institutional decisions manifest in lived experiences of the veterans. It illuminates the power dynamics, revealing not only how authoritative decisions impact the veterans but also how veterans resist and navigate the constraints imposed upon them. This approach is crucial for unpacking the mechanisms of denial and understanding the broader socio-political context of Agent Orange exposure and suffering, ultimately contributing to a more informed, insightful, and empathetic discourse on governance and its effects on the veterans.

Outline of Dissertation Chapters

This dissertation maps out the biopolitical landscape that shapes the illness experiences of U.S. Vietnam War-era veterans and their families, focusing particularly on the practices of denial and patterns of recognition by state authorities. The following chapters highlight the lived realities of those affected by Agent Orange and deepens the understanding of the socio-political intricacies involved in institutional management of chemical exposure.

Chapter 2 outlines the methods and methodologies used for conducting my ethnographic fieldwork, detailing the data collection and analysis techniques, and introducing the participants and research sites. I used two main methods to facilitate research: participant-observation and archival research. Through participant-observation, I immersed myself in the daily realities of veterans, engaging in social club events and programs. Additionally, archival research methods were utilized to explore institutional perspectives and the role of denial in shaping discourse and policies around Agent Orange exposure. These approaches are essential for articulating the biopolitics of Agent Orange and understanding the interplay between institutional power of the state and lived experiences of the veterans.

Building on the foundational concepts introduced earlier, Chapter 3 focuses on the historical discourse surrounding Agent Orange, utilizing archival research to explore institutional narratives, congressional hearings, perspectives of military leadership, and the constraints on scientific research. This analysis reveals how the mechanism of denial within institutions functions to negate, reject, or limit the recognition of suffering. This chapter illuminates the ways in which denial not only creates a gap in understanding and addressing exposure but also cultivates scientific uncertainty and medical ambivalence toward suffering. These ambivalences, in turn, affect how sufferers perceive their own experiences and inform how political authorities design and implement policies toward suffering. By setting this historical backdrop, the chapter vividly contrasts with the subsequent exploration of the direct consequences of denial on lived experiences of the veterans in chapter 4, highlighting the profound impact of institutional actions on individual lives. This sets the stage for a deeper investigation into the personal narratives and realities of the veterans.

Chapter 4 centers on veterans' experiences, analyzing their narratives and responses to the institutional discourse surrounding Agent orange and its impacts on their lives. Here, I introduce the concept of "toxic residuals" to delve into the compounded effects and bodily burdens that stem from institutional denial of exposure. These residuals represent not just physical ailments but also the emotional and psychological toll on veterans and their families, highlighting the layered impact of denial. This personal perspective is essential for grasping the nuanced realities of chemical exposure effects and underscores the ways in which veterans navigate and make sense of the institutional frameworks, specifically the VA health system, which shape their understanding and management of their suffering. Through this lens, this chapter illuminates the multifaceted challenges veterans face, from health complications to seeking bureaucratic support and official recognition.

In chapter 5, I delve into the discursive experiences of Vietnam War-era veterans, with a particular focus on how the persistent denial of Agent Orange exposure has shaped their identities. The chapter explores the impact of militarization, showing how the rigid, authoritative structure of military service has influenced veterans during and after their service, and how they carry out their roles within a post-war context. Here, the concept of liminality is useful to articulate the discrepancies between veterans' personal experiences of military service and of overarching institutional and societal narratives. I use liminality to describe the transitional spaces where lived realities of the veterans often contrast with the public accounts of military service and sacrifices. Through this analysis, I explore how the veterans reconcile their lived experiences with the broader narratives imposed upon them. This chapter offers readers an in-depth understanding of the impact of institutional biopolitics, denial, and recognition of veterans' identities, their embodied self, and suffering.

Chapter 6 discusses the multifaceted strategies employed by veterans and other stakeholders to develop an advocacy movement and foster educational awareness about Agent Orange and broader issues affecting veterans' welfare. This examination follows of the progression of veteran efforts from their origins to the expansion onto digital platforms, which have become vital in engaging public interest and facilitating policy discussions. I use the concept of "biosolidarity" to demonstrate historical and current veteran efforts to educate and advocate for those affected by Agent Orange exposure, and how sufferers form communities based on their shared biological experiences. Through an exploration of how veterans and advocates use these digital environments to maintain conversations, encourage actions, and forge communities, this chapter aims to highlight the adaptable nature of veteran advocacy and illustrates the continuous thread of resistance and activism.

The concluding chapter synthesizes the main findings of this study, placing them into the broader discussions of the biopolitics and the lived experiences of the veterans. It raises questions on the relevance of these findings to similar cases of other military exposures, thus calling for more in-depth analysis into the biopolitical implications of health issues that stem from military service. This research calls for policy reforms that not only recognize individuals affected by Agent Orange as subjects of biopolitical governance but also as active participants who have adeptly navigated through gaps in knowledge and care provisions. Additionally, I extend policy recommendations to groups beyond the primary focus of veterans, including Vietnamese communities, international military personnel, and chemical industry workers, underscoring the broad and diverse impacts of Agent Orange exposure. These groups, similarly, subjected to institutional denial, highlight the extensive research and varied consequences of such exposure, emphasizing the need for inclusive and comprehensive policy reforms.

This dissertation unfolds the complex biopolitical landscape surrounding U.S. Vietnam War-era veterans' illness experiences, highlighting the intricate connections between denial and recognition by state authorities. Through a methodical examination spanning ethnographic fieldwork, archival research, and an in-depth analysis of personal and institutional narratives, this research illuminates the profound impacts of Agent Orange exposure. It contributes to the broader discourse on biopolitics and health implications of military service, advocating for a more inclusive and comprehensive approach to addressing the legacies of chemical warfare. It calls for a future where the voices of the affected are not just heard but are instrumental in shaping the policies and practices that govern their lives, ensuring that the lessons learned from the past guide us towards more equitable and compassionate responses to the complex heath challenges posed by military chemical exposures.

Chapter 2: Methods

Introduction

Ethnographic fieldwork provides a distinctive perspective for examining lived experiences, particularly experiences shaped by illness-causing events. This research investigates the experiences of Agent Orange exposure and analyzes the structures and systems that influenced the everyday realities of exposed individuals. Previous work on Agent Orange exposure focused on the literature and history of exposure effects but lack a personal look at how exposure affected the experience for veterans. This research is designed to explore the effects of exposure and the experiences of U.S. Vietnam War-era veterans from institutional and personal viewpoints. It aims to address questions related to the experiences of these veterans, as well as other key stakeholders affected by exposure. These stakeholders include researchers, family members, community resources, and citizen scientists. This chapter offers a comprehensive overview of the research methodology, including the selection of research sites, data collection methods, and a reflection on my limitations and positionality within the research context.

Relevant Literature on Chemical Exposure and Studying Its Effects

This research explores the impact of chemical exposure through anthropological and other relevant perspectives. It critically examines how these methods provide insights into the material and social realities altered by chemicals. Recent scholarship focuses on the subjectivity of chemicals as biotechnological tools that create new societal “normalcies” in which chemical dependencies maintain modern life: from household cleaners and medicinal treatments to powering our cities through chemical innovation (Shapiro 2015; Phillips and Rees 2018). Anthropological methods give access to studying chemical normalcies and, particularly, chemical contaminations. This can be seen from interviewing exposure victims, observing and participating with exposed communities, and articulating the institutions, structures, and processes that authorize knowledge of harmful effects on human bodies and environments.

The most comprehensive accounts of Agent Orange exposure take historiographical approaches to trace the lineage of tainted chemical product to the contentious scientific, legal, and political battles in the postwar period. David Zierler (2011) examines declassified institutional documents and conducts in-depth interviews to track Agent Orange chemical discourse amongst the scientists and politicians negotiating the use and justification of scientific research within the military-industrial complex. Using similar methods, Edwin Martini (2012) reviews Agent Orange in social and political consciousness through examining military records, visiting contaminated sites, and semi-structured interviewing to disentangle the contentious nature of militarized chemicals and their post-war effects. Their use of the archives and focusing on institutional perspectives is needed to provide a foundation on how medical and political authorities recognize and manage exposure knowledges for victims. However, Zierler and Martini centralize Agent Orange chemicals as the subject and objective actor, spending minimal time addressing sufferers' lived experiences. Archival methods contextualize the historical and contemporary discourse of Agent Orange through documents and artifacts, underscoring the need to examine how institutional perspectives shape the lived experiences of those affected.

Other related works provide nuance through analyzing specific themes and lesser known stakeholders to generate new knowledge on the impact of chemical exposure effects. For example, Reagan (2016) used a media and gender analysis to discuss how exposure impacted everyday life and roles among men, women, and children. She describes the social afterlives impacted by chemical exposure through a feminist-informed methodology, looking at changing gender scripts and family dynamics. Inclusion of family members forces attention on the wide array of exposure effects and pushes consideration on other affected stakeholders. Hays (2021) takes a different approach analyzing narratives from multiple stakeholders— student protesters, farmers, veterans, and citizen scientists— that have encountered Agent Orange chemicals domestically. Hays employed an interdisciplinary approach of interview techniques and archival research to highlight the importance of sufferers having been historically engaged in grassroot activism and lobbying for recognition of exposure effects. Both works give stakeholders narrative space and analyze the institutional response and mismanagement of chemical exposure experienced by victims and survivors. While locating these voices and perspectives is needed, the limited amount of interview and participant-observation data from these works does not flesh out the ordinariness of suffering through lived experiences, including personal understanding of bodily knowledges altered by physical and social effects of chemical exposure.

The body is our subjective tool in experiencing phenomena that is existentially grounded in reality; chemical exposure can untether the body as a mooring point in knowing ourselves and leave individuals struggling to navigate material and social realities. Investigating the everyday, lived experience of chemical exposure needs to link how sufferers re-conceptualize and learn how to navigate their bodies post-exposure. Adriana Petryna (2013) uses lived experiences of Chernobyl survivors to articulate how bodily knowledges are generated and negotiated between exposure victims and state institutions. Using ethnographic fieldwork, interview techniques, and researching with a diverse range of stakeholders and institutional documents helps her to explain the political economy of suffering and shifting biological uncertainties of exposed bodies that are situated in local settings. Petryna's methods locate suffering as a grounded experience that is politically-mediated through observing and participating in community activities that raise awareness and commensurate bodily experiences, giving space for victims to narrate how institutional mismanagement continues to impact daily life. Within my work, I use similar methods to demonstrate the political discourse and its effects on sufferers' ability to re-situate knowledge of their bodies while also encountering institutional barriers that obstruct access to definitive illness causation and social assistance. Comparatively, I am also utilizing digital and archival methods to supplement other perspectives that are not echoed within the community I am conducting fieldwork, such as interviewing professional experts on diagnosing and analyzing exposure effects and observing veteran organizations involved with Agent Orange activism.

Paula Garb (2007) also grapples with questions of institutional knowledge of chemical exposure through lived experiences of Russian minority groups contaminated by chemical weapon facilities. Garb uses ethnographic fieldwork and citizen dialogues to describe the continued negotiations of bodily knowledges between institutions and sufferers. These methods allowed her to analyze the political structures of health through interviews with community members and former employees of chemical weapon facilities. Her own positionality as a Russian speaker and as a person with family that suffered state-sanctioned violence gave her research a unique perspective in articulating a topic that is difficult to observe as an outsider, in addition to facilitating uncomfortable, distressing conversations with sufferers in a productive setting. In a similar vein, my positionality and background, which I describe in the following section, afford me opportunities to access people and topics that are not often explored in the literature, such as familial caregiving and the emotional ecology of everyday life and suffering.

Historical documentation and archival materials can also situate how bodily experiences are interpreted by institutions. In her historiography examining the work of the Atomic Bomb Casualty Commission (ABCC), Lindee (1994) uses preserved government documents to analyze the scientific sanitation of suffering from atomic bomb effects. Lindee uses the archive materials to draw attention to the harm of objectifying and quantifying suffering made by government officials, scientists, and doctors examining radiation effects that also neglecting victims' voices and experiences. Lindee's work is an important companion piece to Petryna's as it shows the difference between institutional and individual perspectives of suffering. Providing both generates a holistic picture of how suffering is socially constructed and experienced, in addition to locating the differences of individuals *experiencing* suffering and institutions *authorizing* knowledge of suffering. In this dissertation, I investigate the disparity between institutional authorship of chemical knowledge and the minimization of the knowledge surrounding suffering. Although Lindee's use of archival data paints the historicity of suffering, she neglects a contemporary perspective of surviving stakeholders. Research should effectively balance multiple perspectives to communicate the historical and biopolitical negotiation of suffering.

Ethnographic fieldwork engaging with biological experiences produces rich understanding of the political nature and management of health. In case studies on soldiers' and military veterans' health, Susie Kilshaw and Erin P. Finley utilize ethnographic fieldwork to discuss military and institutional effects of the bodies and identities of combat veterans experiencing military-related health conditions. Kilshaw (2010) examines medically unexplained symptoms exhibited by British Gulf War veterans through individual and group interviews and participated at veteran-oriented spaces, such as local veteran clubs and events. She finds that institutional and biomedical interpretations of veterans' experiences reduce them to physical and psychosomatic health problems as opposed to identifying how combat veterans cope with social and physical reintegration back into society. Although Kilshaw, herself, reduces the plethora of symptoms as "cultural anxieties" manifested from war trauma, the importance of listening and connecting with veterans inside and outside of institutional spaces reveals nuanced approaches in understanding military personnel and acknowledging the intricacies of military influences in social life.

Comparatively, Finley (2011) allows her interviews with combat veterans to guide her to analyzing broader social and institutional structures influencing veteran identity construction and their mental health. Through ethnographic description from military and veteran communities, observations at VA clinics, and speaking with military families, valuable insights are drawn on military identities and culturally-informed experiences of mental health issues as they are diagnosed and managed by institutions. Semi-structured interviews in Kilshaw and Finley's works capture the struggle for medical and social recognition of service-connected health problems and needed social assistance benefits. In addition to observing and participating in spaces where veterans "wear" their military identities, they demonstrate how veterans' issues are entangled within complex institutional systems and experiences that are otherwise not explored or understood fully in civilian social spheres.

In-depth conversations with other stakeholders such as family members and health care providers add perspective on veterans' experiences and social interactions. While Kilshaw and Finley incorporate some discussion of these stakeholders, they position questions and topics to center around the veteran individual's experience, as opposed to incorporating how stakeholders contribute to social experiences. To establish the interconnectedness of people, communities, and structures that are bound by the issue of military activities and chemical exposure, I gathered perspectives from different stakeholders consisting of family members, health care professionals, bureaucratic workers, scientists, and organizations.

Overall, my research stresses lived experiences through multiple methods to illuminate the scope of suffering influenced through individual, collective, and institutional layers. I utilize ethnographic fieldwork, interview techniques, archival materials, and social media-informed data to capture ordinary life and experiences structured around illness: from medical appointments, veteran club meetings, and networking with sufferers and stakeholders online and offline. My interview questions examine how sufferers understand their illness experiences and identify epistemologies of illness responsibility, management, and recognition. The data collected from archival and digital methods complements my in-person experiences with participants as these materials negotiate what is considered "official" and "appropriate" knowledges of exposure effects and how veterans' and other stakeholders' experiences are re-situated outside of institutional narratives and spaces. Understanding the biopolitical management of Agent Orange chemical exposure necessitates these methods to locate the historical ordinariness of suffering in everyday life as well as the politicization of health experiences negotiated by state institutions.

Positionality and Research Limitations

My interest in this research is deeply personal, rooted in my grandfather's experiences. He served in the United State Army in Vietnam from 1966 to 1967, stationed in the "III Corps" region, one of the areas most heavily affected by Agent Orange chemical spraying. Unaware of the chemicals' use during the war, he only connected his experiences to his health issues decades later, following an intense heart attack. His recovery from his heart attack led to a formal diagnosis of ischemic heart disease. His diagnosis led him to consultations with medical specialists at Loyola University, where questions about Agent Orange arose. Subsequent visits to the VA hospital and discussions with veterans, medical experts, and VA representatives revealed that over 5.3 million gallons of chemicals had been sprayed where he was stationed. This discovery led my grandfather to firmly believe that his service in Vietnam was the root cause of his heart attack and ongoing health issues.

Listening to his stories and supporting him after his heart attack piqued my curiosity about Agent Orange, a topic scarcely mentioned in my history classes. Alongside my grandfather, I delved deeper into the issue, engaging in discussions with other veterans and exploring the complex history of this under-discussed subject. I uncovered a tangled narrative filled with political controversies, scientific debates, and a public outcry for justice for victims domestically and internationally. Some veterans experienced immediate health issues upon returning home from Vietnam, while others developed latent, long-term conditions like cancers and diabetes (Stellman and Stellman 2018). Children of U.S. and international troops exhibited significant birth defects and a higher incidence of disabilities compared to civilian children (Mekdeci 2017). The science surrounding these chemicals has been used by various groups, including politicians, industrial manufacturers, and victims, in their quest to understand the definitive effects of exposure and identify those responsible (Martini 2012). Despite research suggesting that chemical exposure more likely than not led to significant health changes and various conditions, the management and treatment of victims has resulted in denial and struggle for recognition.

This topic holds a special place in my heart because of my grandfather's experiences. I was fortunate to include his voice and stories in this research before his recent passing. Analyzing his experiences, as well as those of others, helped me understand my own role in these narratives. My closes connection to this topic positions me as a stakeholder: I am a granddaughter who not only listened to and cared for her grandfather but also grapples with concerns about the mutagenic effects of chemical exposure.

My personal connection to the subject afforded me an insider perspective, facilitating rapport-building with participants. I view this research as a form "native ethnography," which involves studying within social and cultural boundaries. Native ethnography enriches academic literature by introducing insights from researchers with personal and cultural ties to their subjects, offering perspectives often absent in established works. This approach also aids in gaining "cultural familiarity," easing access to communities and the acquisition of emic (insider) perspectives. However, as anthropologist Azher Hameed Qamar (2021) notes, such research can pose unique challenges. Researchers' academic backgrounds and positionality might create a social distance with participants, particularly those who are structurally and financially vulnerable. Furthermore, social positions and experiences unfamiliar to the researcher or participants may remain inaccessible. In these cases, Qamar recommends adopting a "fluid" approach to research activities, transforming knowledge gaps into opportunities for deepening inquiry and refined methods. In my study, I am perceived as a civilian, or "civvie", by the veteran community due to my lack of military experience. Nonetheless, insights and guidance from friends and family members with military backgrounds have swiftly educated me on effective interaction and rapport-building techniques.

The disparities in age, gender, and generational affiliation between myself and my participants presented notable challenges. Many of the veterans I worked with are older, white males, positioning my identity as a young, white female as a distinct outlier. This necessitated a continuous effort to manage my positionality within conversations and activities. At times, these differences acted as barriers to open dialogue. For instance, one veteran chose to censor his stories, deeming them "inappropriate" for a "young lady like yourself." In such situations, I found it necessary to reassure my participants that my demographic characteristics should not deter them from sharing their genuine thoughts and experiences. These interactions served as valuable learning moments, prompting me to explore deeper into the dynamics at play: What prompted the decision to withhold certain stories? Which narratives were considered too personal or sensitive, and by whose standards? And importantly, who else has received these sanitized versions of experiences?

In contrast, certain aspects of my identity actually facilitated deeper connections with some participants, particularly when it came to engaging with spouses and adult children involved in caregiving and traditionally defined "women's work" surrounding veteran activities. My personal experience of caring for a close family member resonated with other women who had faced similar situations, creating a therapeutic dimension to our conversations. One particularly memorable exchange occurred with a participant who had recently lost her husband, a loss that coincided with my grandfather's passing. Sharing our experiences of grief provided a safe space for us to discuss a deeply personal and painful topic, thereby enhancing the depth and authenticity of our conversation.

During my interactions with participants, particularly those curious about my research intentions, I clearly communicated my roles and the limitations inherent in being a researcher. On occasion, participants inquired whether I could confirm if their symptoms were caused by Agent Orange exposure. I clarified that my expertise does not extend to medical diagnosis or the specific effects of dioxin exposure. My objective is not to pinpoint the exact cause of their ailments but to explore the broad spectrum of experiences among individuals who believe their health issues are related to sure exposure, considering physical, social, medical, and financial perspectives. My approach is not to evaluate or dispute people's personal narratives of their perceptions of social and material realities. To undermine the experiences of those suffering only serves to extend their distress. Instead, I endeavored to empathize with their situations, positioning myself as a concerned citizen and family member eager to comprehend the varied experiences and perceptions of exposure effects. This stance fostered rapport between the participants and me, adding a vital dimension to the research beyond what is typically covered in the literature on Agent Orange exposure.

This research focused on U.S. stakeholders, encompassing veterans, their family members, community organizers, medical professionals, and scientists. However, it's crucial to recognize that these groups represent only a portion of those affected. The Vietnamese people have endured significant environmental and health consequences due to Agent Orange exposure, facing challenging on multiple fronts. While this study primarily views the issue through the lens of U.S. stakeholders, it is imperative not to overlook the experiences of Vietnamese families, who also seek recognition and justice. Both Vietnamese women and men, along with their children, face their own battles for recognition, paralleling and diverging from those of American veterans and their families. My research references conversations with representatives from organizations committed to mitigating suffering in Vietnam. These discussions highlight the efforts of NGOs, non-profit charities, and social organizations, like The War Legacies Project, in providing environmental, social, and health support to the Vietnamese people.

U.S. veterans and stakeholders have faced a multitude of denials, ranging from litigation outcomes and obstacles in securing remediation funds to the lack of conclusive scientific evidence, political reluctance and insufficient social support. These challenges are further compounded by the historical perception of Vietnam veteran stereotypes, such as being associated with drug addiction, homelessness, and mental health stereotypes. The complexities of Agent Orange exposure are deeply entangled with the socio-political fabric of the veterans' identities. Exploring different perspectives on this issue reveals the extensive impact of exposure, the diverse challenges sufferers face, and potential avenues for remediation efforts.

This research unfolded during the COVID-19 pandemic, which has left lasting impacts on the communities and individuals encountered. The pandemic revealed conditions in which digital access and inequities hindered not only research activities, but also navigating daily life. Veterans seeking healthcare encountered obstacles due to reduced clinic hours, reliance on digital platforms for socialization and medical consultations, and cancellations of anticipated meetings and events, all of which disrupted attempts to find "normalcy" amidst evolving social and health directives. These challenges were compounded by impacts on social engagement, clinical interactions, and an acute awareness of shortages in essentials like food and medication. The strain on existing infrastructures was evident, with VA clinics and local hospitals struggling under the weight of increased demands and staffing shortages. Notably, the VA's claims system saw exacerbated delays in processing disability and service-connected health claims, leaving some veterans without resolutions to their filings made during the pandemic. This backdrop of persistent struggles amplified experiences of denial and raised new questions about how to effectively study and recognize suffering under both ordinary and extraordinary circumstances.

Research Methods: From the Field

To gather diverse data from participants, my research design employed a flexible, hybrid methodology, adapting to the constraints of the ongoing pandemic and prioritizing participants' health and safety. Where feasible, in-person research was conducted, employing safety protocols such as the use of face masks and hand sanitizers. Despite the relaxation of many public and private restrictions within the first six months of the study, I proactively inquired about medical protocols for each event in advance and maintained a supply of safety materials. Anticipating the need for versatility, I prepared for a multi-sited approach, incorporating in-person, telephone, and digital interactions. This strategy not only facilitated continuous research activities amid pandemic-related challenges but also enhanced accessibility and engagement with participants beyond the primary physical site. Recognizing that my physical location encompassed only a subset of veterans and stakeholders, I expanded my fieldwork to digital spaces and forums where individuals share their experiences. The methodologies employed for both data collection and analysis are detailed as follows.

Ethnographic Fieldwork

My research was conducted in Northern Illinois from February 2022 through August 2023, leveraging a variety of sites and methods to engage with veterans and their communities. I participated in local veteran club meetings as a guest, volunteered at community organizations and programs focused on veteran issues, contributed to online veteran-centered social media groups, and assisted in two VetsRoll Honor trips to Washington D.C. Illinois, notable for its extensive VA infrastructure, including five VA hospitals and thirty-three outpatient clinics, offers veterans in Northern Illinois access to two major VA medical centers, numerous outpatient clinics, and a robust network of commercial hospital systems.

This region is rich in veteran social clubs and resources, many of which served as pivotal fieldwork sites. My initial engagement was with VietNow[3], veteran social club, a group with a proud tradition of veteran advocacy and support, dating back to its founding in the early 1980s. Many participants in this study are members of VietNow, including some founding members. The club's ethos, "Veteran Helping Veterans," is manifested through years of fundraising, resource provision, and advocacy for veteran rights, including historical involvement in addressing Agent

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[3] It should be noted that VietNow legally changed their name to Vietnam2Now in 2019 due to allegations of tax evasion and telemarketing solicitations, a violation of their 501©(3) status. Because the group was known for over 35 years as VietNow, and as current members colloquially still call it VietNow, I have decided to refer to this group as VietNow for consistency. This name choice does not reflect a legal challenge to the name of the group.

Orange exposure. This topic is a significant focus within the club, which has organized educational campaigns, engaged in lobbying efforts, and conducted fundraising activities to support affected individuals.

In subsequent chapters, I also delve into the roles women have played in these veteran clubs, their correspondence with legislators, and their participation in citizen science to understand the effects of Agent Orange exposure. These efforts highlight the concerns of various stakeholders, including spouses and adult children of veterans, impacted both by genetic factors and the stresses of caregiving.

A subset of the participants in my study were veterans and their family members, discovered through snowball sampling and online social media forums dedicated to Agent Orange exposure and veteran health issues. Recruitment was facilitated by posting about the research in Facebook groups, many of which are managed and cater to widows and adult children of affected veterans. Through these platforms, I had the opportunity to connect with individuals deeply committed to mitigating the suffering associated with Agent Orange. Their efforts range from developing websites that offer resources and assistance for exposure sufferers, to active participation in local and national committees aimed at political advocacy. Furthermore, they engage in fundraising to support victims both domestically and internationally, and some undertake personal research to draw links between exposure effects and their own family's health challenges.

The contributions of these individuals are significantly underrepresented in existing literature, yet they play a crucial role in challenging the denial of Agent Orange's impact and in the ongoing fight for recognition and health advocacy. Their legacy, marked by resilience and a commitment to change, is deserving of recognition and serves as a critical component of the broader narrative surrounding Agent Orange exposure.

Agent Orange exposure transcends the boundaries of a singular veterans' issue, embodying the broader consequences of the politicization and militarization of unregulated chemical agents. It is imperative to grasp the multifaceted nature of suffering as perceived by various stakeholders: scientists, medical professionals, VA employees, veteran organizations at both local and national levels, and ordinary citizens who have engaged with this issue. Each contributes uniquely to the understanding of exposure effects. Despite the mixed outcomes of their endeavors, the long history of Agent Orange is a testament to decades of collective effort.

In this research, I have concentrated on a select group of advocates, conducting interviews with leaders and representatives from veteran groups, as well as organizations, such as the War Legacies Project, dedicated to addressing exposure-related illnesses and advocating for remediation. Discussions also extended to VA staff and a scientific expert specializing in Agent Orange exposure, exploring the challenges of translating biomedical research into practical clinical applications. Among these participants, some are veterans or relatives of veterans with direct personal ties to Agent Orange, while others, driven by ethical considerations, seek to ameliorate the plight of sufferers without having a personal connection to exposure.

My research methodology extended beyond traditional fieldwork to include active volunteerism with local organizations dedicated to supporting veterans, such as VetsRoll and the Vets Drop-In Center. VetsRoll, a nonprofit organization, organizes multi-day journeys to Washington D.C. for older veterans, celebrating their service and fostering social connections in their later years. During my involvement in two VetsRoll trips, my responsibilities encompassed engaging with veterans, assisting with wheelchairs, and aiding during meal times. Many veterans I interacted with, who served in the Vietnam War, shared their apprehensions about how their service has impacted their health. These conversations about Agent Orange exposure and related health concerns enriched my research, and the insights gained from experiences are detailed in a subsequent chapter that explores veteran biosolidarity.

Similarly, my volunteer work at the Vets Drop-In Center (i.e. “the Center”)— a facility offering free meals, clothing, and pantry items to veterans, along with information on veteran assistance programs— provided another avenue for engagement. The Center, established and operated by veterans to support their peers, especially those facing homelessness or financial difficulties, serve as a vital community resource. Veteran organizations, including VietNow, contribute to the Center by raising funds, volunteering to serv meals, and gathering donations. These experiences of volunteerism not only enriched my understanding of the veteran community but also allowed me to contribute meaningfully to the welfare of veterans, thus intertwining my research with tangible support efforts.

Participant-observation, a cornerstone of anthropological research, guided my immersive engagement in the social and cultural lives of my participants. This method led me to actively engage in discussions at VietNow meetings, assist in veteran-focused fundraisers, volunteer as a kitchen aide at the Center, and coordinate a Christmas program through VietNow to distribute gifts to veterans residing in local nursing homes during the holiday season. These engagements provided profound insights into the close-knit communities veterans form, particularly in times of need or in response to institutional neglect from the very entities that shaped their military identities.

This methodological approach extended to digital settings, reflecting the adaptability of participant-observation in the modern era. In an age where information is readily accessible online, veterans and their communities frequently turn to social media platforms like Facebook to reconnect with comrades and share experiences. With granted access and permissions, I was able to observe and participate in these Facebook groups, analyzing how veterans use these digital forums as platforms for communication and support. Most of these groups are managed by veterans or their spouses and widows, established to offer a supportive online environment for sharing information and gaining peer recognition. Engaging with these digital communities highlighted the enduring nature of issues related to Agent Orange exposure and the diverse ways in which those affected create spaces for expression and mutual support.

Interviewees and Interviews

In my study, I conducted interviews with a diverse group of participants: 19 Vietnam War-era veterans, 9 spouses and widows, 8 adult children, and 6 other stakeholders involved in Agent Orange discourse, including medical and scientific professionals, VA staff, and activists of the local veteran community. Recruitment strategies varied, encompassing announcements in veteran social clubs' newsletters, presentations at club meetings, direct emails to leading members, social media posts, and personal encounters. Snowball sampling played a crucial role for in-person and digital contact, with participants recommending other persons that are stakeholders to this topic, enriching the study with a variety of perspectives on Agent Orange exposure and its effects.

Interviews were semi-structured, blending a set of open-ended questions to facilitate comparison across interviews with the flexibility to pursue follow-up inquiries and delve into related themes, such as family dynamics and intergenerational health impacts. Starting with biographical background information, the interviews transitioned to more targeted questions reflecting each participant's connection to exposure. Veterans discussed their military service, awareness of Agent Orange, medical histories, and interactions with veteran resources. Family members shared insights on the veteran's service, health impacts, and their advocacy roles in medical and VA contexts. Other stakeholders offered views on Agent Orange exposure, contributing to a multifaceted understanding of its effects and the broader discourse.

The emotional depth and variety of responses uncovered through these interviews were striking. For instance, a participant described Agent Orange as a “double agent”— a metaphor capturing her feelings of betrayal and frustration as a veteran’s wife and mother to a child with cerebral palsy, which she attributes to her husband’s exposure. Her narrative, like many others, illuminated the complex layers of suffering and the personal stakes involved. These conversations revealed not just the perceptions of Agent Orange exposure but also the profound emotional and psychological toll on veterans and their families, highlighting the enduring nature of their struggles against a backdrop of bureaucratic indifference and public unawareness. Such moments underscore the significance of personal narratives in understanding the full impact of Agent Orange, revealing the ongoing, lived reality of those affected beyond the confines of political and legal frameworks. This research, through its intimate glimpses into the lives of those connected to Agent Orange, seeks to bring these personal and often hidden experiences to the forefront of public consciousness and academic discourse.

Research Data from the Archives

To comprehend the institutional narratives surrounding chemical exposure and the management of claims of suffering, it’s crucial to examine historical documents and oral histories. I turned to the Texas Tech University’s “Vietnam Center and Sam Johnson Vietnam Archive,” the largest digital repository on the Vietnam War and Agent Orange, to delve into the evolving understanding of Agent Orange. With guidance from an archive specialist, I accessed a digital, open-access “reading room” to explore a variety of sources, including congressional committee minutes, research reports, organizational documents, class-action lawsuit filings, VA newsletters, and oral history interviews.

This review aimed to uncover the mechanisms of denial and recognition, evaluating what was considered sufficient medical evidence, herbicide handling protocols, and the reception of studies by political authorities. Particularly revealing were oral history interviews with veterans of Operation Ranch Hand, providing insight into personal experiences with chemical exposure and the complexity of its effects. The archive's resources, rich in government and institutional perspectives, facilitated a comparison between official narratives and veterans' interpretations. Through qualitative content analysis, I examined the political, scientific, and social discourses surrounding Agent Orange, focusing on collections that spanned from military use to post-war discussions.

Part of the data collected from the archives was analyzing the oral histories of veterans who worked directly with or had knowledge of Agent Orange chemicals during their military service. I analyzed 22 oral history veteran interviews that were compared to my own semi-structured veteran interviews. I used these interview data sets to identify differences in military service experiences (e.g. rank, length of service, locations) and thoughts on Agent Orange exposure effects and their own health. These historical interviews, often conducted with career military personnel, presented nuanced perceptions of Agent Orange exposure and institutional accountability that contrasted with interviews of my veteran participants. For example, many of the archived oral histories were of Ranch Hand veterans, meaning that these were individuals who participated in Operation Ranch Hand. This discrepancy underscores the divergent impacts of institutional affiliation and personal experiences on perceptions of Agent Orange, revealing how deeply institutional narratives can influence those who have served within them, and highlighting the complex interplay between official discourses and individual reflections.

In addition to the primary sources obtained from the Vietnam Center and Sam Johnson Archive, my research included consulting archived congressional documents available online via Congress.gov and the Government Publishing Office's website, govInfo.gov. These documents, encompassing official papers and reports, illuminate the inner workings of Congress, providing a direct window into the legislative process and discussions surrounding Agent Orange and related issues. Accessed through these digital government platforms, the documents offered invaluable insights, allowing me to fill knowledge gaps by analyzing official transcripts and committee hearing discussions. This approach ensured a comprehensive understanding of the topic, bridging the divide between the lived experience of veterans and the institutional narratives shaped by legislative bodies.

Digital Data: Archiving Agent Orange Experiences Online

In response to the COVID-19 pandemic, my research design incorporated contingency plans to ensure participant safety, leveraging social media-informed data collection and online archival research as supplemental methods. This blend of digital and in-person methodologies prompted a reevaluation of future research direction in anthropology and related social sciences. As highlighted by Jennifer Johnson and Alder Keleman Saxena (2022), digital methods offer a novel lens through which to explore chronic illness and disability, enabling the examination of both online and offline experiences of individuals with chronic conditions. Daniel Miller (2018) further underscores the potential of online ethnography to access "non-spaces" and unbounded sites, enriching our understanding of health in both material and digital realms.

Veterans and their families often utilize platforms like Facebook to create digital communities, facilitating interaction among individuals with chronic, debilitating conditions without the limitations of physical space. Such open-access digital environments allow for unique forms of interaction and information sharing beyond traditional settings like clinics and bureaucratic offices (Boellstorff et al. 2012). The internet thus serves as a repository of experiences, transforming personal narratives into a permanent digital record accessible across diverse times and spaces.

