ISSN E: 3006-1466
ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
Vol.03 No.04 (2025)

MACHINES,MEDICINE,AND MORTALITY:A POSTHUMAN READING OF TECHNOLOGY AND THE HUMAN BODY IN ERNEST HEMINGWAY'S *A FAREWELL TO ARMS*

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Abstract
This article offers a posthuman reading of Ernest Hemingway's A Farewell to Arms (1929), arguing that the novel's representation of war, medicine, and the wounded body anticipates key ideas in contemporary posthuman theory. Drawing on N. Katherine Hayles's (1999) notion of the posthuman as the end of a specific liberal-humanist conception of the autonomous subject, Donna Haraway's (1991) cyborg figuration, and Rosi Braidotti's (2013) account of the technologically mediated posthuman subject, the paper reads Lieutenant Frederic Henry as an early "cyborg" figure whose identity is continually reconfigured by machines, medical technologies, and institutional systems. Mechanized warfare shatters pre-war ideals of a unified and heroic body and replaces them with images of fragmentation, prosthesis, and mechanotherapy. Hospital spaces and surgical interventions reassemble human bodies according to a "body-as-machine" logic, even as they expose the limits of clinical control. Finally, Catherine Barkley's death in childbirth, despite sophisticated obstetric care, confronts both characters and readers with mortality as the irreducible limit of technological power. By putting Hemingway into dialogue with posthuman theory, trauma studies, war literature, and medical humanities (e.g., Caruth, 1996; Dodman, 2006; Gul et al., 2025; Higonnet, 2001), this article shows how A Farewell to Arms registers a crisis of embodiment in the first mechanized world war and offers a deeply ambivalent vision of what it means to be human in an age of machines.

Keywords: *Hemingway; A Farewell to Arms; posthumanism; cyborg; war medicine; embodiment*

1. Introduction

Ernest Hemingway's *A Farewell to Arms* is often read as a modernist war and love novel about disillusionment, trauma, and the search for "a separate peace" after World War I (Pokharel, 2013; Velea, 2012). Yet the text is also filled with images of machines and medical technologies: artillery, mortar shells, ambulances, trusses, X-rays, drainage tubes, plaster, mechanotherapy devices, and operating theatres (Hemingway, 1995). These are not neutral background details; they actively shape how bodies are wounded, treated, perceived, and narrated.

This essay argues that *A Farewell to Arms* can be read as an early narrative of posthuman embodiment. The novel emerges from the first fully mechanized world war, in which heavy artillery, machine guns, and motorized transport radically altered both warfare and the meaning of bodily vulnerability (Higonnet, 2002). It stages a world where human bodies are repeatedly broken by machines and then reconstructed by other machines in the form of surgical and rehabilitative technologies.

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To frame this, I draw on posthuman theorists such as Hayles (1999), Haraway (1991), Braidotti (2013), Ferrando (2013, 2019), Barad (2003), Wolfe (2010), and Miah (2007), as well as trauma theory (Caruth, 1996; Dodman, 2006), eco- and materialist criticism (Ng, 2022; Iovino & Oppermann, 2014; Smith & Hughes, 2013), and work on war, gender, and nursing (Higonnet, 2001). I also build on recent studies of Hemingway's war fiction and trauma (Al-Fahdawi, 2017; Gul et al., 2025; Shahi, 2020; Arndt, 2013; Godfrey, 2016) and on detailed readings of the corporeal imagery in *A Farewell to Arms* (Yasushi, n.d.).

The article proceeds in four stages. First, it outlines a posthuman theoretical framework relevant to Hemingway's text. Second, it explains the qualitative textual method and presents results in the form of three analytic tables. Third, it offers a discussion of mechanized war, medical technologies, and reproductive medicine in the novel. Finally, it concludes by arguing that the novel offers a powerful early meditation on machines, medicine, and mortality.

2. Theoretical Framework: Posthumanism, Cyborgs, and War

Posthumanism is a broad and contested field, but several shared themes are especially useful for reading Hemingway. Hayles (1999) defines the "posthuman" as a condition in which information, embodiment, and computation are deeply entwined, and in which the human is no longer imagined as a disembodied, autonomous mind but as an entity distributed across technical, social, and biological systems. Wolfe (2010) similarly criticizes the humanist fantasy of exceptionalism and calls for attention to how humans are entangled with nonhuman agents and technologies.

Haraway's (1991) famous "cyborg manifesto" proposes the cyborg as a hybrid of organism and machine that breaks down traditional boundaries between human and animal, human and machine, and physical and non-physical. For Haraway, we are already cyborgs: modern subjects are assembled, not natural wholes. Braidotti (2013) develops this further by describing the posthuman subject as embedded in global technological and bio-political networks, and she insists that vulnerability, relationality, and mortality remain central even in techno-saturated contexts. Ferrando (2013, 2019) and Miah (2007) show that posthumanism must be distinguished from transhumanist dreams of perfect enhancement and immortality; instead, posthumanism often stresses the limits of control and the persistence of bodily finitude.

