With Us from the Start

LIVING WITH **KILLING**

WORLD WAR II US BOMBER **CREWS**

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The experiences of World War II bomber crews indicate that, unlike some scholars have theorized, distance from targets did not lessen the combat and other trauma resulting from prosecuting targets in the European theater. An analysis of Dave Grossman's five factors of the likelihood of killing finds these air combat crews experienced significant psychological trauma, including moral injury, in the execution of their missions.

he Germans called them *terrorflieger* or "terror fliers." But the terror many US bomber crews inflicted upon German cities in World War II was often revisited on the crews themselves. What historians have characterized as a derogatory name used by Germans to label Allied airmen ironically is an accurate characterization of the crews' own experiences.1

Shot down over Germany and subsequently interned, B-17 bombardier J. W. Smallwood even referred to the sharing of his war stories with other airmen as the telling of "terror stories" or "terrifying experiences." Indeed, many struggled not to tell their stories.3 Some crew members spent Christmas Day of 1943 telling them to each other in the cold metal huts they temporarily called home in England. Sharing their stories of terror helped some crew members cope with the trauma of war, although others struggled to tell them, both during and after the war.4

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^{1.} Ron Morris and Ian Hawkins, The Wild Blue Yonder and Beyond: The 95th Bomb Group in War and Peace (Washington, DC: Potomac Books, 2012), 327.

^{2.} J. W. Smallwood, Tomlin's Crew: A Bombardier's Story (Manhattan, KS: Sunflower University Press, 1992), 166; and Charles N. Stevens, An Innocent at Polebrook: A Memoir of an 8th Air Force Bombardier (Bloomington, Indiana: 1st Books, 2003), vii.

^{3.} Leonard Streitfeld, Hell from Heaven: Memoirs of a World War II B-17 Bombardier (Egg Harbor City, NJ: Laureate Press, 2012), 80, 172; and Tom Faulkner, Flying with the Fifteenth Air Force: A B-24 Pilot's Missions from Italy during World War II, vol. 13, ed. David L. Snead (Denton: University of North Texas Press, 2018), 79.

^{4.} Stevens, Innocent at Polebrook, 117, 59.

The experiences of World War II bomber crews reveal several interrelated facets of killing in combat: the reluctance of humans to kill, the fear that comes from thethreat of being killed, the trauma that often results from seeing one's comrades being killed, and the moral trauma—or moral injury—that results from believing one has transgressed one's deeply-held beliefs. It is important to note that moral injury can overlap with but also differs from posttraumatic stress, which manifests more as hyperarousal caused by the experience of combat in a wide range of symptoms from flashbacks and dreams to anger and increased alertness. According to the National Center for PTSD [posttraumatic stress disorder], moral injury, by contrast, occurs when in "traumatic or unusually stressful circumstances, people may perpetrate, fail to prevent, or witness events that contradict deeply held moral beliefs and expectations."5

Increasing attention has been devoted to moral injury since 2001. While conventional warfare offers opportunities enough for moral injury to develop, counterinsurgency may provide even more because of the extent to which combatants may face increased moral dilemmas due to the sometimes more diffuse battlefield where civilian encounters can be fraught with tension, misunderstanding, and firepower.



Figure 1. B-17 Flying Fortress falls from the sky in World War II

^{5.} Sonya B. Norman and Shira Maguen, "Moral Injury," PTSD: National Center for PTSD, n.d., accessed August 10, 2023, https://www.ptsd.va.gov/.

Understanding Air Combat Experiences

They say there's a Lanc just now leavin' Berlin Bound for old Blighty's shores Heavily laden with terrified men Strewn all about on the floor

J. W. Smallwood, Tomlin's Crew: A Bombardier's Story⁶

Despite the immense interest in bomber crews in the European theater, only minimal scholarship has focused on the psychosocial effects on Airmen. Dave Grossman, who is more interested in the experiences of close combat, argues that distance from their targets enabled bomber crews to kill relatively easily. In reality, though, crews had far more complex experiences because physical distance from one's target is only one of many factors that help explain the onset of psychological and moral trauma.

Controversially, Grossman accepts S. L. A. Marshall's assertion that approximately one in five US infantrymen fired their weapons in World War II. While a number of scholars have heavily criticized Marshall's methodology and quantitative findings, others continue to value his "overall observations" about soldiers' inner resistance to killing.8 Marshall's scholarship may be heavily flawed but its spirit is correct: humans have a resistance to killing, and combatants must receive effective conditioning to kill.

The primary work to focus on the combat experience of US bomber crews, Mark K. Wells' ethnocentric Courage in Air Warfare: The Allied Experience in the Second World War (1997), celebrates the resiliency of US bomber crews at the expense of British bomber crews. This work accords with what one military history scholar refers to as the "greatest generation" school in seeking to celebrate crew members, uncritically accepting the "utilitarian" purpose that heroism and self-sacrifice serve for militaries.9

While Wells argues his comparative approach offers "insight into the nature of air combat and its impact on aviators," it is unclear what that is other than a generic reference to the importance of "courage, stamina and determination." These laudatory words neither accord with how Airmen viewed themselves nor help to delineate the complex dynamics of bomber crews. 11 Similarly, Wells accepts US participation in World War II as an uncomplicated good, leading him to dismiss those today who contemplate the war's moral issues. In fact, as will be shown, many World War II

^{6.} Smallwood, Tomlin's Crew, 178.

