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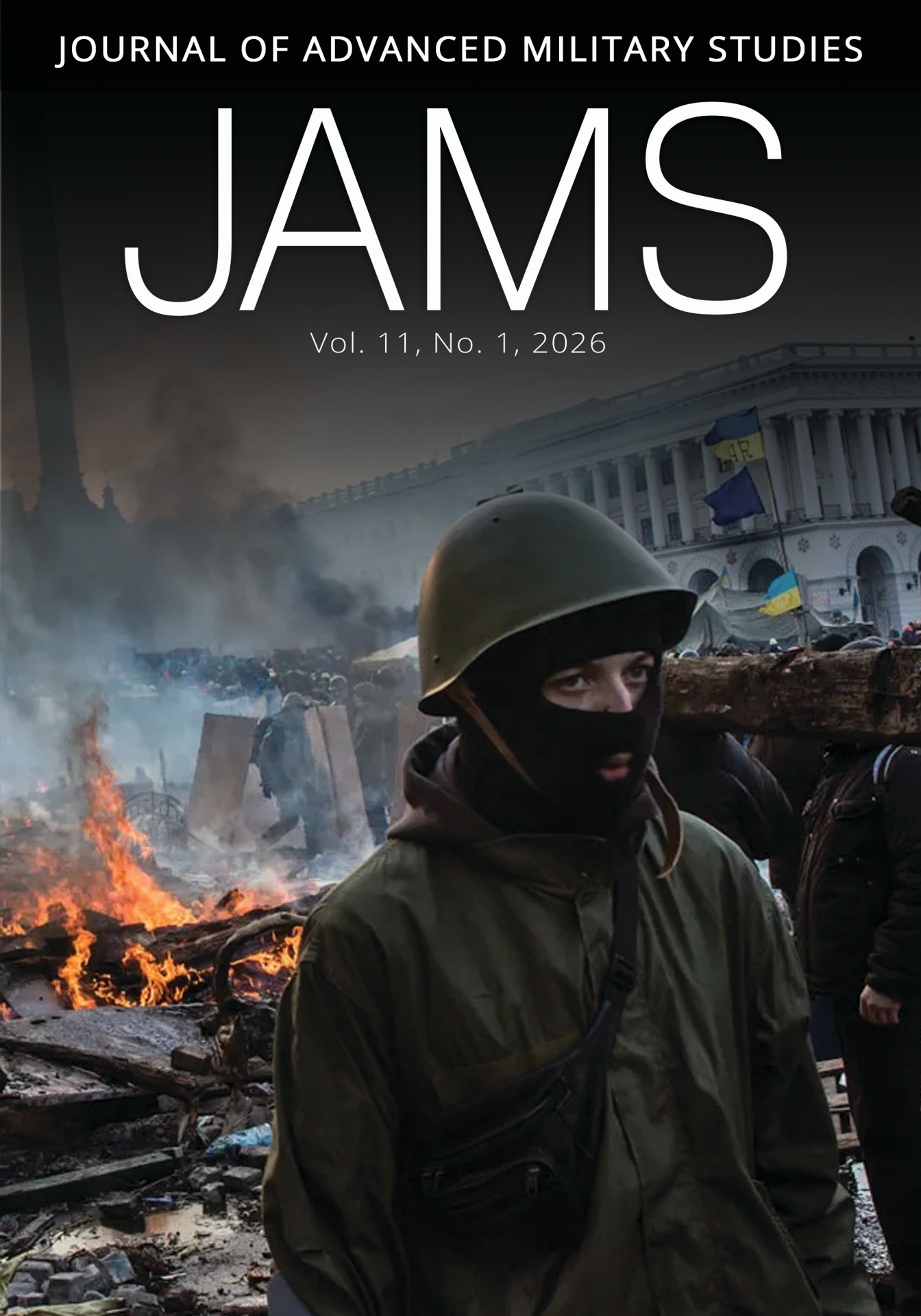

Sustaining the Will to Fight in Extreme Isolation

A Comparative Study of Two Japanese Holdouts

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Abstract: Why were two prominent Japanese World War II holdouts, Lieutenant Hiroo Onoda and Sergeant Shōichi Yokoi, able to sustain their will to fight for nearly three decades after their original units had collapsed? Applying a simplified three-level will-to-fight framework derived from Rand research, this article compares the motivational structures underlying their prolonged resistance. Onoda's persistence reflected guerrilla warfare training and internalized institutional mission logic, whereas Yokoi's endurance rested on social shame and moral duty rooted in civilian ethical norms. The comparison demonstrates how deeply embedded belief systems can function as internal command structures once external authority disappears. By examining these extreme cases of long-term isolation, the study extends the analytical scope of the will-to-fight framework beyond functioning military organizations. The findings offer insights into the durability of combat motivation and suggest implications for modern warfare and professional military education.

Keywords: will to fight, military motivation, Rand framework, Hiroo Onoda, Shōichi Yokoi, professional military education

Introduction

Modern warfare continually demonstrates that material superiority and tactical innovation alone cannot secure victory. Even in the ongoing conflict in Ukraine, where new technologies such as drones have transformed battlefield

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tactics since 2022, the fundamental nature of war remains unchanged. The moral dimension, including the capacity of combatants and societies to endure sacrifice, uncertainty, and loss, continues to play a decisive role. The moral component—what Carl von Clausewitz described as the "moral forces" of war—remains decisive.[1]

A striking illustration of this problem appears in extreme historical cases where soldiers continued to fight long after their institutions had ceased to function. This article addresses the puzzle of why two prominent Japanese World War II holdouts, Lieutenant Hiroo Onoda (1922–2014) and Sergeant Shōichi Yokoi (1915–97), were able to sustain their will to fight for decades after Japan's military organization had collapsed.

The will-to-fight program developed by the Rand Corporation in 2016 emphasizes the centrality of this moral dimension. Conducted at the request of Department of the Army operations, plans, and training staff, Rand's research highlights the claim by the U.S. Army and Marine Corps that "the will to fight is the single most important factor in war."[2] Rand defines *will to fight* as "the disposition and decision to fight, to act, or to persevere when needed," framing it not as an intangible mystery but as a measurable and modellable variable of combat effectiveness.[3]

While most applications of the Rand framework analyze active military organizations engaged in contemporary conflict, this article applies a simplified version of the model to the micro-level of isolated individuals whose institutional structures had already collapsed. Whereas recent studies of the Russo-Ukrainian War illustrate how national will and unit cohesion interact within functioning military institutions, the cases of Onoda and Yokoi demonstrate how the will to fight can become self-sustaining once institutional doctrine and social norms are internalized by the individual.[4] Both soldiers continued resisting for decades after Japan's formal surrender in 1945.

Regarding these two holdouts, Beatrice Trefalt's *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975* provides the most influential historical analysis of their postwar reception.[5] Trefalt demonstrates that the

[1] Carl von Clausewitz, *On War*, trans. and ed. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 89–92.

[2] Ben Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units* (Santa Monica, CA: Rand, 2018), xi–x, https://doi.org/10.7249/RR2341; and "Understanding the Will to Fight," Rand Army Research Division, accessed 23 March 2026.

[3] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 6, xiii–xv.

[4] Benjamin A. Okonofua, Nicole Laster-Loucks, and LtCol Andrew Johnson, " 'Will to Fight': Twenty-First-Century Insights from the Russo-Ukrainian War," *Military Review* 104, no. 3 (2024): 34–49.

[5] Beatrice Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975* (London: Routledge, 2003).

public images of Yokoi and Onoda as "heroes" or "celebrities" were shaped through complex interactions between the returning soldiers and a Japanese society seeking to reconstruct its national identity in the early 1970s.[6] Her work therefore warns that the holdouts' memoirs must be read critically rather than accepted at face value.

