Zoomorphism and Human Biology in Barbara Kingsolver's *Prodigal Summer*

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DOI: https://doi.org/10.37536/ecozona.2023.14.2.4827



Abstract

This article explores the conceptual difficulties that arise when fiction explores humankind's primordial ties to nature, specifically regarding gender representation. I examine how an emphasis on biology demonstrates humankind's innate connection to nature, while simultaneously perpetuating a problematic, essentialist view of gender. Using Barbara Kingsolver's *Prodigal Summer* (2000) as a case study, I present two perspectives from which to interpret her ecofeminist approach. Firstly, I argue that Kingsolver employs zoomorphism as an effective strategy to override essentialist representations of sexuality. Secondly, I use Hans Gumbrecht's theory of presence to contextualise the representation of biology and claim that *Prodigal Summer* attempts to dilute a much broader conceptual binary between humankind and nature.

Keywords: Barbara Kingsolver, Prodigal Summer, zoomorphism, climate fiction, ecofeminism.

Resumen

Este artículo explora las dificultades conceptuales que surgen cuando la ficción explora los vínculos primordiales de la humanidad con la naturaleza, específicamente en lo que respecta a la representación de género. Examino cómo el énfasis en la biología demuestra la conexión innata de la humanidad con la naturaleza, al mismo tiempo que perpetúa una visión problemática y esencialista del género. Usando *Prodigal Summer* (2000) de Barbara Kingsolver como ejemplo, presento dos perspectivas desde las cuales interpretar su enfoque ecofeminista. En primer lugar, argumento que Kingsolver emplea el zoomorfismo como una estrategia efectiva para anular las representaciones esencialistas de la sexualidad. En segundo lugar, uso la teoría de la presencia de Hans Gumbrecht para contextualizar la representación de la biología y afirmo que *Prodigal Summer* intenta diluir un binario conceptual mucho más amplio entre la humanidad y la naturaleza.

Palabras clave: Barbara Kingsolver, Prodigal Summer, zoomorfismo, ficción climática, ecofeminismo.

Introduction

The relationship between humankind and the environment is often characterised by human dominance. In today's climate, however, as ecological upheaval manifests itself through mass extinction, extreme weather events, and rising temperatures, it is imperative that humankind collectively challenges the fundamental assumption of our dominion over nature. For the first time in human

history, it is *necessary* for our future that we consider human existence in line with our status as a species and that we imagine new animal natures. There is a challenging paradox in considering the human subject within the Animalia kingdom, however. The consideration of species surpasses human politics, history, and culture—it occurs in deep history, where the complexities of the human experience are a mere moment in the context of the planet. In her 2016 Imagining Extinction, Ursula Heise evokes Homo sapiens as a species, recognising their position on the International Union for the Conservation of Nature's Red List as a species of 'Least Concern' in terms of extinction risk. "This inclusion", she notes, is a "significant gesture politically and philosophically in an age that is now referred to as the Anthropocene" (85). To understand humankind as species is a significant cultural challenge and requires posthumanistic consideration; as Dipesh Chakrabarty notes, the idea of species "may introduce a powerful degree of essentialism in our understanding of humans" ("The Climate of History" 214). The development of human cultures and the nuances of human identity are, indeed, related to our notion of species generally; and yet to see humankind beyond the limits of its own anthropocentric documentation is to lose aspects, unavoidably, of the individual human experience. A degree of essentialism, it seems, is inevitable. Thus, the question for representing the relationship between humankind and their environment becomes one of process: How can we explore our grounding in nature without resorting to outmoded or essentialist concepts of social and cultural paradigms?

This article uses Barbara Kingsolver's *Prodigal Summer* (2000) as a case study to evaluate representations of white American female identity and human biology through an ecocritical lens. Written and published during the tail end of the essentialist ecofeminist movement, Kingsolver's novel retains a gender binary based upon human biology as a way to represent the broader dichotomy between humankind and their environment. In this way, *Prodigal Summer* operates within a pivotal issue in the humanities, that "environmental humanists and eco-critics have not found a coherent theoretical ground on which to conduct their work of reevaluating cultural traditions in light of environmental concerns" (Westling 2). The lack of coherent theoretical grounding is, of course, no longer applicable as the field of ecocriticism has expanded and become increasingly nuanced. Prodigal Summer's publication date, however, positions it as an experiment in environmental fiction (and environmental scholarship more broadly) in the Anthropocene. I examine components that are potentially problematic on the surface, with a mind to explore the question: how can humankind learn to conceive of itself as part of a broader system after millennia of human dominance driving the development of human identity?

I examine Kingsolver's careful communication of "a handful of important ecological principles" against the portrayal of the human individual, critically evaluating the novels' approach to portraying "whole systems" (Kingsolver, "FAQS" n.p.). I begin by situating *Prodigal Summer* within an ecofeminist framework, before examining how the novel uses human biology as a defining feature of female identity.