^{7.} Dave Grossman, On Killing: The Psychological Cost of Learning to Kill in War and Society (New York: Back Bay Books, 1995), 3, 337; and see also James Roberts, Killer Butterflies: Combat, Psychology and Morale in the British 19th (Western) Division 1915-18 (Solihull, UK: Helion, 2017).

^{8.} Kelly C. Jordan, "Right for the Wrong Reasons: S. L. A. Marshall and the Ratio of Fire in Korea," Journal of Military History 66, no. 1 (2002): 141, 162.

^{9.} Michael Stephenson, The Last Full Measure: How Soldiers Die in Battle (New York: Broadway Paperbacks, 2012), xii, 20.

^{10.} Mark K. Wells, Courage and Air Warfare: The Allied Aircrew Experience in the Second World War (London: Frank Cass & Co., Ltd., 2012), 3, 2.

^{11.} See, for example, Stevens, Innocent at Polebrook, 77.

crew members wrestled with moral issues rooted in living with killing during and after the war.12

While it has some analytical flaws regarding acceptable killing vis-à-vis distance to the target, of the two works, Grossman's On Killing provides the nearest approximation to a theory gauging a person's propensity to kill in combat. That likelihood of killing can be considered as a relationship among the following unquantifiable factors: "(demands of authority) x (group absolution) x (total distance from victim) x (target attractiveness of victim) x (aggressive predisposition of killer)."13

The first factor, demands of authority, speaks to the historical recognition of how an officer, more often than not, compels an enlisted soldier to kill, either through positive or negative motivation. The second factor, group absolution, recognizes that spreading the guilt of killing among a group rather than placing that burden on a single individual enables people to overcome their deeply ingrained resistance to killing.

The third factor of distance stresses how it is much easier to kill from farther away, a point Grossman incorrectly rationalized to mean that Airmen experienced no psychological trauma.¹⁴ Target attractiveness, the fourth aspect of the formula, speaks to how motivated or resistant an individual is to kill those whom they are expected to kill. Finally, the last aspect, predisposition, highlights how likely an individual is to overcome cultural and social mores against killing.

These factors will be considered in regard to the different roles of crew members. A typical B-17 crew consisted of 10 men, including four officers: a pilot, copilot, navigator, and bombardier. It also included enlisted gunners and radio operators. In terms of highlighting psychological trauma and moral injury, the bombardier—and his relationship to the pilot and the rest of the crew—and the gunners will receive the most attention.

Factor One: Group Authority

Grossman's first factor in his "probability of personal kill" equation, or the "estimation of the total psychological leverage available to enable the execution of a specific personal kill in a specific circumstance," is the demands of authority. ¹⁵ Traditionally understood as an officer using physical or mental suasion to encourage killing, this variable constitutes one of the weaker forces among bomber crews. Paradoxically, a kind of diffuse democratic mentality formed within bomber crews because of the collective will to not be killed, which required spreading mutually-reinforcing responsibilities among crew members. Both memoirs and psychological studies conducted at the time help illuminate these relationships.

^{12.} Wells, Courage, 1; and see, for example, Stevens, Innocent at Polebrook, viii.

^{13.} Grossman, On Killing, 345.

^{14.} Grossman, 108.

^{15.} Grossman, 345.

Enlisted-Officer Relationships

One of history's most egalitarian military units, bomber crews, unlike ground combat units, broke down many traditional hierarchies between officers and enlisted men. Still, it is important not to romanticize these relationships. The amount of fraternization between enlisted crew members and officers varied among individual crews. The Army Air Forces (AAF) also divided crews, placing enlisted crew members in one hut and officers in another.

One pilot who flew in Italy similarly described officer and enlisted crew members eating in different messes. ¹⁶ In the case of this bomber crew, enlisted crew members initially joined the officers in their tent after surviving their first mission.¹⁷ On subsequent occasions involving both celebration and mourning, however, the officers met by themselves. Only later, possibly with inhibitions loosened by alcohol, did they include their enlisted crew members. 18 The AAF also frequently needed to separate crews for practical reasons, including temporary illness and incompatibility.

To some extent, then, the seamless, cohesive crew was more an ideal than reality.¹⁹ Smallwood, for example, suggested that being shot down on his fifteenth flight did not provide "much opportunity to get acquainted." 20 B-17 co-pilot Bert Stiles, confessing disappointment that his crew was just "average," noted that "a great crew is just about as rare a thing as a great ball team" and "they just come along once in a while." Other Airmen were not as concerned about establishing close relationships. Eighth Air Force bombardier Charles N. Stevens explained that his first concern was his "own safety," leaving him interested only in a "loose camaraderie."22

Ultimately, Airmen made pragmatic choices about their identification with the crew that provided varying amounts of emotional and psychological support. Rhetoric about the "band of brothers" has come to dominate understandings of the World War II combat experience, resulting in the tendency to overstate and caricature how relationships form in combat.²³ In reality, a pragmatic desire to live brought disparate crews together, at least temporarily.²⁴

^{16.} Linda Audrey Kantor, Emil's Story: Memoir of a WWII Bomber Pilot (self pub., CreateSpace Independent Publishing Platform, 2012), loc. 1790-99, 1814-15, of 2808, Kindle.