Building on this scholarship, the present study analyzes these cases from a different perspective: the internal architecture of the will to fight. By applying a modified version of Rand's analytical framework to the micro-level experiences of isolated soldiers, this article examines how institutional doctrine, cultural norms, and individual cognition interacted to sustain prolonged resistance even after the physical military organization had ceased to exist.

The article proceeds as follows. First, it explains the original Rand will-to-fight model and introduces a simplified three-layer adaptation used to analyze the two cases. Second, it reviews recent applications of the Rand framework to distinguish the present study from existing research. Third, it presents detailed case studies of Onoda and Yokoi, examining differences in education, rank, and social background. Fourth, it offers a comparative synthesis and discusses the implications of these findings for military education. Finally, it concludes with theoretical and policy reflections on adaptive resilience, which provides the disciplined capacity both to fight and to cease fighting when legitimate authority requires, and discusses the implications of these findings for modern warfare and professional military education (PME).

This article thus contributes to the will-to-fight literature by testing the Rand framework at the micro-level of isolated individuals, an analytical context rarely examined in previous studies focused on functioning military organizations.

A Modified Rand Three-Layered Model of the Will to Fight

Rand's series of research on will to fight emerged from operational failures in Iraq and Afghanistan, where technologically advanced forces faced opponents who fought with remarkable persistence. The resulting analytical framework, articulated in *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, identifies five interacting levels of analysis: individual, unit, organization, state, and society. Each contributes to combat motivation with 29 factors.[7] The companion study *National Will to Fight* extended the model to political leadership and collective legitimacy, while the research brief

[6] Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, 119.
[7] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, xiii–xv.

Returning to the Human Fundamentals of War distilled key recommendations for integrating moral factors into planning and simulation.[8] Finally, they completed a case study of the U.S. operation in Iraq introduced nine subfactors with case-specific considerations incorporated.[9]

Rand's approach is fundamentally systemic because morale emerges from the interaction of nested structures rather than from purely psychological or purely political sources.[10] Individual cognition shapes and is shaped by unit cohesion; organizational culture translates strategy into meaning; state and society provide ideological and emotional legitimacy. These feedback loops form what Rand calls an "interactive ecosystem of motivation."[11]

The transition from Rand's original five-layer framework to the adapted three-layered model is a deliberate methodological choice necessitated by the condition of extreme isolation. Whereas the original framework is designed to analyze 29 factors and 61 subfactors across five tiers, the functional dissolution of the unit and organization as physical entities in the cases of Onoda and Yokoi requires a more concentrated approach.[12] By condensing these variables into three analytic layers—individual, organizational (as internalized doctrine), and societal (as moral cosmology)—this study captures the motivational ecosystem in its most fundamental form. This approach reflects the principle that while layers are analytically separable, they remain empirically interdependent; even in isolation, individuals cannot be separated from their internalized relationships with the state and the parent institution.

Under conditions of extreme isolation, the layers operate without external reinforcement, forcing motivational structures to survive primarily through internalized doctrine and cultural norms. The resulting structural modification, which concentrates the original variables into these three analytical tiers, is summarized in table 1.

This condensation recognizes that for isolated soldiers, the distinctions between unit, organization, and state blur. Their only surviving referent is the internalized doctrine of the institution. Such compression is consistent with

[8] Michael J. McNerney et al., *National Will to Fight: Why Some States Keep Fighting and Other Don't* (Santa Monica, CA: Rand, 2019), https://doi.org/10.7249/RR2477; and Ben Connable et al., *Will to Fight: Returning to the Human Fundamentals of War* (Santa Monica, CA: Rand, 2019), https://doi.org/10.7249/RB10040.

[9] Ben Connable, *Iraqi Army Will to Fight: A Will-to-Fight Case Study with Lessons for Western Security Force Assistance* (Santa Monica, CA: Rand, 2022), 11–12, https://doi.org/10.7249/RR-A238-1.

[10] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 92.

[11] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 66–68.

[12] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 6, 41–42.

Table 1. Adapted three-layered model of the will to fight

Rand original level	Adapted layer	Function
Individual	Individual layer	Psychological conviction, perception of duty
Unit/organization	Organizational layer	Doctrine, command norms, internalized command
State/society	Societal layer	Cultural narratives, legitimacy of sacrifice

Source: based on author's adaptation of the Rand framework.

Rand's principle that layers are analytically separable but empirically interdependent. The adapted model therefore preserves fidelity to the original Rand framework while optimizing it for micro-historical analysis. As Rand emphasizes that "individual soldiers and units are the critical nodes in a network of interwoven relationships ranging up and out to the societal level," and each soldier constitutes "a system reflecting cultural influences, motivations, fears, expectations, and other factors."[13] This formulation is particularly conducive to examining isolated cases such as wartime holdouts, where the individual becomes the primary analytical site.

Rand also explicitly cautions against attempts to analytically isolate the individual or unit from higher-level influences. While it may appear methodologically convenient to "eliminate the state and national factors to focus on the unit," thereby treating the unit as a self-contained entity, the report rejects this approach, noting that "the concept of cultural islands is impractical."[14] Culture and knowledge, Rand researchers argue, "are never bounded by artificial constructs like units," and individuals "can rarely, if ever, be separated from their existing relationships with family, the state, the nation, and the organization."[15]

Crucially, Rand's meta-analysis concludes that "all factors, from society to unit, affect will to fight, all the time." Of particular relevance to the present study is the observation that individual ideology remains tightly coupled to

[13] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 37.
[14] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 37.
[15] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 37.

societal and state narratives. As the report notes, "a World War II–era Japanese soldier's dedication to the empire" exemplifies how societal ideology may constitute one of the most decisive determinants of will to fight.[16] This insight directly supports the present article's three-layered adaptation and its application to micro-historical cases, where institutional authority may collapse but ideological and societal linkages persist internally.

Thus, the three layers interact recursively: institutional doctrine channels individual motivation, individual conviction reinforces or reshapes institutional norms, and both are legitimized by societal narratives. When one of the three layers collapses, the others compensate—a phenomenon visible in Onoda and Yokoi's ability to sustain their will to fight in the absence of command or national authority.

Rand's unit-level analysis notes similar compensatory behavior. When leadership and supply falter, cohesive ideology can preserve effectiveness temporarily.[17] In the Japanese wartime context, that ideology was encoded in the *Senjinkun* [The Codes of Conduct in Battle], which forbade surrender and elevated death in duty to moral perfection.[18] Once internalized, this doctrine fused institutional and societal imperatives within the individual psyche, creating a self-reinforcing triad of belief, obedience, and identity.

Adapting Rand's model accomplishes three things. First, it integrates Western systems theory with Japanese moral-psychological traditions to enable cross-cultural comparison. Second, it demonstrates that will to fight can persist not only through organizational cohesion but through ideological self-organization—the mind's capacity to replicate command authority internally. Third, it provides a framework for analyzing the combatants' psychology, where combatants must balance institutional discipline with moral autonomy, within a larger system of the will to fight.

The ensuing sections test this three-layered model empirically through the lived experiences of Onoda and Yokoi—two soldiers shaped by the same state but different social strata, whose endurance illuminates the multicausal architecture of human will in war.

In this article, to analyze the three-layered ecosystem of the will to fight, the primary memoirs of Onoda and Yokoi are used as the central data for reconstructing their subjective mission logic. Discarding these personal narratives as mere "post-war constructions" or "heroic myths" would render a military-psychological case study impossible, as it is precisely this internal belief system that constitutes the individual layer of the framework. However, to ensure a ro-

[16] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 37.
[17] Connable et al., *Will to Fight Returning to the Human Fundamentals of War*, 14–15.
[18] *Senjinkun* [The Codes of Conduct in Battle] (Tokyo: Imperial Japanese Army, 1941).

bust stress test of the Rand model, these primary accounts are cross-referenced with secondary sources, including Trefalt's historical context and contemporary critiques, to identify the dissonance between the soldier's internal reality and the external environment. The author's objective is to evaluate how effectively the Rand framework explains the persistence of the will to fight when the feedback loops between these three layers are severed.