I received access to a few Facebook private groups that are centered on Vietnam War-era veterans' experiences, Agent Orange exposure, or military health effects to better understand how veterans continue to discuss and share their knowledge on exposure effects. I contacted the administrators and requested permission to advertise my research for potential participants. Not all of the groups were exclusive to veterans; most of the groups' members were family members, specifically spouses, widows, and adult children of veterans. My access to private Facebook groups focused on the Vietnam War-era veterans and Agent Orange exposure enabled a deeper understanding of ongoing discussions and knowledge sharing about exposure effects. These groups, comprising not only veterans but also their family members, provided a rich source of data. Through content analysis, I categorized posts by type and content, including memorial tributes, military experiences, health inquiries, and VA benefit discussions. This analysis offered insights into prevalent illnesses, claim outcomes, life expectancy, and VA disability benefits among the group members.

The incorporation of digital forums into ethnographic research introduces a contemporary perspective on enduring issues. It compels researchers to consider how methodologies influence interaction spaces and social behavior. Internet forums have expanded the scope of veteran social networks, creating digital spaces of memory where experiences and information are freely exchanged. These digital interactions resonate with themes found in participant-observation notes and archival documents, including resource sharing, fellowship building, and the use of patriotic symbolism to honor and grieve. The engagement with online forums transforms digital spaces into a public archive, spotlighting military chemical exposure and fostering a virtual community among those affected.

Data Analysis

This research received approval from the Institutional Review Board at Michigan State University, ensuring adherence to ethical standards and protocols for data collection, analysis, and storage. Data comprised observational notes, interview transcriptions, digital content from social media, and archival documents, all securely stored on password-protect laptop. Interviews, conducted either in-person or via telephone, were prearranged, with participants receiving and acknowledging an informed consent form beforehand. Informed consent was documented both verbally and in writing.

All interview participants were provided with the choice to have their names disclosed or anonymized in the research data and dissertation writing. For those who had previously published work or were recognized as public figures, and consented to the use of their real names, their identities have been used in this dissertation. The archived oral history interviews utilized in this research feature the real names of the interviewees. This approach was adopted because these interviews are available on open-access digital archives, where the identities of the participants are already public and accessible to anyone with internet access. According to the archive's disclaimer notice, these oral history interviews received permission from each interviewee to be published electronically for open-access.

For transcription, I employed Otter.ai to convert audio recordings into text, subsequently verifying each transcription for accuracy. Analysis of the collected data was conducted using MaxQDA software, employing both in vivo and open coding techniques. In vivo coding was instrumental in authentically capturing participants' descriptions of their illness experiences, minimizing personal interpretation by prioritizing the participants' own language. Open coding facilitated the identification of themes and connections within and across datasets, enabling a nuanced comparison between archival interviews and my own interviews with veterans. This dual coding strategy enriched the analysis, revealing insights into the denial and recognition of illness experiences by various actors and institutions.

To examine the diverse data sets of this study, I implemented a hybrid coding approach that blends both deductive and inductive elements. This approach facilitated the use of predetermined codes derived from existing literature, while also allowing flexibility for the emergence of new codes and themes. Predefined codes were applied to various data sets, including interview transcripts, archival materials, and social media content, to identify patterns of recognition and denial. The coding process predominantly employed open coding to let new codes surface organically, supported by a codebook integrated into my coding software. This tool was instrumental in tracking codes and identifying patterns across data sets.

In addition to coding, narrative analysis played a crucial role in understanding the construction and communication of stories. This approach was particularly valuable in analyzing social media narratives, focusing on how veterans and their families communicate suffering and share knowledge through their military backgrounds, symptoms of illness, and navigation of VA processes. Narrative analysis within interview data highlighted the structure and themes of personal stories, probing veterans' perception of their health impacts from military chemical exposure, responsibility, justice, and their interaction with institutions.

In analyzing the data surrounding the experiences of veterans, this research employed a grounded theoretical framework that intertwined health, justice, responsibility, military service, and denial. Grounded theory, as described by Charmaz (2014), enables a systematic yet flexible examination of how selected themes manifest in the narratives of participants. Through iterative coding and comparison, I delved into the complexities of how health outcomes are understood and contested, the pursuit of justice within and outside of institutional frameworks, the delineation of responsibility for chemical exposure, the implication of military service on individual and social identities, and the pervasive role of denial in shaping these experiences.

By situating health within a socio-political context, I refer to Link and Phelan's (1995) conceptualization of health as not merely a biological state but as a condition deeply influenced by social structures. Justice, as explored through the lens of Honneth (2016) and Fraser (2005), encompasses the recognition of suffering and the equitable distribution of resources and care, highlighting the discursive experiences and struggles of veterans in seeking acknowledgement and reparation. The theme of responsibility intersects with theories of moral and institutional accountability, probing the obligations of the state, military, and scientific communities in preventing harm and addressing its aftermath (Young 2011). Military service and militarization is framed through Higate's (2003) analysis of military identities, examining the impacts of service on personal and social levels. Lastly, the concept of denial, inspired by Cohen's (2001) analysis of denial in social and political contexts, reveals how systematic refutation obstructs the authorship of suffering and historical remembrance of state actions. This theoretical framing aims to unpack the layered and intersecting realities of the veterans' experiences, offering insights into the mechanisms of denial and the struggle for health, justice, and recognition.

Concluding Remarks

My research distinguishes itself through its diverse perspectives of stakeholders and its exploration of the spaces and activities where veterans and their families seek reconciliation and community. While existing literature like works by Hay (2021) and Martini (2012) describe the array of stakeholders involved in the Agent Orange discourse, there remains a notable gap concerning the knowledge and experiences of veterans and veteran family members. This research addresses this oversight by delving into their experiences and the broader lived experiences of those affected by Agent Orange exposure.

In addition to critically assessing my family's stake in understanding suffering related to Agent Orange, my personal relationship to the topic adds humanistic value to social science research by focusing on how sufferers create their own forms of recognition. They do this through the creation of veteran social networks that include social clubs, local community resources and businesses, creative expression, volunteer work, and extend into digital spaces to share and preserve their knowledge and experiences. While most of the literature on exposure effects focus on the negative impacts and medical uncertainties I want to center the history of veteran advocacy and produce an ethnographic account that is meaningful in the work to negotiate and redress memories and experiences as useful knowledge sources.

This research enriches the discourse on exposure by weaving together institutional insights, medical viewpoints, historical and current activism, and personal illness narratives, unveiling novel themes such as denial, recognition, and the biopolitics of exposure. At the heart of this discourse is the struggle over bodily authority and knowledge, highlighting the critical biopolitical stakes involved in the denial of harm by institutions and the struggle for recognition by veterans and other stakeholders. By examining the mechanisms of denial and recognition, my research underscores how the bodies of veterans and other sufferers become sites of negotiation within broader societal and institutional frameworks.

Chapter 3: Biopolitical Arrangements: Authoring and Authorizing Agent Orange Exposure

One of the experts I interviewed for this research, Dr. Jeanne Stellman, shared about her experiences studying Agent Orange exposure effects in veterans and how her research was condemned by the CDC and nearly cost her job at Columbia University. It all started when she received a letter from her Dean. The university expressed "concern" over the study she conducted with her husband on the effects of dioxin. Despite her status as a foremost expert on industrial chemical hazards and her pioneering safety protocols for the National Institute for Occupational Safety & Health, she faced criticism for publishing new findings on the impacts of chemical exposure.

"The Dean mentioned that someone high-ranking at the CDC had reached out, urging me to stop my research on Agent Orange. They were displeased with my 'audacity' for publishing results that contradicted theirs," she explained. In collaboration with the American Legion, the Stellmans had enlisted 12,000 veterans to examine the effects of exposure, publishing their findings concurrently with those of the CDC's experts on Agent Orange. The correspondence she received implied that the Stellmans' research suggested the CDC had downplayed significant health conditions linked to exposure. Despite Dr. Stellman providing published articles to prove that no such implications were made, this letter was merely the first in a series critiquing their work as detrimental, in contrast to other institutional data and narratives.

Dr. Stellman detailed how the CDC and other bureaucratic entities sought to discredit their efforts. The Provost of Columbia University contacted her, concerned that future federal funding might be jeopardized. Her department chair cautioned her about the threat to her tenure if she persisted with her research. She was also informed by her Dean and legal advisors that the CDC was influencing other bodies, like the National Institute of Health, to ignore the Stellmans' future grant applications. The CDC even approached her husband's employer, the National Cancer

Center, suggesting his dismissal for scientific dishonesty. "Thankfully, my husband received support from the Center, which dismissed the threats," she noted, her sigh conveying years of academic ostracization, the looming threat of unemployment, and the feeling of belittlement for publishing evidence contrary to that of a major research institution.

"I did not think I would ever receive another federal dollar again. So, even though I received support from my Dean eventually, I decided to take a year off from my institution and managed to get a Guggenheim fellowship on different research. That year off did me a lot of good because I was worried about myself, my husband, my children, my career, and my research participants, the veterans that asked me for our help." (Field notes, phone interview with Dr. Jeanne Stellman, March 2023)

Introduction

Dr. Stellman's experience sheds light on the personal and institutional challenged faced in advancing chemical knowledge. Her work, which highlighted the effects of exposure, was seen as directly challenging the CDC, the primary federal research facility tasked with investigating Agent Orange exposure. The difficulties encountered by researchers like Dr. Stellman stem from political and professional pressures to align findings with existing narratives about exposure, affecting both research design and outcomes. Consequently, the predominant body of research on exposure effects often resulted in inconclusive or conflicting findings. This disjuncture of knowledge is an outcome of institutional mechanisms that prioritize the state as the appropriate authority to produce, manage knowledge from state activities, and to deny the bodily knowledge of sufferers from those same activities.

The concept of disjunctures, as described by Michel Foucault (1980), underscores the intricate relationship between knowledge and power. According to Foucault, power relies on knowledge for its foundation, while knowledge gains strength from existing power structures that promote and sustain it. Foucault uses disjunctures to address the gaps between dominant forms of power as a means to suppress, limit, or control knowledge, creating "regimes of truth" that determine the limits of what can be known. In the context of Agent Orange exposure, examining these disjunctures in knowledge production offers a valuable lens through which to explore how dominant narratives are challenged and reshaped, and how these processes reflect broader struggles over authority, legitimacy, and the right to define exposure realities.

A genealogy of disjuncture in Agent Orange discourse is found in tracing archived institutional documents and perspectives. Archival material ranging from bureaucratic newsletters, interview transcripts, scientific reports, and congressional committee hearings reveal common patterns of denial, doubt, secrecy, coercion, distrust, and deception among state institutions. State institutions refer to political, military, and scientific authorities who are charged with different responsibilities in investigating connections between exposure effects and bodily experiences. These institutions not only use denial to question the existence and extent of harm caused by military chemical exposure but also to navigate and often obfuscate the implications of such findings. This chapter explores the mechanisms and strategies of institutional denial, illustrating how these practices contribute to a significant disjuncture in acknowledging suffering caused by Agent Orange exposure.

Denial, as explored across various scholarly disciplines, emerges as a multifaceted concept pivotal in understanding the negotiation of truth claims. In socio-psychological literature, denial is often framed as an interpersonal issue or a personal defense mechanism, where truth claims are deemed unacceptable or incompatible with individual and cultural worldviews (Bilali et al. 2019). However, anthropologists like Michael Taussig (1999) view denial as a social and political act in negotiating how truth claims are accepted, rejected, and converted into social and material realities. This broader interpretation situates denial within social processes that determine the legitimacy of information and its conversion into recognized knowledge (Caruth 1996; Sutton and Norgaard 2013). Moreover, scholars like Stanley Cohen (2001) posit denial not merely as an act but as a cultural condition that safeguards collective understandings of sociality, indicating how contested truth claims become political sites for defining, negotiating, and understanding reality. This adaptability of denial across different scholarly fields underscores a common theme: the act of denial serves to generate disjunctures between knowing and not-knowing, shaping the contours of truth and knowledge within social contexts.

Denial is intricately linked within institutional frameworks for interpreting and responding to biosocial phenomena. Adriana Petryna's investigation of the Chernobyl disaster (2013) reveals how denial is strategically employed to delineate and control the knowledge surrounding bodily harm. State narratives use denial to reframe incidents of exposure, minimizing governmental liability for inflicted suffering and endorsing particular biological interpretations that sideline experiential knowledge of sufferers. Similarly, researchers like Susan Lindee (1994) and Satoe Nakahara (2013) document how historical, political, and scientific endeavors have utilized denial to reshape the narrative surrounding atomic bomb impacts and to mitigate the language describing survivors' suffering. These instances exemplify denial as a tactic not only for reconfiguring the narrative of suffering but also for establishing new understandings that align with institutional objectives. In this research, denial is more than a tactic to rewrite suffering; I propose denial to be a biopolitical mechanism used by state institutions to inform and negotiate the development of new chemical knowledge. The iterative use of denial over time fosters disjunctures in definitively knowing and effectively managing suffering.

This chapter uses a biopolitical lens to understand state institutional processes in creating and negotiating Agent Orange exposure. Biopolitics refers to forms of governance that enable state institutions to use biological phenomena to exercise and extend political authority. Social theorist Michel Foucault's concept of biopolitics serves as a critical lens through which to examine the strategies that manage life processes, framing these strategies as political "rationalities" that aim to "ensure, sustain, and multiply life," and give rise to novel forms of power over both biological and social life (Foucault 1976; Foucault 1995). Foucault is particularly focused on the historical, social, political, and economic dynamics that render the human body an object of institutional power, a site upon which authority is both asserted and contested. Similarly, this research examines the formation of institutional knowledge, practices, and discourses are formed and how it situates, negotiates, and excludes ways of knowing veteran bodily experiences.

Biopolitical mechanisms do not necessarily guarantee appropriate means to create new and governable knowledge. Foucault's understanding of knowledge and power is predicated on a mutual interdependency, with one reinforcing the other. However, if knowledge is contested, then institutions must shift existing knowledge to form new arrangements to stabilize its ability to author and govern new biological phenomena. Foucault recognizes that power is subject to "constant flux," influenced by the actions of various agents and structures vying for and responding to new forms of power (Foucault 1976:63). This perspective underscores the fluid nature of power relations, highlighting the adaptability required by institutions in response to shifts in the landscape of knowledge and power. The ambiguity in Foucault's work regarding the specific outcomes of contested knowledge invites further exploration into how institutions react to and manage such challenges.

In contrast to Foucault's focus on the structures of power and control, Thomas Csordas's (2011) work provides a compelling counterpoint by emphasizing the role of agency within cultural phenomena. Csordas's perspective on embodiment offers a rich lens through which to understand how individuals actively engage with and shape their cultural worlds. This theoretical stance highlights the capacity for personal and collective agency amidst the structures of power delineated by Foucault, suggesting that individuals are not passive subjects of biopolitical governance but active participants in the negotiation and contestation of cultural meanings and practices. This underlines the importance of considering how veterans, through their own embodied experiences and social actions, contribute to the reinterpretation and reshaping of narratives around health, military service, and chemical exposure. Institutional narratives and processes, therefore, can influence but may not align with how veterans understand their experiences and appropriate reparations to alleviate their suffering.

In this dissertation, I argue that contested knowledge surrounding Agent Orange exposure disrupts the established power dynamics, prompting institutions to engage in strategies like denial to manage the dissonance between institutional narratives and the veterans' realities. This research illustrates how political, military, and scientific institutions have employed denial to control the public discourse on chemical exposures and their implications, effectively sidelining the veterans' lived experiences in favor of institutional agendas. This process not only marginalizes alternative understandings of suffering but also reinforces the authority of institutions to define and govern the realities of chemical exposure.

Archival Leakages: Denial as Institutional Tool in Disciplining State Knowledge

Archives serve as custodians of history, capturing the ebbs and flows of knowledge across time. They are tasked with documenting and curating objects and narratives deemed significant for both remembrance and oblivion (Foot 1990). Archives represent organized social and political registers that package ontological ways of articulating historical moments. These registers might not always align with contemporary views of the past, yet they signal discursive ways of knowing the past (Avery and Holmlund 2010; Stoler 2008). In combing through archives, institutional documents preserve the quotidian nature of denial at work. Congressional transcripts, political statements, and expert testimonies offer insights into the often opaque discussions and decisions that have shaped understanding and acknowledgement of Agent Orange exposure. Investigating institutional knowledge in the archive provides focus on the reproducibility and normalcy of institutional patterns, such as denial, while also problematizing the connections and disconnections between curated knowledge and political practice (Weld 2014). The archives used in this research enable a critical examination of the initial instances of denial and the ensuing institutional failure to adequately recognize and address the repercussions of chemical exposure.

The first challenge for state institutions is to determine the legitimacy of Agent Orange exposure as a significant biosocial concern. Recognizing this exposure would inevitably connect it to the biopolitics associated with warfare and the state's role in managing life and death. Foucault (1978) argues that modern warfare serves as a means for states to broaden their political influence globally, transforming military practices into mechanisms for achieving state objectives and establishing states as global "managers of life" (Foucault 1976: 137). Similarly, political theorist Julian Reid (2016) argues that states portray war as a "condition of possibility for life," enabling political entities to rationalize military power as crucial for preserving or ending lives (Reid 2016:149). However, claims by veterans challenges these rationalities, raising questions about the societal implications of state power and resistance to it. Critiquing state actions, therefore, challenges the legitimacy of governance and questions the justification of military practices, including the use of military-grade chemicals, as a means to assert state authority.

Initial discussions on Agent Orange exposure were dismissed by political authorities, with pro-war senators and military officials branding such claims as anti-war propaganda to protect state activities from becoming public. Archived congressional records reveal that debates on the use of chemical herbicides were strategically framed to prevent an official inquiry, with truth claims manipulated and political barriers erected. Despite formal hearings on the "Agent Orange question" starting in 1969, evidence suggests that earlier discussions were deliberately suppressed to hide state secrets.

> "Congressional ignorance of the chemical and biological warfare program is partly the result of the tightly enforced secrecy […] neither the House nor the Senate has shown any inclination to initiate a comprehensive review." (Congress.gov, March 6, 1969: 5479)

This political reluctance to address Agent Orange exposure hints at an institutional preference to avoid accountability and the potential for war crime allegations. However, by 1970, media reports from Vietnam on the detrimental effects of U.S. military chemical operations on agriculture and human health compelled institutional response (GAO Review Spring 1981: 29). Congress immediately ordered the Department of Defense to suspend the use of Agent Orange chemicals until further notice. Despite this order, Department of Defense reports later revealed secret, unauthorized spraying missions continued until June 1971 (Lewy 1978: 263).

During this period, congressional hearings still showed political disinterest in investigating allegations of harm caused by Agent Orange. Some political figures used denial and discouragement as strategies to obscure and reinterpret incidents of exposure. For instance, one pro-war representative disputed claims that exposure led to birth defects due to toxic runoff, citing military reports to assert that Agent Orange posed no significant risk to human health.

> "If one assumes an extensive rain water collection system, the necessary concentration of [dioxin] in the water would require that the area be sprayed every few weeks. Since an area is normally sprayed only once during any 6- to 9-month period, this postulated condition would be virtually impossible to attain. No incidents of verified malformed births resulting from herbicide operations are known." (Congress.gov August 26, 1970: 30047).

This stance relied heavily on information from military personnel responsible for the spraying operations and data from government-contracted chemical manufacturers, both of whom had vested interests in minimizing such claims to either avoid blame or continue profitable operations (Hammond 1998). Denial prompts a reinterpretation of facts, compelling these facts to arrange into specific political rationalities: continuing American military authority in Southeast Asia and situating military practices as harmless to biological and environmental health.

The delay in investigating Agent Orange exposure can partly be attributed to the timing of military escalations, such as the Tet Offensive in 1969. This period of intensified military action shifted political focus, allowing some to use the situation to deflect attention from chemical exposure issues and prioritize other state objectives. Debates within committee meetings on chemical spraying operations highlighted varied political stances on the harm caused by exposure, with some officials viewing chemical exposure as an unfortunate but necessary byproduct of achieving military and foreign policy goals.

> "There is considerable evidence supporting the military effectiveness of defoliation operations […] we would be taking away from our fighting men in Vietnam a useful tool in the conduct of war, a tool which is not harmful to our allies and in fact a tool which the South Vietnamese value very high." (Congress.gov August 26, 1970: 30046-30050)

This narrative minimized the suffering linked to exposure, framing Agent Orange as essential for maintaining military effectiveness and state authority. By claiming the chemical was "not harmful," the discourse shifted the meaning of chemicals as appropriate methods to manage life within war and that their removal would be *harmful* by *not* spraying. Other similar statements use this rationality to further deny chemicals as harmful by associating them as objects of "preserving life," not as institutional tools to risk life: "Commanders have all written in report after report that these herbicides have saved lives and been great morale boosters to the American troops" (Congress.gov August 26, 1970: 30039). Denial was used within political testimony to narratively reimagine state activities as positive, necessary tools to *prevent* suffering not *causing* it. Subsequent hearings in the early 1970s highlighted the concerns about the health effects of Agent Orange exposure; however, political figures and military officials often downplayed the risks, reflecting a pattern of denial about the consequences of such exposure (National Academy of Science 1974). This denial and reframing effort stalled the push for an immediate and thorough investigation of chemical exposure, with the debate lingering until the official end of U.S. military involvement in Vietnam in 1973.

Archived documents reveal inconsistencies regarding when state authorities first acknowledged the risks associated with Agent Orange chemical exposure. Some records suggest awareness only arose following media reports, while other documents and academic research indicate early warnings were issued by scientists in the early 1960s, highlighting concerns over the use of Agent Orange near civilian areas (Congress.gov September 4, 1969). Historian David Zierler (2011) notes that political and military officials were alerted by scientists wary of the chemical's potential dangers. Despite some attributions of these warnings these warnings to anti-war sentiments, scientific warnings were grounded in concerns over dioxin's effects, which were not well understood at the time.

Scientific concern was raised during the initial congressional hearings but were met with resistance from political figures who dismissed "scientists who went over to Vietnam [who] are confirmed opponents of our war effort and would admit that they were determined to condemn our herbicide program" (Congress.gov August 26, 1970:30040). This narrative of denial was bolstered by selective interpretations of Air Force scientific reports, which initially claimed no adverse effects from the spraying operations. However, later scrutiny revealed political and military authorities had suppressed information from these reports indicating prior knowledge of significant environmental damage and higher dioxin concentrations in the military-grade herbicide compared to its civilian counterpart.

> "I was the scientist who prepared the final report on Ranch Hand […] When we [military scientists] initiated the herbicide program in the 1960's, we were aware of the potential for damage due to dioxin contamination in the herbicide. We were even aware that the "military" formulation had a higher dioxin concentration than the "civilian" version." (Congress.gov November 21, 1989:16541)

This acknowledgement highlights the deliberate concealment and the politicization of scientific concerns, which hampered the push for a comprehensive investigation. Even those advocating for further inquiry had to navigate the political landscape carefully, often downplaying their arguments to garner broader support.

Some political figures advocated reframing the issue of exposure from a biosocial concern to a politico-legal one, suggesting it be investigated as a potential war crime. By reconstituting Agent Orange as a potential war crime, political authorities pointed out the stakes in denying and existence and legitimacy of exposure as a means to gain traction in conducting additional hearings and studies on the subject.

> "Here we are, trying to reach peace in the world; we are trying to stop the proliferation of nuclear weapons; we are trying to negotiate agreements on stopping the arms race; what does the Senator think about the position of the United States being the only country in the world that advocates establishing the legality of ecological warfare?" (Congress.gov August 26, 1970:30039)

This rhetorical shift not only aimed to protect institutional interests from legal consequences but also subtly continued to employ denial. By questioning the legality of Agent Orange use rather than directly addressing its harmful effects, the narrative sought to manage the issue as a risk to the state's reputation rather than a matter of health or environmental concern. This strategic framing indicates an attempt to navigate the complex interplay between acknowledging the reality of chemical exposure and maintaining a favorable institutional stance, marking a significant theme in ongoing discussions and influencing the direction of knowledge production.

Denial, as a rejection of proposed reality, plays a key role in the institutional processes transforming information into accepted state knowledge, thereby guiding or hindering future actions. The early 1970s saw congressional approval for an official investigation into Agent Orange, yet the discourse leading up to this decision—marked by arguments both for and against the investigation— had already established denial, doubt, secrecy, and deception as normal practices for managing information about chemical exposure. This created a disjuncture in knowing and responding to claims of suffering, a gap that extended from political dialogues into scientific research and the bureaucratic processing of emerging knowledge.

Denial served not just to prevent information from being recognized as knowledge but was actively employed to reinterpret claims and evidence to align specific institutional objectives, such as foreign policy agendas and reducing institutional culpability. This approach led to inconsistencies in the official investigation's conduct, which was only permitted under certain conditions that perpetuated further denial. Such conditions illustrate how denial and the strategic framing of information create barriers to fully understanding and addressing the impacts of chemical exposure, reflecting broader challenges in bridging the divide between state actions and public health concerns.

Disciplinary Power: The Ordinariness of Denial in Military Practice

Congress required military authorities to disclose existing chemical knowledge used for military operations. Archived congressional hearings detail the examination of military activity reports, flight recorder tapes, and testimony from high-ranking military personnel. This reliance on military-provided information inherently limited the scope of knowledge to that which was curated and approved by military leadership, effectively narrowing the lens through which the implication and operations of chemical use were viewed and understood. The investigation's emphasis on specific "objects of knowledge" such as requisition orders, military scientific reports, and operation locations systemically excluded a broader range of sources. Notably, personal testimonies from veterans, which could offer invaluable insights into the everyday realities and consequences of chemical usage, were overlooked in the knowledge production process. This selective approach to fact-finding underscores a pattern of denial within military institutions, where the acknowledgement of certain truths is often avoided or suppressed.

Denial, as a practice, is deeply ingrained in the structured environments of institutions, like the military, tasked with executing state directives and safeguarding its authority from threats. Foucault (1995) suggests that military spaces are meticulously designed to reshape bodies and practices within new power dynamics, aligning personal ideologies with state objectives. This reconfiguration extends to the management of knowledge, where denial operates as a mechanism to reinforce and maintain social hierarchies, including those that dictate the flow and accessibility of information, preventing the emergence of social discord and resistance by carefully managing the information landscape (Godson and Wirtz 2002). According to scholars Abram Shulsky (2000) and Joseph Soeters (2007), denial is not merely a defensive tactic but also a fundamental aspect of institutional behavior, shaping how information is shared, concealed, or manipulated. Investigating the role of chemicals in military operations, therefore, necessitates a comprehension of denial not just as an occasional practice but as an embedded part of institutional culture, influencing how knowledge is produced, managed, and controlled within military and state structures.

Veteran participants in this study were asked about chemical knowledge learned during their military service. The majority of these participants revealed little to no knowledge of chemicals. This absence of knowledge underscores a systemic compartmentalization within the military, where detailed understanding of chemicals was not deemed necessary for all personnel. Only those directly involved in the Army Chemical Corps or specific chemical spraying operations were privy to in-depth chemical information, reflecting a strict "need-to-know" policy that governed the dissemination of sensitive information within the military. An exceptional case emerged from one veteran who had been granted access to otherwise restricted chemical knowledge through participation in CBR training (Chemical, Biological, and Radiological materials training. This specialized program was designed to educate selected military personnel about both contemporary and historical aspects of chemical warfare and operations, indicating a tiered approach to knowledge distribution. During the 1960s, CBR training was an exclusive opportunity, typically available only to stateside officers who were not deployed on overseas assignments, and the content of this training was classified.[4]

Bob, a veteran who was selected to participate in CBR training, described the two-week course as "secretive" and "eye-opening." Bob and his peers were exposed to a range of activities designed to familiarize them with the effects and applications of chemical agents, including historical contexts such as World War II never gases, distressing demonstrations on animals, and practical exercises like gas mask training and chemical jelly applications. One of the activities involved witnessing herbicide spraying exercise that resulted in rapid foliage death, with no disclosure about the chemicals used or their operational purpose.

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[4] Based on former interviews and research, CBR training during the Vietnam War was a closed-knowledge practice for officers with specific military rank and career pathways, such as officer specialists who would work with chemicals, Army Chemical Corp scientists, and officers training to become instructors. Knowledge from training was not to be shared unless designated as a permissible use.

> “They took us out in a field and sprayed a bunch of chemicals on the foliage and it died the next day. That’s why I have no idea what those chemicals were. I don’t know if they were Agent Orange. Nobody ever said what it was. But then again, 1968, who was really up on what Agent Orange was?” (B.B. interview transcript, September 2022:64)

Military practices prohibited servicemen from questioning orders and higher-ranked personnel. The authoritative nature in military culture disciplined values, such as compliance, which would result in disapproval and punishment in deviating from expected behaviors (Forster 2011). As explored more in chapter 5, militarization processes restructure individual identity and behavior within institutional settings to compel individuals into submissive collectives to enact institutional agendas. Militarization and the strategic management of knowledge work together to create a collective that serves institutional needs, often at the expense of individual awareness and understanding.

In 1968, while Bob was learning about these mysterious chemicals, the largest amounts of Agent Orange chemicals were dropped in Southeast Asia (Young and Reggiani 1988). Most military personnel were completely unaware of chemicals due to restrictive knowledge practices. The “Ranch Handers,” a group of approximately 1,200 Air Force personnel tasked with the actual spraying operations, represented one of the few collectives within the military with direct access to and understanding of chemical use, particularly Agent Orange. Archival materials capture the Ranch Handers’ experiences— ranging from aerial footage and military reports to personal records and oral history interviews— providing a unique window into the perspectives of those directly involved in chemical operations. Oral history interviews with Ranch Handers, such as Allen, offer insights into how these individuals processed and understood their roles. Allen’s characterization of working with Agent Orange as an “every day, occupational task” highlights a normalization of chemical warfare within their operational duties.

> “[The Ranch Handers] talked about it and we knew about it […] and we just sort of pooh-poohed the whole thing for a while. We really didn’t believe it because we just didn’t know. Then we said, ‘Well, they wouldn’t have us doing anything like that, that bad.’” (Vietnam Center and Sam Johnson Vietnam Archive, “Interview with Allen Trott”, March 3, 2003:59-60)

Allen’s perspective on handling Agent Orange illustrates the intricate ways in which information is selectively distributed and understood within military ranks. This closed-knowledge system serves as a barrier to disseminate disconcerting information, ensuring that personal judgment or moral considerations do not interfere with the execution of military operations. The notion that recognizing the potential harm of their activities was “unthinkable” for Allen and his peers points to a deeply entrenched system of denial that goes beyond mere ignorance. This system allows individuals to deflect personal responsibility by attributing their actions to following higher commands. Through this lens, denial is seen not just as retrospective justification of past action but as an ongoing strategy for navigating the deeply embedded practices of information control and hierarchical obedience. Denial is ordinary and personal for those directly involved, while also an institutional mechanism to enforce compliance and loyalty from its underlings.

Interviews with other Ranch Hand participants reveal a common use of denial as a way to cope with their past actions. These interviews highlight a desire to maintain innocence despite being confronted with unsettling information, showcasing personal methods of denial and reinterpretation of their actions’ significance. One interview disclosed that Ranch Handers received top-secret orders from the Department of Defense to conduct a spraying operation without any safety guidelines. John “Jack” Spey, who helped develop the training program for Ranch Handers, detailed the secretive nature of their operations, even excluding state officials from their knowledge. The military demanded that their training be adaptable and secretive to prevent the exposure of new military strategies. This led Ranch Handers to form their own set of practices, independent of official oversight. Jack noted the absence of institutional control, allowing Ranch

Handers to establish their own protocols and take risks, such as conducting unauthorized additional spraying runs to dispose of leftover chemicals. These practices were never recorded, thereby skewing data for congressional review.

> "There weren't any books written about this mission beforehand. If you want to drop a bomb you read all manner of Air Force publications on how to drop a bomb or shoot a machine gun, drop nuclear weapons. But in the case of Ranch Hand Missions […] [t]here was nothing in writing. So we learned by making mistakes, correcting those mistakes, and passing that information along to the pilots." (Vietnam Center and Sam Johnson Vietnam Archive, "Interview with John Spey", 2000:36)

Denial serves as both a normative practice for institutions to control and regulate individuals within military settings and as a foundation for internal cultures of denial to flourish.

Ranch Handers not only utilized denial to align with collective objectives but also to diminish institutional and personal responsibility for harm. Some Ranch Handers publicly downplayed the impact of exposure, framing discussions about Agent Orange as overly emotional and politicized, influenced by anti-war sentiment: "It's a political thing now" and "the spray is very political, some say this happened and some say that happened" (Vietnam Center and Sam Johnson Vietnam Archive, "Interview with Richard Duckworth, March 23, 2000:37; Vietnam Center and Sam Johnson Vietnam Archive, "Interview with Richard Alexander", March 15, 2016:18). The Ranch Hander interviews revealed that these individuals typically held higher ranks and served an average of 15 years in the military. Their long-term service may have fostered a stronger sense of loyalty to the military institution compared to veterans who were drafted or in the service for a shorter amount of time. This factor could influence their private understanding of their experiences and public testimonies to minimize or deny the effects of chemical exposure. Their views were often given more weight than those of lower-ranked personnel, who were presumed to have limited knowledge of chemical operations: "the Air Force is not going to bend its science. They simply lay out the numbers […] I know, I testified before Congress a couple of times." (Vietnam Center and Sam Johnson Vietnam Archive, "Interview with John Spey," 2000:67). This would cause disjunctures not only within investigations but also create social rifts amongst veteran communities that relied on other veterans to support their experiences.

However, some of the Ranch Handers revealed moments within their interviews that prompted them to reconsider the impact of their work. Both Allen and Robert recounted receiving special orders to transport journalists and scientists on aerial spraying missions, a deviation from standard military protocol which typically barred civilians from accessing military spaces.

> "This young lady and two guys with her [sic] were this NBC team. [. . .] They took pictures […] So that was the beginning of us knowing that there was some problems with the Agent Orange." (Vietnam Center and Sam Johnson Vietnam Archive, "Interview with Allen Trott", March 4, 2003:56-57)

> "These two [scientists] showed up while I was still in Vietnam […] [T]hey were like correlating data for birth defects in the civilian population to [our] missions. (Vietnam Center and Sam Johnson Vietnam Archive, "Interview with Robert Turk", February 10, 2003:9)

The accounts from these two Ranch Handers reveal a break in the usual institutional indifference, highlighting a nuanced aspect of denial within the military culture. Their reflections expose the layered effects of commonplace denial practices. On one hand, there's a tendency to trivialize the risks associated with chemical exposure, viewing them as just another aspect of military life. On the other hand, these statements reveal a deeper inquiry into their own understanding and the constraints placed on their knowledge by military authorities. This duality showcases a critical engagement with their roles and the potential impacts on their actions, indicating a complex interplay between acceptance of institutional norms and personal questioning of those very standards.

The archived interviews predominantly show Ranch Handers adopting a defensive stance, downplaying the reality of chemical exposure and their contribution to harm. In the period following the Vietnam War, some Ranch Handers proactively formed a unified group to counteract the emerging social consciousness of Agent Orange exposure. Established in 1966, the Ranch Hand Association emerged as a veteran social club exclusively for Ranch Handers. The Association aimed to challenge the growing public and political criticisms directed at the war effort. Members of this club engaged with the media and appeared before congressional committees, advocating for the purported benefits of Agent Orange. Jack, who once served as the President of the Ranch Hand Association, was particularly active in these endeavors, to articulate a collective narrative of the Ranch Handers' experiences.