^{17.} Kantor, loc. 1602-32, 1814, of 2808, Kindle.

^{18.} Kantor, loc. 2212-25, 2507-19, 2644-58, of 2808, Kindle; and also see Raymond E. Brim, Pathfinder Pioneer: The Memoir of a Lead Bomber Pilot in World War II (Philadelphia: Casemate, 2016), loc. 2165-71, 2031, of 3908, Kindle.

^{19.} Streitfeld, Hell from Heaven, 121; Willis Hastings, From Barn Burner to Bombardier (self-published, 1995), 18; and Faulkner, Fifteenth Air Force, 3.

^{20.} Smallwood, Tomlin's Crew, 242.

^{21.} Bert Stiles, Serenade to the Big Bird (self pub., Eyrie Books, 2016), 101.

^{22.} Stevens, Innocent at Polebrook, 74.

^{23.} Gregory A. Daddis, "Beyond the Brotherhood: Reassessing US Army Combat Relationships in the Second World War," War & Society 29, no. 10 (2010).

^{24.} Samuel J. Watson, "Religion and Combat Motivation in the Confederate Armies," Journal of Military History 58, no. 1 (1994): 31.

Role of Pilots

Within these crews, pilots sometimes functioned as de facto fathers by virtue of their age, rank, and life experience. But they rarely acted as assertively as ground officers, who exercised a more exhortatory function.²⁵ A pilot balanced the responsibility for making final decisions with recognizing the crew's mutual interdependence; in some cases of extreme crises, portions of crews even voted on a particular course of action.²⁶ And pilots were not always the oldest crew members.²⁷ Other pilots set the tone for the crew's experience because of their own desire to complete their duty as soon as possible in order to return home, which led them to seek the buy-in of their fellow crew members, such as volunteering for missions.²⁸

The pilot also had little direct control over those doing the killing. Located in the cockpit while the bombardier sat in the Plexiglas nose, the pilot lacked the immediate physical presence to reinforce the act of killing except by voice. The pilot also had his own responsibilities throughout the exhausting flights.²⁹ During the bombing run, moreover, the pilot gave temporary control to the bombardier, who guided the plane over the target using autopilot run through the Norden bombsight. The navigator remained in closest physical proximity, sitting at a desk behind the bombardier who looked out ahead to fighters and flak, mentally and physically distant from his crew in many important ways.30

Mission Tension

The pilot, then, had little authority over a bombardier's actions. The factor that may have provided the strongest form of group authority stemmed from a bombardier seeking to balance his responsibility to kill with the responsibility to make his crew's mission matter.

Stevens' experience highlights this struggle. Although he became "haunted[ed]" by the innocent civilians he helped to kill, he considered it even more traumatic to confront the possibility of his crew dying on a mission where he did not drop his bombs.³¹ After his bombs failed to drop on his first two missions, Stevens considered whether he had made errors to avoid killing. He ultimately concluded that to be grounded for

^{25.} Grossman, On Killing, 144.

^{26.} Kantor, *Emil's Story*, loc. 2441–55 of 2808, Kindle.

^{27.} Faulkner, Fifteenth Air Force, 97.

^{28.} Charles N. Stevens, The Innocent Cadet: Becoming a World War II Bombardier (Bloomington, IN: AuthorHouse, 2008), 337-38, 340; and Hastings, Bombardier, 22.

^{29.} Wells, Courage, 33; and Brim, Pathfinder Pioneer, loc. 1664-78 of 3908, Kindle.

^{30.} Donald L. Miller, Masters of the Air: America's Bomber Boys Who Fought the Air War against Nazi Germany (New York: Simon & Schuster, 2006), 209, 83; and Roy R. Grinker and John P. Spiegel, War Neuroses in North Africa: The Tunisian Campaign, January-May 1943 (New York: Josiah Macy Jr. Foundation, 1943), 208.

^{31.} Stevens, Innocent at Polebrook, 36, 38, 40-43.

his inability to drop bombs would have "psychological consequences of such a calamity ... for me to even imagine."32

To kill civilians horrified Stevens, but the possibility of his crew members dying on a fruitless mission terrified him more. Group authority thus sometimes provided bombardiers with a significant sense of responsibility for the crew's lives, making the bombardier's role unique in terms of how group authority dynamics shape an individual's combat experience and, more specifically, the likelihood of experiencing moral trauma.

Factor Two: Group Absolution

Just as group authority functions very differently in bomber crews than in traditional military organizations, the group absolution of crew-served weapons does not apply well to bombers, again because of the bombardier's greater independence. The notion of group absolution works on crew-served weapons, such as artillery, by requiring members to be accountable to each other while diluting individual responsibility for killing.