On the war and trauma side, Caruth (1996) and Dodman (2006) read modernist war texts as trauma narratives in which bodily and psychic wounds disrupt linear storytelling. In Hemingway studies, critics have explored war trauma, masculinity, and the body in *A Farewell to Arms* (Al-Fahdawi, 2017; Pokharel, 2013; Shahi, 2020; Velea, 2012), including ecological and material dimensions (Ng, 2022; Godfrey, 2016; Arndt, 2013). Iovino and Oppermann (2014) and Smith and Hughes (2013) demonstrate how bodies, landscapes, and materials form complex entanglements, a point relevant to Hemingway's muddy roads, shattered trees, and bleeding flesh. Higonnet (2001, 2002) and nursing histories show how medical practice in World War I changed the visibility and management of wounded bodies.

This theoretical and critical context allows us to see *A Farewell to Arms* not simply as a realistic or romantic narrative but as a text that dramatizes key posthuman questions: What happens to the human body when it is constantly injured and repaired by machines? How does medical technology alter our sense of bodily ownership and identity? Where are the limits of techno-medical power when confronted with death?

Conceptual Framework

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ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
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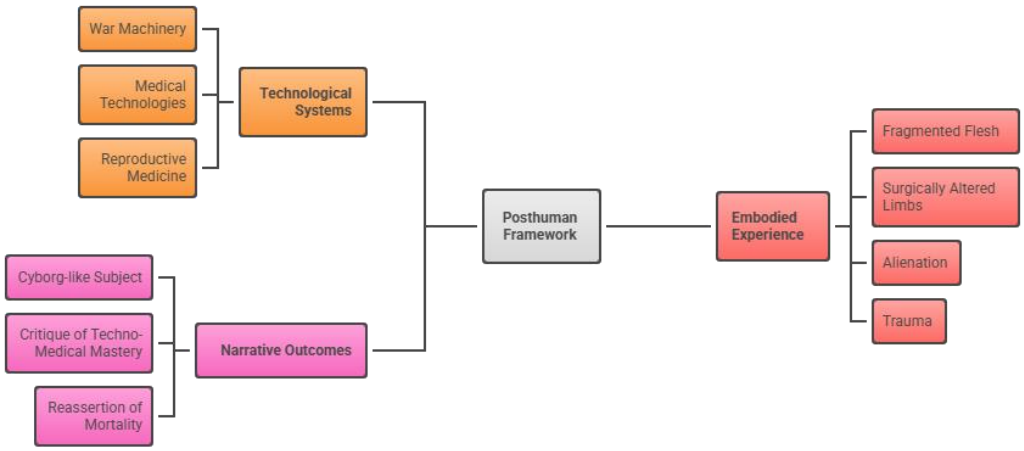

3. Methodology

This study uses **qualitative textual analysis** of Hemingway's *A Farewell to Arms* (Scribner edition) as a primary text (Hemingway, 1995). The novel was read closely and coded for:

- references to machines and technologies (weapons, vehicles, hospital devices),
- descriptions of wounds, surgery, and rehabilitation,
- explicit reflections on embodiment, and
- scenes of pregnancy, childbirth, and death.

These textual elements were then grouped into thematic clusters and linked with relevant posthuman concepts and secondary scholarship. The main patterns are summarized in the three tables below, which function as the "results" of the analysis before the more detailed discussion.

4. Results / Findings

4.1 Major Clusters of Technological and Bodily Motifs

Table 1 summarizes three major clusters of motifs that emerged from the coding: mechanized war and fragmented flesh, medical technologization and the body-as-machine, and reproductive medicine and the limits of control.

Table 1

Major Clusters of Technological and Bodily Motifs in A Farewell to Arms

Cluster	**Brief description**	**Representative scenes / episodes**	**Related posthuman concept**
Mechanized war and fragmented flesh	Artillery, mortar shells, machine guns, self-inflicted wounds that tear or displace body parts	Shelling at the front; soldier with protruding intestine; Frederic's leg injury	Fragmentation of liberal-humanist subject; involuntary cyborgization
Medical technologization and body-as-machine	Surgical repair, X-rays, drainage tubes, plaster, mechanotherapy machines, immobilization	Milan hospital; Dr. Valentini's operation; knee rehabilitation	Body as assemblage; medicalized cyborg body
Reproductive medicine and limits of control	Clinical management of pregnancy and childbirth;	Catherine's labor; operating-theatre	Limits of techno-medical mastery;

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CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
CJSSR
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
Vol.03 No.04 (2025)

Cluster	Brief description	Representative scenes / episodes	Related posthuman concept
	Caesarean section; maternal and infant death	scenes; final farewell to the corpse	persistence of mortality

4.2 Stages in Frederic Henry's Embodiment

Table 2 outlines six stages in Frederic Henry's embodied experience and technological entanglement, from relatively intact soldier to bereaved survivor.