> "We didn't have any problem with it. We knew what it was and we knew what it wasn't […] We did a job. We did a good job. We didn't lose the war. That was lost by the politicians here at home. The herbicide missions did kill the hell out of weeds, but it didn't hurt people." (Vietnam Center and Sam Johnson Vietnam Archive, "Interview with John Spey", 2000:31, 75-76)

The ordinariness of denial exhibited in military practice persists into post-service reflections, indicating the far reach of institutional authority for some. This pattern also highlights how historical denial serves as a mnemonic burden, affecting how past actions are remembered and rationalized. For some Ranch Handers, maintaining a stance of denial serves to reduce perceived responsibility and therefore distances personal contributions in exposure harm.

Existing military information used denial to close access during the war, a practice that not only continued but also became normalized. Denial became a precedent, fostering assumptions and biases that affected the production of knowledge. Reliance on personnel and sources that endorsed the spraying operations hindered the consideration of alternative perspectives, such as the experiences of ground troops entering sprayed zones or the examination of questionable military protocols. Although some efforts were made to understand the impact of spraying, including sending scientists to Vietnam to conduct interviews and analyze soil samples, internal reports highlighted a significant disconnect. These reports pointed out military authorities' lack of interest and failure to act on requests from state officials for further investigation.

> “[Department of] Defense has little information available on the number or extent of personnel exposure to herbicides […] Defense research before herbicide use in Vietnam was primarily concerned with herbicide effectiveness rather than its health effects. […] Defense plans no epidemiological studies related to herbicide uses in Vietnam.” (“Report to Rep. Ralph H. Metcalfe” August 25, 1978:3)

The release of information, including the clandestine practices of Ranch Handers, was a slow process, marked by years of restricted access and the emergence of redacted documents. This gradual disclosure process exposed how military authorities persistently employed denial as a strategy to sow doubt and reshape discussions, aiming to shield institutional actions from scrutiny. This approach fostered a deep sense of betrayal and distrust among veterans and other affected individuals, who felt let down by the institutions for which they had risked their lives. They would also experience similar feelings with other collaborators, such as scientific authorities who were tasked with the responsibility to produce new chemical knowledge and explore connections to conditions experienced by veterans.

Ambivalent Metrics: Denial Management of Bodily Information

The Centers for Disease Control and Prevention (CDC) operate under the Department of Health and Human Services as a principal federal agency focused on public health and safety. Funding for the CDC comes from federal appropriations decided by Congress, which significantly influences its operations, research priorities, and capacity to respond to public health emergencies. The CDC’s scientific findings play a crucial role in informing public health policy and legislation, as its recommendations are often integrated into national health guidelines (Patel and Rushefsky 2005). Through its reports, the CDC exerts a substantial influence on policymaking and the larger scientific community through its external grants and political clout .

In 1979, Congress tasked the Center for Disease Control and Prevention (CDC) and Institute of Medicine (IOM), with investigating the health impacts of chemical exposure and reporting their findings. The CDC conducted new research on the link between exposure and illness, while the IOM reviewed existing dioxin studies every two years and reported to Congress. Scientific findings were reviewed in congressional hearings. If agreed upon, these findings were drafted into bills outlining social assistance policies, which required approval from both the Senate and the House, and the President's signature to become law (Gough 2003). These processes were often lengthy and provided no guarantee that political authorities would agree with scientific findings. This enabled political institutions to have the upper hand in managing knowledge production, especially as many of the CDC studies were funded and approved by political authorities. At every stage, political authorities had multiple opportunities to approve or deny scientific evidence.

In theory, scientific collaborators produced and evaluated evidence of exposure effects, in which significant findings would be recommended to political authorities to make policies for afflicted veterans. However, in practice, the reliance on federal funding, guidelines set by political authorities, and the pressures to produce data on Agent Orange led to challenges in confirming numerous illness claims and applying research to policy. These challenges involved verifying credible evidence, shaping research based on institutional biases, and excluding veterans from studies.

The research on Agent Orange exposure effects, particularly the Air Force Health Study (AFHS), has been mired in controversy over its methodologies, findings, and implications. Many of the CDC studies used data from the AFHS to facilitate their research studies on exposure effects. Critics have raised concerns about the study's design, the selection of participants, and potential biases that might have influenced its outcomes (Gough 2003). There have been debates over the accuracy and reliability of the data collected, with some arguing that it downplayed or failed to fully capture the extent of health issues resulting from exposure. Additionally, the management and funding of the study by the Department of Defense have sparked questions regarding potential conflicts of interest and the influence of military and political agendas on the research (Martini 2012).

Archival data reveal the challenges faced by scientists and policymakers in aligning new research with veterans' experiences. The diversity of symptoms and conditions reported by veterans necessitated numerous studies to understand the impact of exposure (National Academies of Sciences, Engineering, and Medicine 2018; Young 2004). Congressional hearings debated at length on evaluating evidence and selecting proper research methodologies, including defining at-risk populations and requiring definitive proof to confirm exposure effects (Jacobs and McNamara 1986). Scientific disagreements often delayed policy reviews, prompting the need for additional research to resolve discrepancies ("Statement of Admiral Elmo R. Zumwalt, Jr. before the Senate Committee on Veterans' Affairs" 1988). Debates also extended to the efficiency of research methods (Congress.gov June 25, 2001; Congress.gov June 4, 2009). These epistemological barriers contributed to delays in generating knowledge and shaping policies.

Research difficulties in producing timely, conclusive knowledge are part and parcel to institutionally-produced denial within the discourse, stemming from institutional control over research processes, alongside typical hurdles like time and resource constraints. This creates an atmosphere of skepticism and deceit, signaling to veterans a disregard for the urgency of their suffering. The entanglement of bureaucratic procedures with scientific uncertainties about exposure effects conveys a lack of trust in the validity of veteran experiences and hinders the provision of adequate care to mitigate their suffering.

I observe that this denial has produced ambivalence amongst institutions and collaborators, a disjuncture in producing knowledge to effectively respond to suffering. Veterans rely on political and scientific processes to explore exposure effects, communicate findings, and convert these into policies, a task made difficult by internal challenges in creating credible knowledge. Social pressure from veterans has allowed political authorities to use scientific difficulties as an excuse for political inaction, further delaying responses and care. Political authorities' blame on scientific collaborators introduces additional denial that is internalized by institutional actors, reshaping the dynamics between state institutions, researchers, and veterans by embedding ambivalence in these relationships.

In medical literature, ambivalence refers to the failure of researchers to build trust with patients, especially in conveying medical information and addressing their needs (Lewicki et al. 1998). This lack of access to knowledge and care fosters ambivalent feelings among patients towards those deemed accountable for their health outcomes, including clinicians and policymakers perceived as responsible for preventing and treating health issues (Reich and Wheeler 2016; Schneider and Schwartz 2017). Ambivalence is also generated by lack of scientific literacy and factors that may contribute to widespread misinformation regarding the roles of scientists and medical providers, especially as new frameworks, such as patient-centered care, have changed layperson-expert dynamics (Epstein and Street 2011). In this dissertation, I situate ambivalence as a tool to facilitate denial: it serves to regulate knowledge production and preserve certain social dynamics with veterans. This approach strategically controls the dissemination of information and shapes veteran interactions within healthcare and policymaking contexts.

Ambivalence plays a crucial role in how institutions leverage control over the creation and application of chemical knowledge. This dynamic is evident in how political entities manipulate research design to dictate the possible scope of knowledge production. An illustrative example of this is the political decision to limit research study participation primarily to Ranch Handers. This decision was based on the institutional belief that these individuals represented the most significant exposure cases, thereby excluding ground and waterway troops who also had significant contact with the sprayed areas through eating, bathing, and residing in them (Stellman and Stellman 1986; Zierler 2011). Such assumptions not only shaped scientific methodologies but also narrowed the understanding of exposure realities. This allowed political officials to determine authorship and authorization of exposure knowledge while also placed responsibility of producing generalizable knowledge on scientists. Ambivalent metrics and experiences within and between institutions engendered patterns of denial, shifting knowledge-making processes into new objects of power.

While the CDC conducted research, the IOM reviewed new and existing knowledge of dioxin biannually. Their reports were composed of assigning positive and negative associations to each studied illness condition. Positive associations were flagged for Congress's attention for policy development, whereas negative associations provided political authorities with the opportunity to either disregard further study on those effects or to mandate additional research to affirm the association (Gough 2003). A critical issue in this process was determining the adequate level of evidence required to classify an association. Initially, the understanding of dioxin effects was largely based on plant studies and a handful of international studies on mice populations (Steenland et al. 2004). The absence of established minimum thresholds for dioxin toxicity led researchers to set their own criteria, ranging broadly from 1 ppm to 1 ppt (Hays and Aylward 2003). This wide variance necessitated the IOM to summate diverse research findings into a format digestible by political authorities. However, lack of consensus in these findings was often interpreted as a lack of conclusive evidence, demanding a "robust," unanimous interpretation of data as a precondition for policy action (*Agent Orange Review* April 1992). This requirement reflects the interplay between scientific evidence, its interpretation and the political will to act, further complicating the pathway from research to policy implementation.

The IOM simplified the classification of research findings on dioxin exposure into four categories to aid understanding and decision-making: 1) sufficient evidence of a positive association; 2) limited or suggestive evidence of a positive association; 3) inadequate or insufficient evidence of a positive association; and 4) limited or suggestive evidence of no positive association (Young and Reggiani 1988; Gough 2003). A positive association must demonstrate "credible evidence in favor of an association [that] must be equal to or greater than credible evidence against an association" (*Agent Orange Review* May 2002:1-2). However, such recommendations did not ensure political agreement or action, serving instead as a basis for further debate and *potential* policy formulation.

Recommendations were sent to various committees engaged in this discourse, including the Scientific Council of the Veteran Advisory Committee. This committee was among several groups collaborating with the Department of Veterans Affairs (VA) to examine research outcomes.

> "The full Committee will review this study along with the results of approximately one hundred other research projects at its next meeting […] to determine if veterans should be compensated for various diseases or conditions. [VA] Secretary Derwinski can accept or reject any recommendations that this group may offer." (*Agent Orange Review* May 1990:2)

Even when research uncovers strong positive associations, scientific conclusions often confront political challenges that can override how evidence is interpreted within political spaces. The hesitancy to officially recognize findings reflects an institutional tendency towards denial, where bureaucratic processes serve as tools to procrastinate and treat significant evidence as mere points of political debate rather than urgent calls to address suffering. Institutional ambivalence traced in records of government reports and transcripts reveals spaces within which political and scientific leaders can perpetuate distrust and uncertainty. This environment dilutes the urgency to address exposure, effectively sidelining the needs of affected veterans.

Within the last fifty years, only a handful of illness conditions generated enough scientific research to successfully pass the rigors of policymaking. Table 1 demonstrates the timeline in which these conditions have been certified in law as recognizable and compensable exposure effects experienced by veterans.

Table 1. List of Recognized Conditions Found in U.S. Veterans for VA Benefits by Year

Year	**Recognized List of Conditions for VA Benefits**
1990	Non-Hodgkins lymphoma
	Soft-tissue sarcomas
	Chloracne
	Porphyria cutanea tarda
1993	Hodgkin's disease
	Multiple respiratory cancers
1996	Prostate cancer
	Peripheral neuropathy
2000	Type II diabetes
2001	Leukemia (CLL)
2010	Parkinson's disease
	Ischemic heart disease
	Chronic B-cell leukemia
	Lou Gehrig's disease
2021	Bladder cancer
	Hypothyroidism
	Parkinsonism

Table 1. (cont'd)

2022	MGUS (monoclonal gammopathy of undetermined significance)
	Hypertension

On average, it took approximately four years for a condition to be acknowledged in policy. This average, however, does not account for the initial two decades during which political authorities launched investigations into exposure and establishing the scientific framework for research.

The majority of the conditions listed in the Table 1 were identified based on outcomes of the Air Force Health Study program (AFHS). The AFHS was the largest federally-funded study that monitored the health of 1,200 veterans. The AFHS investigated a broad spectrum of health concerns— from neurological to reproductive health— among veterans. This long-term study has been a source of controversy among veterans. Criticisms stem from its initial findings, which suggested that exposure did not significantly increase the risk of disease and illness, and from reported mismanagement (Martini 2012; Stellman and Stellman 2018). The study exclusively involved Ranch Handers, a choice that fueled debate and skepticism about its findings and the broader implications for understanding the health impacts of Agent Orange exposure.

The AFHS became a point of controversy due to the handling of its research components and the dissemination of its findings. Congressional scrutiny, highlighted in transcripts from 1988, revealed significant issues with the study, including discrepancies between baseline reports, mishandling and improper storage of data, and inconsistent or contradictory interpretations of findings (Congress.gov "Statement of Admiral Elmo R. Zumwalt, Jr. before the Senate Committee on Veterans' Affairs", May 12, 1988). The public disclosure of these shortcomings played a crucial role in shaping veterans' perceptions of the authorities responsible for research. The apparent gaps in rigor and reliability of research findings eroded trust between veterans and both political and scientific institutions. This erosion was not just a matter of questioning competency but also institutional commitment to genuinely understanding and addressing the health issues faced by veterans. The controversies surrounding the AFHS illustrate a broader dilemma in the production of scientific knowledge, especially in contexts laden with significant political, ethical, and social implications.

Susan, a daughter of a veteran and the director of the War Legacies Project, describes the controversies of the AFHS to a be a dividing force between institutions and veteran, fueled by conflicting interpretations of evidence and the inherent ambivalences in producing objective evidence. The War Legacies Project is an educational and advocacy website informing readers the history of Agent Orange and providing links to helpful resources. The handling of the AFHS reflects not just methodological or procedural shortcomings but also deeper issues related to liability, financial implications and control over research agendas.

> “There's a lot of controversy over how that was handled. But I think a lot, part of it is, you know, the liability question. I mean, one of the reasons they dragged their feet for a long time […] it would cost a ton of money. […] But yeah, it's a tough question to answer because I think it's mixed up with a lot of who controls who does research. You know, it's either U.S. government funded or it's funded by corporations. Neither one of them wants that. (S.H. interview transcript, March 2023: 94)

The institutional shifting of responsibility onto science, as noted by Susan, further complicates the situation. It can lead to a scenario where the burden of proof is disproportionately on the scientific community, while political institutions may maneuver the ambiguity of scientific evidence to defer action or responsibility.

Interviews from Ranch Handers who were a part of the AFHS offer a contrasting narrative to the broader controversies and skepticism surrounding the study. The positive comments from Ranch Handers about the research process reveal a nuanced layer of perception that contributes to an ambivalence within veteran communities who felt the need to “take sides” to commend or condemn this research and its impact on Agent Orange discourse.

> “They’re measuring our dioxin level and the dioxin level of our comparison group. Ours [the Ranch Handers] is significantly higher than the comparison group. I think it’s common sense and logic tells anyone that we had the greatest degree in frequency of contact with that material of anybody in Vietnam” (Vietnam Center and Sam Johnson Vietnam Archive, “Interview with John Spey”, 2000: 29)

The loyalty to institutional perspectives among Ranch Handers, as suggested by their longer military careers and higher ranks, plays a significant role in shaping their views on the AFHS. This group’s inclination to regard the study as a reliable factor in settling “the Agent Orange question” as a means to *disprove* suffering; therefore, the study was equally disproving responsibility of harm from both state institutions and individual actors like the Ranch Handers: “[we’re] getting these completely honest physicals. The best we could come up with […] they have no reason to lie.” (Vietnam Center and Sam Johnson Vietnam Archive, “Interview with Charles Hubbs”, January 27, 2003:50). Many of the AFHS reports are treated as objective facts, limiting the discovery of exposure effects to a handful of conditions and sanitizing the vast majority of proposed illness conditions. Smaller studies have produced evidence supporting other conditions but fell in the shadow of the AFHS (Field notes from interview with S.D., November 2022; J. Stellman interview transcript March 2023). The AFHS was treated as the endgame for Agent Orange evidence; if other scientific research did not corroborate with the Air Force Health Study, it was often met with political doubt and denial.

While political and scientific institutions struggled with authoring and authorizing conditions, veterans were left on their own to seek answers and care. One veteran recalls experiencing loss of feeling in his legs after military service. He was diagnosed with early on-set peripheral neuropathy, a condition that was not recognized until 1996. Pam, the spouse of a deceased veteran, remembered when her husband returned from war, he suffered broken and swollen blood vessels in his extremities. These and other veterans waited in the wings at clinics, hospitals, and lobbies of lawmakers demanding for recourse. The situation faced by Sharon and her husband Reuben underscores a significant issue for many veterans of how research and policy delays can leave veterans in a state of medical uncertainty and struggle.

> "[The VA] didn't want to add hypertension because that's an "old man's disease" [. . .] he was in his 30s. And because they were so busy covering it up, he was sick for a while even the doctors couldn't figure out what he had. I don't know why it's so hard to diagnose hypertension, it's actually stupid that they couldn't figure it out." (S.P. interview transcript, March 2023: 186-192).

Sharon's frustration arises from the ambivalent and often slow-moving processes that govern how scientific evidence is gathered, evaluated, and ultimately applied to policy decisions affecting veterans' health and benefits.

Despite assurances from these institutions in creating standards that were made in the "best interests" for veterans and that "[they] do not apply that high of a standard", veterans discuss their difficulties as a result of institutional denial in accessing timely knowledge and care (Congress.gov, September 29, 2015:30). During his interview, Bob described his struggle with his second appeal notice to the VA about his ongoing hearing loss. In the service, a mortar gun near him shot off randomly and burst his eardrum. As a result, he had a lesion within his ear that was taken care of during service, but has progressively lost 85% of his hearing in his right ear. When he filed for a disability claim, he was told by the VA that there was no medical incident in his service records. "I went back to the VA to appeal their decision and 'magically' they found my service records. And on the last physical exam before I discharged, they checked the box next to 'Ear' in my copy" (B.B. interview transcript, September 2022:173-175). This seemingly small error in misplacing a service record had huge consequences for Bob, who eventually received disability compensation but lost years of backpay from when he first applied. Bob's story reflects broader issues of ambivalence within the systems designed to support veterans, where bureaucratic hurdles and institutional inefficiencies can hinder access to care and benefits. Such experiences contribute to veterans' distrust and frustration with the institutional management of military health.

Ambivalence allows denial to become a palpable experience among veterans, influencing and modifying their relationships with institutions. When discussing his thoughts on the VA, Jimmie noted how many bureaucratic agencies, including the VA, are "not easy in accepting a lot of things" regarding managing his care. Jimmie has diabetes, hypertension, kidney disease, and has survived prostate cancer. He was encouraged by fellow veterans to file a claim for his prostate cancer, a condition recognized as caused by exposure. After two years and two rounds of cancer treatment, he received a 70% disability rating. "You have to keep pushing," he advised. "They're not going to just give in to you. Keep trying! I accept the scientists' word before I accept somebody, some *bureaucrat* in the government" (J.F. interview transcript, October 2022: 190-192). Despite Jimmie's faith in scientific authority, scientists face challenges in producing and evaluating research findings as credible evidence of exposure effects. With controversies in research mismanagement and difficulties in processing evidence in political hearings, the production of scientific knowledge has become a tool for state institutions to shift the responsibility of linking exposure to veteran experiences. This shift also led to political challenges in managing new knowledge of varying significance and certainty, delaying policy decisions until findings were recognized as accepted. Consequently, political authorities acknowledged only a limited number of conditions for which veterans could apply for benefits.

The historical contexts of scientific findings has proven to be a source of disappointment for veterans who rely on scientific evidence and political judgment to validate their experiences. Scientific studies have concluded that the vast majority of health claims are not directly linked to exposure, thereby stalling the development of further policy responses (*Agent Orange Review*

April 2005). Scientific knowledge processes and its misunderstanding by the public serves to deflect attention from political inaction and delays. The inability of science to conclusively ascertain the effects of exposure results from scientific adherence to institutional presumptions about chemical exposure, the marginalization of veterans in the research process, and the difficulty in converting research findings into evidence that meets politically acceptable criteria. Ambivalent metrics established by political entities, which are upheld by scientific institutions, contribute to gaps that hinder the translation of knowledge into tangible care for veterans.

Miscommunication and Isolation: Weaving through Denial

Denial has fragmented knowledge and relationships with veterans, with institutional disjunctures in knowledge production profoundly affecting how knowledge shapes and forges new power dynamics. Institutions wrestling with the challenge of defining and validating knowledge about exposure encounter difficulties in bridging significant gaps, such as establishing thresholds and prioritizing specific assumptions about exposure to direct research efforts. As these institutions strive to clarify knowledge to address and understand suffering, veterans, and others affected, experience a sense of fragmentation within the discourse. Research might offer hope for specific conditions, only to be stalled in political debates, or new studies aimed at filling knowledge gaps may be thwarted by budget cuts and cancellations of research studies (Gough 2003). The multitude of voices and documents highlighting unsuccessful outcomes and the call for further evidence narrate a complex, frustrating story.

Despite the lack of public access to institutional documents, one woman dedicated herself to compiling the history of the Agent Orange discourse, becoming an informed advocate for veterans. Sandra’s personal archive, consisting of documents, photographs, and pamphlets scattered throughout her home is the culmination of a lifetime spent working as a “citizen scientist” on the issue of Agent Orange.[5] Her efforts to combat institutional denial is explored more in Chapter 6.

Over the last 40 years, Sandra has dedicated herself to compiling decades of studies, correspondence, interviews, photographs, and notes to distill the complex narrative of Agent Orange into a format that's accessible to veterans. She reports repeatedly confronting denial in politicians, scientists, veterans, and even her own family members in her quest for truth and advocacy. When questioned about the knowledge produced by state institutions, she confidently presented charts, maps, and scientific reports, spreading them across her dining room table as a testament to her exhaustive research efforts. Each document and photograph she points to forms part of the compelling evidence she has meticulously gathered, illustrating the institutional mismanagement she aims to expose.

Sandra has publicly criticized the credibility of major federally-funded studies, such as the AFHS, pointing out their mishandling and the indefinite delay in recognition certain conditions linked to exposure. She has navigated through the biases inherent in research designs and questioned the authenticity of their findings. While she had to educate herself on p-values and improve her scientific literacy, Sandra learned that knowledge produced by the state is often crafted to exclude. "First, you have to interpret and then you can negotiate," (Field notes from S.D. interview, November 2022). She believes denial by institutions can be transformed from an endpoint into an opportunity for dialogue and change. This approach has not only equipped Sandra and others with a platform to challenge institutional knowledge but has also turned denial into a space where negotiations can lead to recognition and action.

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[5] This archive can be found through the Northern Illinois University Libraries' Regional History Center and University Archives under the "Sandra Davis 1970-2010" Collection.

Lack of scientific literacy amongst veterans was meant to be addressed through the federal publication, the *Agent Orange Review* (i.e. the *Review*). The *Review* was established in 1981 and served as a communication between the VA and veterans. These quarterly newsletters "gather[ed] authoritative information on Agent Orange and other known phenoxy herbicides from scientific literature and other sources," offering veterans the latest updates on science, policymaking, and institutional activities related to exposure knowledge (*Agent Orange Review*, November 1982: 1). By condensing scientific data, congressional hearing summaries, and benefit processes into nearly a dozen pages per edition, the *Review* sought to make complex information more accessible and understandable.

> "Back in the early 1980s, there was little knowledge in the veterans community about Agent Orange the long-term effects of exposure to dioxin […][T]he newsletter was filling a communication void. But to be effective, it had to present complicated information in an easy-to-read format. This was one of the toughest challenges." (*Agent Orange Review*, July 2006: 10).

The *Review* also provided updates to the AFHS and other CDC studies. Over time, readers, like Sandra, were informed about scientific research and noticed repetitive themes in their summaries: "the study shows limited to no evidence," "no evidence to support the position," "criteria for denying claims," "benefit denials," "this condition is not recognized", "not recognized as a congenital problem." Through these messages, denial was not just an abstract concept but became a tangible, readable experience that seemingly diminished the legitimacy of the exposure effects reported by veterans. These newsletters, by claiming to translate "sound" evidence, established themselves as an authoritative medium for veterans, especially for those who were sidelined from direct participation in political hearings or scientific deliberations. For many veterans, the printed denial served as a rejection letter, negating the breadth of their illness conditions. Conditions that were eventually accepted were small victories but overshadowed by the complexities and bureaucratic challenges veterans faced in accessing benefits.

In addition to scientific literacy and limited communication, the expectations veterans have of researchers often clash with the professional boundaries that scientists navigate. Scientists are not typically required to tailor their findings for lay audiences. This practice stems from the perception of scientists as neutral third parties who are tasked with examining scientific problems objectively, rather than acting as advocates for specific groups or causes. This perceived neutrality serves the interests of state institutions that rely on scientific authority to underpin their decisions and policies, reinforcing the distance between scientific inquiry and public understanding.

Dr. Stellman, who was introduced at the beginning of this chapter, states advocacy does not negate scientific discovery; rather, advocacy pushes discovery. When I asked Dr. Stellman about existing knowledge of dioxin, she immediately acknowledged dioxin as one of the most harmful substances that scientists did not know *enough* about. "Dioxin was initially not recognized as a health issue by the government. It was a non-issue because there was so much that was unknown about it" (Field notes from interview with J. Stellman, March 2023). The scientific unknowns created ripples amongst scientists during the war, who felt compelled to sound the alarm to political authorities in stopping chemical spraying missions. The scientific push for removal of chemicals prompted scientists to become advocates, which was viewed by state institutions as a threat in their ability to reduce culpability for enabling harm. As a result, Dr. Stellman described how many studies, both big and small, were cancelled due to perceived advocacy tainting knowledge production. Funding was slashed, researchers were blacklisted, and major scientific institutions trying to hold their authority, like the CDC, would apply pressure to fellow researchers to produce a cohesive knowledge to prevent further dissonance.

> "They wanted to control information flow and limit attention. I became concerned because I know what those chemicals can do. But it's hard to battle core beliefs. How do you deliver the public health message? How do you address chemical liability when chemical

> companies were pressuring the government to halt our research?" (J. Stellman interview transcript, March 2023: 124-125)

Dr. Stellman's experiences in conducting research and advocating for her research participants illustrate the challenges faced by scientists who step outside the traditional boundaries of their roles. By taking a stance that diverged from the expected neutrality, Dr. Stellman and researchers like her were perceived as "going rogue" and disrupting the established norms in knowledge production. Consequently, this isolated researchers within the scientific community and skepticism from political authorities. This isolation had significant consequences for the researchers involved but also for the broader understanding of exposure effects.

Denial continued to thrive through limited communication and the contention that factors such as so-called scientific advocacy were disruptive to political action. Denial is a reproducible effect for institutions to interpret, manage, and control new knowledge and how that knowledge is taken up. However, the lack of conclusive knowledge and the amount of time and resources used to facilitate knowledge production, enabled political institutions to use knowledge production as itself a way to delay policymaking and shift responsibility to scientists struggling to find connections between exposure and veteran experiences. Weaving through the history of Agent Orange knowledge production reveals iterative forms of denial impacting scientific discovery and political acceptance. These processes create objects of denial that prioritize institutional management and verification of suffering, forcing veterans to wait and depend on new knowledge to pass the rigors of both scientific and political review.

Concluding Remarks

Fifty years on, the Vietnam War has generated a dizzying discourse on Agent Orange exposure. Institutional records preserve the history of action and inaction within and across institutions seeking knowledge authority. However, these records reveal tactics to control knowledge production differently and ineffectively over the years. Denial informs and manages knowledge. It creates disjunctures inhibiting how knowledge transforms into appropriate policies addressing suffering. Although institutions were able to distill some illness experiences from these complex and rigorous investigation processes, the ways in which institutions had to get there engendered further harm for veterans and changed institutional relationships with them.

Denial was used as a biopolitical mechanism to create, manage, and control knowledge of state activities, not knowledge of suffering. Institutions concerned with preserving their authority in articulating and negotiating harm from state activities resulted in the compromise of knowledge production. Institutions are charged with fact-finding obligations but normalize denial as a practice to curtail knowledge, accountability, and policymaking. Institutional priority to author and authorize knowledge sidelined veterans; consequently, denial restructures and repeats over time as a governing rationality to know and not-know exposure effects, creating ambivalences and uncertainties to dominate a discourse of suffering.

This chapter focused on the historical denial and its produced disjunctures within and by institutions asserting power to author knowledge and negotiate institutional responsibility for suffering. State institutions use denial to control research parameters and appropriate how knowledge converts into alleviation through complex systems that produce few results over multiple decades of discourse. Dependance on denial as a normative practice yielded a complex, disjointed approach to create and utilize knowledge as a means to address, suppress, reject, and negotiate suffering caused by state activities.

The reproducibility of denial over time compounds into everyday consequences for veterans. The disjunctures caused by institutions exact bodily burdens that necessitate veterans to learn how to navigate and negotiate institutional systems that govern and gatekeep exposure knowledge. In the next chapter, the material and immaterial consequences of Agent Orange are examined to understand the historicity of institutional denial and its compounding effected pressed upon toxic bodies.

Chapter 4: Toxic Residuals: The Everyday Experience of Ordinary Denial

Never would I have imagined that Mike, the quintessential life of the party and the wise-guy known for his vintage Hawaiian shirts, would face such a serious health issue. He's the kind of guy who playfully shows off an old Goofy sticker as his ID, always on the hunt for the next laugh. So, when he announced his cancer diagnosis at the club meeting, it almost sounded like the setup for one of his jokes.

"I was at a birthday party, enjoying the appetizers, when I tried what looked like stuffed jalapeno poppers. After eating one, I felt a weird sensation in my mouth and thought, 'Wow! This one's hot!' But the burning sensation persisted for days. I figured I might have scratched something or had a piece caught in my throat."

A week later, concerned by the ongoing discomfort, Mike visited his doctor. After a swab test in his throat, he was soon diagnosed with stage-one squamous cell carcinoma. "If it weren't for that popper, I wouldn't have known as early as I did. That popper actually saved me!" he said, trying to manage a chuckle.

Despite his typically carefree demeanor, it was apparent that Mike was deeply concerned. He had witnessed cancer and other conditions take their toll on his veteran friends over the years. Some had passed away swiftly and unexpectedly, while others endured long, painful battles. Now, Mike faced the unnerving possibility that he, like his departed friends, might be suffering from the delayed effects of Agent Orange exposure. (Field notes, July 2022).

Introduction

In dialogue, denial emerges as individuals question the validity of each other's assertations, transforming denial into a dynamic space of contention and negotiation. This process is inherently engaged with the exploration of potentially uncomfortable truths and is driven by a desire to resolve discrepancies, potentially altering one's perception of reality. Such interactions, however, can become fraught with imbalance, leading to feelings of alienation and stigma, particularly when attempts at persuasion or achieving compromise fail (Goffman 1963). However, denial extends beyond personal interactions, playing a crucial role within bureaucratic frameworks as a formal mechanism for scrutinizing and validating truth claims with limited space for negotiation.

The Department of Veterans Affairs (VA) use denial in assessing medical claims from veterans, particularly within its disability compensation system. The VA system requires veterans to substantiate their suffering through specific processes, including extensive paperwork and medical evaluations, to assess claims. Ironically, these institutions, once negligent in knowledge creation, now transfer the onus of proof to the veterans. However, veterans face considerable challenges in proving their suffering, with inadequate evidence often leading to denial. The VA system remains the sole source of reparations for veterans, making “accepted” claim status highly sought after in veteran communities. Denials issued by this system carry both personal and political implications, significantly impacting veterans’ understanding and management of their suffering.

Veterans experience denial as a multifaceted and complex issue. On a material level, it is evident in the lack of social and financial support, with claims clearly marked as “denied” or “rejected,” and in the personal and emotional costs associated with caregiving. Socially, its impact is felt in interactions with healthcare professionals, claim agents, family members, and even through self-doubt regarding their own health conditions. Denial infiltrates various aspects of life, including conversations, medical records, claim forms, and the day-to-day management of healthcare, eliciting a wide range of emotions, from anger to despair.

I refer to these pervasive effects of denial as “toxic residuals” from Agent Orange discourse, a term that highlights the bureaucratic imposition on everyday life. These residuals arise from institutional practices that dictate the recognition and compensation for veteran experiences.

Stanley Cohen (2001) identifies this phenomenon similarly as “residual denial,” where the continuous and repetitive experiences of denial, resulting from institutional inaction to suffering, have tangible and social impacts on those affected. This process generates new forms of social suffering as individuals grapple with political and societal inaction (Cohen 2001: 51-54).

Toxic residuals hinder the acknowledgement, management, and redress of suffering. However, as Cohen notes, denial is deeply embedded in broader social consequences, such as stigma and historical passivity. I argue that toxic residuals exemplify the political and social dynamics that facilitate and normalize the distortion of both personal and biological realities. Consequently, veterans are compelled to constantly negotiate these realities within and against the established systems of denial.

Toxic residuals are conceptually inspired by chemical exposure case studies that analyze the “ordinariness” of toxic chemicals, from medical uncertainty, irregular bureaucratic response efforts, and to the normalization of chemicals that shape everyday life. Toxic exposure produces a “slow violence” on bodies and environments and is exacerbated by ill-equipped political, social, and medical systems that produce insufficient chemical knowledge and inappropriate intervention efforts (Ahmann 2018; Packer 2021). Paul Geissler and Ruth Prince (2020) argue lack of regulation within industrial activities combined with political inabilities to prevent exposure create “toxic worldlings,” in which the iterativeness of chemical exposure reimagines social geographies, relations, and livelihoods located in and enabled by toxicity. Similarly, Alex Nading (2020) postulates toxic worldlings are steeped in rationalities of “uncertainty” that guide social and political response. Uncertainty is the ultimate residual from toxic contamination as suffers try to anchor limited chemical knowledge to trace changes in their health and everyday experiences (Allen 2007; Auyero and Swistun 2009).

Toxic residuals highlight the uneven distribution of suffering, from recognizing exposure to exclusion from limited reparations. Power dynamics between pollution managers and exposed communities' socioeconomic backgrounds are crucial in understanding these issues (Liboiron et al. 2018). Comparatively, chemical exposure during military service might be deemed "ordinary," the lack of preventive measures and inequitable care distribution remain critical concerns for veterans (Swoboda 2008). Despite the focus on veterans, who arguably have better access to healthcare and benefit systems as opposed to broader society or international communities, the challenges experienced by veteran participants point to larger systemic issues in institutional management of and accountability for biosocial problems.

This chapter examines the tangible and intangible dimensions of denial and its lasting impact on the lives of veterans. It explores how denial is evident in various forms, such as official documents, clinical evaluations, social memories, and the relationship between health and military service experiences. The bureaucratic processing of these denials not only occurs within official systems but also permeates the private lives of veterans, compelling them to become their own advocates within and outside these established frameworks. To understand these complex dynamics, I will utilize data gathered from interviews, case studies, and participant-observations. This approach will shed light on the bureaucratic hurdles that veterans encounter, such as dealing with disability claim forms and navigating clinical settings. The focus will also be on the personal toll these challenges take on veterans as they attempt to maneuver through these systems.

