

On Combat: The Psychology and Physiology of Deadly Conflict in War and in Peace¹

Reviewed by *Commander Valerie Small**

War on paper and war in the field are as different as darkness from light, fire from water, or heaven from earth.²

I. Introduction

The idea that combat is glamorous and romantic is an old notion that books and movies have successfully supplanted with realistic images of shocking destruction to lives suffered by our warriors and adversaries in conflict. Nevertheless, significant physical and mental consequences of conflict remain unspoken—presumably due to societal shame or to an underwhelming effort to understand the human body's response to traumatic stimuli. Dave Grossman's latest book, *On Combat*, sheds light on the surprising effects of combat stress to the human body and psyche and offers some solutions to counter those effects.³ The thesis of the book is that failing to prepare "warriors"⁴ for the consequences and post-war effects of conflict is tantamount to sending them into warfare without proper armor or sufficient ammunition. Grossman introduces the concept, developed from his Pulitzer Prize nominated book, *On Killing*,⁵ that humans have a universal aversion of killing fellow human beings and that such activity can result in severe and long-lasting trauma.⁶ The author also introduces new information suggested by the book's title—the psychological and physiological effects of combat—such as loss of bowel and bladder control, visual and auditory distortions, and memory loss. The result is a fascinating read that will provide many "ah-ha" moments, but that ultimately, and unfortunately, will leave the reader searching for supporting evidence to all the *emphatically* stated facts. In addition, the constant self-aggrandizing efforts by Grossman throughout the book are distracting and credibility-

impacting. This review examines Grossman's salient assertions and the value of his underlying theories to military judge advocates.

II. Biographies

Dave Grossman is a retired U.S. Army Lieutenant Colonel with twenty-three years of service. He began his career as an enlisted paratrooper and retired in 1998 as an Airborne Ranger Infantry officer. Post-retirement, Grossman taught Psychology at West Point and Military Science at Arkansas State University and is currently the Director of the Warrior Science Group. He authored *On Killing: The Psychological Cost of Learning to Kill in War and Society*⁷ in 1995, which Grossman claims was later nominated for a Pulitzer Prize,⁸ and followed up with *On Combat* in 2004. Grossman is a regular in the lecture circuit, largely to law enforcement and military audiences, and is a frequent contributor to numerous journals and papers. His co-contributor, Loren Christensen, lent his expertise to the book regarding the nature of police work and use of deadly force issues. Christensen retired after twenty-nine years in law enforcement, which included his one tour of duty as a military police officer in the U.S. Army. He has authored and co-authored four books (including *On Combat*) and over thirty articles.⁹

III. Analysis

The book is divided into four sections titled "The Physiology of Combat," "Perceptual Distortions in Combat," "The Call to Combat," and "The Price of Combat." Grossman further divided each section into manageable chapters that relate directly to their

* Judge Advocate, U.S. Navy. Presently assigned as the Executive Officer at the Region Legal Service Office, Pearl Harbor, Hawaii. Written while a Student, 60th Judge Advocate Officer Graduate Course, The Judge Advocate General's Legal Center & School, U.S. Army, Charlottesville, Virginia.

¹ LIEUTENANT COLONEL DAVE GROSSMAN WITH LOREN W. CHRISTENSEN, *ON COMBAT, THE PSYCHOLOGY AND PHYSIOLOGY OF DEADLY COMBAT IN WAR AND PEACE* (3d ed. 2008).

² LAMAR UNDERWOOD, *THE QUOTABLE SOLDIER* (2000) (citing WILLIAM FAULKNER, *THE LITTLE BRICK CHURCH* (1882)).

³ GROSSMAN, *supra* note 1, at 13.

⁴ *Id.* at xiii, xix, 176 (explaining that "warriors" in this book refers to both law enforcement officers (warriors in blue) and military members (warriors in green) for their willingness to go "into the heart of darkness, into the toxic, corrosive, destructive realm of combat").

