

Trans-species Collaborations in Response to Social, Economic, and Environmental Violence in Rosa Montero's *Lágrimas en la lluvia* and *El peso del corazón*¹

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Abstract

This paper addresses Iberian ecocritical approaches and cultural responses to ecological degradation through an examination of Rosa Montero's futuristic novels *Lágrimas en la lluvia* (2011) and its sequel *El peso del corazón* (2015). In these works, contaminated natural resources, cloning, and teleportation for interplanetary travel contribute to new social hierarchies, existential crises, and heightened xenophobia in Europe, now part of the United States of the Earth. This study places particular emphasis on the novels' criticisms of a North-South divide, in which the use and distribution of natural resources reflects the inequitable burden of environmental contamination and economic exploitation on the world's southern zones. Montero's novels posit that interspecies alliances across different geographical regions respond to these inequities. In this analysis, Rob Nixon's ecocritical work on slow environmental violence, Spanish economist Amaia Pérez Orozco's writings on feminist economics and collaborative care, and the theory and activism of various ecofeminists underscore Montero's critique of a global economic system that exploits the environment and the marginalized. These theorists and activists argue that social justice, sustainability, and a non-materialist conception of well-being must replace the dominant androcentric approaches to economics and to social relations, which foster growing inequity and environmental contamination.

Keywords: ecocriticism, ecofeminism, feminist economics, slow violence, Rosa Montero, Spanish narrative.

Resumen

Este trabajo hace hincapié en acercamientos ecocríticos y respuestas culturales a la degradación ecológica a través de las novelas futuristas de Rosa Montero *Lágrimas en la lluvia* (2011) y la secuela *El peso del corazón* (2015). En estas obras, los recursos naturales contaminados, la clonación, y el teletransporte interplanetario contribuyen a nuevas jerarquías sociales, crisis existenciales y un aumento en la xenofobia en Europa, que ya es parte de los Estados Unidos de la Tierra. Este estudio pone énfasis en la crítica que llevan a cabo estas novelas de una división norte-sur en que el uso y la distribución de los recursos naturales reflejan la carga desigual de la contaminación medioambiental y la explotación económica de las zonas periféricas del mundo. Las novelas de Montero proponen que las alianzas entre especies a través de diversas regiones geográficas responden a dichas desigualdades. En este análisis, la obra ecocrítica de Rob Nixon sobre la violencia medioambiental, los estudios de la economista española Amaia Pérez Orozco sobre económica feminista y cuidado colaborativo, y la teoría y el activismo ecofeministas subrayan la crítica de Montero a un sistema económico global que explota el medio ambiente y a los marginados. Estos teóricos y activistas proponen que la justicia social, la sostenibilidad de la vida y una concepción no materialista del bienestar deben reemplazar los acercamientos androcéntricos dominantes en la economía y las relaciones sociales que animan una creciente desigualdad social y contaminación medioambiental.

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Palabras clave: ecocrítica, ecofeminismo, económica feminista, violencia lenta, Rosa Montero, narrativa española.

In concert with this issue dedicated to transatlantic ecocriticism, my study explores the literature of Spanish writer Rosa Montero along with several ecocritical scholars from Spain as well as some from North America to contribute to the growing interest in Iberian literary and cultural studies in the environmental humanities.² As Carmen Flys Junquera notes, ecocritical analyses not only study representations of the natural environment but also the complexity of human and non-human interactions, ethical obligations, and alternative, sustainable responses (309–10). While critics already have affirmed Rosa Montero's engagement with socioenvironmental issues, the close readings in this essay show that *Lágrimas en la lluvia* (2011) and *El peso del corazón* (2015) urge the present day reader to consider not only the compounding ecological degradation of today's dominant growth economics, but also an ecocritical ethical response that affirms the interconnectedness of all beings.³

Montero's narratives move us into the future, to the year 2109, when contamination, scarce natural resources, cloning, and interplanetary travel contribute to the creation of new social hierarchies, heightened xenophobia, a starker north-south contrast, and a deeper segregation of the poor. Montero situates Spain as part of the privileged northern hemisphere, but also emphasizes marginalized groups within this southern European space. Although these novels present a myriad of themes worth discussing, this study will focus on two aspects. It will examine criticisms of north-south and south-south divides in which the use and distribution of natural resources reflect the inequitable burden of environmental contamination and economic exploitation on the world's southern zones, as well as on minority groups, women, and children. The essay also will focus on transnational and interspecies responses to ecological, social, political,

² Luis I. Prádanos provides an overview of the development of ecocriticism and degrowth studies in Spain in "Decrecimiento" (77–79). See also Carmen Flys Junquera for a review of ecocriticism's development and the advent of ecocritical studies in non-Anglo literature. *La imaginación hipotecada: Aportaciones al debate sobre la precariedad del presente* (Álvarez-Blanco and Gómez López-Quiñones, eds.) connects environmental issues to societal insecurities and democratic participation in Spain (Lenore). In *Ethics of Life: Contemporary Iberian Debates*, scholars explore the relationship between environmentalism and animal rights, tourism, and the Franco dictatorship, among other issues (Beilin and Viestenz, eds.).

³ Rosa Montero (b. 1951, Madrid) has written for the newspaper *El País* since 1976 and has published extensively in the fictional and non-fictional realms. Her narratives address women's resistance to and reshaping of societal expectations, migration, globalization, climate change, and memory ("Rosa Montero"; "Rosa Montero, Página Oficial"). She is an animal rights' activist and has voiced opposition to bullfighting (see Beilin, "Introduction," Chapters 5–6).

and economic crises.⁴ The analysis of the spatial and social distribution of environmental degradation will draw on Rob Nixon's theory of slow environmental violence, Amaia Pérez Orozco's arguments on refocusing economic measures on the sustainability of life, and ecofeminism's emphasis on the interdependence of all species and the mutual oppressions of women and the environment. With the female protagonist, detective, and android Bruna Husky and a host of marginalized characters, Montero's *Lágrimas en la lluvia* and *El peso del corazón* suggest that a collaborative model of social, economic, and ecological justice must oppose a paradigm of well-being based on continual economic expansion that in the end will fail to support all life forms.⁵