Furthermore, the chapter will also discuss the lasting effects of "toxic residuals," particularly their intergenerational impact within families of veterans. By analyzing the long-term repercussions of institutional management through the real-life experiences of veterans, the chapter aims to unveil the extensive and enduring consequences of denial. This analysis spans various dimensions, including time, geographical space, and the physical and mental well-being of individuals affected.

Healthcare Denial: Knowing and Managing Ill Health

Months after his diagnosis, Mike, whose story is presented at the beginning of this chapter, accompanied by his wife Nancy, visited a café for diner. Once known for his hearty appetite, Mike now settled for a mere cup of soup, a consequence of the chemotherapy and radiation that left him feeling too nauseous to eat. The targeted radiation had also dulled his taste buds, making everything taste "like cardboard." During our conversation, the couple shared updates on their ongoing disability claim, believing that Mike's cancer stemmed from exposure to Agent Orange during his service. The process of attending weekly doctor appointments and undergoing cancer treatments, Mike described, was "incredibly taxing." The physical toll was evident; he had grown noticeably paler and thinner, particularly around his waist and face. A distinct "burn mark," a severe discoloration near this throat, marked the site of intense radiation therapy.

Dealing with the VA added a mental strain to their already heavy burden. A major setback came when Mike's disability claim was initially rejected by the VA before even being processed. The claim agent assigned to his case insisted on a letter from Mike's oncologist, indicating his cancer is "more likely than not" connected to chemical exposure. Mike's attempt to secure a letter from his oncologist, who was not affiliated with the VA nor knowledgeable about Agent Orange, underscores a broader issue. The oncologist's refusal to write a letter reflects a disconnect between individual health narratives and the rigid requirements of bureaucratic systems. Medical professionals are not likely to be in a position to be able to assert a causation; therefore, there is a hegemonic conflict within the VA system's criteria of "knowing" health and personal ability to produce exacting standards and evidentiary demands.

Initially, VA policies required only a diagnosis from the VA's approved list of conditions that scientifically link to exposure (*Agent Orange Review* August 1983). Eventually, veterans' conditions that were not on the approved list were allowed to be submitted but necessitated personal, medical, and scientific evidence that connected the condition to military service. As knowledge evolved, VA policies changed, demanding veterans provide additional, *objective* evidence in order to process their claim. Veterans had to tailor their knowledge to these new policies, including providing statements explaining how scientific research and medical documentation supports their understanding of their health. The burden of providing the connection, once the responsibility of political and scientific authorities, shifted to veterans.

The emphasis on objectivity in health knowledge favors biomedical interpretations, overshadowing the lived experiences of those with ill health. Jeffery Goldstein (1972) highlights the significance of objective metrics and their role in diminishing the subjective experiences of patients with chronic illnesses and disabilities. For patients suffering from chronic conditions, there is a notable challenge for patients to convey their suffering to medical professionals. Healthcare management tends to focus more on biotesting and symptom minimization rather than on a holistic understanding of bodily experience of ill health (Barsky and Borus 1999; Young 1995). Prioritization of objective evidence supersedes patient bodily knowledge and requires patients to negotiate these experiences in clinical spaces.

Furthermore, Arthur Kleinman (1988) argues that biomedical interpretations often reduce illness to discrete, objective categories of symptoms and body parts, thereby marginalizing the subjective experiences of patients living with illness. This approach overlooks how these conditions affect patients beyond the clinical setting. In the process of medical evaluation, patients' bodily knowledges are "distilled," leading to ambivalent experiences within clinical interactions.

As a result, healthcare professionals tend to dismiss patients' experiences as credible sources of knowledge because of the precedence of objectivity (Edward et al. 2010).

Negotiating biological experiences within healthcare spaces is crucial for the validation of medical realities, a bargaining chip for official recognition. Mike's pursuit of support from his oncologist highlights some of the difficulties veterans face. Many private doctors, lacking expertise in military health issues, are reluctant to support claims seen as "unverified." Mike and Nancy spent countless hours researching and connecting with other veterans to gather evidence to convince their oncologist. Their perseverance eventually paid off, as the oncologist agreed to write the supporting letter, a crucial step for Mike to appeal the VA's decision. While there is a growing recognition in the medical community of the importance of patients' health subjectivities (Heggdal 2013), the uncertainties surrounding military chemical exposure leave veterans in a position where they must find innovative ways to mediate and articulate their experiences. Doctors are often placed in challenging positions, being asked to make determinations or provide documentation that falls outside their professional expertise. Additionally, living with chronic conditions is further complicated by systemic structures, where the daily realities of managing health are in constant negotiation with bureaucratic hurdles, setting up a landscape where personal experiences and medical evidence must continually be reconciled.

VA facilities, theoretically, serve as "one-stop shops" for veterans, offering comprehensive services ranging from medical care to social assistance. However, these centers have not always been welcoming spaces for veterans. Many veterans avoided VA facilities due to social stigmas and inconsistent availability of services (Camacho and Sutton 2007). Interview data indicates that the average start date in going to the VA for most of my veteran participants was around the turn of the 21st century, nearly three decades after their service. Reasons for starting varied from seeking symptom explanations to needing resources like employment assistance and counseling. However, a common sentiment echoed was a reluctance to seek help, driven by a sense of unworthiness or a desire not to deprive others of resources.

> “I just didn’t think it was my thing. There are other guys that needed it worse than I did and I didn’t want to take away from them […] it’s not that I didn’t want anything to do with the VA, it’s just that I didn’t want to take away anybody else’s, you know. There’s guys that needed it worse than I did. Failing health or maybe they were a little crazy” (J.D. interview transcript 2022: 5)

Other participants shared John’s perspective, and a belief that they did not want to appear “sick enough” to go to the VA. As Zoe Wool (2015) notes in her research on medical-seeking and -avoidance behaviors among veterans, many veterans shunned both VA and private healthcare domains to avoid being labeled as “war sick.”

“War sick” or having “war sickness” encapsulates the socially-constructed narratives surrounding health during and post-military service. These narratives, particularly for the Vietnam War generation, evolved in response to institutional reactions to anti-war sentiments and cutbacks in social welfare services, including veteran benefits (Hipes and Gemoets 2019; Laufer et al. 1984). The expectation of physical and mental fitness prior to service often leads veterans to struggle in recognizing and seeking assistance for service-related health issues. Wool’s use of war sickness is the most complete in terms of identifying the historical stigmas experienced by veterans for seeking help for issues connected to military service. Similarly, Debra Swoboda (2006) employs the term to emphasize the biomedical impacts of war and military activities on service members and how these impacts are often mis-interpreted within clinical and benefits systems. Avoiding medical help due to fear of perceived stigma acts as a defense mechanism for those whose identity and experiences are redefined by their service.

The case of Jimmie, a former Navy man, exemplifies this stigma. After surviving prostate cancer and a subsequent hernia caused by the prostate surgery, and now living with stage III kidney disease, Jimmie delayed seeking VA assistance until his symptoms became undeniable in 2018. His reluctance stemmed from the difficulty in discussing his experiences. He expressed a desire to share his experiences to advocate against current military actions, but found it emotionally challenging to do so.

> "I would like to be able to talk about it, to tell, you know, tell other people my experience in why we should not get involved in these things again, because of what I've seen, but I get emotional when I talk about it. (J.F. interview transcript, 2022: 164-165)

Jimmie's experience illustrates some of the hardships veterans experience when interacting with the VA, such as finding appropriate people and space to discuss their experiences. The emotional burden often overshadows everything else. "Your emotions override everything," Jimmie said, hearing his voice crack a bit (J.F. interview transcript, 2022: 170). His duties on the *USS Sanctuary*, involving the transport of deceased servicemen and women, left a lasting impact, contributed to his reluctance in seeking medical help. Now receiving counseling for PTSD, Jimmie is grateful for the assistance but still grapples with survivor's guilt and difficulties in communicating with the VA, particularly regarding how Agent Orange impacted his health. He wishes to speak out but finds the emotional weight overwhelming.

> "[M]y reason for wanting to talk about it stems from the government talking about getting involved with these undeclared wars, we all need to stand up and say no. […] I would like to, if it happens, like to be able to stand up with some authority, without crying about it. Sometimes, I just think if I just cry long enough, that I will stop crying. (J.F. interview transcript, 2022: 184-188)

These topics bear a significant emotional burden that can be challenging to convey to others, including medical professionals. This stigma can "override" perceived logical thinking and actions, inhibiting some veterans from seeking necessary help.

When veterans do feel comfortable in seeking assistance, veterans expect VA staff to have more specialized training in military-related health issues. However, the bureaucratic nature of VA medical facilities can sometimes trivialize unique military health issues into routine biomedical problems. Kim, a VA cancer registrar and daughter of a Vietnam War veteran, shared insights into the limitations faced by VA medical professionals, such as high patient loads and staff turnover. These constraints hinder the ability to adequately address patients' needs: "You need a provider and a healthcare team who is on top of things, who is staffed enough to be on top of things, who documents properly" (K.T. interview transcript, April 2023: 340). Kim's dual perspective as a professional and a family member highlights systemic issues in the VA that can compound with personal issues, such as Kim convincing her father to apply for benefits. "I said, 'You should apply for your disability.' And he's like, 'No, I served my country. I did what I needed to do. I'm not owed anything," (K.T. interview transcript, April 2023: 164). Kim's struggle in getting her father healthcare would be met with additional hurdles in medical documentation inaccuracies made by the VA that prevented his claim from receiving disability status.

Submitting accurate medical documentation is also a common issue amongst veteran participants, noting that records may not reflect a reliable way of understanding their health or contain errors that misconstrue a diagnosis. In thinking VA facilities provided an additional level of care in supporting military health, veterans and their families are taken aback by the ordinariness in knowing and managing their healthcare.

> "When [doctors] sign that [medical record], you make sure it's correct. I don't know how they can get away with it, of a small error here or there, I get it […] But then, it'll be like the patient is here for a 12-centimeter nodule growing in their abdomen and you know, it'll say [on the medical record] that everything is normal! It's like the quality is not there. That's not just the VA, but I see it and it terrifies me." (K.T. interview transcript, April 2023: 340).

Medical records are crucial in filing disability benefits. These official documents act as formal instruments to translate their experiences and are essential for negotiating with institutions (Petryna 2004). Documentation forces veterans to condense their bodily experiences into metrics recognizable by state institutions: diagnoses, symptoms, tests, and medical opinions (Gupta 2012).

However, Kim's concerns about the accuracy of these records raise questions about requiring veterans to navigate a highly formalized, yet flawed, system. Such experiences underline the gaps in a system designed to meticulously document and interpret institutional understanding of exposure effects, leaving veterans and their families bewildered by its mismanagement and failure to provide adequate care. Errors and a lack of quality assurance can delay veterans from receiving timely recognition and benefits, further perpetuating feelings of denial and apathy from these systems.

Toxic residuals aptly capture the bureaucratic hurdles and their profound impact on the everyday lives of veterans seeking assistance. This term highlights the complexities faced by veterans like Kim's father, who encounter barriers in accessing benefits due to systemic errors. In other ways, veterans such as Jimmie grapple with personal challenges in articulating their experiences, a task made even more daunting when those experiences must be converted into bureaucratic objects that are subject to scrutiny. Bureaucratic systems tend to structure and categorize experiences into predefined frameworks, ostensibly to understand the effects of exposure. However, this process can often strip away the human element, reducing the physical, mental, and emotional toll of various conditions to mere administrative details. The stark and impersonal terms "approved" or "denied" stamped on paperwork belittle the extensive time and effort veterans invest in compiling and making sense of their experiences.

These veterans are faced with an everyday reality where their health and well-being are subject to medical and bureaucratic objectivities. Their suffering and experiences are at the mercy of institutional processes that are beyond their control and may not adequately reflect their personal understandings or narrative. This detachment from the personal can significantly hinder alleviation of their suffering, underscoring a disconnection between institutional management and lived realities of suffering.

“Delay, Deny, Die”: Bureaucratic Ordinariness in Recognizing Exposure

Denial materializes to veterans through stamped paperwork, rejecting their request for medical and social assistance. Repeatedly denied VA disability compensation benefits for ischemic heart disease, a condition recognized for benefits, Robert perceives the VA’s decision as a stark message to him and fellow veterans. He sums up his experience with the phrase: “Delay, deny, and die— that’s what the VA is waiting for. For us to die. Because if we go, then so does the money.” In his view, the years of effort and time dedicated to compiling and submitting paperwork are dismissed by “some bureaucrat” as unworthy of benefits. His exasperation from receiving multiple denials came to a head at one point where he once humorously suggested the nurse processing his insurance paperwork to send his medical bill to “1600 Pennsylvania Avenue,” the address for the White House (Field notes from R.T. interview, February 2022).

Although VA medical professionals are more knowledgeable about military health, their role often ends at diagnosis and treatment, not extending to the advocacy veterans expect. The frequent encounter with bureaucratic “red tape” in VA facilities has discouraged some, like Robert, from continuing their pursuit for benefits. Overcoming these bureaucratic hurdles becomes a toxic residual of restrictive institutional processes.

Many veterans note that the bureaucratic nature of healthcare creates barriers to receiving quality and timely care. My research shows that most veteran participants have access to two VA hospitals within the research area, each requiring up to two hours of travel. This would require veterans to dedicate half of their day to traveling to their appointments and adjusting their budgets for travel costs. Recent VA services have eased this burden through VA courtesy vehicles; however, this service is dependent on local drivers that volunteer and coordinate with veterans. Veteran participants have access to a local VA outpatient clinic that provides some primary care and pharmacy services. Otherwise, veterans using outside or private treatment requires VA approval for their medical documents to be transferred over and applied to their claim and insurance paperwork. More recent policies like the MISSION Act of 2018[6] have expanded VA coverage to more private and community care facilities, offering relief to veterans who prefer local access and their private doctors.

These legislative improvements, while addressing transportation and locality issues, have not fundamentally changed the VA's approach to Agent Orange exposure. VA procedures reduce discussion of Agent Orange to performing "Agent Orange Registry exams," which consist of a routine exam, interview questions, and as needed procedures, like lab work. Questions about the disability compensation system are deferred to a VBA (Veteran Benefits Administration) representative for information on how to file claims. Veterans, like Art, gain most of their Agent Orange knowledge from fellow veterans rather than VA staff. Art described the communication about exposure effects within the VA as "limited." He noted, "You know, [the VA staff] don't talk about it too much […] It's a veteran thing. It's a military thing, you know" (A.S. interview transcript, 2022: 379-391). This perception of VA medical facilities as part-government, part-research institutions leads some veterans to believe Agent Orange is only brought up on a "need-to-know" basis, rather than an open conversation.

However, other veterans believe that the extent of medical care and knowledge at these facilities is below their expectations. One veteran, "Dr. B" attributes the communication gap as

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[6] The MISSION Act (Maintaining Internal Systems and Strengthening Integrated Outside Networks) was designed to improve VA healthcare services. It aimed to expand VA community care programs, ensuring veterans have greater access to healthcare, both within the VA network and through approved providers in their locality.

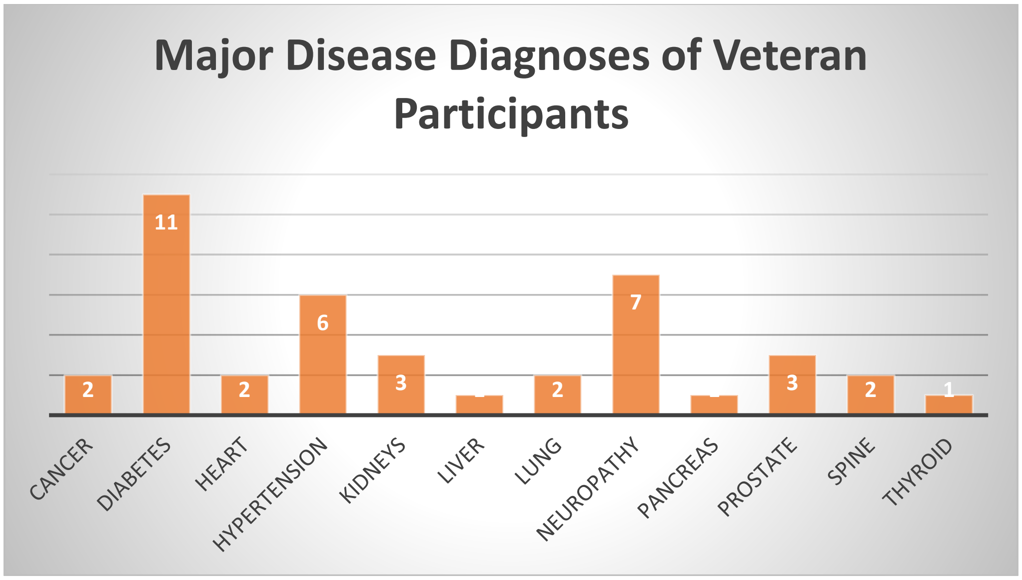
partly due to that VA medical staff not necessarily being veterans themselves. "The majority of [VA] doctors don't have to be veterans […] [T]hey have to have other people come in and talk to them about Agent Orange. Their job is to practice medicine," (M.B. interview transcript, July 2022: 126-128). Dr. B, a veteran and former Army doctor, expressed a preference for being treated by medical professionals with military background, stemming from his own experiences serving in Vietnam. This preference underscores a broader issue: the need for healthcare providers who not only understand military-related health problems from a medical standpoint but also empathize with the unique experiences of veterans.

Dr. B, who served at the 18th Surgical Hospital in Pleiku, Vietnam, was stationed in a region vital to the troops in the Central Highlands. Flight data and geographical analyses indicate that Pleiku was heavily sprayed with over 14,000 gallons of Agent Orange chemicals during the war (The Foundation for Worker, Veteran, and Environmental Inc., 2011). Dr. B began experiencing decreased sensitivity in his legs, leading to a diagnosis of early-onset peripheral neuropathy in 1970. However, when he applied for general VA disability benefits, he was informed that his condition couldn't be linked to his service, as he had missed the 1-year filing deadline— a common barrier for many veterans in the postwar years. The VA suggested his neuropathy was due to "lifestyle changes" after service and would improve over time through strict diet and exercise. As a medical professional himself, Dr. B was skeptical of this explanation: "You had to know within a year, and then by the time you file, it's going over 2 years" (M.B. interview transcript, 2022: 627-629).

Despite his medical expertise, Dr. B faced significant challenges in getting the VA to recognize his health issues as related to military service. Peripheral neuropathy was recognized as an Agent Orange exposure effect in 1996. However, since it can also be a secondary disease to type-II diabetes, the VA often requires additional evidence to rule out this and other causes. Conditions like peripheral neuropathy had to be singularly caused from exposure, not from other conditions. Dr B, who never received a diagnosis of type-II diabetes, has been fighting for over a decade with VA on this issue. It wasn't until he developed more severe health problems in the mid-2000s, such as prostate cancer in 2010 (another condition linked to Agent Orange exposure), that he was able to file a successful disability claim for his prostate cancer. Yet, his battle with peripheral neuropathy continued. Dr. B's experience reflects the inconsistent treatment veterans often face within the VA system. Some conditions are promptly recognized and compensated, while others, even when presented with medical expertise, are met with denial and resistance. This narrative highlights the complex and often frustrating journey veterans encounter in seeking recognition for their health issues.

In examining medical conditions among veteran participants, as depicted in Figure 1 below, a surface-level review might suggest that these conditions are somewhat vague and exhibit only a few common trends.

Figure 1. Major Disease Diagnoses of Veteran Participants



However, a deeper analysis, particularly focusing on the everyday experiences of veterans, reveals that these conditions manifest across a broad spectrum. Personal stories from veterans like Mike, Allen, and Johnny, as well as their families, provides a poignant illustration of the diverse and complex ways in which health issues are experienced. Mike's case highlights how a seemingly mundane event, like eating a spicy dish, can lead to the unexpected discovery of cancer. This shows that awareness of health issues can sometimes occur incidentally, rather than through routine medical check-ups. Allen's experience with hypertension, a condition often termed a "silent killer" due to its lack of noticeable symptoms, contrasts with Mike's. His condition is managed through diet and medication, and his awareness of his hypertension is primarily mediated through medical intervention rather than direct physical experience.

Johnny's story, as told by his wife Lydia, is particularly moving and multifaceted. Despite a life-altering injury during military service resulting in partial paralysis and subsequent health challenges, Johnny demonstrated remarkable resilience. "That didn't stop him from enjoying life." Lydia recounts the ways in which Johnny did not let his physical disabilities socially paralyze him. He pursued an education, actively contributed to support other veterans, and found joy and purpose in teaching music locally. "He just wanted to feel human again." Lydia said, tears welling up as she remembered the times in which her husband put on classical music in their home to learn how to play new melodies (Field notes, November 2022).

In 2002, Johnny experienced debilitating headaches that would render him speechless. No amount of medication could reduce the pain. He was later diagnosed with glioblastoma, an aggressive brain cancer with only 25% of patients lasting more than a year and less than 5% lasting more than 5 years.

> "The doctor just told us, 'Johnny, I'm sorry, we can't do any more.' And so then, Johnny got up and the doctor said, 'You want me to get you a wheelchair?' And he said, 'No, I'm

> going to walk out of this office with my cane.' It was hard. He was gonna show her, 'Hey, I can still manage, I can still move, I can walk yet.' And so that's how it all started." (L.B. interview transcript, 2022: 194-196)

Placed under hospice care, Johnny received support services at home that were crucial in maintaining his comfort and dignity. These services, including assistance with showering and meal preparation, not only catered to his physical needs but also significantly eased caregiving burdens on Lydia. The multiple brain surgeries and medical procedures Johnny underwent to mitigate the effects of his tumor demonstrate the relentless effort to prolong and improve the quality of his life. Johnny outlived his initial prognosis of less than nine months, surviving 15 months before taking his last breaths on October 10th, 2003. For Lydia and her family, this extended time was invaluable. It provided them with additional opportunities to be with Johnny, to cherish their moments together, and to celebrate his life. After Johnny's passing, Lydia found support and solace in a church group with other widows of veterans, allowing her a space to cope with grief and loss.

> "And now I've been meeting more people. I've never, never done that before. So we just sit there and talk about that we you know, we do other things, too. But it's very nice to be around other women who have gone through what you've gone through, you know, in their own ways." (L.B. interview transcript, 2022: 380)

Although Johnny received 100% disability from his in-service head injury, Lydia and Johnny believe his brain cancer was due to Agent Orange based on their personal understanding and from doctors who discussed the possibility of chemical exposure increasing his risk to developing a brain tumor. For the husband and wife, pushing for more disability services from the VA was not the priority: Johnny's health was. Since his passing, she has pursued questions about his health, allowing grief to form a space to detangle explanations, like Agent Orange, within her experiences: What he exposed during his military service? Did exposure have anything to do with his health problems? After years of contemplation and speaking with other veteran widows about their experiences, she now believes that Agent Orange had something to do with Johnny's glioblastoma. Lydia had to rely on herself and others for information as there is no formal process for family members to address these concerns to the VA.

These narratives underscore the complex interplay of medical and emotional factors in the lives of veterans and their families. They reveal how health conditions, while categorized clinically, are lived and experienced in deeply personal, varied, and profound ways. The stories also point to the necessity of comprehensive, empathetic support systems that address the unique challenges faced by veterans and their loved ones.

Institutional mechanisms, designed to assess and assign responsibility for illnesses, often place a heavy burden on those affected. Veterans are required to provide proof, translating their personal experiences into terms that medical professionals can understand and support. This process of recognizing and understanding suffering thus becomes entangled in both ordinary and bureaucratic complexities, making communication of illness a challenging task. Veterans learn to articulate their experiences as credible biological facts that can be recognized within institutional frameworks, compelling them to transform themselves into knowledge-makers and evidence-gatherers navigating a complex, dispassionate system. Toxic residuals highlights the gap between institutional procedures and the nuanced realities of individual health experiences, particularly in the context of veteran healthcare.

Toxic Taxes: Bearing Bodily Burdens

I use toxic residuals to refer to the physical and symbolic burdens that veterans bear, linking their health issues directly to their military service. This connection symbolizes a weight that brings about lasting, unwanted consequences. Conversations with veterans have uncovered the dual burden of both knowledge of Agent Orange and experiencing different health effects that preoccupy their thoughts on their interconnections. The ambiguity surrounding the origins of these health issues is compounded by the personal struggle for official recognition from bureaucratic systems which could provide sources to mitigate suffering. This ambiguity frustrates and complicates Mike's ability to balance his health with the need for resources to alleviate his suffering.

Before his cancer diagnosis, Mike was familiar with navigating the VA system in terms of seeking health care and benefits to acknowledge different problems that occurred after his service. Currently, Mike has an 80% disability rating for PTSD, tinnitus, and a back injury, but hopes to increase it to 100% by filing an Agent Orange claim for his cancer, supplementing the additional amount to cover out-of-pocket insurance costs. Although squamous cell carcinoma is not listed as an approved condition by the VA, respiratory cancers are. Respiratory cancers can include certain types of squamous cell carcinomas depending on the location and medical opinion (Johns Hopkins, n.d.). Mike consulted with his doctor who agreed that his cancer could be considered respiratory. However, reframing his cancer as "respiratory" on his appeal claim resulted in another denial. The VA stated that Mike's cancer was "slightly too high up" in his throat to be considered a respiratory cancer. Needless to say, Mike and Nancy were confused and angered by this new denial. "As if he could control where the cancer was first discovered," Nancy scoffed. During my visit to their home, they showed me their office desk which was littered with papers. They showed me the scientific articles and new claim forms they were preparing. Among the papers, Mike drafted a statement detailing the debilitating side effects of his cancer, such as "muscle weakness," "difficulty with basic tasks", and a "notable change in taste that made eating a challenge." His once-favorite foods now tasted sour and acidic. He relies on chalky protein shakes for most of his meals to address his substantial weight loss. "If this doesn't convince them, I don't know what will," Mike said, pointing to the documents on the desk (Field notes, November 2022).

Mike's struggle extends beyond the physical. He and Nancy have had to contend with medical billing errors and insurance issues. Instead of billing Mike's insurance, which is through the VA, they billed Nancy's because she has a policy on him.

> "[The hospital] know he's a veteran and was sent referrals and Community Care papers from [the VA hospital]. They just saw that I had a policy on him through my insurance and thought it was his primary insurance." (Field notes, November 2022).

Nancy had to make several phone calls and now keeps a binder full of all his medical bills and insurance documents to keep a tight account of all their medical paperwork, especially documents detailing their fiscal responsibility. Despite their financial stability, they lack family support during this challenging time. They don't have kids and remaining family members are too far away to assist them. Their experience echoes that of many veterans and their spouses who describe a grueling process of evidence gathering, testimony writing, and learning to be "experts" in interpreting and following VA guidelines.

The VA's claim process, though straightforward on their website, belies the intellectual labor and strict timelines to follow. The "intent to file" form is the first paper to submit. It allows a 1-year period for completing the claim, including any additional evidence required by the VA. For conditions not on the approved list, veterans must present extensive evidence linking their health issues to military service. Once a claim is submitted, the VBA reviews and makes their decision. The average review time currently is 158 days according to the VA website (VA.gov 2024).

The intricate language of government paperwork often obscures the path to recognition for veterans, compelling them to seek assistance. This process, often laden with "red tape," tends to marginalize and depersonalize sufferers' experiences, offering only limited options for addressing their suffering (Gupta 2012). Veterans seeking to file claims can turn to VA claims agents, legal professionals who have undergone training and licensure through the VA Office of General

Counsel. To qualify, these agents must pass a comprehensive written exam covering veteran law, and they may charge fees or receive a portion of the veteran's initial disability payment. Alternatively, veterans may seek help from a Veteran Service Officer (VSO) representative. These individuals are found in veteran clubs and volunteer to assist with claim filing. Unlike claims agents, VSOs are not mandated to pass the VA's written examination. While many VSOs are knowledgeable, their lack of formal training can be more of a hindrance. These limited options can prompt some veterans to file claims independently to ensure timeliness.

Understanding the information required on VA forms can be a daunting task. Robert's case exemplifies the personal difficulties in submitting claims. With limited means to access Agent Orange information and policies, his options are confined to making a trip to a VA office or consulting with fellow veterans. Robert left high school to join the Army. He received his GED during the service; however, he still struggles with reading and writing in his later years. "I try to do it on my ow but the way they word it is hard for me. I used the club's VSO or ask around from other vets that have gone through the process," Robert explained (Field notes, February 2022).

Robert's struggle with the VA claim process is compounded not only by his limited education but also by the loss of his wife, who was a crucial support in managing these tasks. She passed away a few years ago from pancreatic cancer. Known as the "brains" of the family, she played a vital role in making complicated material understandable to Robert. She was instrumental in filing his first claim for PTSD and tinnitus, which successfully resulted in a 30% disability rating. When he was diagnosed with ischemic heart disease, she diligently collected medical records, contacted doctors for testimonial statements, and organized his documents in compliance with VA standards. However, the claims process was unfinished by the time she passed. Her passing left Robert not only heart-broken but also overwhelmed. Consumed by grief, he found himself unable to focus on his own health needs. Reflecting on this period, Robert shared, “If she were alive now, I’m sure she would have beaten back the system and gotten it through. She was smart like that. Don’t know how I made it this far without her,” (Field notes, February 2022). Her absence has left a significant void, not just emotionally but also in dealing with bureaucratic complexities.

When asked about their experiences with filing and awaiting disability claim decisions, 93% of veteran participants in this research indicated they had filed claims related to Agent Orange exposure. Among them 60% have faced one or more denials. Such denials, materialized in official paperwork, not only represent a bureaucratic hurdle but also personalizes denial into an emotionally-intensive experience. The extensive intellectual and physical effort require to prepare and interrogate claim paperwork, coupled with long waiting periods with no assistance, culminates in a profound sense of underappreciation and hopelessness when met with a denial.

Al’s story, as a former Marine grappling with the complexities of the VA system, illustrates difficulties in negotiating their health experiences. His journey through decades of denied claims reveals a system fraught with difficulties and frustrations. Starting with his initial claim for hearing loss immediately after discharge, Al received a quick denial. Over the years, his health issues compounded, including tumors, neuropathy, bone spurs, prostate cancer, diabetes, heart disease, kidney failure, and notably, chloracne. His detailed description of chloracne underscores the physical and emotional toll of his condition.

> “It's your body collecting all that that material and forcing it out of your body, it comes out the form of blackheads. And my wife would do what we called the "monthly harvest" and over my back get rid of blackheads. And around my neck some, sometimes in my face, but mainly my neck and back. These things, I mean, the material coming out was half- to three-quarters of an inch long, the thickness of a lead pencil” (Al S. interview transcript, 2022, 86-88)

Al’s experience with the VA in the early 2000s is particularly telling. The VA found documents that proved one of Al’s disability claims and would entitle him to significant backpay due to an error made by the VA in handling military documents. The VA offered a one-time settlement for his back injury claim with the condition of dropping all of his other disability claims. Al’s frustration and sense of injustice boiled over within this negotiation. He felt that the VA was trying to argue over a price point rather than addressing their responsibility to his health.

> “I went back to [Marine] language and explained to [the VA representative] what he could do with his proposition. To say I was angry would be an understatement. I was and still am. They gave me nothing,” (Al S. interview transcript, 2022: 90-92)

It is unclear why the VA representative offered a settlement and still gave Al nothing. However, years later, with the assistance of a knowledgeable friend, Al successfully refiled his claims, resulting in a 100% disability rating— a bittersweet victory after enduring years of denial and negotiation. “I was and still am angry.”

Allen, another Army veteran, offers a contrasting yet equally poignant view. While receiving a 20% disability rating for diabetes, Allen’s outlook reflects a resignation to the situation. He perceives himself as a victim of circumstance “stuck with Agent Orange”, suggesting a certain acceptance of his condition and the limitations of the compensation system.

> “I was just a victim of circumstance […] If you drink the water or breathe the air or ate the food, you were exposed to it. I didn't have a strong reaction to it. It's just an understanding what a cause-effect relationship, you know. I wasn't so angry. I probably should have been but I was just a victim of circumstance. Wrong place at the wrong time.” (A.H. interview transcript, 2022: 182-184)

His intention to file a claim for his hypertension, now on the VA’s presumptive list, is tempered by skepticism, shaped by his previous experiences. “It’s a sad to think like that, but it’s the truth,” (Field notes Augst 2022). Both Al and Allen’s stories highlight the emotional impacts of navigating the VA system. Anger, frustration, and resignation are common sentiments among veterans dealing with a bureaucracy that often seems indifferent to their struggles. The need to compartmentalize and articulate their experiences in terms that fit checklists and medical records adds another layer of complexity to their plight.

Veterans, in managing their illnesses, must also navigate self-advocacy within complex systems. They depend on their resources and knowledge to tackle these challenges. As Robert expressed to me with a hint of hopelessness, showing me yet another denial notice, “Ah well, life goes on,” (Field notes, February 2022). They face a tough decision: to persist in seeking recognition or to concentrate on life beyond these bureaucratic difficulties. This dilemma is a harsh reality for many veterans.

My understanding of veterans experiences compounded by historical and institutional denial not only highlights the mundane nature of bureaucratic procedures but also their pervasive, emotional impact on daily life. The struggle for recognition can stretch over months, years, or even decades. Veterans’ family members are also caught up in these challenges, with limited options for recognition and support. Spouses and descendants, often at the forefront of caregiving and assisting in compiling evidence and handling paperwork, play a crucial role. Their efforts frequently go unrecognized in these systems, creating new and distinct toxic burdens for them to shoulder as well.

Intergenerational Residuals: Caregiving and Toxic Burdens

The enduring effects of denial extend beyond immediate health implications, encompassing both historical and generational aspects. Exposure continues to manifest in those living with the uncertainty of its toxic legacy, often compounded by limited resources for alleviation. Whereas some veterans eventually received recognition in the form of benefits, for others recognition was overlooked, notably the children and grandchildren of exposed veterans. These descendants face a unique and profound uncertainty, bearing potential genetic consequences. They find themselves inheritors of a legacy mired in medical ambiguity and institutional neglect. Stellman and Stellman (2018) assert the focus of state-funded research was intensively directed towards veterans, with a significant oversight regarding the possibility of mutagenic effects. This lack of consideration for the transgenerational implications leaves descendants grappling with the most severe uncertainty. They confront a reality where their health is potentially shaped by a war they did not take part in but are nonetheless deeply affected by.

Recognizing the role of family members, both directly and indirectly affected by exposure, is vital due to their significant contributions and suffering. Family members, particularly spouses, have been instrumental in sustaining advocacy efforts, sharing the burden of illness management. Their concern extends beyond their veteran spouses to the potential unknowns affecting their children. While spouses may not experience the direct effects of toxic exposure, they endure other substantial burdens. Conversations with wives and widows of veterans have revealed the extensive nature of their struggles. These women engage in a range of roles: caregivers, advocates navigating medical and bureaucratic systems, and partners in the emotional and intellectual labor of managing medical uncertainty. Their relentless efforts in fact-finding are a testament to their resilience and commitment. The inclusion of these women and other family members’ narratives is crucial to portray the everyday challenges they face in bearing both the physical and psychological impacts of toxic residuals. Their stories are not just addendums to veterans’ experiences; they are essential chapters in understanding the full scope of the legacy of toxic exposure.

