

Entropic Temporality & Care-Based Agency in Eco-Survival Games

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EXTENDED ABSTRACT

This paper examines how eco-survival games structure ethical play through entropic temporality (Chang 2019)—time experienced as decay, scarcity, and systemic breakdown—and how such temporal structures afford care-based agency rather than conquest-driven mastery. Videogames have long been examined as sites of moral decision-making through systems of choice and consequence, such as morality meters and branching narratives (e.g., Pohl 2008; Sicart 2009; Zagal 2009). Yet these approaches often frame ethics as discrete decisions within established moral paradigms, privileging acts of judgment over ongoing relations. While such systems can support moral reflection, they are often criticised for alienating players, instrumentalising morality, and reducing ethical complexity to simplistic binaries of good and evil (Gibbons 2013; Formosa et al. 2022). These designs also echo familiar moral logics, especially utilitarian calculation and Kantian rule-following (Murphy & Zagal 2011).

Drawing on Sicart's (2009) conception of games as "ethical objects" and players as "ethical agents" within distributed networks of consequence, this study builds on the premise that ethical play emerges when games pose ill-defined problems and open-ended consequences (Sicart 2013). Ecologically themed survival games are especially suited to this analysis because they organise survival around irreversibility and ecological fragility, turning maintenance, repair, and compromise into ethical practices. Philosophically, the paper draws on Stiegler's (2020) distinction between negentropy—optimisation that resists decay through efficiency—and anti-entropy, the adaptive reorganisation of living systems through care.

To study eco-survival games as multi-layered sites where formal design, lived experience, and communal interpretation intersect to produce ethical meaning, this research uses a triangulated methodology combining videogame formalism, playthrough poetics, and community discourse analysis. Videogame formalism (Mitchell & van Vught 2023) is used to examine how entropy is embedded in mechanics, narrative structure, and aesthetic design as a structural principle that defamiliarises instrumental play and foregrounds ethical precarity. In contrast to interpretative phenomenological approaches that rely on post-play interviews and to kinaesthetic phenomenology, which emphasises bodily movement, this study draws on embodied phenomenology (Keogh 2018) and playthrough poetics (Droumeva

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2024) to analyse gameplay as lived performance and as digital autoethnography. Community discourse analysis situates these experiences within broader interpretive communities, using Let's Play videos, player forums, and community discussions to show how ethical reflection extends beyond individual play into shared meaning-making (Pearce 2009).

A feminist ethics of care provides the central lens for understanding why ethical play in these games is relational rather than merely procedural. Care is not treated here as a simple emotional response, but as a situated practice of maintenance, repair, dependency (Tronto 2009, p.103) and relational responsibility (Noddings 2013, p.74). This perspective is especially useful for survival games because their ethical demands are shaped by asymmetries of vulnerability, ongoing relations, and the need to sustain fragile worlds over time. Ecofeminist scholarship extends this orientation beyond human relations to include ecological and technoscientific entanglements, emphasising affective and material responsibilities toward more-than-human worlds (Puig de la Bellacasa 2017). In this study, care ethics grounds the key analytic concept of relational position: ethical agency emerges from the player's situated role in relation to others, whether as administrator, cohabitant, cultural outsider, or solitary survivor. These positions shape what kinds of care become possible, necessary, or compromised under conditions of scarcity and decay.

Four eco-survival games were selected for this study: *Frostpunk* (11 bit studios 2018), *This War of Mine* (11 bit studios 2014), *Green Hell* (Creepy Jar 2019), and *The Long Dark* (Hinterland Studio 2014). These games mobilise entropy as a core structuring principle while assigning players distinct relational positions that shape the ethical texture of survival. Rather than presenting morality through explicit choice systems, they embed ethical experience within the temporal, ecological, and social pressures that define survival. *Frostpunk* and *This War of Mine* were selected for the developers' explicit commitment to ethically meaningful design (Dutta 2022), *The Long Dark* for its distinctive ecological survival ethos (Gamereactor 2015), and *Green Hell* for the tension between narrative guilt and mechanically incentivised violence (C 2021). Collectively, they offer a comparative spectrum from administrative governance in *Frostpunk* to communal co-survival in *This War of Mine*, from cross-cultural encounter shaped by colonial entanglements in *Green Hell* to solitary endurance in an indifferent environment in *The Long Dark*.

Across these four titles, care emerges as the central ethical response to entropic worlds. In *Frostpunk*, thermal decay and resource exhaustion position players as administrative caretakers whose distributive decisions—exemplified by the Child Labour Law—require ongoing negotiation between communal safety and city survival, echoing earlier readings of the game's law system as a biopolitical apparatus (Sava 2022). In *This War of Mine*, care shifts to the interpersonal scale: psychological breakdown and bodily decay make tending to injured or depressed cohabitants the primary form of ethical action, transforming survival into relational maintenance. In *Green Hell*, care is complicated by colonial entanglement, where players cast as cultural outsiders must navigate tensions between survival instincts and moral responsibility toward Indigenous others; here, mitigative care arises as self-imposed resistance to the game's extractive incentives. In *The Long Dark*, care becomes solitary and embodied, as slow rhythms of rationing, resting, and anticipating weather cultivate a reflective ethics grounded in attentiveness and foresight. These distinctive modalities—distributive care, communal care, mitigative care, and embodied care—

show how entropic design generates diverse ethical responses by positioning players within different relations of dependency and responsibility.

This study makes three contributions. First, it theorises entropic temporality as a structural principle of ethical play, showing how time experienced as decay intensifies moral engagement by rendering agency both fragile and meaningful. Second, it introduces relational position as a key analytic variable, demonstrating how different player roles generate different forms of care under conditions of scarcity and breakdown. Third, it proposes a multi-method framework combining formalist, phenomenological, and discursive analysis to connect game structures with lived and communal experiences of play. By attending to how players, communities, and designers negotiate ethical meaning under conditions of systemic fragility, this research contributes to game studies and critical design practice, showing that survival games cultivate moral reasoning, relational responsibility, and reflexive agency through the ethics of care.

Keywords

Entropic temporality, Survival games, Ethical play, Moral dilemma, Player agency, Temporal ethics of care, Emergent care practices, Ecological game studies

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