Before discussing ecocriticism in Montero's works, it is helpful to have a broader view of the story that the author constructs in *Lágrimas en la lluvia* and its sequel *El peso del corazón*, which takes place six months later. In this imagined future, the nations and transnational alliances of today have merged to form the United States of the Earth (*Estados Unidos de la Tierra*, or E.U.T.), a political alliance constituted in the year 2098 in defensive response to the discovery of three extraterrestrial civilizations. In addition to these "new" species, humans have created replicas for particular functions, without consideration for their emotional and intellectual needs. Known as *replicantes*, *reps*, *androides* and *tecnohumanos*, humans believed to control this species until combat and mining replicas rebelled in 2060.⁶ Although the sixteen-month *guerra rep* ended in peace accords that granted replicas full civil rights, they continue to face discrimination and supremacist opposition. *Lágrimas* centers on a plot in which adulterated implanted memories cause the replicas to kill androids and humans alike to save children they actually do not have and then to commit suicide. An activist replica group hires Bruna Husky to investigate this conspiracy to augment humans' fear of their species. In *El peso del corazón*, Bruna agrees to work on a case to gain medical care for a ten year-old girl from the Earth's most contaminated area, the Zone Zero, who suffers from radiation-induced damage despite a fifty-year ban on nuclear energy.

⁴ Katarzyna Beilin, together with Sainath Suryanarayanan, also notes that speciesism is a central concern in *Lágrimas en la lluvia*, and locates this novel within a broader discussion of the support in Spain for genetically modified foods and a bioeconomy. Prádanos includes *Lágrimas en la lluvia* in his study of ecocriticism and the critique of global capitalism in three Spanish science fictional works from 2011. While my analysis intersects with Prádanos' on several points, my study asserts that Montero proposes a cooperative socioeconomic model as an antidote to the neoliberal economic expansion and ecological homogeneity that Prádanos also notes ("Decrecimiento"). Lastly, in the final editing, I learned that Flys Junquera and I simultaneously have been presenting on ecofeminism and these fictional works by Montero. She has two articles in process.

⁵ Environmentalism first appears in Montero's narrative work in her 2008 *Instrucciones para salvar el mundo*, where an older marginalized female scientist comments on societal indifference to climate change and the use of scientific developments to destroy life. In this novel, as in the two studied here, gendered marginalization, colonialism, racism, poverty, and environmental concerns intertwine. For an ecocritical perspective on this novel, the reader might consult Prádanos, "Towards a Euro-Mediterranean" and "La degradación."

⁶ Beilin, with Suryanarayanan, asserts that Montero expresses support of science's power to bioengineer responses to climate change, while also critiquing a lack of ethical consideration for the bioproducts of human's scientific endeavors (253).

Husky discovers the global centralization of radiation storage and the illegal trade of radiation between the E.U.T. and the floating territory Labari, which was founded during the Robotic Wars for humans and runs on nuclear energy. In both novels, Bruna Husky works to sustain lives, despite her claim of indifference to others.

In line with current feminist ecocritical thought, Montero's novels examine synergies between the exploitation of the environment and oppressions of women, the poor, and minority groups, and emphasize the interdependence of all life.⁷ Moreover, these narratives assert the worth of human and non-human entities in and of themselves, not as mere resources for growth, but highlighting the importance of bio and cultural diversity to the health of the planet, and local and transnational responses to environmental distress and concomitant economic exploitation. While earlier ecofeminist scholars in North America proposed an essentialist association of women with nature, ecofeminists since the 1990s largely have rejected the notion that women have a biologically closer relationship to nature or a greater responsibility to address environmental damage than men.⁸ The relational ethics of care that ecofeminists such as Karen Warren and Val Plumwood suggest contests androcentric environmentalism and a hierarchical moral organization of human over non-human life. Plumwood urges "dialogical and communicative relationships of sensitivity, negotiation and mutual adaptation" (169-70). In Warren's words, "ecofeminism makes a central place for the values of care, love, friendship, trust, and appropriate reciprocity" (33). This affective perspective brings into focus that ecological damage negatively impacts all life forms, yet the consequences are not evenly distributed (Puleo 53-64, 74-81). An ethics of care must be more than appreciation; the relationship must have "practical implications for the welfare of the one who is cared for" (King 92). These characteristics are present in the interspecies relations in Montero's novels, which emphasize mutual care and adaptations across species, gender, age, and geographical zones in response to environmental degradation.

For Spanish feminist economist Amaia Pérez Orozco and others, reciprocity forms the basis of an alternative paradigm to the dominant androcentric, market-based economy, in which human beings depend on the market to fulfill needs and material wants, with nature at the service of ever-increasing production and consumption. Instead "social provision" shifts the emphasis to the issue of how to equitably distribute resources to provide for needs, and thus sustain life, in a realm

⁷ Ecofeminists also recognize that classism, racism, and colonialism and neocolonialism shape these exploitations (Gaard and Murphy 2-5).

⁸ French feminist Françoise D'Eaubonne, who introduced the concept of ecofeminism in 1974, contended that patriarchy encouraged consumerism and the production of unnecessary goods, while women's control over reproduction would lessen the impact on the environment (Puleo 32-33, 36-37). For an overview of the trajectory of ecofeminism, see Alicia Puleo's chapter "Los ecofeminismos en su diversidad" (29-85). Greta Gaard, however, cautions against histories that adhere to the feminist waves, which Puleo does in part, arguing that this metaphor omits the work of ecofeminists of color and of the developing world (646).

of co-dependence among humans and in relation to the natural world.⁹ This economic alternative focused on care provision values unremunerated contributions, often ignored by a traditional market economy, and thus, Pérez Orozco asserts, better accounts for gender and ethnic inequalities (“Estrategias feministas” 104–6). Montero’s novels portray economic inequity as an enduring characteristic of life on Earth, made more acute by the visible and less visible ecological costs of the current global market-based economy.