Spousal support in caregiving represents a distinct form of recognition typically overlooked in illness narratives. Research by Millen, Peterson, and Woodward (1998) indicates that contested chronic illnesses frequently receive minimal support from medical domains, leading to an increased reliance on family and community support systems. This gap in biomedical care compels sufferers to depend heavily on their families, who often become the primary caregiver and advocate (Boise, Heagerty, and Eskenazi 1996). Caregiving is a familiar dynamic to Sharon, who wrestled with Agent Orange exposure affecting her husband and her daughter.

Despite challenges in their marriage, Sharon committed herself to learning about dioxin exposed after realizing its impact in her household. Sharon recounted her husband's struggles with PTSD, which at times made her fear for her own and her daughter's safety. She reflected, "Man, I cried a lot when I was young," recalling the periods her husband went AWOL (absent without leave) both in the military and in their marriage. "But I loved him so much. I wouldn't have put up with it," (S.P. interview transcript, 2023: 138-142). Sharon's dedication to her husband remained steadfast as he battled conditions like peripheral neuropathy, diabetes, and hypertension— all conditions linked to Agent Orange exposure.

Tragically, Sharon's husband never received disability benefits due to a dishonorable discharge, a status that automatically disqualified him from veteran benefits and significantly impacted their family's socio-economic well-being. The greatest heartbreak for Sharon, however, was witnessing her daughter, Dani, struggle with lifelong health issues. Dani battled various illnesses from infancy, including pneumonia, ear infections, sinus issues, and later, spondylosis and spondylolisthesis, leading to severe mobility and stability issues.

Over time, Dani's health issues have only multiplied, manifesting in a wide array of conditions: hip dysplasia, cervical dysplasia, ovarian cysts, chronic migraines, bulging discs, fibromyalgia, gastritis, arthritis, granuloma annulare, and tachycardia, just to name a few. Alongside these physical ailments, Dani has also struggled with mental health issues, exacerbated by the stigma and disbelief she has encountered from medical professionals, psychiatrists, and school officials who questioned the legitimacy of her numerous health conditions. Sharon, driven by a mother's desperation, has shared her and Dani's story through various media outlets, aiming to raise awareness about the genetic uncertainties associated with Agent Orange exposure. In one publication, she poignantly describes feeling isolated and helpless, particularly due to the reluctance or inability of VA doctors to acknowledge a connection between her daughter's conditions and her husband's military service. She has publicized her story across different media to find community with other veteran families encountering similar issues.

> "It kills me to know that she continued to endure a host of medical challenges without any real medical intervention and treatment plan. And she is not alone. Every day I meet another child of a Vietnam veteran who is going through the same thing," (*Faces of Agent Orange*, n.d.)

Sharon's experiences mirror those of many other wives and widows. These spouses often shoulder immense grief and guilt, burdened by the knowledge of their husbands' military experiences and the lack of avenues for assistance or answers. Sharon has tirelessly researched scientific studies and consulted with medical specialists and genetic counselors, all while balancing work and family responsibility. For her, the impact of exposure is not a straightforward illness but an irregular, chronic presence that permeates every aspect of daily life.

The scarcity of studies on the intergenerational impacts of exposure in children of veterans leaves many families left with uncertainty as a constant companion. In the few studies that do indicate toxic legacies, scientists require more research and funding to create a robust knowledge on intergenerational exposure effects (Kessler 2011; Quinn et al. 2011). Families often face skepticism and demands for objective evidence from medical professionals and state officials, adding to their burden of proof. Jaime's experience is a testament to these challenges. She found herself undertaking much of the research independently due to her husband's reluctance to connect his health to his military service. "My husband took himself the first time [to the VA], he would not allow me to go. I had to respect that," Jaime recounted. Her involvement intensified after they received a VA notice requiring him to take a medical exam, an assessment that Jaime thought he had already completed on his first trip to the VA. It turned out that he never went because he had unintentionally forgot.

Jaime's husband was dependent on oxycontin to manage his pain levels for over 15 years, creating a new kind of toxicity to deal with.

> "It was getting to where he was forgetting to pay our bills. And I was just starting to find out those things […] He was working and bringing home his paycheck, but he couldn't do anything else. And so I was just there trying to keep the family together." (J.A. interview transcript, 2022: 218-222)

The oxycontin would pose an additional challenge for both Jaime and her husband. The VA stipulated that he needed to wean off the drugs before they could assess him, a process that required Jaime's vigilant physical and emotional support. During this period, Jaime learned more about Agent Orange from her veteran patients in her physical therapy practice. One patient, who had handled the chemicals directly, shared his harrowing experience and urged Jaime to advocate for her husband's medical assistance and disability benefits.

> "He said that they had them in gear and boots, you know. But it didn't matter because the chemicals were so corrosive that they broke holes through the barrels. And that he would just be soaked in this, of these chemicals all day until he got a chance to get out of them and shower. So that was his job." (J.A. interview transcript, 2022: 250)

The weight of understanding the full scope of Agent Orange's impact compelled Jaime to delve deeper into its history and effects. Her research began with a conversation with her husband, who recalled seeing helicopters spraying chemicals while he was in the field. Motivated by this revelation, Jaime traced the origins of Agent Orange and discovered other notable exposure incidents from its manufacturing, like Monsanto Nitro plant, the Seveso chemical leak, and the evacuation of Times Beach, Missouri (Zierler 2011). She uncovered unsettling details, particularly the malignant effects observed in second- and third-generation family members of those exposed

(Bertazzi et al. 1998). This information not only horrified Jaime but also raised fears about the potential health implications for her own son and granddaughter.

This situation highlights a broader narrative: spouses of veterans, though not directly exposed to Agent Orange, experience denial indirectly. They bear the burdens of toxic residuals, not in physical ailments, but int their relentless fact-finding efforts, advocacy, and caregiving. In certain cases, families may receive restitution in the form of Dependency and Indemnity Compensation (DIC) benefits. These benefits are designed as a form of social security for spouses and dependents, providing them with a portion of the veteran's awarded disability compensation. Additionally, there are specific benefits allocated for funeral expenses and caregiving grants. These grants are intended for family members who undertake significant caregiving roles, such as driving veterans to medical appointments, administering medication, wheelchair assistance, and daily living need like maintaining cleanliness and mobility support.

Sharon and Pam, both widows of veterans, have successfully navigated the process to receive DIC benefits. This required them to submit extensive paperwork demonstrating their need for compensation. However, both women faced considerable challenges. Sharon's situation became so dire that she was on the verge of homelessness by the time she received her benefits. Pam, on the other hand, encountered issues with her retroactive backpay. Thought it was supposed to be guaranteed upon acceptance of the DIC benefits, she initially did not receive it. It was only after reaching out to her political representative and waiting an additional six months that she finally received the eight months of backpay (Field notes, November 2022).

The impact of toxic residuals from exposure is not confined to veterans and their spouses alone; it extends intergenerationally, affecting children and grandchildren. These descendants face a unique form of denial as individuals and as heirs to a legacy of suffering. Their health issues are often seen as a genetic inheritance, loosely linked to mutagenic exposure effects without concrete evidence of causal connections. Research suggests that reproductive mechanisms affected by exposure can lead to birth defects and developmental issues (Durant et al. 2015; Mekdeci 2007; Stellman and Stellman 2018). Yet, official recognition and assistance for descendants are virtually non-existent. Their bodies become involuntary carriers of this legacy, leading to feelings of fear, guilt, and frustration.

Laura, a daughter of a veteran, shared her and her own daughter's struggles learning about her father's military service. "I never knew much about my dad's military service. He never talked about it when I was young. I was shocked to hear that he thought my health and my daughter's might be connected to Vietnam," (L.B. interview transcript, 2022: 86-87). Laura's story illustrates the ongoing struggle in knowing Agent Orange and distinguishing it as a potential health issue. She discussed her reproductive health issues as inextricably linked to developmental issues experienced by her daughter.

> "I had two miscarriages between my first and second daughters. My doctor prescribed me to take progesterone, to ensure that I can keep my pregnancy. But later, I found out that that might had led to my daughter's precocious puberty. And now I hear that my dad was exposed to something that might have affected me in having those miscarriages." (L.B. interview transcript, 2022: 122-124)

This fear of unknown consequences is compounded by a lack of conclusive scientific evidence. The Birth Defect Research for Children organization (2023) suggests that children of Vietnam War-era veterans are more likely to experience adverse reproductive health outcomes compared to children of non-veterans. Similar findings have been found but went unrecognized during congressional investigations (Aschengrau and Monson 1990).

Toxic residuals from military chemical exposure seep into the everyday lives and decisions of families. This creates a state of biosocial displacement amongst different sufferers, whose experiences and voices often go unacknowledged amidst political and scientific failure to address their concerns. For some, like Sharon and Pam, the labor of caregiving and fact-finding adds to the burden, as they become additional bodies carrying the weight of knowledge about exposure effects. Others, like Laura, are caught between medical explanations and lingering questions about familial inheritance of exposure, feeling as though they are unattended legacies of war. These families face daily denials, not just in their experiences with the VA, but also in their genetic legacy, contending with uncertainty as an ever-present aspect of their lives.

The uncertainties devolve tough decisions. Sandra sharing a heart-wrenching example of how such a legacy influences life-altering choices:

> "Our daughter chose not to have children after witnessing her brother's struggles from a young age. She saw a lot in those hospital visits that she probably shouldn't have, but I had no choice. It was tough on her." (S.D. interview transcript: 144)

For descendants, denial is intricately woven into their everyday existence, as they become acutely aware of their bodies from enduring debilitating pain to deciphering medical reports. Their experiences are continually scrutinized by medical and institutional actors bound by policies that underplay the true extent of their suffering. This residual effect of denied knowledge and care is compounded by the lack of meaningful contribution to the discourse on Agent Orange.

Institutional systems create gaps in care, leaving families burdened with excessive caregiving responsibilities and the uncertainty of their situation. Toxic residuals manifest in both physical and non-physical ways, dictating how suffering is recognized and understood in socio-historical contexts. Families contend with burden-sharing with veterans, navigating a complex landscape where experiences are often minimized or dismissed.

Concluding Remarks

Local realities of suffering emphasize the arduous journey toward recognition and securing necessary assistance. Although available resources offer some relief, they barely mitigate the daily experience and laborious efforts required: personal hardship, familial burdens, scientific uncertainty, medical ambiguity, and bureaucratic hurdles. Veterans persistently work against denial, having to prove their suffering not only to medical and political authorities but also in having difficult family discussions, particularly when addressing the biological effects on their bodies.

This chapter sheds light on the reproducibility of denial through toxic residuals, characterized by battles against medical uncertainty and institutional barriers that hinder open dialogue and alleviation. Illness experiences are objectified, categorized, and dissected into institutional interpretations, demanding untold commitment of time and labor in negotiating these experiences. Reflecting on Robert's poignant statement— "delay, deny, die"— it becomes evident that institutional disjunctures in knowing and addressing exposure effects perpetuate new forms of denial that are likely to persist in bureaucratic systems: waiting until there are no more veterans that claim Agent Orange as the source of their suffering.

Examining toxic residuals provides insight into these forms of denial and tangible impacts on everyday life. These residuals embed within local realities, producing discursive effects that impact social, financial, familial, and personal well-being of the veterans. Their experiences are distilled and reinterpreted through official paperwork, decision notices, medical opinions, and the fluctuating awareness of their own bodies. Veterans experiences these residuals in varying degrees, with access to resources that their descendants may not have. This discrepancy underscores the uneven distribution of support within the veteran community.

Toxic residuals burden veterans and their families with the weight of iterative denial and its impacts on their lived bodies, embodied selves, and their sense of belonging as military veterans. The next chapter explores how veterans perceive and experience Agent Orange as a continuation of postwar politics affecting their health and veteran identity. Denial has biologized miliary experiences through institutional and social narratives projecting new and complicated meanings onto their bodies, selves, and identities. Toxic residuals reproduce these politicized meanings as everyday existential questions weighing on minds and bodies of the sufferers struggling for recognition.

Chapter 5: Military Identities: Agent Orange Politics and the Embodiment of Veterans

As I thumbed through the papers spread across their dining room table, my gaze was drawn to still images of military planes spraying a fine mist, maps of Vietnam showing where chemicals were deployed, and a colorized photograph of thousands of orange-striped 55-gallon barrels in a shipyard. Sandra, pointing to the barrels, shook her head in disapproval. "My cousin was a career Air Force member who died from Agent Orange exposure. When he first fell ill, I told him, 'Jack, it's Agent Orange. Think about your exposure.'"

Her cousin loaded and unloaded equipment in Vietnam, including these barrels. The barrels, arranged neatly like soldiers awaiting orders, were a stark reminder of their purpose. "He looked at me as if I had betrayed him," she continued. "But his death certificate ultimately listed 'Agent Orange-related disease' as the cause. "Jack had always viewed Agent Orange merely as a military tool, dismissing its harmful effects. It wasn't until his cancer diagnosis and conversations with fellow veterans about their shared chemical exposure that he began to understand Sandra's perspective. "His wife came to tell me afterwards that, 'Yes, he knew that at the end.' But not until the end would he admit that." Sandra said, her eyes fixed on the image of the barrels stretching into the distance. Over 200,00 of these barrels were used to spray 4.5 million acres of Vietnamese land, affecting countless lives.

"Agent Orange is a very clever chemical," she mused. "It can take months to years before you first get sick. It knows your body's hidden weaknesses better than your doctor […] We thought it was something to help our troops, helping them out there in the field. Lot of good it did to them." (Field notes from interviews with S.D., November 2022)

Introduction

The Vietnam War-era represents a pivotal shift in the relationships between veterans and society, influenced by various factors including economic recession, anti-war sentiment, and budget cuts of social services. Political and social institutions historically portrayed veterans positively as deserving heroes entitled to recognition and support in their post-military lives (Bulmer and Eichler 2017; Feinstein 2015; Sorensen 2015). However, public discourse during the 1960s and 1970s transformed perceptions of veterans based on changing social and economic conditions, such as new discourses on PTSD and mental health, drug dependency, and rising homelessness (Camacho and Sutton 2007). The new veteran "image" formed during the Vietnam War-era became complicated within these narratives, leaving veterans uncertain of their social identities in their post-military lives.

Veteran identities are constructed through a complex interplay of personal, social and institutional experiences. These identities are shaped within organized, military spaces and influenced by social narratives that frame veterans and their military experiences. The Vietnam War-era produced new ways of understanding veterans compared to earlier veteran generations, such as associating veterans as tragic victims scarred by physical wounds of war, or mentally deranged, drug-addled individuals struggling to cope with personal involvement in the war (Hagopian 2009). These narratives are perpetuated by political and social narratives that project specific interpretations of the war onto veterans' collective experiences, rather than allowing veterans narrative authority to speak of their experiences. However, as noted by veteran studies scholars Dolan et al. (2022), the salience of military identity is dependent on wider, historical forces that continuously make and unmake how veterans perceive and negotiate their military identities, and we should resist using collective interpretations in understanding how veterans experience these identities.

In my research I have found that veteran participants' veteran identities are significantly influenced by the uncertainties surrounding their experiences. In veterans' reflections of their belongingness to a veteran identity, I have found that the unknown long-term health effects of Agent Orange exposure and the historical political neglect experienced in the immediate post-war years contributed to a sense of being betwixt and between—neither fully acknowledged for their service nor entirely disconnected from their military past. As a result, this creates a complex landscape of identity negotiation and the embodiment of uncertainty surrounding Agent Orange exposure.

In anthropology, embodiment theories are used to emphasize the deeply interconnected concepts of the self and the body. Embodiment views the body as not merely a vessel or a container for the self, but an active instrument in the formation and expression of identity (Csordas 1990). It also highlights how societal norms and expectations influence individual perceptions of self that are reflected through the body and in society (Csordas 1994). This expression can take different forms, such as clothing choices, body language, and even the way we modify our bodies in different spaces. These physical manifestations are not just superficial; they are deeply tied to how individuals perceive themselves and present themselves to others. In the context of the military, embodiment includes the shaping of bodies and behaviors to align with military objectives, in addition to how their embodiment changes over time as veterans return home, inhabit new social roles, and occupy social spaces differently after military service. Embodiment theory provides an important lens on how veterans perceive, express, and negotiate their military experiences and identities.

The interactions between the body and the society plays a crucial role in shaping identity. Society often imposes norms and expectations regarding physical appearance, influencing how individuals feel about their bodies and how they choose to present themselves. For example, militarization, a prominent factor in the formation of military and veteran identities, is an institutional process used to conform bodies and behavior in military spaces, such as body conditioning in basic training and instilling values of authority and complicity (McGurk et al. 2006). This institutional process illustrates how the body is not only a mode of self-expression but also a site of institutional conformity. Embodiment of military experiences begins with specific processes, like militarization, that prime veterans in their perception of their military experiences in their post-military lives.

Agent Orange exposure represents a critical source of uncertainty for the veterans. The chemical's widespread use and its associated health risks have left veterans grappling with unanswered questions about their health and well-being. The latency of knowledge of exposure effects left many veterans in a liminal space of not knowing the full extent of the impact on their lives. This uncertainty about health outcomes disrupts the ability to understand and integrate their military experiences into their post-war veteran identities, perpetuating a state of liminality where they are caught between the past impacts of their service and an uncertain bodily future.

Moreover, the historical political neglect of Vietnam War-era veteran exacerbates this liminal state. Upon returning home, many veterans faced a society that was at best indifferent and at worst hostile to their service, a stark contrast to the reception of veterans from other conflicts. This societal ambivalence, coupled with slow institutional response to addressing Agent Orange exposure, left veterans in a state of social and political limbo. Their experiences were neither fully recognized nor adequately address, reinforcing their position on the margins of social and official recognition.

However, not all veterans perceive their military experiences or express their veteran identities in the same ways. Veteran identities are discursive in how they are experienced and are subject to change over time. Embodiment theories also acknowledge the fluidity of identities, which change to new and different life experiences that may alter perceptions of self. Life experiences, such as illness and aging, can lead to personal and social reevaluation and transformation of how individuals understand and express their identities (Budgeon 2003). Agent Orange discourse, particularly the uncertainties surrounding exposure, is a key factor in the discursive experiences and perceptions of veteran identities. My research explores how veterans reflect on their military and veteran identities over time and how Agent Orange exposure impacts their understanding of their bodies and selves as imbued with uncertainty.

Liminality within identities and uncertainty are connected conceptually and in lived experiences. Liminality, a term originally used in anthropological literature to describe the ambiguity or disorientation that occurs in the middle stages of rituals, has been expanded to refer to situations where individuals or groups find themselves hovering between social statuses, roles, or identities, without wholly belonging to any (Turner 1969; van Gennep 1977). Scholars focusing on veteran studies use liminality to describe veterans' continuously evolving identities and the uneven transitions in experiencing and remembering military service (Szakolczai 2009). Liminality is used to flesh out the multiplicity of veteran identities that are contingent to different political and social factors, and is understood in non-linear terms as veterans, in particular, experience a fluidity in knowing and negotiating military service experiences over time (Herman and Yarwood 2014; Hunniecutt 2022). Therefore, liminality is characterized by transition, ambiguity, and, importantly, uncertainty.

Uncertainty, in this context, is the lack of sureness or predictability about one's identity. It involves not knowing or being unable to determine what lies ahead, which is a core aspect of the liminal experience. When individuals find themselves in a liminal space, they are essentially in a threshold state, caught between past certainties and future unknown. This state is marked by a search for meaning, identity, and direction, but without clear markers of guides.

The experience of liminality for veterans highlights the importance of recognition of their identities and experiences. The state of being-in-between places veterans in a precarious social and political position that demands validation. The struggle for recognition, as emphasized by research participants, is about affirming their experiences as meaningful and acknowledging the impacts these experiences have on their present identities. As veterans navigates this liminal space over time, the certainty and affirmation of recognition from a variety of entities and sources become vital to reconciling their miliary pasts in their late-life stages.

I argue Agent Orange discourse redefines veteran bodies, selves, and identities in complex, discursive ways that are embodied, negotiated, and challenged, producing a liminality in knowing and remembering military experiences for veterans. Liminality, in this context, does not render individuals as passive agents that merely absorb or are controlled by uncertainty. Instead, it offers a dynamic space where veterans renegotiate the meanings assigned to their identities, embodying and untangling uncertainties connected to their military experiences. Thus, liminality is not just about the uncertainty of transition from military to civilian life; it is about the transformative potential that this uncertainty holds for redefining identities and understandings over time. Through this liminality, veteran participants discuss how they perceive recognition and justice and the ways in which they cope with living with uncertainty of their bodies and identities that are held in social and political contention.

The Discursive Ways of Experiencing and Remembering Military Service

Militarization plays a pivotal role in shaping military identities and experiences, and is intricately tied to institutional, historical, and personal elements. This process is mediated through a variety of discourses, encompassing narratives, rituals, symbols, and shared experiences that significantly influence the identity of service personnel, both during their service and afterwards. In exploring the effects of Agent Orange, it is crucial to understand how militarization influences their post-military life, priming identities to encounter specific ways of knowing and remembering their military experiences.

Militarization can be seen as a process that manipulates bodies under the influence of institutional forces. The primary aim of militarization is to prepare bodies for institutional purposes like conducting war and ensuring national security. Through these processes, the body is seen as an instrument for the state, imbued with specific narratives and behaviors that may conflict with personal and social identities in their post-military lives (Flack and Kite 2021). Militarization becomes an effective means to conform individuals to military life within institutional spaces, transforming bodies and selves to operate differently in military spaces compared to civilian ones.

The formation of a military identity, a precursor to veteran identities, starts with training and indoctrination, where a sense of shared identity among service personnel is instilled (Grimmel and Van den Berg 2010). Military spaces and behaviors are crafted to de-individualize through rigorous conditioning. This includes both physical and psychological aspects, established in basic training and reinforced through structured hierarchies, policies, and values that promote collective obedience and institutional loyalty (McGurk et al. 2006). While militarization equips individuals to accept institutional authority during service, it often poses challenges for social readjustment into and after military service.

Furthermore, the construction of military identity is reinforced through narratives and symbols. Narratives of heroism, sacrifice, and patriotism are often emphasized in military and civilian narratives on military personnel. These narratives, perpetuated through military ceremonies, memorials, media representations, and storytelling, serve as state propaganda to foster positive perceptions of institutional agents (Lutz 2007). Labeling soldiers and veterans as “heroes” and “honor-bound” repositions these agents as essential in performing national security and governmental objectives. These narratives and symbols help in creating a sense of continuity and belonging, linking individuals to a larger, storied tradition. However, these narratives might not fully encapsulate the diverse experiences of veterans.

The connection between militarization and the liminality of veteran identity lies in the contrast and conflict between the clear, structured identities formed through military service and the uncertain, fluid identities veterans must navigate upon reintegration into civilian life. Militarization sets veterans up with specific expectations, behaviors, and roles, which can be at odds with civilian life, leading to experiences of liminality for veterans. Veterans, therefore, experience liminality as a result of the discrepancy between the collective, uniform identity fostered through militarization and the individualized, often ambiguous roles offered by society. This experience is further complicated by societal perceptions, the reception of veterans, and the recognition, or lack thereof, of their service. The struggle to navigate this liminality underscores the impact of militarization on the construction of veteran identity and the complex process of transitioning from military to civilian life.

The Vietnam War’s unpopularity was projected onto veterans, sparking social discourse on institutional authority and condemning its agents for perpetuating harm. One of the factors that generated its unpopularity was the shifting attitudes of drafting men into service. Vietnam War-era veterans were the last generation of drafted armed forces before the transition to an all-volunteer force. Approximately 37% of the veterans interviewed were drafted and served a two-year military duty. They represent a portion of the 2.2 million servicemen drafted, about 39% of the total military personnel during the Vietnam War-era. Table 2 below details specific demographics relating to military service amongst veteran participants.

Table 2. Demographics of Interviewed Veteran Participants

		Total	
		n	%
Participants		19	
Military Entry Status			
	Enlisted	11	58%
	Drafted	8	42%
Military Branch			
	Army	14	74%
	Navy	1	5%
	Marines	2	11%
	Air Force	2	11%
Years of Military Service			
	2 years	9	47%
	3 years	4	21%
	4 years	5	26%
	>5 years	1	5%

The reasons for enlisting in the military, often portrayed as patriotic duty, family tradition, or career opportunities, also included a lesser-discussed motive: the desire to avoid frontline combat. This notion is evidenced in several interviews, such as an interview with a veteran's widow, who recounted her husband's choice to enlist on familial advice: "His father told him, 'If you enlist, [the military] treat you better than if you are a draftee. And a lot of times, you can control where you're going and what you're doing," (P.H. interview transcript, 2022: 62). This underlying understanding suggests that enlistment provided a way to navigate military service with potentially fewer risks.

Enlisting offered opportunities for favorable positions or state-side assignments, potentially avoiding a year in Southeast Asia. However, this strategy was not foolproof. For example, John, after receiving a draft notice, chose to enlist, hoping to secure a more advantageous position. Despite this, he was still sent to Vietnam, contrary to his expectations. His experience reflect a common sentiment among those who enlisted reluctantly:

> "Very much against my will, did not want to at all. I found the Army from almost day one to be just a terrible experience. There were all kinds of what I would call 'atrocities' that happened in basic training and my advanced training, and I got to Vietnam and it wasn't a bit better." (J.K. interview transcript 2022: 34)

This highlights how, despite the purpose of militarization being to reduce such feelings toward military institutions, veterans experience and remember a reluctance and disdain upon entering their service, feelings that are still present today as veterans.

It is assumed through institutional and social narratives that military personnel understand the risks of service, including physical harm. As Stephen Gardiner (2013) notes, military narratives of situating the body as "armored" are contrasted by military personnel that experience debilitating bodily conditions from military activities. Despite the dissonance between expected versus reality of military experiences, there is a throughline in which some military personnel understand service involves inherent risk. For instance, Robert, who enlisted to support his family, was fully aware of the sacrifices involved: "Whether you enlist or are drafted, you are essentially writing a check to 'Uncle Sam' that is up to and including your life," (Field notes, February 2022). This perspective contrasts with others who, like John, felt misled about the realities of service and harbor feelings of resentment that leech into their post-military lives.

Another overlooked risk was the threat of chemical exposure. Some veteran participants described a brief exercise in basic training that taught military personnel how to put on a gas mask. The majority of participants assumed gas masks were meant for protection against enemy attacks, not anticipating the regular use of chemicals, like napalm, during their time in the field. As one veteran recollected, “We were told to have our gas masks with us in the field. But they never did tell us what they were for,” (Field notes from M.P. interview transcript, 2022). The realization of such risks, including Agent Orange exposure, came much later, altering veterans’ understanding of their service. Mike did not know about Agent Orange until decades after his service. He assumed gas masks were just standard military gear that all service personnel had in their packs. But he wondered if the military was aware that gas masks could have been a preventative measure to military chemical exposure: “I don’t think it would have completely saved us, but it sure would have been helpful at the time.” Mike believes that including information about Agent Orange in militarization processes would not have prevented exposure; however, it might have led to earlier awareness of health problems. This is particularly significant considering many veterans left the service at a young age, a time when they were less concerned with monitoring their health compared to their later-life stages.

The age in which Vietnam War-era veterans entered into service, typically between 19 and 22 years old, played a crucial role in their integration into military culture. Young enlistees were expected to unquestioningly follow orders, a practice that some, like Barney, later reflected on as a way to transition into military service. Barney describes the early days of service as a form of “brainwashing,”:

> “I was only 20 years old at the time. You kind of believed everything said […[Once you go through basic training, you’re kind of brainwashed. They won’t call it brainwashing, but the ideas was to forget everything and focus solely on your team. You had to know your job to protect yourself and your comrades.” (B.S. interview transcript, October 2022: 80-85)

Barney’s interpretation of militarization reflects a strategic approach to regulate the bodies and minds of service members to ensure compliance. This “brainwashing” is indicative of some veterans’ resentment towards the processes that shaped their physical conditions and institutionalized their service experiences. Highlighting the young ages of these men further underscores the contrast between their youthful vigor and the long-term consequences of war and military life. This is particularly poignant as many veterans, now in later stages of life, continuously reflect on how their health has been shaped by experiences from their earlier years.

Militarization can be a uniting force for veterans that experience military life differently. For some veterans, like Johnny, individuals may remember their experiences intensely, such as participating on the battlefield. In comparison, others like Dr. B, may have been stationed far from the frontlines, working primarily on base, and situate their military experiences synonymously with occupational life. Despite differences in where and how veterans served, militarization provides common values, behaviors, and systems that bind military personnel and veterans into a collective culture. For example, Robert, an Army veteran, routinely asks about the "MOS (Military Occupational Specialty) code of fellow veterans. These codes convey crucial information about a veteran's duties during service. Robert's MOS, "88M," identities him as a specialist in the Army Motor Pool, regarded as a technical expert in transport vehicles. In contrast, a "12B," an Army Combat Engineer, is responsible for in-field tactical support, such as building bridges or detonating explosives. These MOS codes not only indicate knowledge hierarchies within the military but also serve as a unique language for military personnel and veterans to share and comprehend each other's experiences. Through these codes, veterans like Robert gain insight into military experiences beyond their own, showcasing the role of militarization in shaping both personal and collective narratives and facilitating communication within and beyond military contexts.

Militarization significantly alters bodily awareness and repositions the body, as illustrated by veterans' experiences. Mike, an Amry veteran, shared his heightened state of alertness during night patrols and guard duties, where distinguishing between friendly and threatening sounds was crucial. This hypervigilance transformed his perception of his body into an instrument for detecting threats and ensuring the safety of his unit: “There were a lot of sleepless nights. I hated guard duty,” he recalled. Such experiences underscore how militarization ingrains new bodily practices that persist beyond military service, embedding modes of behavior that are not easily discarded in civilian life. According to Zoe Wool’s (2015) research on hypervigilance and the embodiment of militarization processes in post-service experiences, these conditioned responses reflect a deep embodiment of military training, where the body is tuned to respond in ways that are aligned with military practices, challenging the return to “natural” responses once their service ends. This demonstrates the lasting impact of militarization on veterans, affecting how they navigate and interact with their bodies and identities in their post-military lives.

Militarization reshapes both bodies and identities to confirm to specific desired outcomes within the military structure. However, this transformation does not always extend beyond military service, where former military personnel must navigate their identities independently. The majority of veteran participants described their discomfort in talking about their military experiences, even to other veterans, for many years. Their minds and bodies are not only altered by living and working within military settings but their entire being is reconstructed. For example, Pam described her husband as very particular when it came to cleaning, an attribute that stems from basic training days where personnel were expected to meet high standards of cleanliness. Art, a former Marine, still observes flag codes, raising and lowering his own American and U.S. Marine Corp flags outside his home. Mike and John, two Army veterans that are a part of the Color Guard[7], keep meticulous order of their uniforms whenever they perform at parades and funeral processions.

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[7] The Color Guard is an “honor guard”, in which veterans dress in their uniforms and perform specific military rituals in public spaces. Typically, the Color Guard is present during veteran funerals, parades, and other veteran memorial activities.

These behaviors reflect the modes of attention inscribed on their bodies from their days of service, becoming a part of them that never completely leaves or can be “undone”.

Upon discharge from military service, veterans experience disruption in transitioning back into society. Militarization prepares individuals for military life; however, there was no formal process in socially adjusting Vietnam War-era veterans back into civilian life. Interviews revealed the transition from military to civilian life was often abrupt and challenging, finding themselves having to rapidly readjust with minimal support. Robert, for instance, returned home to find his car sold by his family for extra cash. Mike faced rejection from a veteran’s social club when he tried to apply for club membership. Al discarded his service clothes and turned to alcohol as a means to process his military service. Purple Heart recipient Bill encountered legal troubles, leading to an additional two-year military service conscription as penance. And Eric coped by immersing himself in work to avoid traumatic memories. These experiences illustrate the stark contrast between military and civilian life, leaving veterans to navigate this shift on their own.

In the post-war period, there was a greater emphasis on social readjustment for modern troops, with more resources available to assist veterans and their families. However, Vietnam War-era veterans faced a different reality. They were given an exit physical, returned their gear, received discharge papers, and were left to seek resources independently. This absence of support contributed to the struggle for recognition of issues like Agent Orange exposure, requiring veterans to independently advocate for themselves.

Militarization, combined with social unrest and antiwar sentiments, led some veterans to conceal their military experiences. Many discarded military items, retreated inwardly, or resorted to substance abuse and legal issues. These coping mechanisms evolved into stereotypes reflected in media and political discourse, transforming veterans’ identities into major political talking points, like PTSD, addiction, and homelessness (Camacho and Sutton 2007; Dittmar and Michaud 1990). While these issues eventually led to positive cultural shifts, such as the recognition of mental health needs, they also resulted in some veterans deliberately avoiding help, even when urged by family. For example, a few of my participants, like Bill, described physically altering their appearance to avoid being seen as a veteran and to ease social reintegration. Bill grew his hair long and adopted a "hippy" appearance to distance himself from his military past. Others, like Jimmie, prioritized immediate concerns like employment and starting a family.

> "I was too occupied, busy with a new baby and trying to get a job, so I could support my wife and kids […] I wasn't aware of a lot of stuff that was going on, because just too busy thinking about finding a good job and in taking care of my son, and stuff like that." (J.F. interview transcript, 2022: 152).

And some experienced emotional relief from ending their service commitment: "Oh, I was one happy young fella to be out of the military. I didn't want to have any more part of it." (R.R. interview transcript, 2023: 186). Hiding their veteran identity to personally deny and delay processing their experiences would prove to be a defense mechanism to control how experiences were projected onto veteran bodies, selves, and identities.

Military identities encounter institutional processes that transform civilian bodies and identities to conform to military culture. Once they have completed their service, they achieve a veteran status and identity. However, militarization aims to conform individuals, not to reintegrate individuals back into society. Veterans experience a jarring, awkward transition from military to civilian life. As they exit military service, they experience a sense of liminality, navigating their new identities on their own in a socially contentious atmosphere. As veterans reflect on their military experiences, they become keenly aware of the lasting impacts of militarization processes, noting how embodiment of military habits and perceptions were ill-fitting when returning home.

This resulted in many participants “hiding” their association to military life from family, friends, and other veterans for many years.

Militarization significantly shapes veterans’ expectations and roles, imprinting upon them identities that persist into their post-military lives. This deeply ingrained militarization prepares veterans for service but also sets the stage for challenges they face upon reintegration into civilian life. Veterans find themselves in a liminal state, caught between their well-defined military identities and the often uncertain and unstructured civilian world. This state of liminality was experienced discursively as some veterans relay an easier transition than others who struggled. The experience of liminality is further complicated by the uncertainties surrounding issues like Agent Orange exposure. These veterans were tasked with making sense of their military experiences within a societal framework that may not have fully recognized or understood their military experiences. This not only hinders their ability to feel personally acknowledges but also creates new embodied way of “knowing” themselves and their bodies.

Living in Liminality: The Politics of Veteran Personhood

The body acts as a waypoint for locating and expressing the self, particularly in communicating experiences like health and illness. Embodiment, as articulated by Thomas Csordas (1994), posits that human experience and identity are shaped by the physical body’s interaction with the world. According to this theory, our bodies are not just passive vessels for our minds but active participants in constructing social reality and individual identity. Csordas conceptualizes embodiment to highlight how our bodily sensations, movements, and physical conditions are intertwined with our perceptions, emotions, and social interactions, thereby influencing our sense of self and our place within society.