If the model is "to serve as a starting point for the Army and, ultimately, the Joint Force, in the development of a universal standard" and more, then it will be useful to include non-American cases beyond those examined by the Rand researchers to test the model in one way or another.[19] Furthermore, the original model was designed to apply to specific historical cases, and the core model-builder and leader of the program conducted a case study on the Iraqi forces in 2022.[20] He notes that the model is an explanatory and exploratory framework that deepens understanding of the will to fight without claiming definitive causal answers, that it requires continuous refinement of assessment methods and is designed to be portable and adaptable to each specific context.

In practice, as demonstrated in studies of the Iraqi Army, the same Rand will-to-fight framework can be applied while adjusting analytical emphasis and research methods according to the availability and nature of information.[21] Whereas Rand's framework focused case studies examined the will to fight of Iraqi forces and were conducted at the organizational and operational levels by Rand researchers, this article analyzes two Japanese cases at the individual level. In this respect, the study offers a non-Rand historical application of the framework.

It is essential to distinguish between the "will to survive"—a biological and psychological drive for self-preservation—and the "will to fight." For Onoda, survival was a strictly functional prerequisite for his ongoing guerrilla mission. For Yokoi, however, the will to survive underwent a transformation: as the military structure evaporated, his persevering will to fight was rechanneled into a will to survive that functioned as his new moral duty. Thus, survival was not a mere instinct but a disciplined extension of the internalized "no surrender" doctrine.

It is also crucial to refine the role of "shame" within this framework. While shame is a universal human regulator, the *Senjinkun* functioned as an institutional accelerator that recoded this cultural substrate into a specific military variable. This document acted as the interface where the societal layer (cultural norms of honor) was fused with the organizational layer (doctrinal impera-

[19] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 162.
[20] Connable, *Iraqi Army Will to Fight.*
[21] Connable, *Iraqi Army Will to Fight*, 11–12.

tives), transforming a latent social regulator into a self-sustaining internal command structure.

While Rand's study observes that "individual ideology linked to the society and the state—for example, a World War II–era Japanese soldier's dedication to the empire—may be one of the most significant factors in will to fight," this article highlights a more differentiated pattern of interaction among individual, societal, and national norms.[22] By doing so, it aims to challenge some of the stereotypical or monolithic portrayals of Japanese soldiers and officers during World War II.

Although Onoda and Yokoi are the most widely recognized, they were not the only soldiers to remain in isolation after 1945. The discovery of Teruo Nakamura on Morotai Island in late 1974, for instance, remains a significant historical event. Nakamura's case involves complex variables of colonial identity as an ethnic Amis from Taiwan, which, as Trefalt argues, led to his marginalization within Japan's ethnic-based national identity.[23] However, this study specifically focuses on Onoda and Yokoi to provide a controlled comparison of rank and education within the Imperial Japanese Army (IJA) structure. While Nakamura's case is fascinating, his background as an ethnic Amis from Taiwan introduces complex variables of colonial identity and dual loyalty that differ from the core institutional socialization of the IJA. Selecting Onoda and Yokoi allows a more controlled comparison within the core institutional culture of the IJA while varying rank, training, and social background.

Returning to the scholarship of Trefalt acutely highlights how the return of Onoda and Yokoi were "consumed" to reconstruct national identity in postwar Japanese society, suggesting that the holdouts may have performed their narratives to align with media expectations and the prevailing zeitgeist. Indeed, an uncritical acceptance of their post-return statements entails significant historiographical risks. However, this article analyzes these narratives not as "social memory" but as the internal mechanism of the "will to fight" as defined by the Rand framework. To explore the internal functioning of a combatant's mission logic and self-command structure under extreme isolation, it is methodologically imperative to rely on the subject's own subjective testimonies and memoirs, even if such accounts were reconstructed post-hoc. Analyzing the individual layer within the Rand framework necessitates data regarding the subjective meanings the actors assigned to their conduct. Consequently, this study complements Trefalt's sociological approach by reinterpreting the cases through a military-psychological lens. By treating these testimonies not as objective his-

[22] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 37.
[23] Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, 163.

torical facts but as empirical evidence of internal logical structures to validate the Rand model, this research establishes an analytical objectivity distinct from existing historical narratives. In other words, while paying careful attention to and utilizing important findings of the work, this article aims to extend the Rand framework to the micro-level of the individual soldiers during their isolated wartime life, thereby testing its limits under conditions of total institutional extinction rather than focusing on their post-return life.

By concentrating on Onoda and Yokoi through Rand's model, this article isolates how rank and education within the core IJA structure refracted the will to fight. The comparison between Lieutenant Onoda (an elite, trained intelligence officer) and Sergeant Yokoi (a conscripted tailor-turned-soldier) isolates the impact of rank and professional education on the will to fight. By narrowing the focus to these two cases, this article can more precisely test how different levels of military socialization refract the interaction between institutional doctrine and societal norms under extreme conditions.

When revisited through the analytical lens of *will to fight* and within a well-established theoretical framework, Onoda's and Yokoi's cases reveal underexplored dimensions of individual endurance. The prolonged isolation of Onoda and Yokoi demonstrates how *will* can become self-sustaining once cultural, societal, and institutional foundations are internalized and fused within the individual.

For this reason, this study employs Rand's framework to analyze two cases. Rather than merely applying the framework, however, it stress tests its portability at the individual level under conditions of total institutional collapse. It argues that Onoda and Yokoi's prolonged resistance emerged from the interaction of three concentric layers of motivation, namely individual, institutional, and societal, which correspond to, but are analytically condensed from, Rand's original multilayered model. This adaptation enables an analysis that is sensitive to Japanese military doctrine, wartime ideology, and forms of personal moral reasoning.

Although both men survived under extreme and prolonged conditions in which many fellow soldiers did not, this study does not treat survival as a separate analytical category. Instead, survival-related behavior is understood as operating within the broader architecture of the will to fight, which Rand defines as the capacity to endure and persevere under threat. Framing survival in this way preserves analytical consistency while allowing close examination of endurance under extreme isolation.

This article also aims to contribute a controlled test of how rank and education refract *will* across layers. Lieutenant Onoda's officer training at the Futamata Branch of the Nakano Military School (an Imperial Japanese Army

school specialized in guerrilla warfare) cultivated autonomous obedience, that is the ability to exercise independent judgment while remaining loyal to mission intent, whereas Sergeant Yokoi's enlisted formation reinforced embodied obedience through craft, routine, and shame avoidance.[24] Those differences matter analytically because they change the pathways through which belief persists when commands stop arriving. In this adapted framework, officer socialization tends to thicken the institutional layer inside the individual (doctrine becomes self-discipline), while enlisted socialization thickens the societal layer inside the individual (community ethics become self-worth). The comparative design therefore isolates how identical wartime injunction, "no surrender," produced distinct architectures of persistence in two men facing similar material constraints but different educational backgrounds and ranks.[25]

Examples of Model Applications and Historical Research

While the Rand Corporation originally developed the will-to-fight framework for institutional analysis within U.S. defense planning, recent scholarship has applied it to external contexts, most notably the ongoing conflict in Ukraine. A primary example is the work of Benjamin A. Okonofua, Nicole Laster-Loucks, and Andrew Johnson, who utilize the model to analyze the 2022 invasion by