Projecting the Future of Slow Environmental Violence and the Corporatization of Resources

In *Slow Violence and the Environmentalism of the Poor*, Rob Nixon argues that while we more readily address sensational forms of environmental destruction, we must pay attention to “slow violence,” which often has an immediate impact on the world’s poorest inhabitants (2). In essence, Nixon suggests a re-evaluation of the very notion of violence in order to raise attention to the environmental degradation that unfolds slowly and thus may go unnoticed. His study looks at writer-activists, many from the global South, who use representational strategies to “offer us a different kind of witnessing: of sights unseen,” facilitate an “apprehension” of environmental threats and damage, and humanize and highlight who is impacted and how (15). Montero’s writing has a similar agenda.

Montero’s novels exemplify a cultural response to the negative ecological impact not only on the Iberian Peninsula, but also on the southern hemisphere of the economic, environmental, and political policies of Spain, of Northern Europe, and of global alliances. Set in the not so distant future of the early twenty-second century, with references that clearly situate the stories in Madrid, Montero’s Bruna Husky-narratives imaginatively illustrate effects on the future environment of contemporary consumptive behaviors and thus urge her readers to consider their own role in this damage and in the uneven access to sustainable habitats. *Lágrimas en la lluvia* and *El peso del corazón* posit that by 2109, environmental depredation has further limited natural resources and reduced the inhabitability of the Earth, with severe consequences for the poor and marginal species. Interlaced texts from the Central Archive of the United States of the Earth (the future web, now controlled by the global government) inform us that events of the past, our present, have caused the environmental deterioration. Spanish economist Joan Martínez-Alier argues that economic models focused exclusively on GDP fail to account for how the loss of direct access to natural resources due to corporate cooption and high levels of consumption in the north economically impact the rural poor (62–63). In this vein, Montero’s novels allude to the continuation and even increase in the suspect alliances between conservationists and capitalists in

⁹ “[E]l ‘aprovisionamiento social’” (“Estrategias feministas” 106).

an advancing commoditization of water, air, plants and animals, partnerships that often exclude local people (Anguelovski and Martínez-Alier 168–69). In Montero's narrated future, the means of access to clean water has changed to a card inserted into a reader, but as today one still pays for this necessity. Nonetheless, water's exacerbated scarcity, exemplified in vapor showers to reduce usage, has increased the cost and decreased access. Moreover, air pollution has created a permanent haze around the sun and, like today, impacts all areas of the Earth; yet, the future global government has created distinct geographical areas, the Green zones and the Zone Zero, distinguished by their respective level of contamination and separating those who can pay for clean(er) air from those who cannot. While professionals who provide services in these hyper-contaminated zones receive double their salary and may stay for no more than a year to minimize negative repercussions for their health, the Earth's marginalized citizens are forced to migrate to "one of those supercontaminated, marginal sectors" in "the desperate and poisonous atmosphere of those wretched holes" (*Tears* 57).¹⁰ The southern region excludes the poor from life-sustaining natural resources in the north.

This hemispheric division is described in *Lágrimas*; yet, it is in *El peso* that Montero makes the north-south ecological and economic inequities most vivid, and suggests transcontinental commonalities and cooperation. If we view Spain as part of the south, then the novel also imagines a differentiation in environmental damage and economic wealth between southern Europe and the southern hemisphere, with Spain being part of the advantaged zone. The opening scene of the sequel takes place in the Zone Zero bordering on the Green zones. At the border control, where Bruna waits in line to leave after investigating a case, a formidable wall, "impenetrable, indestructible, and as hard as a diamond" separates the south from the north and blocks a narrow mountain pass with insurmountable rock formations on each side (*Weight* 2).¹¹ The news regularly reports that people rush the wall and, while Bruna is there, she witnesses its electric field repel hundreds of men, women, and children as a few make it to the less polluted side. Bruna's comparison to medieval sieges certainly suggests a lack of progress in creating equity in society. Set in the future, this scene reminds the contemporary reader of today's borders that negate rather than create social, environmental, and economic justices. In *Slow Violence*, Nixon notes the global increase in gated communities that separate the ultra poor from the ultra wealthy and that "create the delusion that we can survive long term in a world whose resources are increasingly unshared" (20). Bruna Husky hears automated warnings, in "artificial voices, artificial courtesy and above all the stupid little tone of enthusiasm," that only authorized people may pass to the green side, and she critically observes the deep inequities that undergird this assignation of place in

¹⁰ "[U]no de estos sectores hipercontaminados y marginales" in "la desesperada y venenosa atmósfera del maldito agujero" (*Lágrimas* 71).

¹¹ "[I]rrrompible y tan duro como un diamante" (*El peso* 12).

“columns of toxic smoke...merging with the gray, contaminated sky that threatened to collapse on top of her head” (*Weight 2*).¹² The wall, built with transparent material to make it less noticeable, but now yellowed and stained as if by urine, stands in symbolic testament to the moral tarnish that this north-south division implies and makes visible a social and spatial exclusion that many wish to ignore.

While in the Zone Zero, Bruna acutely notes the corruption that forms part of a market-driven society in which even the most basic necessity—clean air—is a product for purchase. The detective surmises that a man also waiting to leave the contaminated area must be wealthy, powerful, and involved in some kind of corrupt business transaction for he is wearing the latest model of air purification masks, “elegant, and almost invisible—ultralight and ultraexpensive technology,” and otherwise would not visit this zone (*Weight 3*).¹³ Further, while the Supreme Court had prohibited that private companies own and charge for air at the end of *Lágrimas*, giving the reader hope of improved equity in the distribution of natural resources, in *El peso* six months later, the Green zones have imposed a residency tax that effectively excludes the poorest from inhabiting the cleaner north. In Madrid’s former (today’s) city center, temporary housing built after the Robotic Wars now houses the city’s poorest, who live one step from expulsion to the Zone Zero in the hemispheric south. Montero’s narrated future makes this slow ecological damage more perceptible and goes further, positing that increased corporatization of these basic natural resources will lead to greater social segmentation.