By contrast, only the bombardier mentally decided when to release the bombs and to physically take the action. As explained in one study by medical officers, the bombardier often had to make decisions on the fly—he did not have "enough time to explain the whole situation and get advice" and needed to "make his own decision immediately."33 And some decided not to drop their bombs.

As a result, some drastic targeting inaccuracies—sometimes missing by miles resulted not only from failures in navigation and technology but also because of human resistance to killing. Medical officers noted some bombardiers found themselves psychologically incapable of dropping bombs.³⁴ In one case, a young bombardier on his second mission "blacked out" over the target, resulting in his navigator having to launch the bombs.35

That the bombardier's sudden lack of consciousness coincided with the need to launch bombs demonstrates the resistance to killing that can occur among even those removed from their target.³⁶ As one medical officer stated, such an event was common, as were instances of "freezing at the controls, panics in the air, attempts to bail out, with or without parachute, and the jettisoning of bombs over our own territory."37

^{32.} Stevens, 45.

^{33.} William M. Lepley, ed., Report No. 17: Psychological Research in Theaters of War, Army Air Forces Aviation Psychology Program Research Reports, 1947, 112, reel 1204, Air Force Historical Research Agency (AFHRA), Maxwell AFB, AL.

^{34.} See, for example, Lepley, Report No. 17.

^{35.} Robert Rehm, "Fifty Missions over Europe: Psychological Study of an Average Combat Tour," in Observations, 5.

^{36.} Rehm, 5.

^{37.} Major Douglas B. Bond, Project No. 18, "The Diagnosis and Disposition of Combat Crews Suffering from Emotional Disorders," August 1944, File 520.7411-2, Reel B5070, AFHRA.

Despite dropping bombs from several miles away, bombardiers struggled with their actions' ramifications. One study described a B-17 bombardier who began having nightmares after he dropped bombs that hit a city rather than the designated target.³⁸ Hospitalized due to a knee injury after flying 22 missions, he experienced the mockery of soldiers, who called him "D. D." for "Death and Destruction." ³⁹ He showed even more signs of moral injury after walking around a city the United States had bombed, feeling "considerable guilt." 40

The medical officer diagnosed the Airman's guilt as a typical "reaction to his own unconscious destructive impulses." In other words, he linked the guilt not to the Airman's wartime experiences but rather to something innate. 41 In another case study, a bombardier flying over France drastically misaimed his bombs at a point six miles away from the target. As he watched the bombs hit farmhouses, he became increasingly agitated, leading him to subsequently avoid firing at German fighters. 42 The traumatic experience of almost inadvertently killing civilians led him to neglect engaging German fighters seeking to destroy his bomber crew.

The development of Pathfinder crews helped resolve some of these problems by providing an improved sense of absolution. Beginning in November 1943, specially trained bombardiers positioned at the front of bomber formations released their bombs, with the rest of the bombardiers following suit.⁴³ In effect, the entire formation became a crew-served weapon in which individual bombardiers did not have to initiate but follow the lead bombardier. Even this development, though, could not stem the possible onset of moral trauma.⁴⁴ Indeed, this development simultaneously may have intensified a sense of guilt among some because the vaunted precision tactics of the AAF—designed to target factories—had been replaced with carpet bombing, which greatly increased collateral damage and civilian casualties.

Factor Three: Distance from Victim

According to Grossman, physical distance from the target is a powerful enabler of killing. The farther away one is from the target, the easier it is to execute a kill.⁴⁵ Those on the ground engaged in close combat therefore struggle to kill, with a small minority of infantrymen undertaking most killing. Killing with a bayonet or even one's own

^{38.} Norman A. Levy, Personality Disturbances in Combat Fliers (New York: Josiah Macy Jr. Foundation, 1945), 59.

^{39.} Levy, 59.

^{40.} Levy, 59.

^{41.} Levy, 60.

^{42.} Donald W. Hastings, David G. Wright, and Bernard Glueck, Psychiatric Experiences of the 8th Air Force (New York: Josiah Macy Jr. Foundation, 1944), 295.

^{43.} See, for example, Brim, Pathfinder Pioneer, loc. 1664, 1685-87, 2874, of 3908, Kindle.

^{44.} See, for example, Rehm, "Fifty Missions"; and Bond, Project No. 18.

^{45.} Grossman, On Killing, 107-8.

hands is so difficult that it almost never happens, and those who kill close up rarely escape deep emotional scars.46

By contrast, Grossman argues those at a great distance can kill relatively easily. Airmen, he asserts, should suffer little combat trauma because of their physical distance from their targets. Similarly, bomber crews should have an easier time killing than fighter pilots. ⁴⁷ For this he draws on weak evidence—a book heralding fighter aces that lacks compelling quantitative data—to conclude fighter pilots show an innate resistance to killing because aces, making up only one percent of pilots, purportedly do 30 to 40 percent of air-to-air killing.⁴⁸

Although fighter pilots often killed at a closer distance, their defensive role protecting bomber crews provided a significant motivation that helped enable killing. ⁴⁹ Their actions more directly worked to save their fellow Americans, providing an immediate mental payoff in contrast to the bombers' more anonymous destruction of targets. As one fighter pilot explained, he had no objection to "strafing the enemy because it helps the American soldier out'" and it angered him to see "forts [B-17s] go down, as fellows in the bombers seem so g—d— helpless."50

