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## Beyond High-Tech Posthumanism: Biological Survival, Ethics of Care, and the Science-Fiction Short Story — A Critical Review

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**Abstract:** *Posthumanism has become an influential framework in contemporary literary studies, particularly in scholarship on science fiction and post-apocalyptic narratives. Much existing work has prioritized technologically driven imaginaries of the posthuman—artificial intelligence, cybernetics, and digital embodiment—often treating technological transformation as the primary horizon of posthuman existence. By contrast, narratives that foreground biological survival, ecological constraint, collective regulation, and ethics of care have received comparatively limited sustained attention, especially within science-fiction short stories. This review revisits key debates in posthuman theory and post-apocalyptic criticism through a sustained engagement with short-form speculative fiction. By synthesizing posthumanism, ecological thought, ethics of care, and science-fiction short-story studies, the paper argues that short stories offer a distinctive space for imagining posthuman survival as embodied, relational, and regulated rather than technologically transcendent. While the review does not claim to exhaust the field, it highlights significant gaps in existing scholarship and outlines directions for a more materially grounded posthuman literary criticism.*

**Keywords:** posthumanism, science fiction short stories, biological survival, ethics of care, post-apocalyptic fiction

### 1. Introduction: Posthumanism, Crisis, And The Question Of Form

Posthumanism has emerged as a key framework for rethinking the category of the human in the context of ecological collapse, technological acceleration, and social precarity. Within literary studies, science fiction has long functioned as a speculative laboratory in which anthropocentric assumptions are tested and reconfigured. Darko Suvin's (1979) concept of cognitive estrangement remains central in this regard, positioning science fiction as a mode of inquiry that defamiliarizes the present in order to expose its ideological limits. In science-fiction short stories, this estranging function often operates with particular intensity, as narrative compression foregrounds ethical disruption over explanatory closure.

Posthuman literary criticism has frequently examined technological enhancement, artificial intelligence, and the transformation of human identity through advanced technologies (Hayles, 1999; Herbrechter, 2013; Wolfe, 2010). More recent scholarship has broadened this discussion by attending to ecological vulnerability, multispecies relations, and environmental precarity within posthuman

thought (Braidotti, 2022; Oppermann, 2020; Taylor, 2021). Even so, many literary readings of speculative futures continue to privilege technological transformation over narratives shaped by biological survival, material dependency, and relational care.

Post-apocalyptic fiction occupies a significant place within this broader speculative field because it shifts attention from enhancement to endurance. Rather than merely staging catastrophe, post-apocalyptic narratives interrogate the fragility of human systems and the ethical arrangements that emerge after their collapse. This is especially important in science-fiction short stories, which are often overshadowed by novel-length works despite their foundational role in the genre. As David Seed (2011) observes, short fiction often privileges conceptual intensity and ethical immediacy over expansive world-building, making it especially well suited to exploring survival under constraint.

This article approaches the topic through a critical narrative review of posthuman literary scholarship. It does not attempt to provide systematic coverage of all work in the field; rather, it selectively synthesizes foundational and representative contributions from posthuman theory, post-apocalyptic criticism, ecological thought, and science-fiction studies in order to identify a persistent conceptual imbalance. By bringing these strands of scholarship into conversation, the review seeks to illuminate how certain modes of posthuman survival—particularly those grounded in biological vulnerability and relational interdependence—have received comparatively less sustained attention.

The originality of this review lies in bringing together posthuman theory, ethics of care, and post-apocalyptic short-fiction studies in order to foreground biological survival as a distinct analytic category. While recent scholarship has expanded ecological and relational approaches to posthumanism, less sustained attention has been given to the ways short-form speculative fiction stages survival through bodily maintenance, scarcity, and enforced interdependence. Against this background, the present study places science-fiction short stories at the center of posthuman inquiry, asking how their formal properties complicate dominant posthuman paradigms and offer alternative ways of imagining survival within materially constrained futures.

## **2. Reconsidering Posthumanism Through Material Embedding**

Foundational posthuman theory has reshaped literary criticism by challenging the autonomy and exceptionalism of the human subject. Cary Wolfe's (2010) critique of human exceptionalism reconceptualizes the human as embedded within biological, technological, and ecological systems. This decentering has enabled critics to examine narratives in which agency is distributed across relational networks rather than concentrated in individual subjects.