I argue that humankind's mammalian origins are used deliberately to override social constructs and position the human experience through the lens of its fundamental and "primal" roots. This promotes an understanding of the human experience that is based on animality, rather than perpetuating a narrative of human superiority over animal kind.

Secondly, I will examine the essentialist binary enforced as part of this biological approach. While a study of male characters would certainly provide insight into the effectiveness of Kingsolver's ecofeminist approach, this study examines the representation of female characters. Although characteristic of the essentialist ecofeminism contemporary to the novel's publication, there are issues in Kingsolver's portrayal of the female body, specifically in the context of gender and identity; that is, an essentialist binary can present identity as relatively fixed and pre-determined. I use Hans Ulrich Gumbrecht's theory of presence to demonstrate how contemporary understandings of performative gender identity are informed by social constructs rather than physical biology. While this recognises the complexity and diversity of human identities, it contributes to disparity between notions of selfhood and the physical, animal-self. This creates conflict between human understandings of identity, and the need to overcome the sense of human dominance over the environment.

Finally, I examine how these issues arise from a dichotomy between the self and the physical body, and how the ecofeminist strategies employed by the novel are a by-product of a broader mission to envision humankind in the context of species.

Ecofeminism and the Challenge of Anthropocentrism

Ecofeminism is a field straddling this theoretical challenge. In a broad sense, ecofeminism sees equity play a key role in driving academic inquiry into perceptions of nature, where the concepts of both sex and gender inform ideas of the relationship between humankind and the environment. In other words, ecofeminism "analyses the interconnection of the oppression of women and nature" (Bressler 236). In practice however, examples of ecofeminist scholarship vary in focus, ranging from emphasis on "identifying source[s] of oppression" based on the perceived correlation of mutual oppression of women and of nature (Sargisson 69), to representations of "communion with the earth" (Sargisson 57) which assumes a spiritual connection between women and the environment.

At the time of *Prodigal Summer's* release, a dichotomy between male and female was inherent in many iterations of cultural ecofeminism, perpetuating a problematic gender binary that has been disputed by gender theorists and queer theorists. This characteristic of some branches of ecofeminism has resulted in criticism of the field's "essentialist, biologist" approach, and its "lack of political efficacy" (Sargisson 52). Sigridur Gudmarsdottir, for example, explores the metaphor of "rape" as it is applied to sexual assault and to violations against nature. She claims that this shared terminology "without an acute awareness of genuine suffering" serves neither "justice for women nor nature" (211), concluding that the symbolic

woman-nature connection is more harmful than helpful. Ultimately, as Greta Gaard claimed in 1993, "the literature and the history that purport to record the interactions of human consciousness with the nonhuman world are in fact the record of male consciousness [and] the women [are] white, middle-class, college-educated, physically unchallenged, and heterosexual, hardly a cross-section of America" (119). Exposing dualisms between the oppression of women and the disregard towards the natural world have served ecofeminist scholars by drawing out consistencies in oppression and impacts of patriarchal cultures. However, these approaches have tended to prioritise predominantly white, heterosexual perspectives, and often failed to "locate animals as central to any discussion of ethics involving women and nature" (6). A significant contribution to these inconsistencies is in the continuous anthropomorphism in some earlier applications of ecofeminism, characterised by a desire to deconstruct the way humankind sees itself as separate from Nature at the same time as upholding anthropocentric power structures.

Gaard goes on to say that an effective ecofeminist approach "must challenge [...] dualistic constructions" and "attempt to establish a different system of values in which the normative category of "other" (animals, people of colour, "Third World" people, the lower classes etc.)" (Gaard 80). More recent ecofeminist scholarship takes this up and has progressed significantly beyond the "dualistic constructions" Gaard identifies. Today, queer ecologies seek to dismantle these issues, and "challenge our heteronormative assumptions about the "natural life" of animals, and fundamentally call into question both the distinction between animal and human and the separation of nature from culture" (Arons 566). A concept with several variants, queer ecologies recognise kinship between all living - and in some cases material - things based on the premise that all things are contrived of the same matter. Stacy Alaimo introduces her Exposed: Environmental Politics and Pleasures in Posthuman Times (2016) claiming that "the [A]nthropocene is not time for transcendent, definitive mappings, transparent knowledge systems, or confident epistemologies" (3). To restrict ecological enquiry to established cultural or theoretical underpinnings is to underestimate the complexity of both human experiences as well as climate upheaval. Donna Haraway expertly navigates the system of entanglement that is the natural world, dismantling the anthropocentric dominance even in the titles 'Anthropocene' or 'Capitalocene' in favour of the 'Chthulucene'; "Living-with and dying-with each other potently in the Chthulucene can be a fierce reply to the dictates of both Anthropos and Capital" (2). This, of course, echoes Heise's examination of humankind as species, and proposition of a "multispecies ethics and politics" (86) which would build elements of cultural complexity and specieshood into natural law. Other recent ecofeminist scholarship Douglas Vakoch and Sam Mickey's Women and Nature?: Beyond Dualism in Gender, Body, and Environment (2018) seeks to move beyond its predecessors' dualistic theories and practices, positing ecofeminist approaches that recognise the complexities and diversities of human identities. Mickey's later collection Literature and Ecofeminism: Intersectional and International Voices (2018), as the name suggests, actively pursues diverse, international voices in its examination of ecofeminist literary practice. This same intention is reflected in the 2023 edition of *The Routledge Handbook of Ecofeminism and Literature* edited by Douglas Vakoch.