Both found common ground and the greatest combat motivation when their killing supported fellow Americans. For bomber pilots, the majority of these efforts did not begin until the Normandy invasion of June 6, 1944, which helps explain why bomber crews generally suffered more combat trauma than fighter pilots, who flew in support of others.⁵¹ While bomber crews did not like providing close air support because of the possibility of injuring their own troops, they relished the opportunity for indirect support, such as hitting marshalling yards used to rush German troops to the front. These efforts provided a significant source of sustaining combat motivation far more fulfilling than in hitting targets as part of a strategic bombing campaign.⁵²

Combat motivation, then, worked at cross-purposes with distance, as seen when comparing fighter pilots to bomber crews. Fighter pilots killed at a closer range, yet they experienced less combat trauma because of why they were killing. This factor outweighed the significant distance bomber crews had from their targets, even when that visual detachment intensified when the United States began bombing by radar in September 1943 on cloudy days.⁵³ Radar bombing may have decreased crew motivation because they received less immediate feedback on mission success.

^{46.} Stephenson, Last Full Measure, 98-99; and Grossman, On Killing, 98.

^{47.} Grossman, On Killing, 31, 58, 98, 108.

^{48.} Gene Gurney and Mark P. Friedlander Jr., Five Down and Glory: A History of the American Air Ace (New York: G.P. Putnam's Sons, 1958), 256.

^{49.} Howard B. Burchell and Douglas B. Bond, "A Study of 100 Successful Airmen with Particular Respect to Their Motivation and Resistance to Combat Stress," December 1944, 520.7411-1, AFHRA, 13-14.

^{50.} Burchell and Bond, "100 Successful Airmen," 9; and Bond, Project No. 18.

^{51.} Burchell and Bond, 9; and Wells, Courage, 67.

^{52.} Faulkner, Fifteenth Air Force, 97, 106-7; and Streitfeld, Hell from Heaven, 69.

^{53.} Richard Overy, The Bombers and the Bombed: Allied Air War over Europe, 1940-1945 (New York: Penguin, 2013), 157; and Streitfeld, 77.

Factor Four: Target Attractiveness

For Grossman, the bomber crews sought survival over killing, with many having only a vague sense of why they were at war other than that Pearl Harbor had been attacked. Regarding the formula's provision for target attractiveness, Grossman considers the killer's antipathy toward the victim, the killer's investment in the strategy, and the "payoff" relationship between the killer and the intended victim.

It is here that the context of the European air war is instructive. Multiple medical officers attested to the fact that most American Airmen did not hate their German opponents, thus significantly reducing target attractiveness and thereby making killing more difficult.⁵⁴ In a group of 150 Airmen who had completed tours in heavy bombers, for example, a medical officer found that only 29 percent felt "personal hate" toward the Germans.55

Another study concluded that although gunners constituted a better educated group in comparison to the civilian population at large, even they had little sense of why they were fighting.⁵⁶ Asked after completing their gunnery training in the United States, only 44 percent understood why they would soon be fighting.⁵⁷ This is notable because most of these Airmen had volunteered not only for military service but also specifically to be gunners.⁵⁸ Many volunteered, moreover, to avoid being drafted, or in other words to retain agency and choice.⁵⁹

As many acknowledged later, they decided to serve in the AAF largely on a whim, without serious thought of the consequences. ⁶⁰ While there was a general sense of service animating young American men after Pearl Harbor, it did not translate neatly into hate for the Germans or a deep-seated understanding of why they were fighting.⁶¹

As a result, some bomber crew members struggled with how exactly they contributed to the war effort, wrestling with killing and being killed. Perhaps the youngest B-24 pilot in the AAF, 1st Lieutenant Tom Faulkner found his first bombing experience to be surreal. As he recorded in his diary, "All seemed sort of weird, knowing that down below, people were probably being killed, sirens were blowing, and guns were blasting away at us."62

^{54.} David G. Wright, "Notes on Men and Groups under Stress of Combat: For the Use of Flight Surgeons in Operational Units" (New York: Josiah Macy, Jr. Foundation, 1945), 12; and Burchell and Bond, "100 Successful Airmen," 13.

^{55.} Hastings, Wright, and Glueck, Psychiatric Experiences, 135.

^{56.} Army Air Forces (AAF) Aviation Psychology Program Research Reports, Report No. 11: Psychological Research on Flexible Gunnery Training, File 141.28-11, AFHRA, 268.

^{57.} Report No. 11, 284; and Burchell and Bond, "100 Successful Airmen."

^{58.} Report No. 11, 285.

^{59.} Faulkner, Fifteenth Air Force, 1; and Stevens, Innocent Cadet, 68.

^{60.} See, for example, James Holland, Big Week: The Biggest Air Battle of World War II (New York: Atlantic Monthly Press, 2018), 147.

^{61.} Faulkner, Fifteenth Air Force, 33.

^{62.} Faulkner, 5.