In the context of veteran personhood, embodiment theory illuminates how military service and its aftermath are inscribed onto the bodies of veterans, shaping their identities, experiences, and social interactions. The politics of veteran personhood emerge from the intersection of bodily experiences with the institutional, cultural, and political narratives that define and delineate the meaning of military service and its consequences, such as physical and psychological injuries from service. Debra Swoboda (2006) notes that military-related health problems represent a nexus between the personal and political, assigning new meanings to experiences like chemical exposure and physical disability that others define differently in society. These embodied experiences can challenge or reinforce societal perceptions of veterans, influence their access to care and recognition, and influence their engagement with their communities and institutions.

The politics of veteran personhood are deeply embedded in struggles over recognition, care, and justice, as veterans navigate systems that may alternately acknowledge or deny the legitimacy of their embodied experiences. For veterans who perceive they were exposed to and affected by Agent Orange, their illness experiences become intertwined with the construction and perception of their veteran identity. However, the institutional denial and scientific uncertainty surrounding Agent Orange compound these experiences into these identities, creating new sites for managing and negotiating these experiences between institutions and society, holding veterans in a liminal state as their experiences are authored and authorized differently from their own understanding.

Liminality is a concept that has been used to understand the nuances and complexities of veteran identities, particularly in the context of transitioning from military to civilian life. Jennie Hunniecutt (2022) and Agatha Herman and Richard Yarwood's (2014) research suggest that veteran identities are shaped by social and institutional factors, creating liminal spaces and narratives that impact their transition. Liminality affects how veterans understand and embody their military experiences, with some achieving closure while others continue to grapple with the impact of their service. The making and unmaking of military identities reveal how development of veteran personhood is not a “totalizing conception” but rather as an area that demands further research to understand the contours of veteran identities and specific veteran issues (Bulmer and Eichler 2017). Liminality points to the embodiment of behavior and values that appear ill-fitting or incongruent in other social spaces. Veterans experiencing uncertainty of their military and health experiences produce liminal spaces that require them to reflect, manage, and negotiate how those experiences are communicated to themselves and to others.

In this research, liminality is defined as the embodiment of uncertainty, where veterans cope differently with the ambiguity of exposure knowledge and its impact on their health and sense of belonging as Vietnam War-era veterans. This uncertainty, fueled by institutional denial, leads to diverse responses among veterans, ranging from indifference to anger and regret, as they process new meanings assigned to their service experiences. Agent Orange exposure as a liminal factor complicates understanding of veteran bodies and thus impacts the sense of belongingness in veteran identity.

When the Agent Orange Act of 1991 was enacted, there was a blanket presumption that stated that all military personnel that served in Vietnam are “assumed” to have been exposed to Agent Orange chemicals. However, exposure can only be verified if individuals have a condition that is recognized by the VA. The ambiguity surrounding exposure through laws and bureaucratic processes creates a universalizing experience for veterans, in which exposure is both acknowledged and unacknowledged. Recognition is conditional, making uncertainty a common experience attached to their bodies, identities, and military lives. The extent of exposure effects is limited but undetermined in its boundaries. This leaves veterans at the threshold in either choosing to engage or to continue avoidance. For some, exposure is just one of many issues from their military service, while for others, it becomes a central aspect of their veteran identity. Liminality is experienced differently as some veterans expressed their ability to “move on” and reintegrate into society with little issue compared to others that physically, mentally, and socially struggled.

For some veterans, exposure symbolized the epitome of their culminated experiences that were steeped in controversy and suffering. Bill’s story is a case in point. After a brush with the law post-service, he was advised by a judge to re-enlist, leading to a series of health complications exacerbated by Agent Orange exposure. Now wheelchair-bound, requiring a pacemaker and oxygen tank, Bill’s life revolves around a rigorous medication regimen to manage his deteriorating health. He ruefully notes the cascading side effects of his treatments, highlighting the complexities of his conditions: “My heart pill makes me retain water, so I have to have a water pill for that. But that [pill] creates this [new] side effect and so I need another pill to counter that effect. And so on and so on,” (Field notes from B.D. interview transcript, 2022). His perspective aligns exposure as part and parcel to understanding his service, wishing for earlier knowledge about the chemical to better prepare for ensuing health issues. Uncertainty has inadvertently led to a delay in addressing and attending to the bodily needs of veterans, trapping them in a liminal state of regret for having overlooked the importance of their military experiences until health issues necessitated such contemplation. However, this sentiment is not uniformly felt by veteran participants.

A proportion of veteran participants hold the belief that an earlier awareness of their health issues or the potential risks associated with their service would not have fundamentally changed their health outcomes. They argue that their engagement with their veteran identity would have remained the same, suggesting a complex interplay between knowledge, perceived control over health outcomes, and the degree of involvement in veteran communities. For example, Jimmie disposed of his Navy uniform in the trash when he returned, determined to leave his military past behind and avoid dwelling on his service. He would not pay attention to veteran issues until he experienced unusual symptoms and was told about Agent Orange exposure as a potential risk factor. “Never heard of it until I was at the VA for a check-up. Didn’t know what it was and didn’t want to think about it,” he recalled, highlighting his initial detachment (Field notes, October 2022). For Jimmie and others like him, Agent Orange serves as a catalyst for revisiting and reevaluating their military experiences. Yet, this re-engagement often brings to the surface unwanted feelings and memories, making the topic of Agent Orange a sensitive and challenging focal point for reflection. In coping with the realities of Agent Orange exposure, some veterans employ a strategy of counter-denial or detachment, shielding themselves from fully acknowledging its relevance to their personal experiences or health. This diversity in how veterans interpret their experiences and identities amidst uncertainty reveals the complex, discursive ways they navigate these realities.

For most veteran participants, initial knowledge of Agent Orange did not spur involvement, partly due to the social stigma attached to being recognized as a veteran. It was not until the 1990s, following the Agent Orange Act of 1991, that broader awareness and political knowledge of the issue emerged. The Act’s “blanket exposure” assumption meant that any Vietnam War veteran could potentially suffer from exposure-related health issues, opening a metaphorical Pandora’s box for veterans to decipher what that meant in terms of their personal health. Despite this, engagement with VA services remained limited amongst veteran participants for several reasons, including a belief that their health did not require immediate medical attention.

As an example of veteran reluctance to discuss their service experiences, J.T., an Army veteran, shared his silence about his military past for 30 years. He broke that silence when he joined a veterans' club. He found solace in shared experiences with other veterans.

> "You know, we weren't very popular and that people didn't want to talk to me, ignored me and stuff. You know, I mean, they didn't call me 'baby killer', cuss at me or do anything like that. But it's like, they didn't want to talk to me either. So I just went home. And that's it. That's everything in the back of the closet, never looked at it for 30 years." (J.T. interview transcript, 2022: 110)

J.T. was encouraged by veterans to go to the VA and talk about Agent Orange. He initially waved it off for several years until he developed unusual spots on his head. He went to the VA to inquire about the spots and to take an Agent Orange Registry exam. During the exam, he was asked where had served in Vietnam. J.T. served "all over" Vietnam, from Lai Khe, Anh Loc, Cu Chi and even at the Cambodian border—all areas that were heavily sprayed with Agent Orange chemicals. Despite being told this information, the VA ruled that his spots were not connected to exposure.

> "The worst thing that happened that scared me a little bit was I had some spots on my head, on my forehead […] and it didn't go away. So I went [to the VA] and had those looked at and they said 'Those are just precancerous spots and they're probably from exposure to the sun.' [In the end] they didn't think they were anything to do with Agent Orange." (J.T. interview transcript, 2022: 114)

His sunspots were treated but J.T. was left uncertain about what to do with the information about Agent Orange. Over time, he developed hypertension and issues with his prostate, conditions that are both recognized as exposure effects, but was told repeatedly that these are "normal" issues that occur for men at his age. This uncertainty, however, did not cause J.T. to rethink his military experiences or change the meanings assigned to his veteran identity. After his initial VA visit, he would hear about Agent Orange occasionally, but did not feel affected by this knowledge.

> "I never even thought about chemicals or Agent Orange until I was at a [veteran] convention and they had a lady that spoke about all that stuff. I haven't really thought about it that much. And then I met a guy who was affected by it […] [h]e passed away.

> And I think a big part of it was Agent Orange. It killed him." (J.T. interview transcript, 2022: 117-118)

Although J.T. does not think Agent Orange affected his health, he understands chemical exposure has majorly impacted veterans collectively. Situating exposure as a collective issue, rather than a personal one, refers back to militarization processes that strip individuality and prioritize collectivity. While he does not assign Agent Orange as a personal factor contributing to his health, J.T. does recognize that Agent Orange has negatively impacted veterans' lives, including how veterans remember their service.

While some veterans managed to not let Agent Orange stick to themselves, other veterans cannot escape thinking about Agent Orange exposure. John's story contrasts sharply with J.T.'s. Embittered by his military experience and the legacy of Agent Orange, John actively participated in anti-war groups, like the Vietnam Veterans Against War organization, to denounce the toxic legacy veterans are still dealing with and dying from.

> "I believe [my health] is related to my military service, my "obligation" that they loved to talk about. I had an obligation to get sick from my country […] You know it's just surprising, it's sad. Nobody ever imagined in those days in 1968 in Vietnam. We did not sit around and say, 'Boy, you know, this is gonna really mess up when we get to be old!'" (J.K. interview transcript, 2022: 114)

Protesting became a way for John and other veterans to retool their veteran image and not let military pasts dictate their future. John doesn't use many VA services aside from counselling for his PTSD, or "PTS-Damage" as John calls it, and critiques the VA as one of many responsible parties that owes an indeterminate debt to veterans who struggled with their health after the war. He believes those directly responsible for Agent Orange are dead but "their legacy lives on" in the bodies of veterans and their families. Although John uses issues like Agent Orange to continue speaking out about military and political inaction in alleviating suffering, John knows the damage done to him and his body is irreversible: "They're just waiting for us to die," (Field notes from

J.K. interview, 2022). Veterans like John live with uncertainty but do not let its effects stall their efforts in discussing their service experiences. John's involvement in activism is a means to redefine his veteran identity and challenge the military and political systems that enabled chemical exposure.

Some veterans view the issue of Agent Orange exposure as an inseparable aspect of reconciling their military past, embodying a crucial element of comprehension of their military identities and experiences. The uncertainty and ramifications of Agent Orange exposure are woven into the very fabric of their identities, highlighting an important connection between their service and its long-term impacts. One veteran encapsulated this sentiment by describing Agent Orange as a "veteran thing," perceiving the tangible consequences of their military experiences as central to their sense of self.

> "Agent Orange is like cancer, I guess. There's different forms of cancer. That's the best way I can explain it […] But it's worse. If you get it, it's worse," (A.S. interview transcript, 2022: 268-270)

This veteran, Art, believes Agent Orange is more than a health issue, describing it as a problem that veterans specifically encounter and must struggle with. Art receives VA healthcare and benefits for some of his health issues, but does not know for certain if those issues were specifically caused by Agent Orange. This perspective underscores a collective sentiment among veterans who view the acknowledgement of Agent Orange exposure as a validation of their experiences. Discussing Agent Orange and its impacts becomes a way to articulate and affirm the reality of their military service, serving as a common ground for solidarity and mutual understanding within the veteran community. Art affirms this by saying "They [the VA] don't really tell you anything about it. It's a veteran thing." Art's understanding of his health and its connections to Agent Orange exposure is not shared by the VA.

Art is also an example of multiple military chemical exposures: not only was he exposed to Agent Orange during his service in Vietnam but he was also stationed at Camp Lejeune, where chemicals contaminated the military base water supply. Art understands that he was potentially exposed from those chemicals as well, further complicating which exposures caused which health experiences. This uncertainty continues to linger for Art and his family due to insufficient research on Camp Lejeune exposure effects. This uncertainty becomes even more poignant as Art is beginning to show signs of dementia, raising concerns about his ability to advocate for himself. Carolyn, Art's companion, has expressed concern that Art would not be able to negotiate his experiences if he is perceived as cognitively unable to recall information to support his case. "If his mind goes, I'm not sure there's much the VA could do," (Field notes from C.E. interview transcript, 2022). Uncertainty looms over veterans as they reconcile and struggle with changing health circumstances. While veterans, like Art, attempt to decipher how military service impacts them, uncertainty can also become a tangible threat for aging veterans approaching later-life stages. The body situated in uncertain physical conditions can produce new uncertainties that attaches itself to their identities.

Uncertainty is also experienced differently even with veterans that went through the military together. One of my interview participants, Albert, described how he and his friend, Cole, were in Vietnam together in the same cohort and managed to have similar health experiences after service. Both men experienced severe skin breakouts and kidney disease. Later on, they went to the VA to inquire about chemical exposure from their service. Albert was told these issues were *not* Agent Orange-related but his friend Cole was told his health *was* related to exposure. "We were in the same barracks, the same places in Vietnam, and now the same health conditions. And I'm being told that it's not Agent Orange but his is," (A.R. interview transcript, 2022: 312). Albert associates his proximity with his veteran friend who was acknowledged by the VA as enough reason to locate his own health. Albert has fought with the VA for years about these inconsistencies. He even had Cole write a statement confirming he served with Albert in the same areas to support this belief. The VA has written off this connection, explaining that Albert's skin breakouts were managed prior to going to VA and that his kidney disease stems from his alcoholism and other lifestyle choices that increased his risk for certain health outcomes.

Albert is situated in a liminal state within the VA's institutional system. The VA's understanding of his health prohibits him from receiving recognition that his friend was able to receive. "It's a slap in the face," Albert told me over the phone, hearing his frustration build up. "They just don't want to see common sense if it saves them a buck or two off me." (Field notes from A.R. interview, 2022). Uncertainty is stamped within Albert's interactions with the VA but his personal convictions tell him another story. While Albert still does not receive official recognition, he uses Cole's experiences as a way to personally validate his health and contextualize his military experiences. When asked about whether he felt recognized as a veteran, he describes that he does in the fact that he has "struggled" for recognition of his military and health experiences. "I feel that there is more recognition today for vets, but we struggled to get there," (A.R. interview transcript, 2022: 170). For Albert, veteran personhood is not only strife with struggle, but it is indicative of certain struggles that make and unmake military experiences. Vietnam War-era veteran identities are formed within struggles, particularly with socio-political contention and scientific uncertainty. These veterans embody these struggles as they negotiate how military experiences shape post-military life and health outcomes.

These narratives underscore the complex relationship between veterans, their health, and their sense of self through their military experiences. Agent Orange exposure not only represents a significant health concern but also acts as a symbol of the broader struggles faced by veterans in seeking recognition and understanding of their experience. Liminality, characterized by uncertainty, arises when veterans face knowledge that redefines their bodies and identities through institutional narratives and processes, creating a state of flux between old and new meanings. Living with liminality forces veterans to contend with new and uncertain knowledge that contours new dimensions in understanding their military experiences. According to the accounts of veteran participants, the uncertainty surrounding knowledge and effects of exposure paves the way for discursive ways through which veterans navigate, adapt, and sometimes resist these meanings and their attachment to their veteran identity. This illustrates how uncertainty serves as a mechanism for fostering new interpretations of their bodies and military experiences.

Ultimately, the embodiment of military health experiences, particularly those related to Agent Orange exposure, underscores the intricate relationship between veterans' health, their identities, and the broader socio-political and institutional landscapes. This embodiment of uncertainty not only affects how veterans understand and negotiate their identities but also highlights the ongoing struggles they face in seeking recognition of their military experiences.

The Struggle for Recognition

The struggle for recognition intensifies amidst experiences of uncertainty. When individuals or groups face ambiguity regarding their status, rights, or identity within a social context, they often seek validation from broader society. Theis quest for recognition is not just rooted in a desire for acknowledgement; it seeks the security and stability that comes with being recognized and understood within a social framework (Taylor 1992). Recognition acts as a bridge that validates and integrates new identities and experiences emerging from liminality, reducing uncertainty by affirming their value and place within the social fabric. This process of seeking and achieving recognition is essential for fostering social cohesion and affirming political and social rights (Fraser 2005).

Within the context of Agent Orange discourse, veterans find themselves in a liminal state with their health and experiences under political, scientific, and social scrutiny. Moving from uncertainty to recognition is crucial, as it acknowledges their experiences as significant and valid. Achieving official recognition from the VA and its disability compensation system, becomes an important marker for veterans. However, the process to obtain these services, and therefore recognition, can be time-consuming and laborious, delaying veteran access to benefits. Denial of these services not only obstructs access to support but also symbolically diminishes the value of their experiences.

Recognition of a person and their experience validates their existence as a legitimate part of reality. According to Charles Taylor's (1992) recognition is essential in constructing personal and social identity. It involves acknowledging experiences as legitimate and demands that individuals are recognized as valid within their communities. Nonrecognition or misrecognition of an experience can be harmful, confining individuals to a “false, distorted, and reduced mode of being.” (Taylor 1992:25). Axel Honneth (2016) further delineates recognition into three spheres essential for well-being and identity maintenance: laws, love, and solidarity. The absence of recognition in these spheres can lead to a decline in well-being, discrediting individuals and their experiences.

Recognition has been used conceptually to understand specific struggles in validating experiences, such as examining how patients navigate medical uncertainties. Laurence Kirmayer (2011) builds on Taylor and Honneth's frameworks to examine how recognition might be used as a sociopolitical tool in the study of illness experiences. Questioning the construction of medical knowledge connects to politics of personhood and the sociohistorical processes that determine the validity of illness. The ability to recognize illness experiences as legitimate and treatable, for example, is linked to the power dynamics of socially accepted experiences, scientific knowledge, and the creation of standardized medical practices, which gives power to "name, categorize, or exclude the other, and how these differences in power and responsibility are created, negotiated, and resolved.” (Kirmayer 2011:411). Recognizing military chemical exposure as legitimate and treatable falls within these dynamics, impacting the power relations between veterans, institutions, and society.

Inadequate recognition of an experience, particularly those relating to suffering, can jeopardize access to resources, such as disability status and social benefits. This quest for recognition brings forward significant material consequences, underscoring the intricate relationship between official acknowledgement of service-related health issues and the entitlement of benefits. For veterans, the failure to gain access to such benefits not only raises personal concerns but also prompts societal questions regarding the authenticity of their military experiences and their identities as veterans. The bureaucratic processes of classifying health experiences as “service-related” or not effectively assigns the responsibility for suffering; when recognition is denied, this responsibility shifts squarely to the shoulders of the individuals affected. In this context, recognition transcends a mere acknowledgement, morphing into a tangible reward, in addition to assigning responsibility for these experiences to political authorities. Thus, the struggle for recognition among veterans is not merely about seeking benefits to alleviate their needs but also a fight for their experiences to be understood and acknowledged within broader socio-political narratives.

I propose to think about recognition as a desired outcome for veterans, offering a powerful lens through which to examine and address the unacknowledged or overlooked aspects of their identities and experiences. Achieving recognition within the frameworks of social assistance is highly valued, as it not only impacts personal well-being but also serves as a validation of selves that are intricately linked to institutional experiences. Honneth illuminates the complexity of recognition, arguing that official acknowledgement through social and institutional means is not the sole avenue through which recognition is perceived and attained. This perspective opens up a nuanced understanding of how veterans navigate recognition, pointing to different modes to validate their identities and experiences. By exploring the diverse ways in which veterans seek and perceive recognition, we can begin to uncover the varied patterns through which their bodily experiences, embodied selves, and social identities are validated.

Some of my interview questions focused on how participants perceive recognition across various spheres, including legal, political, public, and medical domains. These spheres are adapted from Honneth's concept of recognition, which includes love, laws, and support. I segmented the latter two spheres into specific domains relevant to this research. The "laws" sphere encompasses political authorities, legal policies, and the VA. The "social support" sphere includes medical and scientific authorities, families, public perception, and other veterans. This approach aim to illustrate the areas of recognition they have "achieved" or are deficient in.

Table 3. Spheres of Recognition Amongst Veteran Participants

Broad Sphere of Recognition	Distinct Domain	Yes	No
Laws			
	Laws and policies	5	14
	Political authorities	12	7

Table 3. (cont’d)

	The VA	2	17
Support			
	Medical authorities	9	10
	Public/society	1	18
	Scientific authorities	15	4
	Veterans (other)	19	0
	Veteran families	12	7

As shown in Table 3, the majority of veteran participants feel recognized by their peers, families, and medical authorities, indicating a level of support and understanding within their immediate social and medical spheres. It is interesting to note that according to veteran participants, they have received recognition and non-recognition from both VA and medical domains, despite encountering historically-linked difficulties from these domains in authoring and authorizing exposure knowledge. This can be due to the fact that some veteran participants did not believe or have enough knowledge regarding Agent Orange exposure effects until they talked about it with other veterans and entered in VA medical care systems.

Additionally, these overlaps of recognition from the VA and medical professionals may be due to prior denied VA claims and inability by health care providers to make a biomedical connection between health conditions and chemical exposure. As Dr. “B” previously stated in Chapter 4, medical and scientific personnel that did not have hands-on knowledge about military chemicals or were personally tied to these issues were not obligated in providing proof or advocating on behalf of sufferers. The spheres of recognition perceived by veteran participants reveal spheres relating to “social support” are therefore more achievable in some ways while spheres relating to “laws” or official recognition indicate more struggles.

Another interesting observation is the difference between recognition from political authorities and nonrecognition from laws and policies. Veteran experiences suggest a dissonance between perceived understanding from political authorities and the actual legal and policy frameworks in place. While political figures might verbally acknowledge the importance of Agent Orange, this has not translated into substantial policy action that would provide comprehensive recognition and support.

During interviews, veteran participants were asked questions regarding justice and responsibility of Agent Orange exposure. The majority of respondents relayed similar responses that justice includes better access to healthcare services and VA benefits. This was an especially common response among veterans who have struggled with VA disability claim processes. Because VA services and healthcare processes are regulated by bureaucratic agencies and lawmakers, the importance of access and affordability to services that would alleviate suffering are tied to current perceptions of nonrecognition from laws and policies that support veteran understandings of their health.

There were some nuanced responses among participants that describe distinct services or processes. For example, Al, a veteran who is concerned about his financial status in his later years, wishes there was a VA program that would provide affordable assisted-living and nursing home services for veterans. Johnny states that the “U.S. should recognize the people in Vietnam” are also sufferers. In our discussion, Johnny knows that U.S. foreign aid has historically been sent over to Vietnam to assist in environmental clean-up efforts but not directly to the people. “We weren’t the only ones who were exposed and its shame that little children are born with it.” (Field notes, July 2022). Despite historical efforts in validating Agent Orange as a legitimate issue, Barney admonishes that there is not enough that can be done to erase past harm. He tells me that ultimately "recognition is a consolation prize" because of the historic denial surrounding the discourse and "no amount of money can undo what they did," (Field notes from B.S. interview transcript, 2022). The different suggestions of what constitutes justice reveal the gaps created by denial and uncertainty. Denial yields areas of nonrecognition, pushing away access to important benefits and services that support veteran understandings of exposure and its impacts.

According to Taylor and Honneth, all three conditions of love, laws, and support need to be fulfilled in order for a person's experience to be accepted by society. In the case of Agent Orange, acceptance of their health experience localizes their suffering as a part of historical reality, in which exposure effects caused due harm and yielded additional suffering through extraneous political, scientific, medical, and social processes that prohibited recognition of their suffering. It is clear through numbers that veteran participants feel that they have received recognition in a variety of spheres that contribute to full recognition. However, there are still barriers to receiving full recognition.

One of the last questions that I asked in each interview is whether or not they feel recognized as a veteran in society. Despite noted challenges, all participants affirmed their recognition as veterans within society. However, when it comes to recognizing their specific experiences with Agent Orange exposure, opinions were divided. For some, access to VA services and acceptance for disability services affirm their recognition, while others feel overlooked, particularly in areas crucial to their health and well-being. For example, Robert receives disability compensation for PTSD and tinnitus, which he does not attribute to chemical exposure. However, his ischemic heart disease is not recognized by the VA. "I don't understand why it's so difficult.

Then I think, ‘Ahh, it’s about the money.’ They just want us to go away,” (Field notes from R.T. interview transcript, 2022). To “go away” would mean the inevitable end of the Vietnam War generation. Robert feels that he is recognized for his service through the small benefits he receives monthly and in his day-to-day wearing of different Vietnam War paraphernalia indicating his veteran status to the world. However, in areas that matter to him, he feels owed by the government for undue suffering and trauma. While he has begrudgingly accepted that he may never get his claim processed, the issue of Agent Orange to him is one that sees the inevitable end of a dying veteran generation.

This situation highlights the disenfranchisement of personal and social identities embodied by veterans, where veterans’ health experiences, intertwined with their service, are marginalized within institutional processes. The struggle for recognition goes beyond the mere acknowledge of their status as veterans; it encompasses the need for their health experiences, particularly those related to exposure, to be validated and addressed within broader socio-political frameworks.

Concluding Remarks

The complexities surrounding Agent Orange and its impact on veterans are profound, shaping a landscape of liminality and a continuous negotiation of identity and bodily experiences. This chapter explored how the discourse, coupled with military processes, has influenced veterans’ identities and their social navigation through post-military life. The omnipresence of Agent Orange in veteran communities is not just a health concern but a defining element of their identity, further complicated by the evolving relationship between veterans and society, including shifts in institutional authority, public sentiment, and knowledge of Agent Orange.

The liminality of veteran identity is deeply tied to the uncertainties brought forth by their military service experiences and the subsequent challenges of knowing Agent Orange exposure and the political and societal neglect of its effects. These factors created a state of liminality for veterans—a threshold between their identities as soldiers and civilians, where the transition back to civilian life is marked by ambiguity and a struggle for recognition.

Agent Orange exposure serves as a poignant example of how uncertainty can shape the veteran identity. The denial of Agent Orange's effects and the struggle for recognition transcends the need for medical care; it signifies a deeper, internal fight for acknowledgement of their bodies and experiences. Veterans' identities, formed within the interplay of personal, social and institutional realms, constantly evolve in discursive ways as they face new challenges and revelations about their service, health, and societal roles. The discourse around Agent Orange and its effects has created a state of liminality for veterans, wherein they continuously negotiate their identities amid uncertainties surrounding their health, official support, and military service experiences. This illuminates the ongoing struggle of veterans to find recognition within a society that has often overlooked the true costs of their service.

Examining factors, such as militarization and postwar reflection reveal the discursive ways in which veterans engage and disengage with their veteran identity as a means to cope with the uncertainty surrounding their experiences. Militarization, in particular, produces struggles for veterans in balancing their belongingness between military and civilian social spheres. These struggles also reflect discrepancies between veterans' experiences and the institutional knowledges and processes that inform society about veterans' bodily experiences. The gaps between the personal and the political produce a liminality embodied by veterans in their navigation of how to perceive Agent Orange exposure and its effects on their health and sense of self.

Liminality for veterans is an embodied, oscillating effect in which veterans feel caught between personal experiences and political realities. The need for bodily recognition of exposure effects is a conflict not only in treating health problems but also in reconstituting meanings of health related to military experiences. Achieving recognition through official, institutional pathways is perceived as a way out of this liminality, although some veterans view even the VA benefits cannot fully resolve as appropriate justice and accountability for suffering.

The importance of verifying illness and health as it relates to their military experiences is partly about closure and social belongingness. Most veterans express a desire for systems to care for them and their fellow veterans and families. As these veterans continue to decline in population, there is a growing concern about the legacy of their bodily experiences, both from their military service and in the historical remembering of chemical exposure effects. The continued embodiment of historical denial and uncertainty positions specific narratives that veterans must contend with or negotiate through their health experiences. As Al, an Army veteran who personally struggled with connecting Agent Orange exposure to his health experiences, notes,

> “Well it's permanent damage. Justice is a little bit, just compensation in health care. But still, in the end, you got the diseases, you're gonna die. You know, so there's some justice there but not complete.” (A.H. interview transcript, 2022, pos. 244)

Recognition alone is not sufficient; action is necessary to dismantle and restructure institutional and cultural discourse concerning chemical encounters. Through action, veterans can make change in how their experiences are told, providing spaces to reflect and produce new meanings that are otherwise unacknowledged. In the next chapter, the focus shifts to veteran-led actions that have been historically important in negotiating military and health experiences, bringing awareness to suffering through personal advocacy and collective biosolidarity.

Chapter 6: Closing the Gap: The Historicity and Looping Effects of Veteran Biosolidarity

The final dinner in Washington D.C. during the VetsRoll trip is memorable and emotionally-charged event, marking the culmination of a significant journey for the veterans. The day in D.C. is the longest and most eventful, filled with visits to the Tomb of the Unknown Solider at Arlington Cemetery and tours of the war memorials along the National Mall. After this exhausting yet fulfilling day, the veterans and their assistants eagerly anticipate a satisfying meal and a well-deserved rest, especially with early wake-up calls set for 3:00am to make the journey back.

Adding to the special nature of this final evening together is a unique activity done by the VetsRoll staff: mail call. In the military, mail call was a cherished moment when service members received letters and packages from loved ones. Though not always guaranteed, it was always a highlight to receive a piece of home. Mirroring this tradition, the veterans are asked to recite their service numbers after dinner: a series of digits that were once their primary identification in the military. For many who served during the Vietnam War, these numbers were stamped on their Military US ID cards and dog tags. These numbers were ingrained in the memory of military personnel, often under the pressure of potential consequences if they failed to correctly relay them.

The VetsRoll staff bring this tradition to life, requesting each veteran to recall and recite their service numbers, much to the surprise of many, as even those with known memory issues confidently state their numbers. Assistants, then, would distribute "care packages" to each veteran. These manila envelopes were full to the brim with letters, cards, pins, photographs, and other small gifts, contributed by loved ones who wished them a safe journey home. The emotional impact of this gesture is palpable in the room, as some veterans are visibly moved to tears while sifting through the contents of their packages.

During mail call, a poignant moment unfolds when a veteran stands up, microphone in hand, to express his deep gratitude to VetsRoll. He shares his feelings of peace and closure after visiting the memorials, engaging with fellow veterans, and interacting with the assistants. "I didn't think it was possible but after seeing the memorials and talking with fellow veterans, and getting to know everyone here, I can now say that I am completely at peace and have closure." His words resonate profoundly with everyone present, leaving no dry eyes in the room. The expression of gratitude underscores the importance of the VetsRoll trip, not only in honoring the veterans' service but also in facilitating a sense of closure and camaraderie among them. The event serves as a powerful reminder of the sacrifices these individuals made and the enduring bonds they share as veterans. (Field notes, Washington D.C., VetsRoll trip, May 23rd, 2023)

Introduction

Closure is a complex and often elusive feeling for many veterans, especially in the contestation of their experiences with military service. It involves a process of coming to terms with their past, integrating those experiences into their present identity, and finding a sense of peace or resolution. The concept of closure is intricately linked to the notion of recognition. Recognition is tied to experiences and meanings that shape our perception of reality. Consequently, closure allows us to integrate these experiences in a way that positively influences our identity. Closure, then, becomes the ultimate goal in gaining recognition.

The pathway to closure for veterans is contingent on the recognition of experiences that have historically been dismissed or undermined. State institutions have established restricted pathways for official recognition, compelling veterans to independently seek validation and resources to alleviate suffering. This situation has led to various responses, including forming support networks among veterans, characterized by anthropologists as biosociality. The concept of biosociality, as introduced by Paul Rabinow (1996), describes the formation of new social identities and connections among people sharing biological conditions. It emphasizes the creation of social ties based on shared medical diagnoses or symptoms, fostering community support among patients and evoking new “kinds of socialities and identities [that] are forming around new sites of knowledge” (Gibbon and Novas 2008:3).

Biosociality has generated thoughtful discourse on how shared experiences unite individuals into collaborative collectives. Nikolas Rose and Carlos Novas (2004) use biosociality to conceptualize their idea of “biological citizenship,” or describing the ways in which biological experiences forge new forms of social belonging and networks that advocate for education and resource access. Unlike biosociality, this emphasis on advocacy has led some scholars to differentiate between biosocial connections and biosocial collectives. These collectives intentionally leverage their shared biological experiences to garner resources and advocate for change to alleviate suffering. Bridgit Bradley (2021) uses the term “biosolidarity” to distinguish the differences in how biosocial communities are formed and interact. Biosolidarity focuses on “acts of advocacy,” which perpetuates a “looping effect” of biosociality. These looping effects enhance the visibility and recognition of biological experiences amongst stakeholders and generate societal awareness to prompt political and social action. This concept transcends mere social phenomena, evolving into an intentional community where sufferers communicate, interact, and share resources to lessen suffering (Marsland 2012; Petersen et al. 2019).

The biosolidarity surrounding the effects of Agent Orange exposure is evident through civilian and veteran-led grassroot initiatives ranging from local community resources to formal organizations. These efforts represent a form of horizontal engagement, characterized by activism, volunteering, and grassroots organization (Williams and Popay 2013). This type of engagement often emerges in response to the absence of structural systems and processes that address local needs and realities. In the context of Agent Orange, horizontal engagement has been a direct response to institutional systems of denial. This situation has compelled veterans to establish local and digital resources and spaces for sharing knowledge and raising awareness about their biological experiences mainly.

Horizontal engagement creates looping effects that locate and bind communities through advocacy effects centered on shared biological experiences. These efforts focus on gathering knowledge and resources to delegate, develop, and disseminate their experiences. Crucially, they do so without institutional interferences in how these experiences are validated, organized, and communicated. This approach allows veterans to assert control over the narrative and resources related to their experiences, fostering a community-driven model of support, resistance, and advocacy.

Sufferers often become the primary educators and advocates in disseminating knowledge about their suffering and creating resources to alleviate it. Adriana Petryna (2013) studied nuclear radiation sufferers and how they formed networks and resources to negotiate their bodily knowledge with state institutions. Kathy Charmaz (1994) and Veena Das (1991) also identified the importance for individual sufferers to form collectives to contest the institutionalized narratives of their biological experiences on their own. Similarly, veterans have had to collectivize their efforts to produce an understanding of their experiences that are not institutionally filtered. Historically, veterans have formed political platforms, lobbying efforts, service organizations, non-profits, and educational campaigns to socially connect their military experiences to prominent issues encountered by veterans such as access to employment, healthcare, and mental health services (Camacho and Sutton 2007). These efforts have been crucial in bridging the gap between personal suffering and broader social understanding of their experiences that are otherwise authored by state institutions.

As veterans continue to age, they face new challenges in communicating their experiences, especially those related to Agent Orange exposure. This situation calls for a collaborative effort between sufferers and advocates to develop innovative methods for continuing education and advocacy. This chapter highlights the importance of historical and ongoing biosolidarity in various initiatives and efforts established by sufferers. It examines how gaps of care from institutional systems have catalyzed social action and advocacy. It is essential to understand that these organizations and resources are not guaranteed solutions that result in appropriate change. Advocacy fluctuates and encounters challenges that can create ebbs and flows in how knowledge and resources are produced and shared. Biosolidarity enables sufferers and other stakeholders to maintain dialogue and drive change through their own experiences and actions.

This chapter discusses findings from participation-observation activities to illustrate how veteran spaces and experiences demonstrate biosolidarity as a useful method to garner recognition of Agent Orange exposure effects. These activities range from in-person events and veteran-focused programs to digital platforms that document and preserve veterans' knowledge and experiences. Such spaces provide veterans with narrative authority and opportunities for social recognition, countering the historical scrutiny and failure to do so by institutional authorities. By highlighting these activities, this chapter shows the diverse ways veterans voice their experiences and seek recognition, contributing to a broader understanding of biosolidarity in action.