[24] Stephen C. Mercado, *The Shadow Warriors of Nakano : A History of the Imperial Japanese Army's Elite Intelligence School* (Dulles, VA: Brassey's, 2002); and Nakano Kōyū Kai, *Rikugun Nakanogakkō* [The Army Nakano Military School] (Tokyo: Hara Shobō, 1978). The main school in Nakano specialized in intelligence training, while the Futamata Branch was specialized in guerrilla warfare. See also Mataichi Senshi ed., *Rikugun Nakano Gakkō Futamata Bunkō Daiikkisei No Kiroku* [The Records of the First Graduates of the Futamata Branch of the Army Nakano Military School] (n.p.: Mataichi Kai, 1981). The school had one main school and three branches. See Kiyoyuki Hatakeyama, *Hiroku Rikugun Nakanogakkō* [Secret Records: The Army Nakano Military School], ed. Masayasu (Tokyo; Shinchō Bunko, 2003). Hiroo Onoda and Charles S. Terry, trans., *No Surrender: My Thirty-Year War* (Tokyo/New York: Kōdan Sha, 1974), 28–33, 45–47. This book is the translation of the original Japanese book by Hiroo Onoda, *Waga Rubantō No 30nen Senso* (Tokyo: Kōdan Sha, 1974). Onoda published an expanded version of this book in 1995 to commemorate Norio Suzuki, with whom Onoda met in Luban. Their encounter led Onoda to his return to Japan. See Hiroo Onoda, *Waga Rubantō No 30nen Senso* (Tokyo: Asahi Bunko, 1995). For more on Yokoi, see Omi Hatashin, trans., *Private Yokoi's War and Life on Guam, 1944–1972* (London: Global Oriental/Brill, 2009), 9–12, 245–48. This biography consists of a translation of Yokoi's autobiography originally published in Japanese and Hatashin's own texts, specifically pages xv and 227. Yokoi's original autobiography is Shōichi Yokoi, *Asu Eno Michi: Zenhōkoku Guamu To Kodoku No 28 Nen* (Tokyo: Bungei Shunjū, 1974). This article is largely based on Hatashin's book. Hatashin is Yokoi's nephew by marriage. See Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, xv; and Mike Lanchin, "Shoichi Yokoi, the Japanese Soldier Who Held Out in Guam," BBC News, 24 January 2012.

[25] Onoda, *No Surrender: My Thirty-Year War*, 33, 45–47; Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 9–12, 245–48.

focusing on physical, psychological, and national dimensions.[26] They highlight how ideological and psychological factors at the individual level—specifically leadership—can compensate for material inferiority at the state and unit levels. They argue that military effectiveness is not merely a product of technology or troop numbers but is deeply rooted in the human dimension of warfare. They attribute Ukrainian resolve to a synergistic alignment across the three layers of the military and society, including a clear existential purpose, the adoption of decentralized mission command, and high national unity. Conversely, they identify significant failures in Russian resolve, citing poor organizational cohesion, low individual motivation among conscripts, and a lack of a compelling societal narrative for the conflict. Their research concludes that the will to fight is the ultimate force multiplier in twenty-first-century conflict, recommending that modern militaries prioritize the psychological and institutional foundations of resolve alongside technological modernization.

Their study explicitly utilizes the three-layered Rand framework to categorize the variables of resolve: the societal layer focuses on national identity and the perceived illegitimacy of the invasion as the foundation for macro will; the organizational layer examines the transition to flexible, unit-based initiative that fostered cohesion; and the individual layer analyzes the psychological resilience of soldiers driven by moral conviction.

While their work provides a vital contemporary application of the framework, the present research maintains distinct originality through several analytical distinctions. Unlike existing Rand applications that analyze active military organizations, this article examines the will to fight after the complete disappearance of institutional structures, thereby testing the framework under conditions of extreme isolation. Rather than observing how units maintain cohesion during active conflict, this study investigates how "will" persists after the unit has physically ceased to exist. This identifies the threshold where doctrine transitions from an organizational requirement to a self-perpetuating internal command structure.

Second, this article prioritizes empirical granularity over macro-level observations. While theater-wide analyses focus on broad national narratives, this article reconstructs the internal cognitive architecture of resolve by focusing on the cases of Onoda and Yokoi. This represents a shift from analyzing operational outcomes at the front to understanding psychological processing within the isolated human mind during a three-decade period. Third, this analysis explores the pathology of resolve. Unlike their study, which treats the will to fight primarily as a virtue and a source of effectiveness, this research examines

[26] Okonofua, Laster-Loucks, and Johnson, " 'Will to Fight': Twenty-First-Century Insights from the Russo-Ukrainian War," 34–49.

how an internalized mission logic can become detached from societal reality. This runaway resilience—which resulted in civilian casualties on Lubang—adds a critical ethical dimension to the model that contemporary studies often omit. Finally, while the 2024 study analyzes a conflict currently in its third year, this research examines the "residue" of military training and social norms during 28–30 years of isolation. This longitudinal perspective facilitates a deeper investigation into which layer of the Rand model—the organizational or the societal—proves more durable when all external reinforcement is removed. Consequently, this study serves as a necessary extreme case extension that tests the framework's limits in ways that current conflict analysis cannot.

A further application of the will-to-fight framework to the Ukrainian conflict is provided by Carlos Enrique Álvarez-Calderón, who utilizes a multi-level model derived from Connable et al., McNerney et al., and Okonofua et al.[27] Álvarez-Calderón identifies four interrelated levels of analysis: the micro level (individual psychological resilience), the meso level (organizational cohesion and leadership), the macro level (state legitimacy and social cohesion), and the meta level (cultural narratives and ideologies). The study contends that Ukraine's resilience is rooted in a narrative of existential resistance and decentralized leadership, whereas Russia's reliance on historical narratives and internal coercion may limit its long-term endurance. Drawing lessons for the Colombian context, Álvarez-Calderón concludes that Colombia faces moral fatigue and lacks a cohesive national narrative, recommending a strategy that integrates psycho-social resilience training with an inclusive defense narrative.

This article diverges from Álvarez-Calderón's approach in several fundamental respects. First, while Álvarez-Calderón analyzes active, state-level warfare where all layers of the model are functioning and interacting, this study serves as a stress test of the model's limits by examining the will to fight in a state of total isolation. By investigating a scenario where the physical organizational layer has vanished and the societal layer is severed, this research identifies how doctrine can transform into a self-sustaining internal command structure once external authority disappears. Second, whereas the Colombian study focuses on contemporary snapshots of a conflict lasting several years, this research utilizes a three-decade natural experiment. This longitudinal perspective facilitates a deeper analysis of the residue of military training during a lifetime, offering

[27] Carlos Enrique Álvarez-Calderón, "Will to Fight in the Russian-Ukrainian War: Multilevel Analysis and Lessons for Colombia," *Revista Científica* 23, no. 52 (October–December 2025): 883–921, https://doi.org/10.21830/19006586.1562; Connable et al., *Will to Fight Returning to the Human Fundamentals of War*; McNerney et al., *National Will to Fight: Why Some States Keep Fighting and Other Don't*; and Okonofua, Laster-Loucks, and Johnson, " 'Will to Fight': Twenty-First-Century Insights from the Russo-Ukrainian War."

insight into the individual layer's capacity to override external reality through mechanisms such as cognitive dissonance.

Finally, this article prioritizes empirical granularity through the use of primary data, specifically the autobiographies of Onoda and Yokoi, to reconstruct internal mission logic. In contrast, Álvarez-Calderón acknowledges that his study is limited by a lack of primary evidence from the field, relying instead on the documentary analysis of secondary sources. Furthermore, while the 2025 study examines broad institutional and national patterns—such as general Russian and Ukrainian tactics—it does not trace the internal psychological architecture of specific soldiers. By focusing on deep-dive individual narratives, the present work fills a significant gap in the contemporary application of the Rand framework, providing the direct empirical evidence of individual persistence that theoretical constructions often lack.