Table 2

Stages in Frederic Henry's Embodiment and Technological Entanglement

Stage	Bodily state / experience	Dominant technology	Frederic's relation to his body	Posthuman reading
1. Front-line participant	Mostly intact body; minor illnesses; exposure to shelling	Artillery, ambulances	Treats body as instrument for service	Body as tool within war machine
2. Witness of displaced flesh	Encounter with soldier's protruding intestine	Truss (removed), medical inspection	Curious, quasi-clinical; touches displaced organ	Initiation into raw corporeality; body as manipulable object
3. Wounded and fragmented	Severe leg injury from mortar shell; shattered knee	Mortar shell, shrapnel	Experiences body as estranged and dislocated	Fragmentation of subject; forced bodily remapping
4. Surgical reconstruction	Knee operation; immobilization; pain	Surgical instruments, anesthesia	Reliant on surgeon; feels repaired knee is partly "not his"	Hybrid of organic tissue and surgical engineering
5. Mechanotherapy and rehab	Gradual recovery; controlled movement	Bending machines, heat boxes, X-rays	Adopts body-as-machine metaphor; follows mechanical routines	Cyborg subject integrated into medical apparatus
6. Confrontation with death	Witness to Catherine's fatal labor and stillbirth	Obstetric surgery, monitoring	Feels helpless; rejects optimism about medical control	Collapse of mastery; reassertion of mortality

4.3 Ambivalent Functions of Technology

Table 3 synthesizes how different technologies in the novel function both positively and negatively in relation to human embodiment.

Table 3

Functions of Technology in the Embodiment Narrative of A Farewell to Arms

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CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
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Type of technology	Primary function in plot	Positive effects	Negative effects / risks	Overall posthuman implication
War machinery	Conduct of war; destruction of enemy forces	Tactical power at collective level	Massive bodily fragmentation; trauma; dehumanization	Technologies that dissolve bodily integrity
Transport (ambulances)	Movement of wounded and supplies	Potentially life-saving evacuation; mobility	Exposure to shelling; breakdown; accidents	Human agency distributed across mechanical systems
Surgical technology	Repair of wounds; obstetric intervention	Restoration of function (Frederic's leg); chance of survival	Surgical complications; maternal and infant death	Medicine as double-edged instrument of care and control
Mechanotherapy devices	Rehabilitation; strengthening of injured limbs	Increased mobility; partial recovery of autonomy	Painful, objectifying treatment of body as machine	Body calibrated as mechanical system
Diagnostic technologies	Visualization and classification of bodily damage	More accurate diagnosis; targeted treatment	Reduction of person to image or data	Embodiment mediated by techno-visual regimes

These tables show that technology in *A Farewell to Arms* is not simply "bad" or "good." Instead, it both supports life and exposes new vulnerabilities, producing what Barad (2003) calls "material-discursive" entanglements between bodies, machines, and meanings.

5. Discussion

5.1 Mechanized War and Fragmented Flesh

Hemingway's war scenes present the front as a vast machine that grinds down bodies and landscapes. Shells cut trees, collapse buildings, and tear human flesh (Hemingway, 1995). As Ng (2022) notes in an ecoGothic reading, the novel's material details—mud, blood, dust—show war as a process that rots both environment and body.

The early episode of the soldier whose intestine protrudes after he deliberately removes his truss is crucial. He uses his own wounded body as a strategy to escape combat. Frederic's calm request to touch the intestine shows a shift from heroic conceptions of the wound to a clinical fascination with exposed tissue (Yasushi, n.d.). The body becomes manipulable matter rather than sacred symbolic form.

Frederic's later leg injury from a mortar shell marks a deeper stage in this fragmentation. He feels that his leg is no longer continuous or familiar; his knee is displaced. Dodman (2006) and Pokharel (2013) read this as part of the novel's trauma narrative, in which physical damage parallels psychic shock. From a posthuman perspective, the wound shows the breakdown of the liberal-humanist subject, who once imagined his body as a stable, controllable property (Hayles, 1999; Wolfe, 2010). Frederic becomes what we might call an **involuntary cyborg**: his body is forced into new configurations by contact with machines of war.