At the same time, it remains open to question how far such theoretical models account for lived material vulnerability. Stefan Herbrechter's (2013) articulation of critical posthumanism cautions against celebratory readings that abstract the posthuman from conditions of scarcity, exhaustion, and corporeal limitation. Science-fiction short stories foreground these conditions by depicting survival as an everyday negotiation with bodily limits.

Rosi Braidotti's (2013) concept of the *zöe*-centered posthuman further decouples ethical value from individual human subjectivity by emphasizing planetary vitality and species continuity. While this framework has enriched ecological readings of speculative fiction, it can also underplay the uneven distribution of vulnerability in post-apocalyptic worlds. Short fiction resists this abstraction by situating posthuman survival within rigid biological constraints that expose ethical compromise and enforced regulation.

Donna Haraway's (2016) notion of *sympoiesis* extends posthuman thought by foregrounding interdependence and co-becoming. In post-apocalyptic short stories, however, *sympoiesis* often appears less as an ethical aspiration than as an imposed condition. Survival becomes contingent upon enforced relationality, revealing the ethical tensions and fragilities of cooperation under ecological pressure.

### **3. Post-Apocalyptic Imaginaries And Inherited Collapse**

Post-apocalyptic literature has been examined as both philosophical critique and cultural diagnosis. Claire Colebrook (2014) conceptualizes apocalypse as an erasure of human arrogance, suggesting that post-apocalyptic narratives imagine worlds governed by planetary processes rather than human ambition. From this perspective, collapse functions not only as catastrophe but as a condition for post-anthropocentric thought. Contemporary scholarship on speculative fiction and the Anthropocene has similarly emphasized that post-apocalyptic narratives often explore vulnerability, ecological fragility, and collective survival under conditions of planetary crisis (Canavan & Robinson, 2019; Johns-Putra, 2021).

James Berger's (1999) notion of the post-apocalyptic as diagnostic trauma complements this view by emphasizing how the destruction of social systems exposes underlying ethical structures and power relations. In science-fiction short stories, collapse is rarely narrated as a spectacular event. Instead, it appears as an inherited condition shaping survival within compressed narrative moments.

As Thomas Disch (1998) observes, much science fiction treats catastrophe as a cultural given rather than a narrated spectacle. This tendency is especially pronounced in short fiction, where narrative economy intensifies ethical focus. Survival is presented not as freedom or heroism but as obligation, positioning short stories as particularly effective sites for examining posthuman ethics under constraint.

### **4. Biological Survival, Embodiment, And The Ethics Of Care**

Biological posthumanism remains comparatively under-theorized alongside technologically oriented models of posthumanism. Judith Butler's (2004) work on bodily vulnerability provides an ethical framework for understanding survival as grounded in physical dependency. In science-fiction short stories, vulnerability is enacted through hunger, illness, reproductive limits, and exhaustion, rendering survival a bodily rather than purely ideological condition. Recent posthuman scholarship has further connected vulnerability with relational ethics and multispecies care, emphasizing interdependence rather than individual technological enhancement (Puig de la Bellacasa, 2017; Taylor, 2021). These perspectives reinforce the idea that survival is not simply an individual achievement but a relational condition shaped by networks of dependency and responsibility.

N. Katherine Hayles' (1999) critique of disembodied subjectivity reinforces this emphasis on embodiment. By challenging informational models of the human, Hayles re-centers materiality as a defining condition of survival. Short fiction aligns closely with this emphasis by depicting survival as continuous bodily maintenance rather than transcendence.

Samuel Delany's (1977) reflections on the language of science fiction further illuminate the significance of constraint. Delany suggests that the genre's critical force often emerges from limitation rather than abundance. In short stories, linguistic economy mirrors material scarcity, reinforcing survival as a condition shaped by restriction rather than expansion.

Virginia Held's (2006) ethics of care extends this framework by reframing care as a practical survival strategy rather than a supplementary moral value. In post-apocalyptic short fiction, care frequently emerges as fragile, conditional, and unevenly distributed. It is precisely this fragility that reveals care as a central posthuman technology.