The narration makes clear that global corporate interests, with their exploitative practices, have augmented the gravity of environmental deterioration.¹⁴ Both novels reference Texaco-Repsol, an implied merger of the current U.S.-based Texaco Chevron and Madrid-based Repsol. The global company has created a *parque-pulmón* within Madrid’s Retiro Park in which artificial trees clean the air more efficiently than natural ones. In the only urban area in which ironically large publicity billboards are not allowed, signs request silence in order to maintain “an ecological, pure space” in “a type of secular sanctuary: sacred, biologically sustainable zones” (*Weight 23*).¹⁵ Husky voices the hypocrisy of a global entity that augments air pollution and climate change, yet creates fabricated trees that clean the air: “By the great Morlay, the nerve of Texaco-Repsol: having overexploited the planet, the company now pretended to be the high priest of

¹² “[L]as voces sintéticas, la cortesía sintética y, sobre todo, su estúpido tonillo de entusiasmo”; “Columnas de humo tóxico...se fundían con un cielo congestionado color plomo que amenazaba con derrumbarse sobre su cabeza” (*El peso* 12).

¹³ “[E]legante y casi invisible [...] ultraligera y carísima” (*El peso* 13).

¹⁴ Prádanos cites some similar examples in *Lágrimas* of the relationship between the scarcity of resources, their commodification by global firms, and the exploitation of the poor (“Decrecimiento” 82).

¹⁵ “un espacio ecológico y puro”; “zonas sagradas de la sostenibilidad biológica” (*El peso* 36–37).

ecology" (*Weight* 23).¹⁶ Furthermore, this corporation's profit-only motives literally mark the bodies of the poor. Companies such as Texaco-Repsol advertise their products via "billboard people," humans who wear uniforms in the corporations' colors and screens that continually announce products and cannot be silenced (*Tears* 27).¹⁷ These individuals work for miserly pay fifteen hours a day and, because most establishments will not allow them to enter, circulate in the streets "like lost souls" (*Tears* 27), socially and economically ostracized.¹⁸ Nonetheless, this work at Texaco-Repsol is coveted because people receive breathable air as part of their compensation and thus can stay in the planet's less contaminated northern zone. As Bruna Husky observes upon seeing a human ad, technohumans are discriminated against but the greater discrimination is "that of the powerful against the wretched" (*Tears* 48).¹⁹ Nixon observes three characteristics of neoliberalism: the greater divide between rich and poor; the greater burden on the poor of ecological damage; and, the greater potential for companies to avoid responsibility for ecological damage in a transnational context (46). As illustrated, Montero's *Lágrimas en la lluvia* and *El peso del corazón* expose the negative impact of neoliberalism on the environment and on access to resources in a manner disproportionately detrimental to the geographic south and to the poor in all areas of the world including Spain.

Slow Violence on Women and Children North and South

Indian activist and scholar Vandana Shiva turned attention within ecofeminism to the negative impact of neoliberal globalization on rural populations in former colonized nations of the global South and on women and children.²⁰ Shiva is speaking of India and Asia, so the connection to literature from Spain is more tenuous; yet, her focus on the exploitative relationship between northern and southern regions and its impact on women and children illuminate Montero's representation of this dynamic. Shiva characterizes the accumulation of capital and a commerce-driven economy as another form of colonization, a "maldevelopment" (5) that "sets in motion a process of exploitation, inequality, injustice, and violence" (6) serving industrialized areas and the broader capitalist system (1-9). According to Shiva, women in rural cultures are especially effected because they are not only the poorest, but also the main providers (42).

¹⁶ "Por el gran Morlay, qué desfachatez tenían los de la Texaco-Repsol: después de haber esquilado el planeta, ahora aparentaban ser los sumos sacerdotes de la ecología" (*El peso* 37).

¹⁷ "[S]eres anuncio" (*Lágrimas* 40).

¹⁸ "[C]omo almas en pena" (*Lágrimas* 40).

¹⁹ "[L]a de los poderosos contra los pringados" (61).

²⁰ Shiva's ecological perspective derives from Indian cosmology, in which the feminine is the originator of life, but the feminine and the masculine, as well as the human and non-human, together create the dynamic energy and inseparable unity that is nature (78-82). Puleo observes that Shiva brought a much-needed postcolonial perspective to ecofeminism, yet idealizes the situation of pre-colonialized women (70).

The contamination of the character Gabi in *El peso del corazón* best exemplifies Shiva's connection between environmental injustice, spatial placement, poverty, and gender, while also addressing sexual violence. When Bruna witnesses a guard at the border attempting to throw a young girl back into the Zone Zero, she takes legal responsibility for her. Bruna learns that Gabi Orlov is an orphan and was born in 2099, which makes her ten years old. She straddles the north and south, for although she lives in the southern hemisphere, she is from Dzerzhinsk, Russia. Though the narration provides no description or commentary on this city, Montero's election of Dzerzhinsk for Gabi's birthplace serves as a reminder of the toxic accumulation of chemical pollutants over time and the prioritization of industry over human and ecological welfare. This city of almost 245,000 people was a center for chemical production and manufactured chemical weapons during the Soviet period. Approximately 300,000 tons of waste from 190 different chemicals were dumped in Dzerzhinsk and the neighboring region between 1930 and 1998, with lasting effects. Dioxins and phenol are present in the water supply at thousands of times above recommended levels and increased levels of cancers and other diseases have contributed to a reported life expectancy of 42 years for men and 47 for women. In 2007, almost one-quarter of the population worked at chemical plants. The Guinness Book of World Records named Dzerzhinsk the most polluted city in the world in this same year and the city still figured on the Blacksmith Institute and Green Cross's list of top ten polluted places in 2013 ("The World's Worst 2013" 15, 33).