By and For Veterans: Social Recognition and Collective Advocacy

VietNow and Veteran Social Cubs

Veteran clubs serve as socio-political entities that offer a broad spectrum of services, with social companionship for veterans being a primary benefit. Starting in the late 19th century, local social clubs were originally formed to assist new veterans in transitioning to civilian life. Over time, these clubs formed chapters across the nation and formed into national veteran organizations, such as the American Legion and Veterans of Foreign Wars (VFW). With more people and resources, these organizations evolved their roles from social clubs to large collectives to address significant issues faced by veterans and current military personnel, such as military pay, employment assistance, and housing benefits. A substantial activity within these organizations included political lobbying for veteran rights and services, which have been pivotal in shaping veteran welfare and public policies (Camacho and Sutton 2007).

Veteran clubs provide a political space that veterans use to address their military and post-military experiences. Historian Olivier Burtin's (2020) analysis highlights the crucial role of these clubs in veteran social movements, effecting significant changes in veteran relations through the mobilization of multiple veteran cohorts and communities. This perspective is echoed by other scholars who have observed that politics within these social clubs and organizations have initiated meaningful dialogue and action (Beaudry 2016). These efforts have been instrumental in negotiating how veteran experiences are disseminated and remembered in the social sphere. The solidarity fostered through veteran social clubs provides a platform that is maintained by and for veterans. Such clubs not only offer a space for camaraderie and mutual support but also function as critical hubs for advocacy and collective action.

Over the last five years, I have both observed and participated in the activities of VietNow, a veteran social club that distinguishes itself from other veteran organizations. VietNow stands out due to its exclusive focus on more modern generations of veterans and its emphasis on addressing issues pertinent to Vietnam War-era veterans. The club embodies its motto, “Veterans Helping Veterans,” by initiating local change through various means such as setting up food pantries, organizing fundraisers for homeless veteran shelters, creating events for veteran community engagement, disseminating information on veteran benefits, and providing free assistance for veterans filing for benefits.

VietNow recognizes that veterans’ issues extend beyond the individual veteran, involving their families as integral components in the recognition and care of their experiences. This includes familial support, caregiving, and even advocacy work, with family members lobbying on behalf of their veteran relative. Within VietNow, members like Dr. B and Johnny are more recent, whereas others like Darrell and Mike have been part of the club since its early days. These early members have played pivotal roles as recruiters for the club.

Like VietNow, other veteran social clubs have historically been instrumental in lobbying and raising awareness about specific veteran issues. These social clubs prominent veteran organizations such as the VFW, AmVets, and Disabled American Veterans (i.e. DAV). The American Legion was crucial in leading the efforts in certifying the G.I. Bill into law, which set aside specific funding and social welfare services for returning servicemen. Many of these organizations were congressionally “chartered”, a status that meant a group or collective was eligible to receiving special privileges, such as providing veterans with direct access to political authorities to lobby for specific veteran-related bills, receive public and private funding opportunities, tax-exempt status, and other benefits. Several of my research participants are lifetime or associate members of different veteran social clubs, including wives and children of veterans who also have access to club resources and activities. The following table illustrates the extent of involvement of my veteran participants in various veteran clubs and activities.

Table 4. Veteran Participation in Veteran Social Clubs and Organizations

Veteran Activity	Participation	n=19
Veteran Social Clubs		
	AmVets	1
	American Legion	6
	Disabled American Veterans	2
	Marine Corps League	1
	Veterans of Foreign Wars	5
	VietNow	14
	Vietnam Veterans of America	4
Veteran-led Charities and Volunteer Work		
	Christmas for Vets	7
	Honor Guard	5
	Vets Drop-In	3
	VetsRoll	3
Lobbying		
	Lobbying	2
	Veterans Assistance Commission	2

VietNow represents a significant source of social involvement amongst veteran participants. Consisting primarily of Vietnam War-era veterans, VietNow gives this generation to address issues, like Agent Orange exposure, that are not as significant in broader veteran organizations. Many participants expressed that while organizations like the American Legion and the VFW offer valuable social interactions, they often prioritize different issues, possibly due to the diverse composition of their membership. In some cases, these larger organizations are treated more as "social clubs" for veterans. For example, Art's interactions with the American Legion are more social in nature: "You go there, have a beer, and talk with your buddies. […] I don't go there for the politics. It's just not for me," (Field notes from A.S. interview transcript, 2022). This sentiment highlights a need for spaces like VietNow where it functions as a social club and an organization where specific veteran issues can take precedence.

One of my interviewees, Sandra, is a key figure in VietNow as a former chairwoman of its Agent Orange Committee and the wife of Vietnam War-era veteran, she exemplifies the impact such organizations can have. Beginning her involvement in the 1980s, she evolved into a citizen scientist, leading education campaigns and travelling nationwide to educate veterans about Agent Orange. Her efforts encompassed lobbying, collaborating with scientists, and guiding veterans in seeking medical attention.

The influence of Sandra's work was evident in my conversations with veterans like J.T., an Army veteran who attended a VietNow conference focusing on health issues including Agent Orange: "I went to the conference and [Sandra] was one of the presenters. [She] talked about how the VA can help vets with Agent Orange symptoms," (Field notes, July 2023). The conference drew hundreds of veterans around the local area to discuss about these issues and explain ways to get involved. When I asked Sandra about these conferences, she recalled how events like those were informative to not only veterans but for their families too: "People are hungry for information, especially the wives who worry for their husband and their children," (S.D. interview transcript, 2022: 180). Sandra's role underscores the importance of advocacy for effecting change and supporting veterans' rights and well-being.

By participating in regional and national conferences, Sandra has played a key role in keeping the conversation about Agent Orange alive, ensuring that veterans are informed about the latest scientific developments and legislative updates that could impact their health benefits and rights. She has been engaged with veteran lobbying groups in Washington D.C., such as the Agent

Orange Coordinating Council, highlighting the strategic efforts made to influence policy and advocate for veterans' needs at the highest levels of government. These activities were vital for securing the support and resources necessary to address the long-term consequences of Agent Orange exposure. Furthermore, Sandra's experience in applying for grants for funding Agent Orange awareness campaigns illustrates a commitment to educating the public and supporting veterans and their families. She also testified during one of the Congressional hearings in the 1990s, perhaps one of the most direct ways Sandra and the VietNow club have contributed to the discourse surrounding Agent Orange. By providing firsthand accounts and expert insights, they have helped to shed light on the personal experiences of this issue, influencing legislative decisions and public policy. Over the past 40 years, the sustained efforts of Sandra and the VietNow members have been instrumental in maintaining dialogue and discourse about Agent Orange. This ongoing advocacy is essential for ensuring that veterans receive the recognition, support, and care they deserve, highlighting the enduring impact of collective action and perseverance in the face of longstanding bureaucratic challenges.

VietNow has not only provided political advocacy but also social support for Sandra and her family. Her son, Randy, developed cerebral palsy, a condition she believes was linked to her husband's exposure to Agent Orange. Despite a grim prognosis, Randy lived until 22, with VietNow members supporting Sandra throughout his life, especially in his final days. "We had a room full of people, most of them were VietNow people," (S.D. interview transcript, 2022: 144). Sandra's story, along with the experiences of other veterans in VietNow, underscores the importance of veteran social clubs in using shared experiences to build national and local supportive networks. These clubs not only provide a space for addressing specific health concerns, like those associated with Agent Orange, but also offer a community of support, crucial for coping with the personal and familial impacts of military service. Through VietNow, veterans and their families find a community that understand their unique struggles and offers solidarity, share information, and promote advocacy.

VietNow has seen a decline in its activities related to Agent Orange in the last five years. The dissolution of its national headquarters in 2017 led to many local chapters disbanding or merging with other veteran clubs. The VietNow chapter observed for this research experienced a significant drop in membership following this change. This decline resulted in fewer activities and reduced funds, impacting many of their programs, including the Agent Orange Committee. Sandra was forced to leave her position due to these changes. Despite the setback, she continues her efforts to educate and advocate for veterans, although on a smaller scale. As Sandra noted,

> "I've been fighting the fight with them. And now it's gotten worse for them and I can't be there for them. I can hold their hand. I can teach the new people coming in but, these guys, [the veterans] are pretty broken for the most part. Many of them are very broken. And many of them hide it well" (S.D. interview transcript, 2022: 164)

VietNow still produces a newsletter and conducts monthly meetings, but attendance has plummeted, mainly due to COVID-19, health and financial constraints, and aging membership. The club, primarily composed of Vietnam War-era veterans, has struggled to attract younger veterans. Efforts to recruit younger veterans have been discussed but hindered by factors due to funding and COVID-19 restrictions at the time of this research. The club's decline is emblematic of a broader trend observed in veteran social clubs, which are increasingly viewed as outdated and less relevant to younger veterans' interests (Beaudry 2016; Klimas 2014).

Social involvement in veteran organizations provide a collective space for veterans to honor and safely express their military experiences without fear of judgement. Al, an Army veteran, told me that VietNow has changed more drastically because of COVID and because of their age prohibiting them from being socially involved. He describes VietNow was important for veterans to socialize without fear of judgement, a common sentiment amongst veterans who were hesitant in sharing their experiences in the immediate post-war years.

> "It's camaraderie, and you're part of the group. You have a common background, common experiences that you couldn't find anywhere else. That was the biggest thing. You can't go out to the public and talk to them. It just doesn't work. But if you're home, you feel comfortable." (A.H. interview transcript, 2022: 280)

Al describes his interactions with fellow veterans as forming a "home" surrounded by "brothers and sisters" that understood their experiences better than most of their families. Similar statements were made by other participants that also belong to VietNow. Robert joined in the 1990s and described the camaraderie as being important for him to process his military experiences: "I didn't talk to my wife or my children about Vietnam for the longest times," (Field notes, February 2022). VietNow became a safe haven for Robert and other veterans to communicate about their experiences without feeling the need to explain because of their shared service.

Veteran clubs like VietNow offer crucial socialization and camaraderie for veterans, providing a safe space for sharing experiences without fear of judgment. However, the changing dynamics and needs of newer veteran generations pose a challenge for these clubs. Yet, as the social landscape is constantly evolving, there is a need for adaptation and innovation to bridge the gap between different veteran generations and to address the changing nature of veteran advocacy.

Changing Social Landscapes: Vets Drop-In Center and Veteran Advocacy

Within veteran clubs and organizations, there are designed spaces to address and facilitate veteran advocacy, such as at monthly club meetings. During these meetings, leaders within the club communicate with members important information related to the organization, like funding, committee reports, volunteer opportunities, social activities, and updates on accessing veteran benefits. These meetings provide lines of communication to veterans, establishing informational feedback loops between individuals and veteran organizations.

One of these key loops is the communication of veteran benefit processes. Typically, veteran social clubs and organizations have one or more individuals that are deemed as "veteran benefit experts" and tasked with responsibilities of keeping members updated on new information and processes from VA and other government bureaucracies. At VietNow, this person is named Ace. Ace is a lifetime member of VietNow and a key figure within the veteran community due to his position as a board member of the local county's Veteran Assistance Commission and is therefore well-informed on veteran issues. At VietNow club meetings, he is typically stationed at the back of the room near a podium, where members and guests check-in before the meeting starts. He insists on everyone signing the check-in list before any official club business is conducted. His routine changes only when he steps up to the microphone to update the club on the latest veteran issues and benefit policies.

The night the PACT Act[8] was signed into law marked a significant moment for Ace and the club. This legislation represented a major victory for veterans, adding over 20 new conditions to be recognized and treated by the VA for chemical exposure effects exhibited by Vietnam War, Gulf War, and post-9/11 veteran cohorts. This expansion of eligibility means millions more veterans can now access healthcare and financial benefits. While only two of these conditions pertain to Vietnam War-era veterans, the Act's passage is still seen as a substantial achievement for the wider veteran community. As discussed in previous chapters, recognition of exposure effects by the VA are infrequent, with the previous updates occurring in 2021 and before that, in 2010.

The news of the PACT Act was a point of pride for Ace, who took the opportunity to emphasize the influential role of veteran social clubs in lobbying efforts. He reminisced about the

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[8] The PACT (Promise to Address Comprehensive Toxics) Act was signed into law on August 10th, 2022. This law expands veteran access to VA healthcare and benefits, specifically for veterans exposed to burn pits, Agent Orange, and other toxic substances.

days when VietNow was congressionally chartered, a status that guaranteed an organization to have official access to policymakers. VietNow sent members to D.C. regularly to talk with political authorities about veteran issues, including pushing for more legal action on recognizing Agent Orange exposure effects and resources to alleviate veterans. VietNow lost their federal charter status years ago as they had declining membership. Congressional charter status requires a minimum number of members in an organization. According to Ace, the American Legion played a pivotal role in pushing the PACT Act through Congress. “Remember when we were [congressionally] chartered back in the day? If it weren’t for the American Legion pushing the PACT Act through, I don’t know if it would have succeeded,” (Field notes, August 2022). The American Legion was one of the first congressionally chartered veteran organizations. Ace pointed out the contrasting situation with VFW, which, like VietNow, lost its charter status due to declining membership. This revelation was surprising to many, including me, given the VFW’s longstanding history and widespread presence with over 6,200 chapters worldwide, dating back to 1899.

The loss of congressional charter status for major veteran social clubs signals a drastic shift in veteran communities. Declining membership in veteran social clubs can be attributed to various factors. The largest veteran generations are aging and becoming less socially active. Additionally, newer generations of veterans often do not feel the need to join such social clubs, possibly due to readjustment issues or the perception of these clubs as outdated “old boys’ clubs”, not aligning with their social needs (Klimas 2014). This issue is a recurring topic at VietNow meetings, but the lack of effective action raises concerns about the club’s future. VietNow’s current activities are more akin to social gatherings and veteran-adjacent events. These include local airshows, county fair booths with veteran resource information, corn boils, barbeque parties, and participation in annual parades. While these events maintain a sense of community and camaraderie, they also underscore the changing landscape of veteran organizations and the challenges they face in staying relevant and impactful.

One of VietNow's remaining activities, the Vets Drop-In Center, commonly referred to as "the Center," is a local non-profit organization that continues to play a significant role in the lives of veterans associated with VietNow. The Center is an open space where veterans can access essential services like food, clothing, and assistance with veteran benefits. VietNow members are encouraged to participate in the Center's activities, including serving food. This monthly engagement not only supports the Center's mission but also fosters a sense of community and volunteerism amongst veterans.

The Center primarily serves low-income and homeless veterans, but all veterans and their families are welcome. Founded in 2009 under the leadership of "Pat," who was remembered as a tenacious advocate for veterans, the Center has been an important local resource. Initially located in the downtown area for better accessibility, funding challenges forced a move to a less centralized location, leading to a decline in veteran visitors, especially during the pandemic. Despite these issues, the Center has not lost its momentum in food, clothing, or monetary donations.

During my volunteer experiences at the Center, helping to serve spaghetti dinners, I interacted with various staff members, most of whom are younger veterans. Angela, a post-9/11 Navy veteran and one of the few people of color at the Center, manages the office alongside Eric, the Center's executive director. One of her projects is to raise awareness among local veterans of color about the Center's services. She actively engages with veterans and civilians alike, distributing flyers and business cards to promote the Center's services and other resources, such as affordable daycare for low-income parents and free job interview seminars. I also met Alyssa and Tim, who assist with meal preparation and donation collections. Alyssa, an Army veteran, displays her military affiliation proudly through tattoos. She often is asked by older veterans what each tattoo is, sparking conversation between old and young veteran cohorts. Tim, a former military contractor in Iraq, primarily handles inventory and maintenance tasks. Though somewhat introverted, Tim opens up when interacting with older veterans who visit the Center, reflecting the camaraderie and mutual respect within this organization.

These encounters at the Center illustrate the diverse backgrounds and contributions of younger veterans in supporting their older peers. The staff's willingness to engage and connect with the older generations underscores the importance of such spaces in providing not just physical necessities, but also a sense of belonging. Eric, the current executive director and a Vietnam War-era veteran, often works long hours for the Center. "Some weeks I'm working 60 to 80 hours," (Field notes from E.W. interview transcript, 2022). As it is, the Center is overwhelmed by different veteran needs, such as helping veterans file for Social Security and disability benefits, access to local VA clinics, finding affordable housing, help with DIC benefits for widows and family caregivers, and answering intricate questions about veteran benefit processes. "I can't do it all unfortunately." One of his goals is to relocate the Center back downtown. His vision is to transform the Center into a one-stop shop for veterans, addressing the overwhelming variety of veteran needs, from benefits assistance to housing and healthcare inquiries.

> "What I want is like a veteran co-op, a one-stop shop, where if a veteran needs help with Social Security, they go to this office and they also need help with submitting a VA disability claim, they would go right next door and see the office representative there." (Field notes, October 2022)

This dream is nearing realization, as Eric announced at a VietNow club meeting that the city supports the relocation of the Center. A new building near the city bus depot has been secured, aligning with Eric's goal of making resources more accessible to veterans, especially those without reliable transportation. The club members were excited about these developments, and Eric plans to oversee this project before officially retiring. This development represents a significant step forward in providing comprehensive support to local veterans.

Eric's dedication to running the Center is all the more remarkable given his personal health challenges. He has been battling kidney and prostate issues, both issues he believes stems from Agent Orange exposure. Although he is now cancer-free, he lives with only one kidney. Managing life with a single kidney requires careful attention to diet and stress levels to avoid further complications. He remains on renal medication and is vigilant about his health. Eric currently receives a 50% disability benefit for his PTSD diagnosis but has struggled to have his Agent Orange-related kidney cancer claim recognized, which would increase his disability compensation. This situation not only affects him but also weighs on his mind in terms of providing for his wife. He expresses concern about her financial security, especially since she is already retired.

> "I worry for my wife. I get a $1000 a month from the VA and while I am fortunate to receive that amount and it's an extra bit of income, if I go first, I want to make sure my wife is taken care of." (E.W. interview transcript, 2022: 160)

This highlights broader concerns many veterans face, extending beyond this immediate health issues to the financial and emotional wellbeing of their families.

The apprehension among veterans about disability status and benefits is a significant concern, especially as changes in health can impact how much compensation is awarded monthly. Jimmy and his wife also fear that his health may be reconsidered by the VA, reducing his disability rating, and consequently his monthly compensation, if his condition appears to be improving. This anxiety underscores the value placed on disability benefits, which are not only financial lifelines but also symbols of recognition for the sacrifices veterans have made. The struggle to obtain and keep these benefits has been a long and arduous journey for many veterans and their families.

The Center, and its envisioned future, represent the collective effort of veterans to create networks, resources, and advocacy movements addressing their military and health experiences.

The biosolidarity among these veterans stems from shared military identities and experiences, including the shared issue of Agent Orange exposure. While these spaces and resources address some of their top concerns, it cannot undo the permanent damage and effects already endured: cancers, loss of sensation, medication dependencies, difficult end-of-life discussions, and a spectrum of emotions ranging from fear and anger to depression and hopelessness. As one veteran poignantly notes, “There’s a lot of work left to do. Money can’t fixed everything […] I don’t think they realize I’m damaged for life because of Agent Orange,” (Field notes from J.K. interview transcript, 2022).

While the Center offers a beacon of hope and practical support, it also highlights the ongoing challenges in navigating the complexities of official systems for recognition and services. The historical context of denial and its ongoing impacts remain a harsh reality for many years. It is for this reason that veterans have had to create collaborative efforts with other stakeholders to combine forces to sustain political and social momentum of Agent Orange and other relevant veteran issues. As veterans continue to seek knowledge and validation within their communities, new resources and platforms are emerging, offering additional avenues for education, support, and biosolidarity. This evolution reflects the adaptability and resilience of the veteran community as they navigate the changing landscape of veteran care and advocacy.

Historical and Digital Horizontal Engagement: Documenting Veteran Experiences

Biosolidarity captures the essence of collective advocacy and support grounded in shared biological experiences, extending beyond individuals to include wider network of stakeholders, such as the formation of veteran social clubs and the development of veteran advocacy movements. Within medical sociology, scholars like Golics et al. (2013) also highlight the importance of encompassing not just the patients or sufferers themselves but also those tangentially affected by these conditions, such as family members who often take on caregiving roles.

In the context of Agent Orange and its effects on veterans, biosolidarity underlines the importance of advocacy efforts that knit together the shared experiences of veterans and its looped effects on the lived realities of their spouses and children. These family members, as primary caregivers and at times sufferers themselves, become crucial stakeholders in the discourse and establishing their own actions aimed at addressing the consequences of such exposures. Their involvement enriches the dialogue, highlighting the collective struggle and the shared journey towards healing, recognition, and change.

In researching the historical social movements of Agent Orange discourse, spouses, in particular generate significant dialogue and action to mobilize efforts. Sandra's work, which was discussed earlier, emphasizes the significant role spouses can play in mobilizing efforts and generating dialogue. As a wife of Vietnam War veteran and mother of a child affected from intergenerational effects of exposure, she leveraged her personal connections and commitment to establish networks at both local and national levels. These networks were essential in communicating the dangers of Agent Orange exposure and advocating for resources to mitigate its effects. Her specific collaboration with Admiral Elmo Zumwalt Jr. highlights the power of collective advocacy across groups and organizations.

Admiral Elmo Zumwalt Jr. was a high-ranking military official who played a pivotal role in the Ranch Hand spraying missions during the Vietnam War. Admiral Zumwalt, who later became an outspoken advocate regarding Agent Orange, did not realize the harm his orders would cause to veterans and their families, including his own. Admiral Zumwalt and his son, Elmo Zumwalt III, both served in the "Brown Water" Navy, patrolling inland waterways that were heavily sprayed with Agent Orange. Tragically, Elmo was diagnosed with lymphoma and Hodgkin's disease after his service, conditions believed to be linked to Agent Orange exposure, and he passed away in his 40s. Furthermore, the Admiral's grandson also suffered from learning disabilities, which he attributed to the effects of Agent Orange as well. Moved by these personal tragedies, Admiral Zumwalt become a fervent advocate for both civilian and veteran sufferers of Agent Orange exposure. He even co-authored a book on the subject with his son prior to his passing, titled *My Father, My Son* (1983), striving to shed light on the suffering caused by the chemical and to seek justice for those affected.

Sandra and Admiral Zumwalt shared a common bond over their sons, both of whom suffered debilitating conditions due to Agent Orange exposure. Recognizing her commitment within veteran social clubs and shared experiences, Admiral Zumwalt invited Sandra to join his "Agent Orange Coordinating Council" (AOCC). This forum, comprised of various veteran organizations and experts, was dedicated to coordinating political interests and efforts regarding Agent Orange exposure effects. The AOCC also functioned as a lobbying group, advocating for compensation and recognition of veteran military and health experiences. As part of the AOCC, Sandra joined a collective effort aimed at dismantling the prevailing culture of denial surrounding Agent Orange. The group pushed for accountability, reparations, and to ensure that the voices of those affected by this tragic legacy were heard and acknowledged. Through these efforts, the AOCC sought not only to provide support and recognition for veterans but also to change the narrative and policies around exposure, demonstrating the power of collective action and advocacy in addressing historical injustices.

The AOCC was deeply involved in a significant class-action lawsuit against the manufacturers of Agent Orange, one of the many parties the AOCC demanded recourse from. The lawsuit was settled for $180 million, but the settlement was controversial (Schuck 1987). A major issue was that the funds were frozen until a protocol for distributing the money to claimants was established. Sandra and other AOCC members were critical of the settlement, considering the individual payouts— averaging less than $4,000— insufficient. They argued that this amount did little to cover the extensive costs of medical treatments and other services necessary to improve the quality of life of those affected. "It was chump change," Sandra said bitterly (Field notes from S.D. interview transcript, 2022).

One notable aspect of the settlement was the stipulation that claimants had to be actively suffering from debilitating symptoms to qualify for compensation. Sharon, a widow of a veteran, shared her experience with the settlement process. Her husband was denied compensation from the settlement because he was not exhibiting severe symptoms at the time. "You had to be sick in order to get the money," she recounted (Field notes from S.P. interview, 2023). This requirement excluded many potential claimants, ultimately reducing the established 10 million claimants to approximately 52,000 individuals who received payments. Additionally, the settlement stipulated that those accepting payment relinquished the right to file future claims against the chemical manufacturers.

Despite these challenges, Sandra's relentless efforts through lobbying and collaboration with various groups contributed to important legislative changes. Her work with state groups and non-profits like the Birth Defect Research for Children and Agent Orange Commission Boards exemplifies sustained advocacy across local and national levels.

> "[We] worked with the New Jersey Agent Orange Commission Board [which] was one of the biggest organizations doing research […] [They] sent me stuff almost daily, so we remained really close," (S.D. interview transcript, 2022: 58).

Sandra and VietNow built an "Agent Orange network" for several decades that continued to research, lobby, and discuss Agent Orange exposure effects. However, as advocates like Sandra grow older and the intensity of the spotlight on Agent Orange wanes, there's an acknowledgement that the era of large protests and massive veteran turnouts are diminishing. "How these things got changed, I don't know. But they did. And most of our fight is over," (S.D. interview transcript, 2022: 331). The days of large protests, lobbying groups, and massive veteran turnouts may be over for Sandra, yet the fight for recognition and justice continues, adapting to new technologies and media.

Digital media have emerged as tools for preserving and documenting the history and ongoing discourse around Agent Orange. They offer innovative ways to sustain dialogue and ensure that the legacy of those affected by Agent Orange, and the efforts of their advocates, are not forgotten. This shift to digital platforms represents an evolution in historical biosolidarity, ensuring that the voices and experiences of sufferers continue to resonate and impact future generations.

Digital advocacy represents a shift in how activism and community-building are conducted in the modern age. The emergence of online cultures and digital platforms has revolutionized the way experiences are communicated and issues are documented. This shift is particularly relevant in the context of healthcare interventions, where digital technologies offer direct access to resources, counselling services, and forums for sharing experiences. Research by Shpigelman et al. (2021) highlights the inclusivity of knowledge facilitated by digital means, especially in mental health interventions where digital technologies play a critical role. Lang et al. (2019) also explore this concept, positioning digital technologies as creative tools for researchers to analyze storytelling patterns among patients. Understanding how patients express their experiences can significantly enhance the provision of appropriate care. However, the relationship between digital participation and advocacy is complex. As Schermuly et al. (2021) note, engaging in digital spaces does not automatically translate into effective advocacy. They caution against overestimating the impact of digital media, pointing out limitations in how patients can access and utilize information for their own benefit.

Despite these concerns, digital advocacy can be an influential tool in disseminating knowledge and fostering biosocial bonds among those affected by shared experiences. Digital platforms enable the creation of communities where sufferers can narrate their experiences without the constraints of institutional judgement or intervention. This freedom is particularly crucial in the context of Agent Orange exposure, where institutional responses have historically been fraught with denial, ambiguity, and minimal recognition. The digital record created through these platforms by advocates serves as a lasting testament to the experience of sufferers, offering an unfiltered, grassroots perspective that complements and challenges more traditional narratives. In this way, digital advocacy not only preserves the history of these experience but also empowers individuals and communities to advocate for recognition, support, and change. While digital advocacy has its limitations, its role in facilitating the sharing of experiences, therefore building communities, and preserving a digital record of suffering is invaluable. It provides a space for voices that might otherwise be marginalized or overlooked, contributing to a more comprehensive and inclusive understanding of the experiences of veteran and stakeholder communities.

The digital advocacy efforts led by individuals like Sharon, a widow of a veteran and a digital content creator, represent a significant advancement in how communities affected by Agent Orange exposure are understood and supported. The online platforms that Sharon and her daughter have established provide more than just a means of connection for veterans and their families; they act as semi-permanent repositories of knowledge and sources. Sharon's Facebook groups, "Agent Orange Stole My Life," "Sprayed and Forgotten – Agent Orange Victims," and "Children of Agent

Orange," serve as vital digital forums for interaction and support. These digital groups enable veterans and their families to seek medical advice, navigate VA claims, or find emotional support through shared experiences. The platform's inclusivity is notable, catering to different facets of the veteran community, including special digital groups focusing on the repercussions of Agent Orange on children and grandchildren (Field notes, August 2022).

"Agent Orange Legacy," one of Sharon's websites, offers a space for families to honor and remember loved ones who have died from exposure effects. This digital memorial site allows for the posting of obituaries that highlight the impact of Agent Orange, extending recognition to family members who have also suffered. By sharing these memorials across the different Facebook groups, Sharon facilitates a collective grieving process, uniting digital communities in remembrance and acknowledgement of the long-term effects of Agent Orange.

> "And I thought that's just a powerful tool, you know, it'd be able to find people and get information. And so that's where the research began and trying to create an online presence and all of the people we met in the process." (S.P. interview transcript, 2023: 218)

Through these efforts, Sharon and others like her creating digital forums, play an invaluable role in bridging the gap between individual suffering and broader community awareness. Their work in digital advocacy goes beyond mere documentation; it creates an active space for engagement, education, and emotional support.

Sharon's second website, "LOVME.org" (Legacy of Veterans Military Exposures) chronicles a broader range of military-related health issues. This site includes the history of military traumatic brain injury (TBI), Gulf War Syndrome, the Camp Lejeune water contamination, and nuclear radiation sites. The purpose of this website is not only to document the toxic effects of military chemical exposures but also to serve as a resource for navigating the historical and contemporaneous complexities of these issues. Both of Sharon's websites provide informational articles, guides for accessing benefits, and contact lists for various veteran organizations, law firms, and veteran clubs that are actively addressing these issues.

> “[W]e have over 10,000 people on just “Agent Orange Legacy” [...] And then we have the big group [on Facebook] focused on people connecting and just posting lots of information. We’re focusing on public groups, and not much on [private] pages.” (S.P. interview transcript, 2023: 266)

Sharon’s work has become an important digital resource for veterans seeking information. Her approach focuses on creating digital communities, broadening the reach and impact of her work and ensuring knowledge is accessible and part of a permanent digital record.

Susan’s work also represents a significant contribution to the broader discourse around Agent Orange. Susan, the daughter of a Vietnam War veteran, created the website “War Legacies Project” that serves as an educational resource and produces active efforts to mitigate environmental damage from exposure in Vietnam. She was inspired to create an online database for veterans, like her father, to understand the complicated history of Agent Orange and how to locate benefits and resources to alleviate their suffering. Her work with the Fund for Reconciliation and Development, an NGO focused on fostering positive socio-economic relations between the United States and Southeast Asian countries affected by the war, provided her with extensive experience and insight. Susan’s personal journey, particularly her experience assisting her father, a Vietnam War-era veteran exposed to Agent Orange, inspired her to leverage her knowledge to create a digital space that educates and connects sufferers and non-sufferers alike about the ongoing impacts of the war.

> “I took all of the War Legacy portfolio of work that I had been working on at the Fund and started the War Legacies Project [. . .] it was a way to remind people that wars have long term consequences, […] that warring parties should take responsibility for the damages they left behind.” (S.H. interview transcript, 2023, pos. 38)

This reflects a deep understanding of the enduring impacts of war and a dedication to advocacy and responsibility for suffering.

Susan’s connections led her to collaborate with other veteran organizations, such as Vietnam Veterans Against War and the Vietnam Agent Orange Relief & Responsibility Campaign, as well as experts with scientific experts in chemical exposure effects, including the Stellmans whose findings were discussed in Chapter 3. Her work centers around professional organizations, like the Aspen Institute, which aim to address the consequences of war, particularly the pervasiveness of chemical exposure both in the U.S. as well as in Southeast Asia.

> “Our work that we do in Vietnam, in Laos, […] is directly with Vietnamese organizations. […] Our approach is always to collaborate with other organizations. We also worked over the years with Vietnam Veterans of America Foundation, VVAF, as well as Vietnam Veterans of America. Any of the other organizations that are working on Agent Orange issues, which there's not that many of us these days, but earlier on, there were quite a few.” (S.H. interview transcript, 2023: 38-40)

These efforts are crucial in raising awareness, fostering dialogue, and driving efforts to heal and restore communities still grappling with the legacy of war. Susan’s observation that these efforts are diminishing as Agent Orange recedes from public memory underscores the urgency of revitalizing and sustaining awareness. By engaging a diverse array of collaborators, a broader, more inclusive network of advocacy can be established, ensuring that dialogue continues and expands.

The adoption of digital platforms and international partnerships represents a contemporary approach to advocacy, allowing for a wider reach and the engagement of global audiences. Digital advocacy harnesses the power of social media, online forums, and virtual platforms to disseminate information, mobilize support, and foster a sense of global community among those affected by Agent Orange. The shift towards digital efforts marks a significant evolution in how different communities and generations come together to address complex issues like Agent Orange, providing momentum for change and healing to continue.

Biosolidarity can also emerge from a combination of efforts to document and produce knowledge amongst sufferers. My research led me to interact with John Ketwig, a Vietnam War veteran, member of the Vietnam Veterans Against War, and the author of two critically acclaimed books about the Vietnam War.[9] John's personal experiences deeply inform his work, offering candid insights about the collective experiences of Vietnam War-era veterans. He speaks openly about the irreversible harm caused by Agent Orange, a subject that is intensely personal for him. John lost his 14-day-old son to an unknown health condition at birth, a loss he later attributed to his exposure to Agent Orange during service.

John's journey to become an author was not planned but emerged from his need to make sense of his experiences and losses.

> "I never ever imagined I would write a book. But geez, this is happening! […] I had to admit it to myself, 'Yes, I had been to Vietnam. And yes, it had some very real effects on me.'" (J.K. interview transcript, 2022: 86)

His first book, published in 1985, started as a cathartic release but resonated with many other veterans who shared similar experiences, particularly regarding Agent Orange. Becoming an author not only provided John with a therapeutic outlet but also lent him the credibility and confidence to join organizations like Vietnam Veterans Against War and Veterans for Peace, advocating for societal change and the demilitarization of returning troops. His activism includes connecting historians, lobbying for VA reform bill, participating in peace dedications, and speaking publicly about his military experiences. Through his engagement with veterans and organizations, John emphasizes the importance of keeping the discourse around Agent Orange and the Vietnam War alive and relevant.

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[9] Author of *"…and a hard rain fell: A GI's True Story of the War in Vietnam"* and *Vietnam Reconsidered: The War, the Times, and Why they Matter*.

The efforts of individuals like Susan and Sharon, who are not direct sufferers of Agent Orange exposure but are deeply connected to its impacts, play a crucial role in sustaining the conversation around this issue. They leverage their positions to build digital networks of knowledge, effectively preserving and disseminating the experiences of those who have suffered. Their work is instrumental in generating forums for dialogue, bridging different communities of stakeholders together. Similarly, veterans like John have found solace and a sense of community through writing, public protests, and volunteer activities. These avenues offer not just a means of coping and healing internally, but also provide a platform for connecting with others who share similar experiences. The concept of biosolidarity is vividly embodied in these efforts, forming a tapestry of shared experiences and mutual support.

This biosolidarity demonstrated by different groups and individuals extends beyond physical interactions, thriving in digital spaces as well. Here, it manifests itself as a repository of knowledge and experiences that are both semi-permanent and widely accessible. They serve as potent reminders of the true scope of Agent Orange exposure, challenging institutional narratives and providing a more complete picture of the experiences of veterans and their families. The combination of these efforts— ranging from grassroots activism to digital advocacy— create a powerful counter-narrative to institutional denial, ambiguity, and partial recognition. It ensures that these voices are heard, their suffering acknowledged, and their stories preserved.