5.2 Medical Technologies and the Body-as-Machine

ISSN E: 3006-1466
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If war machines shatter the body, medical technologies attempt to patch it together. The Milan hospital scenes focus on surgical detail: anesthesia, incisions, drainage tubes, sutures, and plaster (Hemingway, 1995). Frederic's knee is opened, repaired, immobilized, and then gradually subjected to mechanotherapy devices that bend and heat the joint.

Yasushi (n.d.) and Al-Fahdawi (2017) argue that these procedures encourage Frederic to see his body as a collection of parts. He jokes that the repaired knee belongs to Dr. Valentini because the surgeon "made" it. Haraway's (1991) cyborg is helpful here: Frederic is now a hybrid of organic tissue and medical engineering. His mobility depends on machines, instruments, and clinical routines.

The hospital also makes Frederic part of what Foucault (as discussed in Higonnet, 2002) would call a "medical gaze": bodies are visualized, classified, and disciplined. X-rays turn flesh into images. Mechanotherapy turns rehabilitation into a scheduled, measurable process. Iovino and Oppermann's (2014) "material ecocriticism" helps us see how these devices and materials (plaster, metal, rubber) shape Frederic's subjectivity just as much as ideas or narratives do.

At the same time, Frederic senses alienation. He remarks that when doctors do things to you, it is not entirely "your" body anymore. His self is now co-produced by medical expertise and technology, echoing Hayles's (1999) claim that posthuman subjects are distributed across human and nonhuman systems. Braidotti (2013) warns that such posthuman configurations are both enabling and risky: they can extend agency but also intensify control and objectification.

5.3 Reproduction, Intimacy, and the Limits of Techno-Medical Power

The novel's final section moves from combat injuries to reproductive medicine. Catherine Barkley's pregnancy leads to hospital monitoring, repeated examinations, and finally a Caesarean section. What might once have been seen as "natural" childbirth is represented as a highly technological procedure involving anesthesia, surgical cutting, uterine manipulation, and suturing (Hemingway, 1995).

Higonnet (2001) notes that nursing and obstetric practice in World War I made women's bodies central to modern medical regimes. Catherine's body becomes the site of intense technical intervention and professional control. Yet despite all this, both the baby and Catherine die. As Hektoen Institute essays on Hemingway suggest, the scene underscores the limits of medicine and the persistence of mortality even in advanced clinical settings.

This failure destabilizes Frederic's growing faith in medical technology. If his knee seemed to prove that the body could be successfully repaired like a machine, Catherine's death proves the opposite. Shahi's (2020) psychoanalytic reading of the novel emphasizes the male desire to control bodies and emotions; in this scene, that desire collapses. The cyborg dream of full technical mastery over life gives way to what Caruth (1996) calls "unclaimed experience": pure trauma that cannot be resolved.

The final comparison of Catherine's corpse to a statue is chilling. The body is reduced to inert matter, an object rather than a person. Yet Frederic's grief and his lonely walk in the rain insist that this reduction is ethically and emotionally inadequate. Braidotti (2013) and Ferrando (2019) both argue that posthuman thought must keep vulnerability and death in view, rather than imagining endless enhancement. In this sense, *A Farewell to Arms* is a posthuman text that ends not with transcendence but with the recognition of human finitude.

6. Conclusion

This article has argued that *A Farewell to Arms* can be fruitfully read through a posthuman lens as a narrative of technologically mediated embodiment. Mechanized warfare fragments soldiers' bodies and psyches, turning them into unwilling experimental sites of destruction. Medical and diagnostic technologies then reconstruct those bodies, encouraging a view of the body as a machine that can be opened, repaired, and recalibrated. Finally, reproductive

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ISSN P: 3006-1458
CONTEMPORARY JOURNAL OF SOCIAL SCIENCE REVIEW
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medicine fails to save Catherine Barkley, reminding characters and readers that mortality remains beyond full technical control.

By mapping the novel's motifs into analytic clusters and stages (Tables 1–3), the paper shows how Frederic Henry becomes a cyborg subject: his identity is shaped by artillery, ambulances, operating theatres, mechanotherapy devices, and obstetric technologies. At the same time, the narrative refuses simple celebration or condemnation of technology. Machines and medicine both save and destroy, both repair and dehumanize.

Placed in dialogue with posthuman theory (Barad, 2003; Braidotti, 2013; Ferrando, 2019; Haraway, 1991; Hayles, 1999; Wolfe, 2010) and with trauma and war studies (Caruth, 1996; Dodman, 2006; Gul et al., 2025), Hemingway's novel appears not only as a key modernist war text but also as an early meditation on what it means to be human in a technological age. It insists that even when bodies are utterly entangled with machines, they remain fragile, vulnerable, and mortal. Any posthuman future imagined without these limits, the novel suggests, would be a dangerous illusion.

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