⁵ DAVE GROSSMAN, *ON KILLING: THE PSYCHOLOGICAL COSTS OF LEARNING TO KILL IN WAR AND SOCIETY* (1996).

⁶ *Id.* at 2, 4.

⁷ GROSSMAN, *supra* note 1, at xii, xv, 402.

⁸ *Id.* at xv, 402. *But see* The Pulitzer Prizes, www.pulitzer.org (Pulitzer Prize Winners are selected from two or three nominated finalists in each category. The Pulitzer Prize Board uses the term "nominee" only for those entrants who become finalists from which the winner in the respective category are chosen. Work that is submitted, but not chosen as a nominated finalist or winner, is merely termed an "entry" or "submission." The Pulitzer Prize Board discourages authors from claiming they are a nominee solely because an entry was submitted to the Board. Review of the list of nominated finalists from 1994 to 2008 reveals that *On Killing* was never a nominated finalist and therefore could only have been a submission to the Board.).

⁹ GROSSMAN, *supra* note 1, at 402–03.

respective sections. The first two sections are the soul of the book and most directly relate to the psychological and physiological impact of combat. Section three offers some solutions for the warrior to inoculate against combat stress and to accept his decision to kill. Finally, the fourth section discusses post-traumatic stress disorder and the role of others in helping the warrior cope with combat stress.

In Section I, the author immediately discusses his “Universal Human Phobia” theory, stating that humans have an innate aversion to killing other humans and, correspondingly, that violence directed at humans is the greatest phobia shared by ninety-eight percent of the population.¹⁰ His example of the D.C. snipers’ ability to paralyze an entire city offers validity to that theory.¹¹ While data regarding this universal phobia is fascinating and feels quite probable, the author never cites where such information is derived. Grossman merely does a drive-by, dropping statistics out of thin air, and moves on to another, equally unsupported statement. For instance, in keeping with his universal phobia theory, Grossman asserts that the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) IV “specifically states that any time the causal factor of a stressor is human in nature, the degree of trauma is usually more severe and long lasting” without any reference as to where the DSM IV states so.¹² Another example, in support of his premise, is his assertion that the number of Soldiers removed from combat, as a result of psychiatric casualties in both World Wars and the Korean War, was greater than the total number of soldiers who died in combat.¹³ Other than indicating that the information about trauma derived from human violence was located in the DSM IV (again no specific location noted), Grossman never reveals his source regarding the psychiatric casualties during the above-mentioned wars.

Grossman cleverly explains the zero-sum internal bodily activity initiated by combat (or other stressful events that trigger fight or flight responses).¹⁴ Sympathetic (SNS) and parasympathetic (PNS) nervous systems play a key role in a human’s innate survival functions: SNS acts as a quick reaction force to stress and thus concentrates energy into surviving some identified stressor (and inhibiting other functions deemed unnecessary toward that goal—like digestion and decreasing bronchial tubes—while expanding other

functions—dilating heart vessels and increasing adrenaline); whereas, PNS’s role is more maintenance in nature and concerned with increasing the “body’s supply of stored energy” (digestion, salivation, sleep).¹⁵ These two systems are nearly mutually exclusive.¹⁶ Under extreme stress, the body shifts from routine maintenance existence to conservation of energy and preparation for flight, all of which leads the body to react in unexpected ways: spontaneous defecation and urination, uncontrolled need for sleep, hyper heart rate, and excessive adrenaline.¹⁷ Grossman argues the military and police academies should train the warrior to understand the body’s “redirection of . . . assets”¹⁸ as part of combat training, remove the embarrassing stigma, and teach members to employ techniques to control what little bodily functions are controllable.