A significant historical counterpart that operates independently of the formal Rand framework is found in the work of Eric S. Fowler, who examines the strategic interplay between the Japanese Imperial Institution and United States planning during World War II.[28] Although Fowler uses the specific terminology of "will-to-fight," his analysis is distinct from the three-layered Rand model, offering instead a macro-level strategic perspective on the Japanese state. His research explores how U.S. political and military leaders explicitly distinguished an enemy's "means-to-fight"—physical resources such as factories and weaponry—from their *will to fight*, which he defines as a preference for violent resistance over submission. Fowler details the strategic debate between the "Harsh Peace" faction, which advocated for the total elimination of the Japanese Imperial Institution, and the "Soft Peace" faction, which argued the emperor was the only authority capable of legitimizing a unified national surrender. The eventual Allied decision to safeguard the Imperial Institution identified the emperor as the primary catalyst for the Japanese people's resolve, allowing the United States to subdue the national will without the catastrophic combat anticipated in a full-scale invasion of the mainland.

This macro-strategic context provides a vital theoretical anchor for the individual cases of Onoda and Yokoi, despite Fowler's study not being structured around the Rand variables. If Fowler's distinction between means and will is operationalized, it is possible to analyze how these holdouts maintained their resolve for nearly three decades despite the total loss of their physical means to wage war. For Onoda, the emperor represented the ultimate authoritative "off-switch" within an internalized chain of command; his resolve required a

[28] Eric S. Fowler, "Will-to-Fight: Japan's Imperial Institution and the U.S. Strategy to End World War II," *War & Society* 34, no. 1 (2015): 43–64, https://doi.org/10.1179/0729247314Z.00000000046.

formal order originating from this sovereign source before he could cognitively accept the war's end. Similarly, Fowler's analysis of the Soft Peace logic clarifies the societal context of the era, where the emperor functioned as the living manifestation of the Japanese people. This explains why Yokoi experienced such profound shame, as his inability to fulfill his military duty was perceived as a failure toward the very foundation of his social identity.

This article differentiates itself from Fowler's study by shifting the analytical lens from the perceptions of U.S. planners to the internal psychological reality of the individual soldier. While Fowler views the U.S. strategy as a success that preserved the principal armies, this article investigates the residue of that strategy—the isolated individuals for whom the organizational communication loop was severed. Furthermore, this study serves as a micro-level stress test of the theory that safeguarding the emperor "subdued" the Japanese will. It explores the pathology of resolve that emerges when a soldier is so deeply indoctrinated that they dismiss legitimate peace signals as enemy deception. Ultimately, while Fowler provides the strategic "why" behind the preservation of the Imperial Institution, this article aims to provide the psychological "how" regarding the long-term endurance of the individual soldier under those specific institutional constraints.

Case Study I: Lieutenant Hiroo Onoda

Education and Formation

Lieutenant Hiroo Onoda's endurance cannot be understood without examining his intellectual and institutional formation within the Imperial Japanese Army. Born in Wakayama Prefecture in 1922, Onoda was raised in a family strongly connected to military service. His elder brother studied medicine at Tokyo Imperial University and later served as an army medical officer, while other brothers also entered military service.[29] During his school years, Onoda practiced *kendō*, a martial discipline emphasizing perseverance, mental focus, and moral discipline—values widely promoted in Japanese prewar education.[30]

After graduating from junior high school, Onoda entered a trading company and spent several years working in China. When Japan's war with the United States began in December 1941, he anticipated eventual conscription. Following a medical examination in May 1942, he entered the Imperial Japa-

[29] Onoda, *No Surrender: My Thirty-Year War*, 12–14.

[30] *Kendō*, *judō*, and other martial arts have continued to be taught in postwar Japanese school curricula, although their pedagogical emphasis shifted from militarized discipline to physical education and cultural tradition. For broader discussions of martial culture and wartime ideology in modern Japan, see Eiko Ikegami, *The Taming of the Samurai: Honorific Individualism and the Making of Modern Japan* (Cambridge, MA: Harvard University Press, 1995); and John W. Dower, *War without Mercy: Race and Power in the Pacific War* (New York: Pantheon, 1986).

nese Army's *2d Infantry Regiment*.[31] Initially enlisted, he successfully passed the officer examination in 1943 and was subsequently selected for training at the Futamata Branch of the Nakano Military School.

The Nakano School represented a distinctive institutional environment within the Japanese military system. Established to train specialists in intelligence, unconventional warfare, and guerrilla operations, its curriculum emphasized initiative, deception, and survival rather than the conventional emphasis on sacrificial assault that characterized much of the IJA's combat doctrine.[32] While the broader wartime military ethos, reinforced by the *Senjinkun*, stressed absolute loyalty and honorable death in battle, the Nakano program taught officers that survival could constitute a professional duty when necessary for the continuation of intelligence operations.[33]

This training produced what might be termed *autonomous obedience*: the expectation that an officer could exercise tactical discretion while remaining completely faithful to the strategic intent of the mission. Within the analytical framework adopted in this article, the Nakano curriculum strengthened the organizational layer of the will-to-fight ecosystem by internalizing command authority within the individual soldier. The result was a form of self-command capable of persisting even when communication with higher authority was severed.

Deployment to Lubang and the Persistence of Command

In December 1944, Onoda was dispatched to Lubang Island in the Philippines with orders to conduct guerrilla operations and intelligence gathering while disrupting Allied operations. Most importantly, he was instructed not to surrender under any circumstances and to continue operations for as long as possible.[34]

When Japan capitulated in August 1945, Onoda and three other soldiers on Lubang interpreted surrender leaflets dropped by Allied aircraft as enemy propaganda. The small group consisted of Onoda, Corporal Shoichi Shimada, Private First Class Kinshichi Kozuka, and Private First Class Yuichi Akatsu. Akatsu eventually left the group and surrendered in 1950, while Shimada was killed in a firefight with Philippine forces in 1954 and Kozuka in 1972.[35]

During the early years of isolation, the four soldiers reorganized into a small operational unit. As the only officer present, Onoda assumed leadership. Tasks were distributed according to physical capacity and skill: Shimada undertook many physically demanding duties, while the others collected water, firewood,

[31] Onoda, *No Surrender: My Thirty-Year War*, 18–24.
[32] Mercado, *The Shadow Warriors of Nakano*; and Kai, *Rikugun Nakanogakkō*.
[33] *Senjinkun*.
[34] Onoda, *No Surrender: My Thirty-Year War*, 45–47.
[35] Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, 54–60.

and materials for tools and traps.[36] Leadership within the group relied less on coercion than on pragmatic coordination required for survival.

The environment of Lubang soon transformed their situation from military operations to long-term survival.[37] Jungle conditions required knowledge not provided by formal military training, including the construction of traps, fire management, and concealment techniques. Ammunition scarcity forced the group to hunt livestock raised by local villagers, and careful rationing became essential to their survival.[38]

These routines illustrate how the individual and organizational layers interacted in the persistence of Onoda's will to fight. Even as the external military structure collapsed, the internalized command hierarchy continued to shape behavior.

Cognitive Resistance and the Maintenance of Mission Logic

Throughout the late 1940s and 1950s search parties periodically left behind newspapers and leaflets reporting Japan's surrender and postwar developments. Onoda consistently interpreted such materials as deliberate attempts by the enemy to lure the group out of hiding. References to American military bases or Soviet technological achievements were reinterpreted through the lens of wartime propaganda and the expectation that Japan would eventually achieve victory.[39]

This pattern illustrates cognitive preservation of mission logic, which represents a key psychological mechanism within the will-to-fight framework. Rather than abandoning his operational assumptions when confronted with contradictory information, Onoda reinterpreted that information in ways that preserved internal coherence. His memoir later explained this reasoning succinctly: "Every rumor of peace was another Allied trick to make us reveal our positions."[40]

Such reinterpretations were reinforced by the ideological environment in which Imperial Japanese soldiers had been trained. As military historian Edward Drea has shown, wartime indoctrination emphasized unwavering loyalty to the emperor and portrayed surrender as the ultimate dishonor.[41] These ideological norms constituted the societal layer reinforcing the internalized organizational command structure.