### **5. Regulation, Scarcity, And Collective Endurance**

Ecological dystopian criticism illuminates how survival in speculative fiction is structured through regulation and governance. Andrew Hageman (2012) demonstrates how science-fiction narratives challenge liberal individualism by embedding subjects within systems defined by environmental limits and resource scarcity. In short fiction, such systems often appear rigid and non-negotiable, intensifying

ethical tension.

Brian Attebery (2014) similarly observes a movement away from heroic individualism toward collective endurance. In science-fiction short stories, governance is experienced less as ideological abstraction than as biological necessity. Regulation emerges as an ambivalent mechanism for species continuity, raising unresolved ethical questions rather than offering clear solutions.

## **6. Illustrative Case Readings from Science-Fiction Short Stories**

While theoretical discussions of posthumanism frequently emphasize technological transcendence and speculative enhancement, science-fiction short stories often stage more grounded narratives of survival in which human existence remains materially constrained. Short speculative fiction has been increasingly recognized as a site for exploring ecological survival and ethical relationality in condensed narrative forms (Johns-Putra, 2021). The short-story form is particularly effective in dramatizing compressed scenarios of crisis, vulnerability, and adaptation.. Rather than portraying the posthuman as an entity liberated from biological limitation, many short speculative narratives depict survival as dependent on bodily endurance, ecological negotiation, and fragile systems of care. The following brief illustrations demonstrate how selected science-fiction short stories foreground biological survival and relational ethics in ways that complicate techno-centric posthuman imaginaries.

### **6.1. Biological Adaptation and Embodied Survival**

In Octavia Butler's short story *Speech Sounds* (1983), a devastating pandemic destroys humanity's ability to communicate through structured language, producing a fragmented society where misunderstanding and violence become common features of daily life. Survival in Butler's narrative is not achieved through technological innovation or scientific advancement but through the slow reconstruction of trust within radically diminished social conditions. The protagonist must rely on bodily awareness, gestures, and situational sensitivity rather than sophisticated tools or artificial augmentation. The story therefore foregrounds the vulnerability of cognitive capacities often assumed to define human superiority. Butler's narrative illustrates how survival emerges through fragile cooperation and adaptation within biological and social limits rather than through technological transcendence .

### **6.2. Ecological Scarcity and Collective Regulation**

Ursula K. Le Guin's short story *The Ones Who Walk Away from Omelas* (1973) presents a society whose collective prosperity depends upon the suffering of a single neglected child. Although the story is not strictly post-apocalyptic, it reveals how social stability can be sustained through hidden structures of ethical compromise. Survival in Omelas is therefore not simply biological but institutional, relying upon systems of regulation that govern collective wellbeing. The individuals who ultimately abandon the city represent a refusal to participate in these structures of moral containment. Through this narrative tension, Le Guin raises questions about whether communal survival can ever be ethically neutral. The story suggests that posthuman futures may require difficult negotiations between collective stability and moral responsibility rather than reliance on technological solutions .

### **6.3. Vulnerability and Relational Care**

Ray Bradbury's *There Will Come Soft Rains* (1950) provides a powerful image of technological continuity in the absence of humanity. After a nuclear catastrophe eradicates human life, an automated house continues to perform its programmed domestic routines. The building cooks meals, cleans rooms, and recites poetry despite the complete disappearance of the people it was designed to serve. Bradbury's story therefore reveals the limits of technological autonomy as a model of survival. Although the house functions perfectly, its activities become increasingly hollow without the relational networks that once gave them meaning. The narrative implicitly suggests that survival cannot be reduced to mechanical persistence. Instead, it emerges from relationships, shared experience, and systems of care that

technology alone cannot replicate (Bradbury, 1950).

#### **6.4. Fragile Communities in Post-Catastrophic Worlds**

Ted Chiang's *Exhalation* (2008) imagines a mechanical civilization that gradually discovers its world is losing the atmospheric pressure necessary to sustain life. The inhabitants come to realize that their entire ecosystem is finite and slowly approaching exhaustion. Rather than seeking technological transcendence, the narrative focuses on intellectual inquiry, collective understanding, and philosophical reflection. The characters attempt to document their discoveries so that future generations may understand the limits of their world. Chiang's story thus presents survival not as domination over nature but as an epistemic and communal process grounded in knowledge sharing and cooperative awareness of ecological constraint (Chiang, 2008).