Through the character Gabi, "corporeal memory" contests the transnational government's desired amnesia of local and global chemical and nuclear contamination.²¹ An infected bite that Gabi perpetrates on Bruna's arm to protest her tutelage leads them to the hospital, where the doctors check Gabi for diseases common in the polluted Zone Zero. The hospital instead discovers that the young girl has been exposed continuously to high levels of radiation, which will lead to leukemia and her death in five to ten years. The bacterial infection that Gabi passes on to Bruna pales in comparison to the toxic burden that government-supported nuclear industrial programs have imposed on Gabi. In narrating her contamination, Montero critiques the effectiveness of nuclear accords and highlights the long-term threat to life that nuclear energy, weaponry, and technology pose. More than fifty years ago, in the narrated future of this novel, the planet's nations, still not unified at that point, agreed to end the production and use of nuclear energy after disasters occurred in France and in Russia, and solar and tidal power had developed sufficiently to replace nuclear energy. Nuclear weaponry also was abandoned, though more powerful weapons were built. As required by the Minister of Industry, Sustainable Development, and Energy, the hospital reports Gabi's radioactivity; however, the erasure of the report suggests

²¹ Nixon discusses "corporeal memory" of toxic contamination in his analysis of Indra Sinha's *Animal People*. See chapter 1.

that a powerful entity wants to repress this evidence of sustained environmental damage and afflicted communities. In effect, Bruna learns that national governments had agreed to bury the world's nuclear waste in cylinders in a remote, uninhabitable area of western Finland, named Onkalo, and then erase all signs of the secret site in anticipation of human greed and curiosity. The growing strength of ultranationalist terrorist groups and the past robbery of atomic material during the Robotic Wars, however, hastened the transfer of nuclear waste to this location and the engineers postponed sealing off the entrance in order to test radiation levels. Onkalo is not traceable via GPS and the few references on the Central Archive cite Finnish tales of a fictional hell-like place. In a story of political corruption, the Minister of Industry, Sustainable Development, and Energy has been selling radioactivity to the independent floating territory Labari, while two intermediaries decide to negotiate on their own, and the Labari government attempts to take control of the nuclear depository. Moreover, the Minister has been selling radioactive waste to ultranationalist and religious groups in the northern and southern extremities of the planet, and the careless transfer of this waste has exposed the recipient areas to high levels of radiation, including Gabi's natal city Dzerzhinsk. A former engineer on the project notes the invisible, yet formidable ecological threat: "You can't see radiation or feel it or smell it. But it's capable of ending life on the planet" (276).²² If nuclear contamination threatens all life, in Montero's novel the young and poor of north and south disproportionately face the toxic burden and violence that transnational government officials and profit-motivated men produce.

Montero's narration gives form to this invisible waste and to the actual construction of an underground facility named Onkalo on the desolate Olkiluoto Island, Finland, which, like Montero's narration, engineers plan to seal, leave unmarked, and let nature cover over time (Heffernan). Such a plan places the natural process of plant-life growth in collusion with human activity that ends life and drastically alters the natural world. In concordance with Nixon's imperative to expose slow ecological violence, Gabi's toxic body testifies to the longitudinal accumulation of radioactive waste, the undisclosed disposal plan, and the improbability of safe disposal today and in the future. Her young body also alerts the reader to the confluence of environmental toxicity and gender injustice, for her vagina is scarred from a rape that occurred either in her polluted birthplace or in the Zone Zero of the ultra-polluted south.

Cooperative Sustainability and Socioenvironmental Justice

Alliances that develop in *Lágrimas en la lluvia* and *El peso del corazón* among beings of different species and geographical zones suggest that a care-

²² "Su radioactividad no se ve, no se siente, no se huele. Pero es capaz de acabar con la vida del planeta" (*El peso* 330).

centered relational paradigm provides the foundation for ecological, economic, political, and social sustainability. Plumwood's insistence on the development of communicative, reciprocal relationships of care among diverse species to counter anthropocentrism and the othering of the non-human is particularly illuminative for my reading of cooperative sustainability in Montero's texts (169–70). Plumwood recognizes the potential for communication, and thus agency, among all species, and in this way seeks to revise the hierarchal moral scale by which ethicists have devalued non-human life (189–95).

Lágrimas en la lluvia and *El peso del corazón* posit that fewer natural resources, newly discovered ecological diversity, and the widening gap between rich and poor fuel the attraction of leaders who promise salvation through social and ecological homogeneity. Suggesting the pernicious potential of biotech, the Cult of Labari constructs a floating territory of semi-artificial bacteria to house a so-called perfect society in which only humans may live. This stratified racist, homophobic, and misogynist society exists within a simulacrum of nature, in an environment of fake sunrises and sunsets, suggesting that the hierarchies in this land are not natural but rather human invention. A loyalist to Labari argues that a society that openly acknowledges discriminations is preferable to a democratic one that denies the existence of these injustices. However, Bruna counters that although these issues exist in the E.U.T., at least its citizens may critique injustices and fight for a more equitable world.

The narration of an occulted war in the extreme north between fundamentalist and nationalist groups who oppose the transnational government dramatizes the suffering of the marginalized while also highlighting social alliances in response to desperate circumstances. Combat androids fulfill their role without conviction and orphaned children, mutilated humans, and hungry dogs must fend for themselves in a bombarded city devoid of resources: “a desolate place that looked more like an unplace” (267).²³ The barren land echoes Nixon's observation that the depletion of natural resources creates stationary displacement, less visible than migration, which “leaves communities stranded in a place stripped of the very characteristics that made it inhabitable” (19). Amidst local and transnational political, social, and ecological distress, the narrative suggests that people provide for each other in ways that circumvent the official market. A female engineer who had worked at the nuclear storage facility in Onkalo has turned her apartment into a foster home for children, sustaining their lives outside of the formal market. A male merchant in the black market gives children more than the worth of the items they bring him, he says out of pity, yet regardless the valuation takes into account human necessities. These interactions align with Pérez Orozco's rejection of profit-only measures of economic well-being in favor of considering which needs are met and how (“Estrategias feministas” 110). Pérez Orozco also speaks of intermediate spaces that the market does not cover. Montero's ecofeminist narratives differ

²³ “[U]n lugar desolador que más bien parecía un no lugar” (319).

from Shiva's emphasis on female caregivers and instead posit that the responsibility to care for the Earth and its creatures is shared across genders and species.²⁴ This activism, which responds to the depletion of resources and its unequal impact on groups with low social power, might be characterized as environmental justice; yet, because these actions are individually realized, Montero's narrations fall short of representing broader environmental or social justice movements, such as those that arose from the 15M protests of 2011 in Spain.