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[36] Onoda, *No Surrender: My Thirty-Year War*, 80–85.
[37] Onoda, *No Surrender*, 80–85; and Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, 62–65.
[38] Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, 62–65.
[39] Onoda, *No Surrender: My Thirty-Year War*, 120–126.
[40] Onoda, *No Surrender: My Thirty-Year War*, 113.
[41] Edward J. Drea, *Japan's Imperial Army: Its Rise and Fall, 1853–1945* (Lawrence: University Press of Kansas, 2009).

Violence and the Ethical Consequences of Isolation

During the three decades of their holdout, Onoda and his companions engaged in numerous armed encounters with local inhabitants and Philippine security forces. Japanese and Philippine sources estimate that approximately 30 civilians were killed during these incidents.[42] Onoda's memoirs, however, described these encounters as engagements with guerrillas or enemy agents rather than civilians. The discrepancy illustrates the ethical dangers inherent in a self-sustaining mission logic operating without institutional oversight. When all external contact is interpreted through the lens of hostile warfare, the distinction between combatant and civilian can collapse entirely.

Within the analytical framework employed here, this represents a pathological form of cross-layer reinforcement: the individual layer preserves mission logic, while ideological elements of the societal layer legitimize continued hostility toward perceived enemies.

Institutional Residue and the Final Termination of the Mission

After Kozuka's death in October 1972, Onoda continued his activities alone for nearly 18 months. Despite complete isolation, he maintained routines resembling military patrols, weapons maintenance, and observation of the surrounding terrain. These practices illustrate what organizational theorist Edgar H. Schein describes as institutional residue, the persistence of organizational culture long after the physical organization has disappeared.[43]

Rand researchers describe a similar phenomenon as "legacy cohesion," in which deeply internalized norms continue to guide behavior even when the original institutional framework has collapsed.[44]

Onoda's resistance ended in March 1974 when his former commanding officer, Major Yoshimi Taniguchi, traveled to Lubang and formally relieved him of his mission. Only this direct order from a recognized authority allowed the internal command structure sustaining his will to fight to dissolve.

The episode provides a powerful demonstration of the dominance of the organizational layer in Onoda's motivational architecture. Even when confronted with overwhelming evidence that the war had ended, including personal appeals from Japanese civilians such as the adventurer Norio Suzuki, Onoda required a formal command from his original chain of authority before he could accept the termination of his mission.[45]

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[42] Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, 56.

[43] Edgar H. Schein, *Organizational Culture and Leadership* (San Francisco, CA: Jossey-Bass, an imprint of Wiley, 1985), 54–56.

[44] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 66–68.

[45] Onoda, *No Surrender: My Thirty-Year War*, 240–50.

Postwar Reintegration and Historical Interpretation

Following his return to Japan, Onoda struggled to adapt to a society transformed by three decades of economic growth and social change. Within a year, he emigrated to Brazil, where he became a rancher before later returning to Japan to establish youth education programs emphasizing discipline and independence.

His return generated intense political debate within Japan. As Beatrice Trefalt demonstrates, Onoda quickly became a symbolic figure in the cultural struggles of the 1970s: celebrated by conservative groups as a model of loyalty while criticized by others as a victim of wartime indoctrination.[46]

Regardless of these later interpretations, the persistence of Onoda's will to fight for nearly three decades cannot be explained solely by postwar political narratives. Rather, his experience illustrates how deeply internalized institutional doctrine can function as a durable internal command structure even after the physical military organization has ceased to exist.

Case Study II: Sergeant Shōichi Yokoi

Education and Rank

Shōichi Yokoi was born in 1915 in Aichi Prefecture and entered service as a tailor turned infantryman.[47] Like Onoda, he did not volunteer to join the military and only received a "red paper," an official order to do so when he was 23 years old in 1938 due to the Second Sino-Japanese War that had begun in July 1937.[48] He returned to Japan and demobilized in 1939 and received his red paper again and entered the army in August 1941.[49]

Unlike Onoda, he was neither officer nor graduate of the Nakano School. His worldview reflected the ethics of the artisan class: diligence, modesty, and shame avoidance. These values aligned with the Imperial Japanese Army's emphasis on obedience through moral discipline rather than analytical reasoning.[50]

Recognizing that victory was impossible, the colonel ordered the regimental colors—sacred banners passed down since the First Sino-Japanese War (1894–95) and Russo-Japanese War (1904–5)—to be destroyed by the unit's own hands to prevent their capture.[51] Following this symbolic dissolution and a final farewell from their commander, he was instructed to fight with unwav-

[46] Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, 148–162.
[47] Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 9–12. The present study relies primarily on Hatashin's translation.
[48] Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 4.
[49] Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 16.
[50] Edward J. Drea, *In the Service of the Emperor: Essays on the Imperial Japanese Army* (Lincoln: University of Nebraska Press, 1998), 83–90.
[51] Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 25.

ering bravery until the last soldier had fallen, ensuring the preservation of their collective honor.[52]

Whereas Onoda internalized command intellectually, Yokoi embodied it physically through habit, routine, and the moral imperative not to disgrace his family. His later remark—"It is with much embarrassment that I return alive"—captures a moral world governed less by state ideology than by communal shame.[53] This cultural framework of shame had been strongly reinforced during wartime through military education involving "indoctrination" and "propaganda" emphasizing loyalty, sacrifice, and the dishonor of surrender.[54]

Survival and the Societal Layer

Yokoi's experience in Guam after 1945 was defined by a form of craft-based survivalism. After his original unit collapsed, two of the original group of five surrendered in 1946, and the other two (Mikio Shichi and Satoru Nakahata) died in 1964.[55] After the group was reduced to three men, Yokoi no longer engaged in combat operations. Using salvaged materials, he constructed looms, traps, and everyday tools, effectively recreating a small-scale version of a prewar artisan household.[56]

Similar patterns of adaptation and survival have been noted in oral histories of Japanese soldiers who endured extreme wartime conditions, where everyday labor became a central means of sustaining morale and identity.[57] This mode of endurance illustrates the societal layer of will to fight, in which survival functioned as a moral obligation to ancestors and village communities rather than as loyalty to the emperor.[58]

Collapse of Organizational Discipline

Yokoi's account identifies a significant degradation within the organizational layer. While Onoda's persistence was anchored in a relatively coherent internalized command hierarchy, Yokoi describes a systemic collapse of discipline driven by extreme deprivation.

The habitual theft of provisions and the silence of superiors indicate that

[52] *Senjinkun*, chap. 2, art. 8.
[53] Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 247.
[54] For discussions of Japanese war-time "indoctrination" and military culture, see, for example, John W. Dower, *War without Mercy: Race and Power in the Pacific War* (New York: Pantheon, 1986); and Drea, *In the Service of the Emperor*.
[55] Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 16–17.
[56] Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 9–12.
[57] See, for example, Haruko Taya Cook and Theodore Cook, *Japan at War: An Oral History* (New York: New Press, 1992).
[58] Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, 94–98.

the organizational framework had effectively ceased to regulate behavior.[59] In this vacuum, Yokoi's will transitioned from a coordinated military mission to a pragmatic survival ethic within the individual layer. Despite this institutional decay, his continued isolation for nearly three decades was ultimately sustained by the societal layer, specifically the internalized shame of capture.[60]

Solitude and Personal Motivation

After disputes over food management, Yokoi separated from his remaining companions and constructed an underground shelter where he lived alone.[61] During his prolonged solitude, the prospect of seeing his mother again became a critical psychological anchor. Raised by a divorced mother, he later learned that even after receiving official notification of his death she refused to believe he had died.[62] Where Onoda resisted reality through doctrinal belief, Yokoi transcended it through labor. His daily routines of weaving, hunting, and maintaining shelter reproduced a moral economy of diligence rooted in prewar moral education.[63]