In one of his longest diary entries, Faulkner wrestled with the likelihood of killing not a hated enemy but rather "people"—his word choice connoting civilians—as well as the reality that others sought to kill him. 63 Faulkner subsequently struggled with his sense of honor and suffered mentally for decades—to include psychosomatic manifestations of his feelings through constant pain in his throat that required multiple surgeries—because he wondered if he had been guilty of cowardice.⁶⁴ Others confronted the reality that they were using radar to target city centers. 65

A sense of duty to country did not translate neatly into a sense of purpose for many crew members flying missions involving strategic bombardment, unlike higherranking officers who sought to win the war with airpower alone to legitimize the creation of an independent air force. A survey of 3,000 bomber crew members conducted the week before the Normandy landing highlighted their frustration with attacks on cities, epitomized by raids against Berlin, which they believed served publicity purposes more than military ones. 66 Airmen insightfully argued that the destruction of one city could not break the enemy's will. Indeed, one Airman believed it made "the people more bitter toward us." Another conveyed his opposition to "spite" bombing. 67

Of course there were exceptions. B-17 bombardier Leonard Streitfield held little back regarding his strong motivation to kill Germans, whom he referred to as "Nazis." ⁶⁸ Upon learning of his mission to Berlin, Streitfeld claimed everyone was happy because the "city was crammed with refugees from the Russian front," and it "was to be a demoralization mission to create confusion and break their morale." Arriving over Berlin, he noted he could not see the target due to smoke.⁶⁹ Regardless, Streitfield convinced himself that they had done so much damage that "most" of his crew members happily would have returned to Berlin on another mission to end the war "sooner."70

On a subsequent mission to Berlin, Streitfeld explained: "Every target up to this day was one of military importance but this one was different. Our Group was scheduled to bomb a statue in the center of Berlin. I had hoped it was of Hitler. My feelings about this was that Germany started the war and the consequences were deserved."⁷¹

Streitfeld's inclination to kill can be understood with reference to two factors. First, Streitfeld applied his own views to everyone around him on several occasions, which might have served to justify his own opinions. Second, and most importantly, his Jewish

^{63.} Faulkner, 5, 121, 155.

^{64.} Faulkner, 172, 178, 180, 182-91.

^{65.} Stevens, Innocent at Polebrook, 105, 107.

^{66.} Research Branch, Special Service Division, "Survey of Combat Crews in Heavy Bombardment Groups in ETO: Preliminary Report," 8, in Carl Spaatz Papers, Library of Congress.

^{67.} Special Service Division, 11.

^{68.} Streitfeld, Hell from Heaven, 68.

^{69.} Streitfeld, 109, 113.

^{70.} Streitfeld, 114.

^{71.} Streitfeld, 154.

heritage understandably provided strong motivation to kill.⁷² While in training, he had listened to his friends make comments like, "One good thing that Hitler is doing is killing off the Jews."73

For Streitfeld more so than most crew members, the war was personal, in part because his opponent had killed his relatives and millions of others who shared his religious faith.⁷⁴ Yet it is also important to note that Streitfeld only wrote about his experiences years later after seeing a television program about B-17s that "clear[ed] the cobwebs" from his memory, thus the prism of the intervening decades highly shaped his memoir.⁷⁵

Airmen wanted to know they had contributed to the war effort, but they also wanted to hit clearly defined military objectives. Prior to a mission, for example, one officer described the bombing of an aircraft target as paying immediate dividends by explaining they sought to hit the part of a factory from "whence the planes 'went out the door.' " 76

In seeking to maintain their combat motivation, crews discussed how much effect they had, desperately hoping their actions directly contributed to the war effort. Yet it was difficult to measure what had actually been accomplished in hitting factories. Providing more indirect support—for example, striking railroad stations used to transport enemy troops—was more eagerly desired. But crews expressed angst at being asked at times to support their own soldiers directly because their bombs might do more harm than good.⁷⁷

Factor Five: Aggressiveness

These factors, then, merge with the final consideration of Grossman's formula regarding the killer's potential aggressiveness. After World War II, the US military increasingly institutionalized training to encourage aggressiveness. 78 But World War II AAF crew members did not always receive this training, especially when the AAF rushed essential replacement crews to make up for significant theater losses.⁷⁹ Training also lacked realism in that the target one practiced on in training did not approximate the combat target.80

The AAF devoted some attention to preselecting members for aggressiveness, but their efforts could be rather cursory. Smallwood recalled how the AAF determined if

^{72.} Streitfeld, 197, 113.

^{73.} Streitfeld, 19.

^{74.} Streitfeld, 154.

^{75.} Streitfeld, Hell from Heaven, loc. 3 of 2099, Kindle.

^{76.} Smallwood, Tomlin's Crew, 142, 147.

^{77.} Smallwood, 141, 135.

^{78.} See, for example, Russell W. Glenn, "Men against Fire in Vietnam" (thesis, U.S. Army Command and General Staff College, November 8, 1987), https://apps.dtic.mil/.

^{79.} Stevens, Innocent Cadet, 356.

^{80.} Stevens, Innocent at Polebrook, 26.