In "New Directions for Ecocriticism," Gaard advocates that feminist ecocriticism "articulate an interspecies focus" by examining how texts depict non-human species and their interactions with humans, whether human superiority is assumed, if non-human beings are passive agents in need of saving or agents in their own right, and if "communalism" or "dominance" are the foundation for "social and ecological relations" (651). The genetically engineered Bruna Husky straddles the human and non-human. In *El peso del corazón*, the protagonist—and we the readers—learn that androids are made in series of twelve to lessen the cost of production. This practice, kept secret from the public, prioritizes monetary calculations over the ethical implications of reducing a life to a mere product. In the vein of feminist economists and of environmental justice, Montero's novel critiques an economic model that does not consider the cost to human (or semi-human) dignity and quality of life. Bruna's desire that her body matter as much as a human one and that others consider her life valuable, represents a larger call to validate the unique contribution of each species to the ecology of existence.

The protagonist's complexity encourages the reader to engage with the technohuman's preoccupations and experiences rather than to see her as a distant other without relation to contemporary human lives. Born with the physical and psychological age of twenty-five and with a life expectancy of only ten, Bruna is acutely aware of her mortality; she repeatedly counts the years, days, and months left to live before she will die of a cancer that ends the life of all technohumans. She eschews emotional attachment because of this short life span, yet develops caring relationships with humans and non-humans alike that supersede human centrality and counter the violence of war and the unsustainable practice of interplanetary mining for which humans designed and fabricated her species.

Montero navigates carefully the proposed care-based vision of community so as not to fall into an essentialist paradigm with this female protagonist and caregiver. The physically strong former soldier reacts quickly when threatened and will kill to protect her and others' lives. In this sense, Montero complicates the association of women with non-violence present in some ecofeminist theory. Moreover, numerous references to Husky's disinterest in domesticity contest the essentialist association of women with domestic work. For Husky, cleaning her

²⁴ Fátima Serra-Renobales argues that men figure as positive characters in solidarity with women in Montero's *Instrucciones para salvar el mundo* and *Lágrimas en la lluvia* (77-78).

apartment is not as an end in itself but rather a means to prepare her mind for work outside the home (67). Her animalistic sexual desire also counters a traditional feminine image. Beilin, with Suryanarayanan, likens Husky to Donna Haraway's cyborg, whose freedom from the biological and cultural task of mothering and from cultural norms enables her to value all life equally and save life on Earth (250-52). Hard to categorize, Bruna Husky is not domestic yet she repeatedly cares for others.

Bruna Husky disdains close relationships with others and the nurturing traits traditionally assigned to women, yet her thoughts and actions reveal sensitivity to social and ecological justice. In fact, the novels' protagonist embodies many of the aspects that, according to Plumwood, create an ecologically sensitive interspecies ethics, including continuity among, the complexity of, and willingness to communicate with other species. Plumwood also notes the acknowledgement of animality within the self, non-hierarchical difference, and mutual negotiation (194). Continual adjustment to others, and of others to her, characterizes Husky's relationships. Husky recognizes similarities among herself, humans, and non-humans, and she also affirms differences and thus the sovereignty of each being. Her own liminal identity, as human and not human, and her status as protagonist decenter the human in these stories. Moreover, the narration upends the heterosexual norm, stating that, like most humans and technohumans, Husky is not exclusively hetero- or homosexual (*Lágrimas* 122).

Bruna's actions and perspective manifest Pérez Orozco's suggestion to make visible the conflicts between capitalism and sustaining lives and to change the paradigm so that care work receives economic and social recognition as producing value ("Diagnóstico" 140-44). Bruna takes Gabi to the Green zones, as already discussed, and agrees to investigate a case for the aforementioned Minister only because he will give Gabi medical insurance that covers radiation exposure treatment. In addition, Bruna's relationship with Gabi improves the girl's psychological health despite Bruna's admonition to not expect much from her. Very similar to Bruna, Gabi shies away from affective interactions; yet, with gestures that reflect her practice of tying her cherished possessions and in order to show a positive valuation of her care, she makes Bruna a ring of knotted string and knots Bruna's t-shirt.

Bruna, who negates social responsibility for others, finds a permanent home for this ten-year-old with her friend Yiannis, a human who had lost an infant son decades ago and, at the end of the narration, adopts Gabi. Yiannis also takes care of Bruna, frequently checking in on this detective whose work endangers her life. The importance of this reciprocal care for Bruna and Yiannis is evident at the end of *Lágrimas*. Bruna asks Yiannis to partner with her in solving cases and thus gives an economic and social place to this older man who had worked for the Central Archive and whom the government had fired for investigating the plot against technohumans. Upon helping her friend, Bruna focuses on the several years of life

that remain for her rather than her usual existential angst and claims of solitude. Moreover, Yiannis represents a rejection of the neoliberal status quo and a closer affinity with nature, because unlike most humans in this imagined future, Yiannis ages naturally rather than to resort to plastic surgery.²⁵ Furthermore, Yiannis uses prize funds that Husky received for informing the public of the nuclear waste site to found One More Step, a political movement dedicated to social and environmental justice. In short, Husky's indignation of the environmental and gendered violence inflicted on Gabi results in north to south relationships (or south to south if we prioritize Spain's southern position in Europe) that improve Gabi's, Yiannis's, and Bruna's lives, as well as the lives of those who will benefit from Yiannis's socio-political activism.

Husky, Yiannis, and Gabi's relationships with each other model the "social provision" Pérez Orozco speaks of and which, as noted earlier, is also exemplified in the care that the female engineer and black market merchant provide in the war-torn northern region. Pérez Orozco emphasizes that, historically, women have participated in the economy but the negation of their presence has supported the false premise of an androcentric masculine-driven economic system. Significantly, Montero's novels take a step further Pérez Orozco's "women's present absence" and her notion that interdependent care provision constitutes citizenship by making visible not only women's presence in the economy, but also by extending this care giving presence to men, semi-humans, and other species.²⁶

While the aforementioned examples suggest positive valuations of a reciprocal care crucial to a sustainable society and ecology, in the character of the police inspector Paul Lizard and in Husky's relationship with him, Montero warns that an ethics of care might reinforce traditional male-female roles despite de-emphasizing a growth-focused market society. As the two compete to solve cases, Lizard and Husky distrust, yet also desire each other physically and emotionally. Descriptions of Lizard's large physical size and Bruna's sexual attraction to him intimate her vulnerability to his masculinity. In both novels, Paul is concerned for Bruna's safety and saves her life; yet, Bruna's reticence to accept his assistance and to expose herself emotionally clearly indicate her wariness of dependence on this strong male figure for her care.²⁷

Lágrimas en la lluvia and *El peso del corazón* present a paradigm of interdependent care that extends to the non-human realm to suggest that the rights and contributions of all beings must be considered as we address social and environmental injustices. Bruna shows a particular sensitivity to a genetic replica of the last polar bear, which lives in a World Exposition pavilion in Madrid. She

²⁵ Plastic surgery in the narrated future creates a physiologically homogeneous society (Prádanos, "Decrecimiento" 84).