Closing the Gap: VetsRoll, VVMF, and Veteran Recognition

The concept of biosolidarity, as framed by anthropologist Bridgit Bradley, emphasizes the looping effect as vital in developing new and strengthened biosocial bonds, linking individual experiences to collective action. This looping effect is essential in advocacy, as it sustain momentum and keeps the issue relevant through continuous efforts, resources, and labor.

However, the effectiveness of biosolidarity lies in its ability to not only address a singular biosocial issue but also to intertwine within multiple related issues, creating a network of interconnected loops. In the context of Agent Orange, this issue is multifaceted, extending beyond just the veterans directly exposed during service. It encompasses intergenerational effects, caregiving burdens, and the broader recognition of military service.

The two distinct honor programs I experienced in this research highlight this interconnectedness effectively. Programs like VetsRoll and the Vietnam Veterans Memorial Fund’s (VVMF) *In Memory* program illustrate how biosolidarity can encompass multiple aspects of the veteran experience. These honor programs provide more than just individual recognition; they offer spaces for healing, commemoration, and reflection on the myriad ways military service impacts veterans and their families. The first, VetsRoll, is dedicated to surviving military veterans, offering a space for public recognition and reflection on their service. The second, *In Memory,* is centered on commemorating recently passed veterans, providing a platform for families and communities to honor their loved ones.

These programs demonstrate the necessity of understanding biosolidarity as a network of interconnected issues. By creating spaces where different aspects of the veteran experience can be acknowledged and addressed, these programs contribute to a more holistic understanding of the impacts of military service. They foster a sense of community and shared understanding of specific issues, like Agent Orange, and provide comprehensive support and recognition that veterans and their families need. Biosolidarity deepens our comprehension of challenges encountered by veterans and amplifies the efforts to tackle them through various interconnected initiatives.

My first honor program experience was on VetsRoll. VetsRoll offers free trips to older veterans to visit Washington D.C. to visit their respective war memorials. This trip is centered on themes of honor, closure, and remembrance. The program was initiated by Mark Finnegan, the son of a World War II veteran and a codebreaker. Mark, despite not being a veteran himself, recognizes the importance of honoring and remembering those who served and sacrificed. The program has successfully conducted 11 VetsRoll trips, serving over 2,200 veterans collectively.

> "It's always so rewarding watching our nation's heroes during these trips. Most of them having never been to the capital and see their war memorials [. . .] On top of that, we have some of the finest people that have taken their own time, money, and energy to make sure each and every one of these trips is successful." (VietNow Day 3 field notes, May 23, 2023)

My experience on three VetsRoll trips has deepened my understanding of the significance of honor trips in facilitating recognition for veterans. Many of the veterans on these trips were from the Vietnam War-era and were familiar with issues like Agent Orange. Even older veterans from the Korean War-era and peacetime service acknowledge the challenges faced by their younger counterparts. One Korean War veteran expressed sorrow for those who "suffered like that and then to come to a country that didn't know what to make of them." This sentiment was echoed by others who also discussed Agent Orange as one aspect of broader veteran issues, including difficult homecomings and challenges in accessing care through the VA.

The VetsRoll honor trips offer a profound experiences, not just for veterans, but also for trip assistants. These trips provide a platform for social recognition, healing, and commemoration, allowing veterans to engage with their past in a supportive environment. Assistants, often including medical staff, social workers, and family members of veterans, and play a critical role in providing care and companionship throughout the journey. Assistants personally attend to veterans' needs during the trip, including luggage assistance, wheelchair access, serving their meals, and ultimately providing social companionship. Some of the assistants revealed their connection to Agent Orange as a reason for wanting to give back to veterans. For example, Tom works as a local EMT and annually volunteers on the VetsRoll trips. He shared his realization about the potential link between his and his brother's health issues and their father's exposure to Agent Orange.

> "We were always sick as kids. I mean, I manage to get over it […] But my brother was born with an eye defect and other things. His health has always been the worst. None of it was ever connected to anything my family had. But I always wondered if my dad's service would've had anything to do with it." (VetsRoll Day 1 Field notes, May 2023)

During the trips, veterans openly discuss their experiences, including on issues like Agent Orange. "Oh yeah, I heard about that Agent Orange", "I have a buddy of mine who has cancer and it was caused by Agent Orange", "I tried filing a claim about my Agent Orange problem but the VA denied it." The consensus among them is clear: the harmful effects of Agent Orange are undeniable, affecting not just American troops but also generations of veteran families.

> "We sprayed it on our people. We sprayed it on our troops. And they want to deny it ever happened […] You can't tell me that it wasn't harmful. It was. And we paid the price." (VetsRoll Day 1 Field Notes, May 21, 2023)

The VetsRoll trips are meticulously organized to honor these veterans. Highlights of the trip include motorcycle and police escorts in Washington D.C., and private viewing of ceremonies like the "Changing of the Guard" at the Tomb of the Unknown Soldier. Visits to war memorials, interactions with active-duty military personnel, and receiving challenge coins are particularly poignant moments for these veterans, many of whom have never been to the nation's capital or received personal recognition of their experiences.

One of the most impactful aspects of the trip is the homecoming parade, which concludes the end of the honor trip. Family, friends, and community members attend this parade to welcome back the veterans. This event contrasts sharply with the homecoming experiences of many Vietnam War veterans who returned to a divided and indifferent country. The parade, complete with crowds, American flags, personal signs and salutes, offers veterans on the trip a long-overdue recognition and a sense of closure. The emotional responses from the veterans— tears, joy, and incredulity— reflect the deep significance of this moment. Whispers from veterans, overwhelmed with feelings of honor being given to them, are heard with a sense of incredulity of this experience: "For me? This is for me?" (Field notes, May 24, 2023) It's a healing experiences, not just for the physical and psychological wounds of war, but also for the institutional and social neglect they may have faced.

The VetsRoll trips exemplify how honor trips can be more than just a visit to memorials; they are an intentional journey of recognition and biosolidarity. Veterans participate in different trip activities that encourage healthy discussions about their military experiences, addressing issues of negative or neutral homecoming experiences and avoidance of self-identifying as a veteran. VetsRoll provides looping effects of biosolidarity through bridging the gaps between civilians and veterans, generating thoughtful dialogue and action in recognizing veteran experiences and specific issues that veterans encounter from their service such as PTSD and mental health issues, physical disabilities, chemical exposure, and personal acceptance and closure from military experiences.

The second honor program experience I had was with the *In Memory* program. This program was initiated by the Friends of the Vietnam Veterans Memorial in 1993 and now is managed by the Vietnam Veterans Memorial Fund and the National Parks Service. The annual ceremony in Washington D.C. offers families a chance to publicly honor their deceased loved ones, providing a platform for recognition to veterans who survived the war and later died from its biological consequences.

The program includes an "Honor Roll" registry, allowing families to create a lasting digital memorial with photographs, biographies, and personal stories. The process of inducting a veteran into the program is thorough, requiring military service records, photographs, and a death certificate. The application specifically asks about the veteran's cause of death, including PTSD, exposure to Agent Orange, and other service-related illnesses, highlighting the acknowledgement of the "true costs of war." In the 2023 Honor Roll, 75 inductees were recognized for suffering from conditions related to Agent Orange exposure. The wide range of ranks and service years among the veterans' digital memorials reflects the pervasive impact of Agent Orange. Within these 75 inductees, about 41% were listed to have suffered and died from various cancers. Some had lower ranks of E-4, indicating an average of 2-3 years; others served as long as 20-25 years in the service with higher ranks. While it's unclear if all these individuals received official recognition or compensation from the VA, their induction into the program does not hinge on such formalities.

The *In Memory* program's approach to suffering is inclusive and empathetic, not requiring the burdensome proof often demanded by institutions. The program's ceremonies and the online Honor Roll serve as collective spaces for families and the public to grieve and recognize the lasting impacts of war. These moments of shared grief and recollection highlight the importance of social recognition in healing and closure.

Conversations during the program often touch on the multifaceted impact of Agent Orange, including health issues of veterans and their descendants, reflecting the long-term consequences of wartime actions. Families bond over shared loss, finding comfort and community with those who have faced similar struggles. These conversations started with cause of death and trajected to other topics such as trips to the VA hospital, filing disability forms, genetic testing in children and grandchildren, and the frustration and uncertainty experienced by survivors and families who receive little to no answers about how their health continues to be impacted the longue durée of wartime actions. "He didn't know it then, but we came to know about it when he started getting sick." Ann, a widow of a veteran, told me at the dinner provided by the program, a time that allowed the families to intermingle prior to the next day's ceremony. She continued,

> "Once we learned about it, then we started to question about other things. Like both of our daughters' have had fertility issues. And my grandson has a couple problems when he was born. My one grandson was going to give my husband a kidney but when he went to the clinic, he found out that he had a tumor on one of his kidneys as well!" (Field Notes, June 2023).

Programs like VetsRoll and *In Memory* are critical in acknowledging the physical and social impacts of military service. They create environments where healing and closure can be experienced, filling gaps left by institutional denial and lack of recognition. While these programs might not directly address Agent Orange exposure effects, their contribution to recognizing and respecting veterans is significant.

The biosolidarity generated from these formally-organized trips and events produce spaces to facilitate knowledge-sharing and to advocate for stakeholders that have been impacted from Agent Orange and other critical issues stemming from military service. New loops generate new biosocial bonds amongst veterans, family members, and complete strangers through activities focused on honoring and remembering military service and its long-term consequences on stakeholders. Within these loops new connections are created that draw attention to specific and broader issues experienced by different communities impacted from a shared biological experience. These annual events ensure biosociality even when stakeholders are no longer with us.

Concluding Remarks

This chapter has provided a comprehensive exploration of the concept of biosolidarity and its application in understanding the experiences of veterans, particularly in relation to Agent Orange exposure. I examined how biosolidarity was and continues to frame the social and biological experiences of veterans, emphasizing the importance of recognition, community formation, and advocacy.

Biosolidarity, as manifested in the efforts of veterans and stakeholders, represents a dynamic and collaborative approach to addressing the complex challenges faced by veteran communities. Organizations like VietNow are prime examples of how veteran social clubs can provide essential platforms for addressing specific cohort issues. These clubs not only facilitate specific programs and committees, but also link local experiences with broader communities, thereby amplifying their impact. The work of a number of individuals, such as Sandra and Sharon, are illustrative of the power of biosolidarity. By collaborating across organizations, these activists have been able to elevate local concerns to a wider audience, including key political figures who can enact change. This kind of advocacy extends beyond raising awareness; it involves actively working within and between various groups to create meaningful change at multiple levels.

Moreover, biosolidarity becomes even more potent when it encompasses a broader range of issues and communities, underlining the interconnectedness of experiences of those affected. Biosolidarity loops advocacy with the multiple aspects involved in achieving a comprehensive understanding and response to the myriad challenges faced by veterans. The acts of volunteerism and the establishment of both in-person and digital support networks are instrumental in creating spaces for shared understanding, mutual support, and collective action. By fostering community, advocacy, and support, biosolidarity draws attention to collective action and its ability to tackle the broad spectrum of challenges faced by veterans and other stakeholders.

The efforts of programs like VetsRoll and the *In Memory* program, while not specifically targeting the resolution of Agent Orange exposure effects, play a key role in providing support and recognition for veterans and their families. The gratitude and respect expressed by veterans participating in these programs reflect the relief and validation they feel in environments that acknowledge their experiences without the scrutiny and bureaucracy often encounter in institutional settings.

Biosolidarity formed by traditional and digital forms of advocacy allows for a more inclusive and empathetic approaching to recognizing veterans’ experiences. Unlike institutional pathways, which often individualize and pathologize biological experiences, placing the burden of proof on sufferers, non-institutional avenues like digital forums, social clubs and grassroots organizations offer social recognition without demanding stringent evidence. This approach enables sufferers to share their experiences freely and receive peer to peer recognition that fills a critical gap in care.

In essence, biosolidarity within the context of veteran advocacy represents a robust and multifaceted approach. It combines raising awareness, political advocacy, volunteerism, and the creation of supportive networks to create a comprehensive strategy for addressing the needs and challenges of veteran communities. This approach not only helps mitigate the effects of suffering but also contributes to a more inclusive and supportive environment for veterans and their families.

Chapter 7: Conclusion

As I nervously adjusted the framed photo in my hands, my mother and I joined the line for the annual reading of names— a solemn ceremony honoring Vietnam War veterans who passed in the last year. We stood on one of the National Mall's fields, with the Vietnam War Memorial to our left. Its black slabs, inscribed with over 58,000 names of soldiers who never returned, stood silently. It seemed as if the Memorial itself was listening, somberly welcoming the names being read into its sacred embrace. My grandfather was among those who came home, making this moment of remembrance even more poignant for us.

Approaching the podium, we were met with a sea of faces, each holding onto photographs and memories, much like ours. In my hands was a photo of my grandfather in his youth, before his deployment to Vietnam— a young man with a slight smile that hinted at a laugh, a stark contrast to the weary soldier who returned. What thoughts, I wondered, had captured that moment of joy?

My mother, clutching the speech I had written, hesitated, overwhelmed by emotion. With a gentle nudge, I encouraged her, "Mom, go ahead." Bravely, she began, "Robert William Theroux, U.S. Army Sergeant, served from 1965 to 1968. A businessman, a chaplain, an advocate for veterans and his community, he passed away last March from complications of ischemic heart disease. He will be greatly missed." Her voice, laden with grief, filled the air.

As we left the podium, side by side, my mother's tears flowed freely. I held her arm as I guided us down the stage steps, cradling her and my grandfather in my arms.

Biopolitical Consequences: Suffering from Denial and Struggling for Recognition

My experience at the *In Memory* program marked the end of my research, weaving together the important themes related to the enduring consequences of the Vietnam War. This ceremony offered closure to the families of veterans by collectively acknowledging the sacrifices of those who endured the war's lasting physical and mental tolls from their service, including chemical exposure. During my fieldwork, the loss of my grandfather became a deeply personal event that profoundly shaped my understanding, viewpoints, and efforts to reconcile his experiences with this research. The refusal he received from political and medical institutions to acknowledge his military service as a contributing factor to health issues leading to his death signaled to me the importance of recognition for the veterans affected by Agent Orange. Driven by this realization, I reached out to the *In Memory* program, seeking for the recognition of my grandfather who was unjustly denied in life: a step motivated by a desire to honor his legacy and sacrifices. I submitted an application to include my grandfather in their registry of Vietnam War-era veterans who survived the conflict but later passed away due to complications related to their military service, particularly from Agent Orange exposure.

The *In Memory* program provided a space for collective healing and remembrance, allowing veteran families like mine to confront the enduring effects of Agent Orange exposure. In this program, we participated in meaningful conversations that shed light on a shared experience of denial and the continuous fight for recognition of veterans' experiences suffering returning from the war. These discussions revealed how denial and nonrecognition affects not just the physical body, but also the emotional and social well-being of the veterans and their families.

The main event of the program is a "naming ceremony", which was highlighted at the beginning of this chapter. This solemn event unfolds at the National Mall in Washington D.C., where families gather to publicly honor their deceased veterans. One by one, they approach a podium to pronounce the veteran's name and briefly tell their story. This audience, though comprised of strangers, share a profound understanding of the myriad challenges that veterans and their families endure— from navigating the complexities of VA offices, clinical spaces, and legislative arenas— to exchanging stories in club meetings, community halls, and the privacy of their homes. The program is designed to offer grieving families a sense of peace and closure. My participation in this program deeply enriched my fieldwork experience, providing a nuanced understanding of the effects of denial and the importance of communal recognition and remembrance.

This dissertation examined how denial, as both a biopolitical strategy and a consequence, shapes the narrative around Agent Orange and its lasting effects on the veterans. I highlighted how denial is used by institutions including political authorities, military leadership, and scientific entities to control the conversation on the impacts of Agent Orange, resulting in enduring suffering for the veterans and their families. This research underscores that biopolitics, a concept that explains the management of health, productivity, and social order, is a useful lens to understand how the state has used denial to manipulate knowledge of and policy-making for Agent Orange exposure. This denial helps institutions to evade responsibility, thereby avoiding financial costs, necessary policy reforms, or public disapproval by minimizing or ignoring the effects of such exposure.

Biopolitics, a concept pioneered by Michel Foucault, offers a useful theoretical perspective for understanding the governance of populations, particularly through the lens of health and life. This perspective examines how political, economic, and social powers regulate human bodies and the complex relationships between power knowledge, and the management of life. It highlights the intricate ways in which governance is enacted not just through laws and policies but through the management of biological life itself.

The connection between biopolitics and institutional denial becomes evident when examining how political, scientific, and military authorities handle issues like Agent Orange exposure. Institutional denial, as a biopolitical strategy, allows these authorities to navigate the contentious terrain of military chemical exposure by controlling knowledge production and culpability. This involves the downplaying of health consequences of exposure, limiting the scope of scientific research, and establishing stringent criteria for recognizing and alleviating suffering. Denial thus becomes a mechanism through which institutions manage the political and social fallout of acknowledging the impacts of Agent Orange. This approach not only obscures the causal links between exposure and health condition but also delineates the boundaries of legitimate knowledge, effectively maintaining institutional authority and avoiding accountability.

Denial, viewed through the prism of biopolitics, serves dual purposes: it is both a strategy employed by institutions to manage knowledge and policy-making around Agent Orange exposure, and is a consequential outcome for those who suffer its effects. For institutions, denial is a tool to minimize legal and financial liabilities, maintain control over the discourse, and preserve public and political support. Conversely, for the veterans and their families, denial manifests as a bureaucratic barrier to accessing healthcare, benefits, and recognition of their suffering. It creates an everyday reality shaped by scientific uncertainty, medical ambivalences, and bureaucratic technicalities. This results in sufferers having to navigate their bodily experiences through a complex and often adversarial system to prove the legitimacy of their suffering. In this way, biopolitics and denial intersect to produce a governance of life that prioritizes institutional interests over the well-being of the veterans, illustrating the profound impact of denial on both policy and personal experiences.

Institutional denial contributes significantly to the suffering experienced by the veterans in this research. This denial manifests not only as a refusal to acknowledge the link between health issues and chemical exposure but also as a systematic obstruction to accessing necessary healthcare and compensation. As a result, veterans find themselves entangled in a relentless struggle for recognition and support. Denial effectively invalidates their experiences and sacrifices, deepening feelings of alienation and betrayal. This negation of their suffering, compounded by the struggle to understand a bureaucratic system that seems designed to dismiss their claims, inflicts additional layers of suffering. This denial not only undermines their quest for justice and care that was unavailable in the immediate post-war years but also challenges their social identities as veterans within society, leaving them to contend with the enduring impacts of exposure in isolation.

Despite facing institutional denial and its effects, many veterans have been propelled into action, forming social movements as a powerful countermeasure against institutional inaction. This collective mobilization, highlighted in chapter 6, has served not only as a platform for advocacy but also as a means to educate the public and raise awareness about their suffering and the experiences of others similarly affected. By coming together, these veterans leverage their shared experiences to challenge institutional denial and biopolitical management of their bodily experiences.

In this study, denial is framed as both a dynamic process and a consequential outcome that significantly impacts veterans by affecting their physical health, psychological well-being, and social identities. Viewing denial through the lens of biopolitics as both a tool and lived experience provides novel insights into the ways bodily experiences are managed by institutions and contributes to the wider discussion on health issues stemming from military chemical exposures. By delving into the historical, institutional, and personal dimensions of denial, this study has uncovered the intricate ways in which denial shapes and constrains the recognition of Agent Orange exposure, as well as how it fosters discursive biological and social experiences among those affected.

Summary of Research Findings

Through a combination of ethnographic and archival research methods, this study has delineated the complex role of denial as both an institutional strategy for managing knowledge related to Agent Orange exposure and as toxic consequence that veterans and their family members experience in their daily lives. Denial becomes not just as a barrier within the realm of knowledge production but also a lived reality for the veterans, manifesting through the reinterpretation of exposure knowledge, suppression of scientific evidence, and complex bureaucratic processes. Denial hinders veterans' ability to secure adequate healthcare and benefits, illustrating the intricate interplay between institutional policies and the personal experiences of veterans. In the following, I outline major findings from each of the data chapters and how they contribute to an understanding of the processes and practices of denial and recognition within both institutional discourses and lived experiences of the veterans.

Archival research into the institutional documents and narratives related to Agent Orange exposure unveils a pattern of denial, secrecy, and suppression of knowledge across political, military, and scientific spheres. This institutional behavior effectively diminishes, overlooks, or dismisses the experiences of veterans exposed to Agent Orange, silencing their voices in the discourse. For instance, the recognition of health conditions linked to Agent Orange exposure has often been predicated on military assumptions about risk factors and constrained by federal funding for research. This approach has limited the scope of studies on exposure effects and excluded external research from policy-making discussions and political hearings. Such a pattern of denial represents a deliberate attempt by governmental institutions to prioritize their authority in managing the impact of chemical exposure and to reduce their accountability. This strategy not only sidelines the affected veterans but also employs biases and assumptions to determine Agent Orange discourse and how it is used to address alleged suffering.

Veterans, as a result, are thrust into an intensified struggle for recognition and appropriate response, challenging institutional narratives that seek to define and limit their bodily experiences. This contestation highlights the interplay between institutional power, knowledge, and control over bodily experiences, particularly veterans' experiences within institutional settings. Archival findings reveal that iterative use of denial serves as part of a broader set of biopolitical strategizes aimed at mitigating the impact of state actions. Through these strategies, institutions attempt to manage the complex aftermath of their decisions, particularly those affecting veterans' health and well-being.

In studying the genealogy of institutional denial within the archives, ethnographic research sheds lights on the lived experiences of the veterans and their families, revealing a spectrum of challenges from personal struggles to bureaucratic obstacles. Veterans like Mike find themselves on a challenging journey toward bodily recognition, attempting to align their lived experiences within official frameworks of support systems, such as the VA. These systems, however, frequently present barriers to recognition, often dismissing, reinterpreting, or underestimating veterans' claims. This denial manifests as "toxic residuals," a term I use to describe the compounded effects of institutional denial that impact veterans physically, emotionally, and socially over time. These residuals are emblematic of broader issues of political and medical neglect, underscoring the ongoing struggle for recognition and justice. Veterans and their families, who have also been denied institutional support, continue to fight for a platform to voice their concerns, highlighting the profound and lingering impacts of institutional denial on their lives.

The bureaucratic nature of denial accentuates the multifaceted barriers veterans confront, where denial not only distorts historical memory of this issue but also exercises material and narrative control of veteran experiences. This denial necessitates sweeping reforms to redress the enduring effects of Agent Orange, such as clearer understanding and use of the VA disability claim system and educating VA and non-VA medical professionals about military chemical exposures. These problems, emphasized in chapter 4 by veterans and family members, underscore an urgency for reform and grows as these veterans continue to age and are concerned with historical remembrance of this issue. This understanding also illuminates the struggles faced by newer generations of veterans, such as those affected by Gulf War Syndrome and burn pit exposure, emphasizing the critical need for institutions to absorb lessons from past errors and adopt a more flexible and responsive approach to veterans' experiences. Breaking this cycle of denial requires a concerted effort from state institutions and sufferers to ensure veterans receive the recognition and support they deserve. This step is crucial not only to honor their sacrifices but also to foster a more empathetic approach to veteran care, especially for those who are in later-life stages.

The identities of Vietnam War-era veterans are intricately woven into the fabric of societal perceptions, shaped by both physical and psychological repercussions from Agent Orange and the evolving narratives of their military service. This research illustrates that veteran identities are not static but are continually shaped by their experiences during and after military services. Theories of embodiment provide valuable insights into how these identities are fluid and shaped by the discursive nature of Agent Orange exposure. Some veterans manage to minimize their engagement with the discourse and appear not affected, while others find it inescapably linked to their health and identity. This dynamic shaping of veteran identities highlights the need for recognition and support, as they grapple with the realities of chemical exposure and its impact within their social identities.

My observations from ethnographic fieldwork and interview data suggest that institutional denial and Agent Orange discourse have placed veterans in a challenging position, compelling them to navigate between their lived experiences and the broader societal and institutional narratives. Ethnographic findings reveal that veterans often find themselves in a liminal state, struggling to reconcile their personal military service experiences with public and political narratives that attempt to define those experiences for them. This liminality is characterized by their fight for recognition, of authoring their miliary service and the health consequences that ensued, which were often overlooked in broader societal discourse. This struggle highlights a critical gap between the veterans' needs for validation and a society that remains largely indifferent or unaware of their specific challenges.

My research finds that the veterans stand at a crucial intersection of bodily and social existence, earnestly seeking validation from institutions that have historically overlooked the full extent of their experiences and the long-lasting impacts of Agent Orange exposure. In navigating these liminal spaces, veterans confront a reality that denies the legitimacy of their suffering, or at the very least narrows the scope of it, not to mention the complexity of their bodily experiences. The disparity between veterans' experiences and the recognition of their suffering by policymakers, medical authorities, and the VA system exemplified a significant barrier to obtaining various forms of recognition. The pervasive denial of suffering, as revealed through this research, fundamentally influences veterans' identities, underscoring the material and social consequences embedded within the biopolitical management of Agent Orange exposure.

Lastly, my data reveals that the concept of biosolidarity plays a crucial role within veteran communities, especially in addressing the challenges posed by institutional denial of Agent Orange exposure. Veterans foster biosolidarity by establishing veteran social clubs, staging protests, and engaging in lobbying efforts to address their shared concerns. These collective actions enable veterans to control and challenge the constraints imposed by institutional frameworks. By promoting biosolidarity, veterans strengthen their communal ties, amplifying their collective voice and drawing greater attention to their military and bodily experiences. This increased visibility not only enhances public understanding of their experiences but also aims to improve their access to vital resources, support networks, and continuous advocacy initiatives.

Veteran organizations like Vietnam2Now and initiatives such as the Vets Drop-In Center exemplify biosolidarity in practice, offering a range of services that address the individual and collective needs of veterans and their families. These efforts are supported by wider programs like VetsRoll and the Vietnam Veterans Memorial Fund's *In Memory* program, ensuring different kinds of recognition that are not proffered in institutional frameworks. Together, these efforts demonstrate the strength of shared experiences and collective advocacy in building strong support networks. They challenge the historical denial by state institutions, highlighting the transformative power of biosolidarity in closing the gaps in care and recognition.

This research also finds that veteran family members, notably spouses and adult children, play a pivotal role in sustaining biosolidarity, significantly contributing to advocacy and awareness efforts. Individuals like Sandra and Sharon exemplify how family members create and extend support networks, actively engaging in education campaigns, creating digital platforms for sharing experiences, and lobbying for policy changes. Their actions emphasize a deep commitment to not only support their loved ones but also to challenging institutional denial. By leveraging personal experiences and narratives, these family members enrich the discourse around Agent Orange, bringing to light the intergenerational impacts and continuous need for comprehensive support for them as well.

Biosolidarity emerges as a crucial element in countering institutional denial about Agent Orange exposure. Veterans continue to challenge the constraints imposed by institutional frameworks. Their actions broaden the understanding of Agent Orange and their suffering, advocating for better access to necessary resources and support networks. However, the sustainability of these efforts is threatened as the veterans and their advocates age. It is imperative for future research to closely examine how the torch of advocacy is passed to the descendants of these veterans. This examination is essential to comprehend the shifting nature of biosolidarity and to ensure that the achievements in recognition and support are not only preserved but also built upon by future generations, thus sustaining the momentum of advocacy and support for veterans' rights and welfare.

Personal Reflections and Policy Recommendations

The legacy of Agent Orange exposure still leaves lingering toxic trails, entangling sufferers in a web of political, economic, social, and medical dilemmas. Despite progress in recognizing the fallout of chemical exposure, many affected individuals remain ensnared by a series of institutional obstacles, insufficient healthcare services, and a lack of adequate recognition of their suffering. In response to these persistent issues, it is critical to develop and execute targeted policy recommendations. Such policies must fully recognize the extent of their suffering caused by Agent Orange and guarantee robust support mechanisms for all those impacted, including international troops, industrial workers, and the descendants of those directly exposed. This requires a holistic strategy that enhances healthcare services, increases funding allocations, and cultivates global and community-based support networks. Moreover, policy development should be underpinned by ongoing scientific research, ensuring that the voices and experiences of the sufferers inform every aspect of policy-making. This approach aims to address the immediate needs of those affected and to lay the groundwork for lasting solutions that honor the sacrifice made and foster a deeper understanding of the lived realities impacted by Agent Orange.

In the broader context of chemical exposures used in war, there are several other that are parallel in the complexities seen with Agent Orange, each with unique sets of policies aimed at rectification and varying degrees of their effectiveness. For instance, the use of mustard gas during World War I led to long-term health effects among veterans, prompting governments to establish policies for medical research and compensation. However, these efforts were often marred by delays in recognition and inadequate understanding of the chemical's long-term effects, mirroring the challenges seen with Agent Orange (Jones 2014). The establishment of the Veterans Administration in the United States, for example, aimed to consolidate services for disabled veterans but faced criticism for its inefficiency and inability to fully address the needs of those affected by mustard gas exposure.

Furthermore, the deployment of depleted uranium in the Gulf War presents another case where the aftermath of chemical exposure led to health issues among military personnel, known as Gulf War Syndrome. The response by military and governmental institutions involved extensive studies and the establishment of registries to track health outcomes, similar to measures taken for Agent Orange exposure. However, debates over the causality and acknowledgement of health conditions related to exposure illustrate the ongoing struggle to address and rectify consequences of chemical warfare (Kilshaw 2010). Policies aimed at providing healthcare and compensation have been implemented, but veterans and advocacy groups continue to voice concerns over the adequacy and accessibility of these measures (Smith and Brown 2003).

These examples highlight a pattern of delayed recognition and response to chemical exposures in warfare, with policies often falling short of fully addressing the long-term health impacts and social consequences faced by veterans. The effectiveness of these policies is frequently compromised by institutional denial, bureaucratic hurdles, and the evolving nature of medical understanding. This reveals a need for a more responsive and humane approach to addressing the legacy of chemical exposures in military conflicts.

Supporting veterans exposed to Agent Orange requires enhancing healthcare services, broadening compensation, and sustaining research. Access to specialized medical care must be timely and affordable, particularly for those facing geographical and financial barriers. Recent legislative efforts like the PACT Act and MISSION Act represent progress in improving healthcare access through community care options, yet there is still significant room for improvement to ensure comprehensive care and support for veterans.

The VA disability claim system needs reform to reduce wait times and streamline the process. Implementing an efficient digital platform for document submission and review could significantly improve the claims process, helping veterans receive timely benefits and support. Furthermore, adopting a blanket presumption of exposure, as initially intended by the Agent Orange Act of 1991, would ease the burden on veterans by eliminating the need to prove the link between their service and health issues, thus simplifying the VA claims process.

To truly address the legacy of Agent Orange, it is imperative for the state to acknowledge and understand the extensive impacts had on veteran families, recognizing the depth of suffering and the multifaceted challenges they continue to face. The implementation of wide-ranging genetic and health screening programs through the VA and other pertinent agencies is essential. Such initiatives would not only maintain scientific and political engagement with the issue of intergenerational health effects but also provide expanded access for descendants to important care and benefits. These measures would aid in managing potential health risks and underline a commitment to the welfare of veterans' families, recognizing the lasting effects of military service across generations.

Moreover, the impacts of Agent Orange extend beyond U.S. borders, affecting Vietnamese communities, international troops, and industrial workers involved in chemical production, handling, and transportation. These groups have also been significantly impacted by the toxic aftermath, necessitating policy interventions that recognize and rectify their enduring suffering. While the United States government has committed over $140 million since the 2000s towards environmental rehabilitation and social services in Vietnam, similar initiatives have not been extensively implemented in other affected regions of Southeast Asia. Additionally, international troops from countries like Australia, New Zealand, and Canada have also grappled with limited recognition and compensation for health issues linked to Agent Orange exposure. Moreover, there is a lack of a comprehensive approach in their respective country's government to address the health outcomes experienced by affected individuals.

Policy recommendations should advocate for international collaboration and increased funding to assist all individuals impacted by Agent Orange, regardless of their nationality. A policy shift would not only extend the scope of institutional accountability but also signify political commitment to ameliorating the widespread consequences of chemical warfare. This approach emphasizes healing and justice on an international scale, acknowledging the far-reaching effects of Agent Orange exposure and the importance of a united response.

In 1979, dioxin was banned by the EPA and instituted new standards in chemical manufacturing. Despite this ban, which occurred a decade after the end of the Vietnam War, significant gaps in knowledge remain, particularly regarding the intergenerational impact of exposure and the effectiveness of environmental cleanup efforts. Policy measures should, therefore, focus on increasing funding and support for comprehensive research into both the immediate and long-term health consequences of dioxin exposure. Additionally, these policies should aim to close legal loopholes that allowed the original chemical manufacturers of Agent Orange to evade responsibility for their role in causing harm (Schuck 1987). Prohibiting the use of chemicals as a normative practice in the military and enforcing strict penalties for violations are critical steps in preventing future exposures. By prioritizing scientific research and enforcing stricter regulations within the military-industrial complex, state institutions can show a true commitment to public health and environmental stewardship.

Lastly, involving veterans in the policymaking process is paramount for creating authentic and effective policies. Veterans' direct experiences and insights can bridge the gap between policy intentions and real-world impacts. Historically, veterans and veteran organizations like Vietnam2Now have established lobbying groups with direct access to policymakers, enabling them to articulate their concerns effectively. Collaborations between citizen and veteran groups have played a crucial role in raising awareness about veteran issues, such as chemical exposure. By actively involving veterans in the development, assessment, and revision of policies that affect them, their voices and experiences become central to the formation of effective solutions. This shift encourages empowerment among veterans, ensuring their needs and rights are at the forefront of policy development.

The successful implementation of these policy recommendations necessitates a collaborative approach involving governments, international bodies, and non-governmental organizations. Tackling the multifaceted health, environmental, and socioeconomic challenges driven by Agent Orange exposure demands comprehensive strategies that offer timely, substantial support to the impacted individuals and communities. By uniting efforts and resources, these policies aim not only to deliver meaningful assistance to those afflicted but also to significantly reduce the enduring consequences of this toxic issue. Through coordinated action, there is potential to transform the tragic legacy of Agent Orange into a narrative of resilience, healing, and progressive change, ensuring a better future for all affected.

In conclusion, the biopolitics and denial surrounding Agent Orange exposure profoundly impacted the lives of the veterans in this study. My research identified links between institutional denial and the bodily experiences of those affected, pointing to avenues for mitigation of suffering. My grandfather's experience, marked by neglect and the denial of the health consequences of his exposure, served as a catalyst for my investigations into this issue. Motivated by his story and struggles, this research aimed to articulate the experiences of veterans who have been similarly marginalized. Through examining the mechanisms and outcomes of denial and the emergent practices of biosolidarity among veterans, this study sheds light on the broader implication of such denial for bodily suffering, recognition, and justice It emphasizes the importance of acknowledging the enduring struggles and contribution of the veterans, advocating for a future where the legacies of those affected by Agent Orange are honored, and where their experiences can pave the way for a more compassionate, equitable, and inclusive health and policy responses.

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