Airmen had the right "attitude toward fighting" based on their ability to recognize the names of baseball players. 81 Streitfeld had to be interviewed twice after he informed his interrogator that he most enjoyed chess. The medical officer worried that the "quiet game" of chess indicated potential difficulties enduring combat. 82

Simultaneously, bombardiers had competing identities that undermined the kind of aggressive tendencies that the AAF hoped to inculcate. Stevens found rhetoric that encouraged him to be a "fighting man" to be ludicrous. 83 Unlike many who became bombardiers after washing out of pilot training, Stevens actively sought this position after watching a movie of a British bombardier skillfully, precisely, and courageously dropping bombs "squarely" on a German target. 84 The movie highlighted the bombardier as a masterful technician more than a warrior, as did bombardier training, which consistently stressed precision and accuracy.⁸⁵

Enhancing this tendency was the bombardier's defensive responsibility to protect the highly-classified Norden bombsight, which had to be removed from the bomber after each mission. Thus identities of technician and "guardian" of secret technology coexisted with his more offensive responsibilities.⁸⁶

And, in some ways, the AAF and American society as a whole assumed men generally had a kind of innate aggressiveness. To dislike hunting, for example, called into question notions of manhood.⁸⁷ When medical officers identified those struggling in combat, they searched out childhood events to identify lifetime trends of passivity.

One medical officer, for example, highlighted a B-17 bombardier's habitual "timid" behavior. Having worked as a civilian photographer documenting accidents, he struggled to view "mangled bodies without anxiety."88 Given his personality and inability to adjust psychologically to his job's requirements, the medical officer showed no surprise that the bombardier had to meet with the medical disposition board after he saw burning airplanes and parachutes and his own airplane being hit. Ultimately, the medical officer used his case as an example of how such a man's background should have been identified before arriving in theater rather than as an example of a reasonable reaction to the horrors of combat.

Psychological and Moral Trauma

The photographer-turned-bombardier was not alone in his combat experience. Despite significant distance from their targets, many crews experienced trauma. For example,

^{81.} Smallwood, Tomlin's Crew, 29, 33.

^{82.} Streitfeld, Hell from Heaven, 26.

^{83.} Stevens, Innocent Cadet, 141.

^{84.} Stevens, Innocent at Polebrook, 156-57.

^{85.} Stevens, 265, 311, 375; and Jack R. Myers, Shot At and Missed: Recollections of a World War II Bombardier (Norman: University of Oklahoma Press, 2005), 9.

^{86.} Stevens, Innocent Cadet, 242.

^{87.} Hastings, Wright, and Glueck, Psychiatric Experiences, 220, 259.

^{88.} Levy, Personality Disturbances, 23.

of 150 Airmen—a majority of whom were bomber crew members—who completed their tours, 95 percent showed some signs of operational fatigue and a third of the group showed severe signs.89

The long-term implications of combat trauma on bomber crews flying in World War II are unknown. Like infantrymen engaged in close-quarter combat, Airmen reacted very strongly to the loss of their own crew members. 90 While Grossman might be correct that Airmen suffered less combat trauma than soldiers from the act of killing, he fails to account enough for how many Airmen had to live with the challenges of killing and seeing their friends being killed.⁹¹

One study found the "typical" gunner lost half of his "close friends" in combat, due to death, injury, or missing in action. 92 The loss of a comrade constitutes one of the most emotionally traumatic events in a combatant's wartime experience, often resulting in "prolonged states of numbness." 93 Thus, regardless of their distance from those they helped to kill, Airmen suffered. According to one study, the rate of combat trauma for gunners averaged about 45 percent.

Another study found higher rates, suggesting 24 percent experienced "severe combat fatigue" in addition to the 50 percent of gunners who suffered "moderate" trauma. Of those, about 20 percent returned to the United States early because of the psychological effects of combat. And they continued to exhibit signs of trauma well after their return, where some struggled to readjust to their new positions as gunnery instructors. Those gunners who had watched multiple crew members die on their planes also exhibited greater resistance to the idea of serving an additional combat tour.94

Bomber pilots, who did not kill directly but only enabled it, also suffered greatly. The extent to which their experiences differed from that of fighter pilots profoundly shaped how they viewed their service. A week before D-Day in June of 1944, medical officers distributed an anonymous questionnaire to 350 bomber pilots. Although they conducted the same survey with 650 fighter pilots after D-Day, when the pace of operations had lessened somewhat, the bomber crews' negativity about their experience is striking.

Asked if they would consider returning to the European theater after 30 days of rest, not a single bomber pilot said yes. By contrast, 29 percent of fighter pilots expressed their willingness to return. 95 23 percent of bomber pilots conceded they would consider another theater after 30 rest days, but fighter pilots again outweighed bombers—43 percent far more enthusiastically answered yes. Asked if they would

^{89.} Hastings, Wright, and Glueck, Psychiatric Experiences, 135.

^{90.} See Levy, Personality Disturbances, 62-63; and Hastings, Wright, and Glueck, 11, 34, 250, 252.

^{91.} Levy, 58.

^{92.} AAF Psychology Program, Report No. 11, 268.

^{93.} Jonathan Shay, Achilles in Vietnam: Combat Trauma and the Undoing of Character (New York: Scribner, 1994), 53.