In support of his argument to adopt this training, the author shares that Special Weapons and Tactics (SWAT) teams prepare for high risk activity by first taking a “battle crap.”¹⁹ In addition, Grossman suggests warriors could learn to leverage some of the autopilot responses to their required tasks or learn methods to mitigate them as needed. With regard to the increased heart rate due to combat stress, Grossman asserts that a warrior should be trained to maintain an optimal heart rate for a specific task: he explains that a Soldier whose job it is to break down doors and conduct security sweeps may well benefit from an increased heart rate, as the adrenaline rush will assist peak performance; on the other hand, a sniper cannot function with a less-than-optimal higher heart rate because steady hands and eye coordination are key for that skill.²⁰ Again, although intuitively believable, Grossman offers few or no sources to support his assertions.

In Section II, Grossman continues the illustration about how the human body adds and subtracts senses in response to acute stimuli—visual, auditory, and memory functions play a sort of whack-a-mole disappearing and reappearing act that can have a profound impact on the warrior, especially when he attempts to recall details of a gun-fight or self-defense shooting.²¹ According to the author, the dominant theory to explain this sensory restriction is that it is a side-effect of “vasoconstriction” stress responses.²² As with so many other statements, there are no sources to support his assertion.

¹⁰ *Id.* at 2–3.

¹¹ *Id.* at 3.

¹² *Id.* at 4.

¹³ *Id.*

¹⁴ *Id.* at 8–9 (describing the story of the kindergarten teacher, panicked by a mouse that ran up her pant leg to her upper thigh, who involuntarily urinated on herself).

¹⁵ *Id.* at 14–29.

¹⁶ *Id.* at 14–15.

¹⁷ *See id.*

¹⁸ *Id.* at 9.

¹⁹ *Id.* at 15.

²⁰ *Id.* at 30–35.

²¹ *Id.* at 54–73, 94–99.

²² *Id.* at 54.

Grossman offers tactical breathing exercises as a possible solution to control heart rate, adrenaline, and vasoconstriction responses. In his words, “Tactical breathing is truly revolutionary in warrior training”²³ While Grossman may call it “tactical” breathing, the technique is merely purposefully slow breathing, commonly used to calm oneself down and frequently taught to athletes, professional shooters, and yoga devotees.²⁴ It may be that formal acceptance of breathing techniques is new in general combat training (except for sniper training),²⁵ but the technique itself is far from revolutionary.

That aside, understanding the autopilot response to stressors is useful to a judge advocate who may be conducting an investigation into a shooting or explosion or other near-death event. Understanding the physiological effects to extreme stressors should lessen any frustration for an investigator after the fact. The warrior, too, will understand that his seemingly improbable lack of recollection is normal.

Section III discusses how inoculating a warrior against acute stressors in combat is the best relief to combat stress and fear. Grossman’s complaint is that unless training successfully triggers the autopilot responses in the body, it is ineffective and only serves to increase panic, deplete confidence, and train the wrong muscle memory (“training scars”) needed to counter the SNS response.²⁶ Training hard and often is the key to what he coins the “pre-battle warrior.”²⁷ To illustrate his point that history has taught us how poor training leads to poor battle-ready warriors, Grossman again produces information without any reference to his sources, and on those occasions where he provides a crumb of citation, it is woefully lacking. For instance, Grossman states that during World War II, only fifteen to twenty percent of riflemen fired their weapon at exposed adversaries and that those riflemen only fired because they were ordered to do so by superiors—otherwise, they would not have fired at all.²⁸

Grossman briefly mentions his colleague’s work on this research, but fails to discuss any additional information that would direct a reader for further

investigation. Grossman emphatically asserts that the military leaders of World War II knew the research to be true.²⁹ He later suggests that firing rates increased by ninety-five percent during the Vietnam War.³⁰ We are none-the-wiser as to how and where he discovered this information. By chance, however, Grossman did exploit this opportunity to inform the reader of his achievement related to the matter: he wrote an article to what appeared to be a prestigious journal and three encyclopedia entries—all presumably subject to peer review by experts in the field. Grossman does not share the dates of his works, the titles of his works, nature of his articles and entries, nor the specific locations of the pertinent information within the article and encyclopedic entries.³¹