²⁶ "[P]resencia ausencia femenina" ("Estrategias feministas" 110-111). See "Amenaza tormenta," 29-31, for a discussion of citizenship centered on sustaining lives.

²⁷ Serra-Renobales instead asserts that Lizard's protection of Husky exemplifies solidarity and collaboration. Moreover, she observes that their names, both of animals, suggest a common ground that conjoins Husky's force and Lizard's life-giving character (80).

sees Melba when others cannot find her in her artificial Arctic environment and she feels her own mortality in this fabricated animal that will suffer the same cancer-driven end as her, yet with an even shorter life span. The promise of “[a]n infinite chain of Melbas down through the ages” (*Tears* 162), all replicas, amplifies Bruna’s angst that her life is not as valued as the life of a human, and that she, like the bear, is not unique, but rather replaceable.²⁸ From an ecofeminist perspective, the narration suggests a shared oppression between two beings that once had been separate—human and animal, but are connected, both androids. In this sense, *Lágrimas en la lluvia* proposes that one avenue to addressing the current ecological crisis is acknowledgement of the interconnectedness and interdependence of diverse species.

Collaborations among species from different planets geographically extend the care alliances in these novels and highlight the negotiation of relationships with non-hegemonic modes of communication. Husky forms care giving reciprocal relationships with extraterrestrial beings that challenge her sense of superiority over non-human species and lead to mutual emotional and physical sustenance. The extraterrestrial Omaás and Balabís are marginalized, minority residents on Earth, whom humans place in the same taxonomy as themselves, but for whom they invent a new category, “Other Beings” (*Tears* 44). Informally, these beings are called “*bichos*, or creeps,” demarcating a lesser status than humans and technohumans (*Tears* 44).²⁹ Bruna awakens one morning with a drug- and alcohol-induced hangover, horrified to discover an Omaá in her bed. She initially ignores Maio, who then, seemingly homeless, sits at the door to her building. After some time, Bruna invites Maio to stay with her and together they develop a communicative and mutually beneficial relationship. She learns that because of their intimacy, the Omaá can read her thoughts and she comes to understand that it expresses emotions with changes in body color. Returning to Gaard’s exhortation to critically examine depicted hierarchies in interspecies relations, the non-human Omaá exhibits agency in this relationship of reciprocal care. Bruna does not exclusively help this creature; later in the narration, Maio saves Bruna’s life. Similarly, in both novels, an extraterrestrial pet that Bruna adopts when his owner, an android, is killed also saves Bruna from an attacker. As with Gabi and Maio, Bruna claims that she would be better off without responsibility for the *bubi Bartolo*, from the Omaá civilization, yet she grows fond of it and gives it a home. Moreover, Bruna defends its character when others speak ill of the species. We see Bartolo’s reciprocal affection for Bruna when he excitedly greets her whenever she comes home. Montero’s narratives highlight that the critical sustenance that Bruna and Bartolo, and Bruna and Maio, provide each other forms part of a connected ecological spectrum. Her interactions with these extraterrestrial beings and with humans are negotiations towards mutual understanding.

²⁸ “[U]na infinita cadena de Melbas en el tiempo” (*Lágrimas* 189).

²⁹ “[L]os Otros”; “*bichos*” (*Lágrimas* 56).

Montero's narratives suggest that to care for another begets more care in a cooperative spiral that positively values the life of all species. Husky finds a permanent home for the Omaá that results in a partnership with a human whose mutilated body evidences the injustices of a society that places profit and unsustainable resource exploitation above the welfare of beings. To make loan payments for a 17th-century Steiner violin, Mirari teleported to another planet to work in the government's mining expeditions, a form of travel that often deforms the body and in her case dissolved the bones in an arm. Mirari's story might be read as a cautionary tale about a consumer society in which desires destroy well-being. Now a violinist with a subpar prosthetic arm, her tale also highlights the stratification of healthcare and the low status of the arts in the neoliberal global economy. Environmental and social violence weighs most heavily on individuals and species without economic power. Yet, by coming together, these beings achieve better circumstances for each other. Mirari gives Maio a home and a place in her orchestra as a flautist, and the two become intimate friends, while Maio's well-being also improves Bruna's spirit and outlook. Moreover, a communalist ethic delivers medical care that the neoliberal system fails to provide. Bruna loses an arm in a fight at the entrance to Onkalo—another bodily mutilation due to the production of energy—but because of her medical insurance, is given a top-end prosthetic. On the last page of *El peso*, Bruna offers to give Mirari her prosthetic arm when she dies of the expected cancer and feels a sense of purpose that supersedes the anguish of her mortality and produces the lightness of a happy heart. The narrated inter- and intraspecies alliances of multiple geographic zones in Montero's novels posit a citizenship of agency and interdependence that centralizes the sustainability of life. The alliances in these works, however, suggest that marginalized beings are more open to overcoming prejudices and caring for one another than those in positions of power.

In the process of gaining her trust, Husky creates a story for Gabi of a giant and a dwarf who are friends and who live in a world in which the past and gender differentiation do not exist, until the dwarf's jealousy shatters this utopian construct. Yet, even after the idealistic conditions disappear, the giant and the dwarf continue as friends and help each other survive. *Lágrimas en la lluvia* and *El peso del corazón* suggest that reciprocity and communalism among and across species might create a more sustainable future, but to continue to experience the intense beauty that Bruna sees in the northern dawn as she lays injured in the nuclear dump of Onkalo depends on a radical shift in how humans and other beings treat each other and the natural world.