^{94.} AAF Psychology Program, Report No. 11, 268-9, 275, 281.

^{95.} Headquarters, European Theater of Operations, "Survey of Fighter Pilots in the Eighth Air Force," August 7, 1944, File 141.28, AFHRA.

choose combat flying if they could do it over again, 85 percent of fighter pilots affirmed their decision. Considerably fewer bomber pilots—just over half—could envision making the same choice.

The experience of Stiles, a B-17 co-pilot, is instructive in illuminating the experience of bomber crews that not only experienced terror but sometimes caused it as well. The night before his first mission in April 1944, Stiles considered how little he understood the act of killing. ⁹⁶ He forthrightly compared his weak desire to kill Germans to the more aggressive attitudes of Polish fighter pilots he had met.⁹⁷ He ruminated on what the AAF expected him to do, explaining:

The whole idea was to blow up just as much Germany tomorrow as possible. From way up high, it wouldn't mean a thing to me. I wouldn't know if any women or little kids got in the way. I'd thought about it before, but that night it was close. The more I thought about it, the uglier it seemed.98

Despite the distance between himself and his target, Stiles could not divorce himself from his increasing doubts regarding strategic bombardment. Stiles' thoughts then turned to the men who had occupied the bunks his crew now did, some of whom failed to return after their own missions. 99

Conclusion

A diffuse collective group authority merged with a relatively flattened military hierarchy to enable World War II bomber crews to endure the terror of combat. The need to survive their own terrifying experiences, not to wreak terror on others, provided the ultimate motivator for many crews. In other words, their sense of purpose in hitting German targets came not from the bombs' impact but from their understanding that dropping bombs enabled their mission to "count" toward their crew's 25- or 30-mission requirement to get the men home. They generally did not demonstrate a strong desire to kill, they greatly feared being killed, and they struggled to internalize the killing of friends as they continued living.

Physical distance certainly provides emotional separation from the horrors of war, but its importance has been overstated. The bombardier who proclaimed that fighting "for your life is more fun than fooling with women" is the exception, representing what some scholars have estimated is the two percent of people that genuinely enjoy combat. 100 Physical distance from one's target provided little mental distance to crew members who contemplated their mission. A vague desire to serve the United States animated many, which resulted in increased combat motivation especially when one could support the infantry, albeit indirectly due to the risk of friendly fire.

^{96.} Stiles, Serenade, 11-12.

^{97.} Stiles, 12-13.

^{98.} Stiles, 13.

^{99.} Stiles, 13-14.

^{100.} Burchell and Bond, "100 Successful Airmen."

Crews with the strongest interpersonal relationships adjusted the best, but it is unclear how many crews truly functioned as a team. Similarly, relatively few crews flew all of their missions together due to temporary illness and other factors. Rather than romanticize these crews, the beauty of crew dynamics might be their pragmatic flexibility and seamlessness in the face of the trauma of war. A band of brothers did not occupy every B-17 or B-24. Indeed, Stiles characterized his own crew as "average."

After surviving his tour on a bomber, Stiles became a fighter pilot rather than returning to the United States to serve as an instructor pilot in relative safety. His reluctance to engage in strategic bombardment differed dramatically from his willingness to risk his life to protect other bomber crews. Having done just that by shooting down a German fighter on his sixteenth mission, he became disoriented in a dogfight and crashed into the ground to his death. 101 His bomber experience suggests not only the physical and psychological challenges of bomber crews but the emotional and ethical ones as well.

Theory concerning the motivation to kill in warfare has paid disproportionate attention to the close combat experience. Outside of training accidents, 31,494 Airmen died in their frigid flights amidst flak and fighters at 30,000 feet over Germany.¹⁰² By contrast, the Marine Corps lost 19,733 Marines in the miserable ground combat of the Pacific on distant islands against a determined enemy. 103 Despite vastly different theaters, the physical and psychological costs Airmen paid were not that different from the experience of the Marines.

The crews over Germany may have been thousands of feet from their victims, but those victims were often civilians who did not present appealing targets. For those who did kill, particularly bombardiers, the bomber also provided far less absolution than traditional crew-served weapons such as artillery, because the bombardier had full control of the bomber when releasing the bombs. Finally, the bomber provided a unique setting in which individual crews operated largely outside of the immediate demands of authority. Regardless of the altitude, living with killing after surviving being killed posed psychological and moral challenges for those lucky enough to survive the trauma of war. Æ

^{101.} See American Air Museum in Britain, "Bert Stiles," accessed July 18, 2023, https://www.american airmuseum.com/.

^{102.} Stephen McFarland, A Concise History of the U.S. Air Force (Washington, DC: Air Force History and Museums Program, 1997), 32.

^{103.} Marine Corps History Division, "Marine Corps Casualties: 1775-2015," Marine Corps University, 2017, https://www.usmcu.edu/.



Figure 2. Crew of the 91st Bomb Group, 8th Air Force, beside their B-17 Flying Fortress $^{104}\,$

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^{104.} Photograph of 91st Bomb Group crew, American Air Museum in Britain, object no. UPL 22448, n.d., https://www.americanairmuseum.com/.