Section IV tidies up the book by explaining the post-combat process. Grossman informs the reader that training should not end post-combat. Rather, there is still much to do: he offers suggestions such as post-combat debriefing, training to discuss continued psychological and physiological responses, and education about post-traumatic stress disorder (PTSD).³² Once again, evidentiary support exists only in the form of anecdotal stories, except for the PTSD diagnostic criteria extracted from DSM-IV.³³ He ends his book with surprising advice to the reader about how to approach and support a combat-weary warrior. His advice is simple, yet admirably communicated—treat everyone the same, for the reader cannot know the depth of the warrior’s combat experience, and assure the warrior that “I’m glad you are okay.”³⁴

IV. Conclusion

Grossman’s book is an easy and quick read, but it falls short of being a scholarly effort. Essentially, the book appears to be a long version of the author’s lectures and speeches. It is written as one might speak, without the formalities of citations or explanation of facts from learned studies. Grossman relies disproportionately on anecdotal evidence and colleagues’ literature and lectures without providing the nature or citation of the literature or lectures.³⁵ In addition, the writing is fraught with the overuse of quotation marks for no apparent reason other than Grossman’s desire to highlight a particular word. Further,

²³ *Id.* at 42.

²⁴ D.L. GILL, *PSYCHOLOGICAL DYNAMICS OF SPORTS AND EXERCISE* (2d ed. 2000); U.S. DEP’T OF ARMY, *FIELD MANUAL 23-10, SNIPER TRAINING* para. 3-3 (17 Aug. 1994); U.S. MARINE CORPS, *FLEET MARINE FORCE MANUAL 1-3B, SNIPING* para. 306 (28 Jan. 1981) [hereinafter *FMFM 1-3B*]; ELIZABETH ROBBINS ESHELMAN, MARTHA DAVIS & MATTHEW MCCAY, *THE RELAXATION AND STRESS REDUCTION WORKBOOK* (2d ed. 1982).

²⁵ *FMFM 1-3B*, *supra* note 24.

²⁶ GROSSMAN, *supra* note 1, at 132–37.

²⁷ *Id.* at 75, 134.

²⁸ *Id.* at 78.

²⁹ *Id.*

³⁰ *Id.*

³¹ *Id.* at 78.

³² *Id.* at 27–82, 266, 269.

³³ *Id.* at 279.

³⁴ *Id.* at 345.

³⁵ *Id.* at 10, 345, 347.

Grossman litters his book with self-serving statements about his expertise; about being sought-after by any number of organizations to lecture, particularly by prestigious institutions like the FBI Academy, West Point, University of Oxford, and Harvard University; and to references of his important contribution to the field of “killology.”³⁶ The effect diminishes the professionalism of his product and leads a reader to question the credibility of his thesis.

That aside, as an informal read, the book does provide fascinating information about the auto-responses of the body, how they relate to combat behavior, and why understanding that information is important to combat training. The anecdotal stories used to buttress the information are genuinely interesting and easily relatable for the reader. His philosophy that military and law enforcement members should be trained to anticipate the effects of

combat and accept survivor-related emotions resonates as needed steps in combat training. Grossman’s tone, while overly militarized or heavy on the “warrior” mindset, is infectious in the manner he expresses reverence for those who choose to work in the field to protect and defend.

The military lawyer whose work requires understanding the motivations and behaviors of servicemembers (such as trial counsel, staff judge advocates, counsel for military hospitals, and operational judge advocates), would likely find Grossman’s book interesting. However, judge advocates are advised to research beyond the book to corroborate any relevant information at issue and be prepared to discover that some facts are regrettably, or thankfully, inaccurate.

³⁶ See KILLOLOGY RESEARCH GROUP: A WARRIOR SCIENCE GROUP PARTNER, <http://www.killology.com> (last visited Oct. 11, 2012).