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Works Cited

- Anguelovski, Isabelle, and Joan Martínez-Alier. "The 'Environmentalism of the Poor' Revisited: Territory and Place in Disconnected Glocal Struggles." *Ecological Economics*, vol. 102, 2014, pp. 167–76.
- Álvarez-Blanco, Palmar, and Antonio Gómez López-Quiñones, editors. *La imaginación hipotecada: Aportaciones al debate sobre la precariedad del presente*. Libros en Acción, 2016.
- Beilin, Katarzyna Olga. *In Search of an Alternative Biopolitics: Anti-Bullfighting, Animality, and the Environment in Contemporary Spain*. Ohio State UP, 2015.
- Beilin, Katarzyna Olga, with Sainath Suryanarayanan. "Debates on GMOs in Spain and Rosa Montero's *Lágrimas en la lluvia*." *In Search of an Alternative Biopolitics: Anti-Bullfighting, Animality, and the Environment in Contemporary Spain*. Ohio State UP, 2015, pp. 235-61.
- Beilin, Katarzyna Olga, and William Viestenz, editors. *Ethics of Life: Contemporary Iberian Debates*. Vanderbilt UP, 2016.
- Flys Junquera, Carmen. "Ecocrítica y ecofeminismo: Diálogo entre la filosofía y la crítica literaria." *Ecología y género en diálogo interdisciplinar*. Edited by Alicia H. Puleo, Plaza y Valdés, 2015, pp. 307–20.
- Gaard, Greta. "New Directions for Ecofeminism: Toward a More Feminist Ecocriticism." *Interdisciplinary Studies in Literature and Environment*, vol. 17, no. 4, Autumn 2010, pp. 643–665. Accessed 2 March 2015.
- Gaard, Greta, and Patrick D. Murphy, editors. *Ecofeminist Literary Criticism: Theory, Interpretation, Pedagogy*. U of Illinois P, 1998.
- Heffernan, Tim. "Finland's Crazy Plan to Make Nuclear Waste Disappear." *Popular Mechanics*, 10 May 2012. www.popularmechanics.com/science/environment/a11876/finlands-crazy-plan-to-make-nuclear-waste-disappear-8732655/. Accessed 1 August 2016.
- King, Roger J. H. "Caring about Nature: Feminist Ethics and the Environment." *Ecological Feminist Philosophies*. Edited by Karen J. Warren, Indiana UP, 1996, pp. 82-96.
- Lenore, Víctor. "'La imaginación hipotecada'." *El Confidencial*, 5 May 2016. www.elconfidencial.com/cultura/2016-05-10/imaginacion-hipotecada-camps-alba-rico-gomez-de-liano_1196979/. Accessed 1 August 2016.
- Martínez-Alier, Joan. "Environmental Justice and Economic Degrowth: An Alliance between Two Movements." *Capitalism, Nature, Socialism*, vol. 23, no. 1, Mar. 2012, pp. 51–73. [dx.doi.org/10.1080/10455752.2011.648839](https://doi.org/10.1080/10455752.2011.648839). Accessed 4 June 2015.
- Montero, Rosa. *Instrucciones para salvar el mundo*. 2nd ed. Santillana Ediciones Generales, 2011.
- . *Lágrimas en la lluvia*. Seix Barral, 2012.
- . *El peso del corazón*. Planeta, 2015.
- . *Tears in Rain*. Translated by Lilit Žekulin Thwaites, Amazon Crossing, 2012.

- . *Weight of the Heart*. Translated by Lilit Žekulin Thwaites, Amazon Crossing, 2016.
- Nixon, Rob. *Slow Violence and the Environmentalism of the Poor*. Harvard UP, 2011.
- Pérez Orozco, Amaia. "Amenaza tormenta: La crisis de los cuidados y la reorganización del sistema económico." *Revista de Economía Crítica*, vol. 5, March 2006, pp. 7–37. Accessed 21 May 2015.
- . "Diagnóstico de la crisis y respuestas desde la economía feminista." *Revista de Economía Crítica*, vol. 9, 2010, pp. 131–44. Accessed 21 May 2015.
- . "Estrategias feministas de deconstrucción del objeto de estudio de la economía." *Foro Interno*, vol. 4, 2004, pp. 87–117. Accessed 21 May 2015.
- Plumwood, Karen. *Environmental Culture: The Ecological Crisis of Reason*. Routledge, 2002.
- Prádanos, Luis I. "Decrecimiento o barbarie: Ecocrítica y capitalismo global en la novela futurista española reciente." *Ecozon@: European Journal of Literature, Culture and Environment*, vol. 3, no. 2, 2012, pp. 74–92.
- . "La degradación ecológica y social del espacio urbano en *Instrucciones para salvar el mundo* de Rosa Montero." *Letras femeninas*, vol. 39, no. 2, 2013, pp. 45–61.
- . "Towards a Euro-Mediterranean Socioenvironmental Perspective: The Case for a Spanish Ecocriticism." *Ecozon@: European Journal of Literature, Culture and Environment*, vol. 4, no. 2, 2013, pp. 30–48.
- Puleo, Alicia H. *Ecofeminismo para otro mundo posible*. 2nd ed. Cátedra, 2013.
- "Rosa Montero." *Planeta de Libros*. Planeta, 2016. www.planetadelibros.com/autor/rosa-montero/000012593. Accessed 27 July 2016.
- "Rosa Montero: Página Oficial." www.rosamontero.es. Accessed 27 July 2016.
- Serra-Renobales, Fátima. "La ciencia para salvar el mundo: Una propuesta de Rosa Montero." *La incognita desvelada: Ensayos sobre la obra de Rosa Montero*. Edited by Alicia Ramos Mesonero, Peter Lang, 2012. pp. 71-81.
- Shiva, Vandana. *Staying Alive: Women, Ecology, and Development*. 8th ed., Zed, 2002.
- Warren, Karen J. "The Power and the Promise of Ecological Feminism." *Ecological Feminist Philosophies*. Edited by Karen J. Warren, Indiana UP, 1996, pp. 19–41.
- "The World's Worst 2013: The Top Ten Toxic Threats. Cleanup, Progress and Ongoing Challenges." Blacksmith Institute and Green Cross Switzerland, 2013. worstpolluted.org/2013-report.html. Accessed 7 July 2016.