Cultural Persistence

Although Yokoi did not adhere to formal religion, he recalled that during periods of despair he quietly recited Buddhist verses memorized in childhood.[64] Such practices reflected broader patterns of wartime Japanese soldiers drawing on cultural and religious traditions to sustain psychological endurance under extreme conditions.[65]

Discovery and Postwar Reception

Discovered by local hunters in January 1972, Yokoi became an "instant celebrity" along with the other stragglers.[66] His statement of shame resonated strongly within a Japanese society negotiating its relationship with wartime memory during a period of rapid economic growth.[67] The discovery and return of Yokoi attracted media attention in Japan. The so-called "Yokoi boo/panic" was created and continued for years.[68]

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[59] Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 16–17.
[60] Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, 94–112.
[61] Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 194.
[62] Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 173–74.
[63] Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 155–60.
[64] Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 160.
[65] Cook and Cook, *Japan at War: An Oral History*.
[66] Hatashin, *Private Yokoi's War and Life on Guam, 1944–1972*, 247; and Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, 2.
[67] Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*,148–62.
[68] Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, 111.

Comparative Analysis: The Architecture of Endurance

The divergence between the two men reveals different configurations of the model's interactive feedback loops. Onoda's case represents a total dominance of the organizational-societal loop, where he rejected all social signals—even direct evidence of a peaceful Japan—because they conflicted with his internalized organizational mandate. Conversely, Yokoi's persistence reveals a weakening of the individual-organizational loop. While his unit and its disciplinary structure collapsed into pragmatic survival, his individual resolve was sustained by the residual pressure of the societal layer. Framing the comparison through these contrasting feedback configurations demonstrates that the will to fight is not a monolithic trait but a dynamic outcome of which motivational layer remains most resilient.

Layer Interaction

Viewed through the adapted Rand framework, Onoda and Yokoi embody two distinct constellations of the will to fight. For Onoda, the individual–organizational feedback loop dominated, and professional identity became self-replicating. For Yokoi, by contrast, the individual–societal loop prevailed, and cultural virtue displaced doctrine as the primary moral compass.[69]

Both trajectories illustrate that sustained combat motivation emerges not from ideology alone but from layer redundancy in which each motivational layer can compensate when the others weaken or collapse. The capacity of soldiers to reconstruct purpose under conditions of institutional disintegration is precisely what the Rand framework identifies as the resilience of will to fight under extreme stress.[70]

Psychological Continuities and Divergences

Despite differences in education and rank, both men internalized a moral cosmology of duty that framed suffering as evidence of personal worth. Onoda's persistence derived largely from cognitive rigidity reinforced by doctrinal training, while Yokoi's endurance rested on adaptive craftsmanship and disciplined routine.

Using the language of the Rand framework, the former approximates a form of fixed conviction, whereas the latter represents dynamic perseverance.[71]

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[69] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 6–9.
[70] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 37–45.
[71] Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, 66–68.

Their contrasting temperaments reinforce the model's central claim that morale is multicausal and rooted in identity as much as belief. Comparable patterns have been observed in broader studies of soldier motivation. Sociological research on wartime combat units demonstrates that endurance often arises from deeply internalized identities and social norms rather than from ideological indoctrination alone.[72]

Education, Rank, and Cognitive Framing

Education strongly influenced how each man interpreted authority. The Nakano Military School's curriculum cultivated a form of autonomous obedience, encouraging officers to exercise independent judgment while remaining loyal to strategic intent.[73]

By contrast, the training of enlisted soldiers emphasized routine discipline and collective honor rather than analytical reasoning. Consequently, Onoda's endurance took the form of ideological and strategic persistence, whereas Yokoi's manifested as pragmatic and ethical perseverance.

Both outcomes were products of the Imperial Japanese Army's broader moral pedagogy, which fused loyalty, sacrifice, and spiritual duty into a unified wartime ethos.[74] At the same time, the survival of both men also depended on their own individual decision-making in extreme isolation, demonstrating that doctrine alone cannot explain the persistence of combat motivation.

Cultural Logic and Organizational Afterlife

In both cases, the culture of the Imperial Japanese Army continued to function as a mental organization long after the physical institution had collapsed. The interaction of organizational doctrine and societal values sustained their will to fight even in the absence of direct command.

These cases therefore affirm that the will to fight is an emergent property of interlayer communication. When command authority disappears, soldiers may reconstruct hierarchy internally. When ideological certainty weakens, personal ethics may re-encode social meaning.

The three-layered model proposed in this article thus offers a conceptual framework for understanding how motivational systems adapt when institutional structures disintegrate in the military dimension. Although derived from Japanese cases, the mechanism may apply more broadly to extreme forms of

[72] Edward A. Shils and Morris Janowitz, "Cohesion and Disintegration in the Wehrmacht in World War II," *Public Opinion Quarterly* 12, no. 2 (Summer 1948): 280–315, https://doi.org/10.1086/265951.
[73] Mercado, *The Shadow Warriors of Nakano*.
[74] Dower, *War without Mercy: Race and Power in the Pacific War*.

Table 2. Comparative architecture of the will to fight: Onoda and Yokoi

Analytical dimension	Lt Hiroo Onoda	Sgt Shōichi Yokoi	Dominant layer (Rand framework)
Rank and status	Commissioned officer (second lieutenant)	Noncommissioned officer (sergeant)	Organizational
Education/ training	Elite Nakano School training in intelligence and guerrilla warfare	Limited formal education; artisan background as tailor	Organizational/ individual
Primary motivation	Institutional mission logic and loyalty to military command	Avoidance of social shame and moral obligation to family/community	Organizational (Onoda)/societal (Yokoi)
Survival doctrine	Explicit operational order: continue mission and avoid surrender until relieved	Implicit ethic: survive without capture through concealment and endurance	Organizational (Onoda)/societal (Yokoi)
Attitude toward POW status	Absolute refusal until formally relieved by superior officer	Refusal primarily motivated by shame of capture	Societal/ individual
Information processing	Active rejection of contradictory information (leaflets, newspapers interpreted as enemy deception)	Gradual recognition of changing circumstances but persistence due to social stigma of capture	Individual
Mechanism of persistence	External command authority internalized as an internal command structure	Internalized social norms functioning as disciplined survival practices	Cross-layer interaction
Mode of endurance	Autonomous initiative and operational reasoning	Ritualized routines: weaving, trapping, and concealment	Cross-layer interaction
Source of moral authority	Imperial military hierarchy and command structure	Family honor, communal expectations, and cultural norms of perseverance	Organizational (Onoda)/societal (Yokoi)
Termination trigger	Formal relief of mission by direct superior officer	Discovery and internal reconciliation of shame with postwar reality	Organizational versus societal
Nature of conclusion	Institutional termination: mission ends only through command authority	Societal termination: endurance ends through reintegration into society	Analytical synthesis
Type of will to fight	Institutionalized doctrinal persistence	Culturalized moral endurance	Organizational versus societal

Source: compiled by author.

military endurance in which internalized doctrine, cultural identity, and individual cognition interact to sustain adaptive persistence even after formal command structures collapse.[75]

[75] Jonathan Fennell, *Combat and Morale in the North African Campaign: The Eighth Army and the Path to El Alamein* (Cambridge, UK: Cambridge University Press, 2011), 4–15, https://doi.org/10.1017/CBO9780511921513.