#### **6.5. Challenging Techno-Centric Posthuman Narratives**

Taken together, these narratives illustrate how science-fiction short stories frequently foreground vulnerability, interdependence, and ecological constraint. Instead of portraying the posthuman as a technologically enhanced being liberated from biological limits, these stories depict survival as a fragile achievement sustained through cooperation, ethical negotiation, and adaptive care. The short-story form, with its compressed narrative structure and intense focus on moments of crisis, proves particularly effective in exploring these conditions. By emphasizing embodied survival and relational ethics, such narratives challenge techno-centric interpretations of posthuman futures and invite a reconsideration of survival as a collective and materially embedded process.

### **7. Toward A Synthetic Reading: Short Fiction As Posthuman Critique**

As recent developments in posthuman scholarship suggest, critical approaches to speculative fiction increasingly move beyond purely technological imaginaries toward frameworks that foreground ecological vulnerability, multispecies entanglements, and the material conditions of survival (Braidotti, 2022; Oppermann, 2020). When read together, posthuman theory, post-apocalyptic criticism, and science-fiction studies reveal a persistent imbalance in contemporary literary scholarship. While posthumanism has been widely adopted as a critical framework, its literary application has often remained shaped by an implicit technological bias. As a result, narratives grounded in biological limitation, ecological dependency, and collective survival have remained comparatively marginal. The originality of this review lies in bringing posthuman theory, ethics of care, and post-apocalyptic short-fiction studies into the same critical frame in order to foreground biological survival as a distinct analytic category. Although recent scholarship has expanded ecological and relational approaches to posthumanism, less sustained attention has been given to the ways short-form speculative fiction stages survival through bodily maintenance, scarcity, and enforced interdependence.

This imbalance is not only thematic but methodological. The privileging of novel-length texts has encouraged an emphasis on expansive world-building and technologically driven futures. Science-fiction short stories, by contrast, operate through narrative compression that foregrounds ethical immediacy, bodily vulnerability, and survival under constraint. Read alongside Timothy Morton's (2010) concept of ecological entanglement, these narratives suggest survival as an ongoing negotiation with non-human systems rather than a return to human mastery. In this sense, short-form speculative fiction does more than

condense larger posthuman concerns; it sharpens them by exposing how survival is materially lived through fragility, adjustment, and dependency.

Care and regulation further complicate posthuman ethics. In much posthuman scholarship, care appears as an ethical supplement rather than a structuring principle. Short-form post-apocalyptic fiction unsettles this assumption by presenting care and governance as precarious, morally ambiguous survival mechanisms. From this perspective, science-fiction short stories do not merely illustrate posthuman

theory but actively test its conceptual limits, particularly by revealing that posthuman survival is often sustained less by transcendence than by maintenance, restraint, and uneasy forms of interdependence.

## **8. Extending The Conversation: Directions For Future Scholarship**

Future research in posthuman literary studies would benefit from sustained engagement with science-fiction short stories as primary sites of theoretical inquiry. Rather than treating short fiction as supplementary, scholars might approach it as a distinct epistemic form capable of generating insight into posthuman survival.

There is also scope for developing a more explicit framework for biological posthumanism. While embodiment has been widely acknowledged, it is often subordinated to technological mediation. Future studies could foreground biological survival as an analytical category in its own right, particularly in relation to regulation, reproduction, and care.

Incorporating perspectives aligned with Vandana Shiva's (1988) critique of ecological exploitation offers a way to move posthuman studies beyond technologically privileged contexts. Such approaches foreground restraint, sustainability, and collective endurance, expanding posthumanism into a framework attentive to global ecological inequality.

## **9. Conclusion:**

This review has argued for a reorientation of posthuman literary studies away from high-tech imaginaries and toward biologically grounded models of survival. By synthesizing posthuman theory, post-apocalyptic criticism, ethics of care, and science-fiction short-story studies, the paper highlights the distinctive contribution of short fiction to posthuman thought. Science-fiction short stories emerge as critical spaces where survival is imagined through vulnerability, regulation, and relational existence rather than technological mastery, offering a more grounded and ethically attentive understanding of the posthuman condition.

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