Ethical Reflections

Both men illustrate the moral ambivalence of obedience. Their endurance was simultaneously admirable and troubling, revealing the dangers that arise when institutional duty becomes detached from legitimate authority. In Onoda's case, the self-sustaining mission logic led to the deaths of approximately 30 Filipino civilians and police officers. Because his internalized command structure interpreted most encounters as hostile combat situations, the moral distinction between combatants and noncombatants effectively collapsed.[76]

This episode illustrates the darker side of internalized doctrine: when mission logic becomes detached from external authority, persistent obedience may devolve into uncontrolled violence. Modern military ethics therefore require not only resilience but also mechanisms of termination authority—institutional signals that clearly define when combat should cease.[77]

Methodological Reflection on Sources

By using the memoirs and post-return testimonies of Onoda and Yokoi, this study acknowledges that these accounts were shaped by the social and political environment of postwar Japan. As Trefalt demonstrates, the narratives of returning holdouts were often mediated by a 1970s public eager to reinterpret wartime experience within a rapidly changing national identity.[78]

Nevertheless, memoirs remain indispensable sources for analyzing the individual layer of the will to fight. External archival records reveal the physical consequences of actions, but only personal testimony provides insight into the cognitive frameworks through which soldiers interpreted their circumstances. Accordingly, this study treats such memoirs not as unfiltered historical truth but as empirical evidence of the internal logical structures that sustained resilience under conditions of extreme isolation.

This methodological choice reflects a broader approach in military sociology and historical psychology, where retrospective narratives are treated as evidence of cognitive frameworks rather than as direct factual reconstructions of events. What matters analytically in the present study is not whether every detail in the memoirs is historically exact, but whether the narratives reveal the internal logic through which the actors themselves interpreted their circumstances. Because the Rand framework conceptualizes the will to fight primarily as a system of beliefs, motivations, and perceived obligations, the subjective reasoning preserved in memoirs constitutes a uniquely valuable dataset for reconstructing the individual layer of the model. When combined with secondary

[76] Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, 56–60.
[77] *Law of War Manual* (Washington, DC: U.S. Department of Defense, 2016), chap. 2.
[78] Trefalt, *Japanese Army Stragglers and Memories of the War in Japan, 1950–1975*, 148–62.

historical scholarship and external documentation, these narratives provide a sufficiently robust basis for analyzing how internalized doctrine and cultural norms sustained long-term behavioral persistence.

Implications for Modern Warfare and Professional Military Education

Applying these historical insights to contemporary conflict requires distinguishing between a military's means to fight and its will to fight. As the cases of Onoda and Yokoi demonstrate, the destruction of physical resources or the collapse of formal command structures does not automatically terminate armed resistance when the psychological and institutional foundations of resolve remain intact. Even under conditions where the original military organization has disappeared, internalized doctrine and cultural norms may continue to guide behavior.

This insight carries particular relevance for modern doctrines of mission command in which small units and individual operators are deliberately granted high levels of autonomy to increase operational flexibility. While such decentralization enhances battlefield adaptability, the holdout cases examined here demonstrate that autonomy without clearly recognized termination authority can generate persistent action even after strategic objectives have changed. Contemporary doctrines therefore require institutional mechanisms capable of signaling the legitimate end of combat operations as clearly as they signal the initiation of combat missions. Historical experience suggests that when such signals are absent or ambiguous, soldiers may continue to act according to internally reconstructed mission logic rather than updated strategic realities.[79]

The Pathology of Resolve and the Off Switch

While resilience remains a core military virtue, the experiences of Onoda and Yokoi reveal that extreme persistence may evolve into a form of doctrinal pathology when detached from strategic oversight. PME must therefore cultivate not only the "on switch" of resolve but also the "off switch" of strategic judgment. Soldiers operating under decentralized command must be able to evaluate their mission against evolving political and ethical contexts rather than relying solely on mechanical obedience to initial instructions.

This requirement reflects broader debates in contemporary military ethics, which emphasize that professional soldiers must exercise disciplined judgment rather than unconditional obedience when operating within complex and de-

[79] Connable et al., *Will to Fight: Returning to the Human Fundamentals of War*, 9–12.

centralized operational environments.[80] Under conditions involving cyber operations, artificial intelligence, and autonomous systems, the individual soldier increasingly functions as the final arbiter of morally consequential decisions. In such contexts, resilience must be understood not as indefinite persistence but as the ability to remain both effective and ethically grounded under extreme uncertainty.

Institutionalizing Termination Logic

The analysis presented here suggests that modern military organizations must explicitly institutionalize what may be termed *termination logic*, or clear doctrinal mechanisms that identify when combat should cease. If technological capability substitutes for manpower without corresponding moral modernization, military organizations risk accumulating operational capacity without sufficient normative control. Therefore, long-term defense effectiveness depends on maintaining a stable alignment between the individual, organizational, and societal layers of military motivation.

In contemporary professional forces, this alignment depends on robust command responsibility and communication structures capable of sustaining the legitimacy of military action even in highly decentralized operational environments.[81] The enduring lesson of the holdout cases is therefore not that soldiers must fight indefinitely, but that persistence must remain anchored within a legitimate institutional framework. By examining the long-term "residue" of resolve in the cases of Onoda and Yokoi, modern planners can better understand that the ultimate force multiplier is not simply the persistence of the individual soldier, but the alignment of that persistence with the legitimate goals of the state and the society it serves.

Ultimately, the jungle of Lubang and the caves of Guam prefigure the psychological terrain of modern warfare: dispersed, information-saturated, and morally ambiguous. In such environments the soldier's endurance depends less on continuous command transmission than on the internal integration of institutional purpose and ethical judgment. As Rand researchers emphasize, "war's human fundamentals remain constant even as technology evolves."[82]

Conclusion

The comparative analysis of Hiroo Onoda and Shōichi Yokoi provides an extreme empirical test of the Rand will-to-fight framework under conditions of

[80] Peter Olsthoorn, *Military Ethics and Virtues: An Interdisciplinary Approach for the 21st Century* (London: Routledge, 2011), 112–18.
[81] Anthony King, *Command: The Twenty-First-Century General* (New York: Cambridge University Press, 2019), 215–23.
[82] Connable et al., *Will to Fight: Returning to the Human Fundamentals of War*, 15.

total institutional collapse. By examining two soldiers who continued resisting for nearly three decades after the formal end of World War II, this study demonstrates that the architecture of military motivation can persist even when the physical structures that originally generated it have disappeared.

More specifically, this study contributes to the literature on military motivation in three ways. First, it demonstrates that the Rand will-to-fight framework remains analytically valid even when the physical organizational structure of the military has ceased to exist. Second, it identifies how different forms of military socialization—elite officer training in the case of Onoda and enlisted social discipline in the case of Yokoi—produce distinct architectures of persistence within the same institutional culture. Third, it highlights the ethical risks that arise when internalized mission logic becomes detached from institutional oversight and external command authority.

Viewed through the adapted three-layer framework developed in this study, Onoda represents the extreme internalization of the organizational layer, where institutional doctrine became a self-sustaining internal command structure. Yokoi, by contrast, illustrates the enduring strength of the societal layer, where deeply embedded cultural norms of shame and perseverance sustained survival long after military discipline had collapsed. Together, the two cases demonstrate how different pathways of persistence may emerge from the interaction of institutional doctrine, cultural norms, and individual cognition.

For modern military institutions, the central implication lies in balancing resilience with strategic judgment. As contemporary warfare increasingly emphasizes decentralized operations, technological autonomy, and distributed decision-making, the will to fight must be cultivated not as mechanical obedience but as reflective moral agency. PME must therefore educate soldiers not only to endure hardship but also to recognize when the continuation of violence no longer serves legitimate strategic or political objectives.

Understanding the mechanisms that sustained the endurance of Onoda and Yokoi ultimately allows modern military institutions to approach the concept of will to fight with greater precision. Properly understood, the will to fight should function not as a self-perpetuating doctrinal impulse but as a disciplined instrument of legitimate national policy. Future research may extend this framework by examining additional historical holdout cases or by applying the model to contemporary irregular warfare environments where institutional control is similarly fragmented.