With these caveats in mind, *Prodigal Summer* is a literary experiment of ecofeminism that effectively challenges the concept of human dominance over nature through female perspectives and relationships with the non-human, yet arguably retains a problematic binary that prioritises the perspectives of educated, white women characteristic of some branches of ecofeminism at the turn of the century. This makes the novel a useful case study to explore how fiction can navigate the complexity around human specieshood and social values. Kingsolver's representation of biology, and approach to anthropomorphism is a useful starting point.

"You're nature, I'm nature": Human as Animal

Authors of environmental fiction share a challenge of how to represent the connection between the human subject and the natural environment without appearing "too contrived" (Van Tassel 91), "heavy-handed", or self-righteous (Leder 228). Anthropomorphism is a strategy employed in several environmental novels to induce empathy with the nonhuman plight. Works such as We Are All Completely Beside Ourselves, Margaret Atwood's Year of the Flood trilogy (2003-2013), Lydia Millet's How the Dead Dream (2007) and Richard Powers' The Overstory (2018) all exemplify various environmentally minded approaches to identify human characteristics in animals and plants, and establish a sense of shared experience between the human and the nonhuman. In the context of environmental writing, Lawrence Buell notes that the more humanised an animal becomes, the more likely it is to garner empathy from the public (Endangered World 202), a phenomenon which has resulted in numerous advertising and awareness campaigns, animated films, and personification strategies that utilise face-on photographs of various animals, endangered or otherwise. Buell likens the emotional connection resulting from eyeto-eye contact to the building of a sense of responsibility towards the other, as explored by philosopher Emmanuel Levinas. Levinas saw the act of identifying with another as the basis of human ethics and claimed that the "trace" of the human existed in the eyes. For Levinas, engaging in eye-to-eye contact is the "activator of one's responsibility for another" (213). From this perspective, human ethics and sense of responsibility for the other is based on the observation of a shared humanness. The effectiveness of the advertising Buell identifies therefore depends on the human viewer being manipulated into seeing human qualities in the photographed animal. Without this sense of kinship, a sense of responsibility cannot be established.

This take on responsibility becomes problematic in the space of human and nonhuman relations, as the implication is that the human subject requires a human-like connection with a nonhuman to warrant a deeper connection. From a sociological standpoint, this means that "only if nature is brought into people's everyday images, into the stories they tell, can its beauty and its suffering be seen and focussed on" (Buell *Endangered World* 1). The dominance of the human subject over nature is

necessarily reiterated in each of these instances, as nature must come into the perspective of humans. The effectiveness of anthropomorphic nonhuman figures is predicated on the role of the human as inherently and unquestionably superior. Only when the inferior subject, the nonhuman, gains categorically human characteristics are they then granted the potential recognition associated with hardship or struggle. This disconnection is only deepened by the way nature has been actively incorporated into human civilisations. Cultivated gardens and agricultural farming situate nature as something that serves an aesthetic and functional purpose for the benefit of humankind. As Buell prefaces, "human transformations of physical nature have made the two realms increasingly indistinguishable" (3). The delineation between human culture and nature itself, even before the anthropomorphising of nonhuman beings, is an anthropocentric construction in which a cultivated version of nature takes the place of the wilderness. These refined versions of natural landscapes replace the primeval wilderness in a re-conception of what it means to be "of nature," asserting humankind as the cultivator and facilitator of nature.

Historically, the relationship between humankind and nature in the West is one based on dominion and control. In the late nineteenth Century, Frederick Turner famously emphasised dominance over nature as forming American identity. Turner claimed that it was the expansion and identification of the frontier in the American forests that saw America achieve its independence from the European homeland. In a public address to the American History Association in 1893, Turner said "the peculiarity of American institutions" is that they have had to adapt to "an expanding people—to the changes involved in crossing a continent, in winning the wilderness, and in developing at each area [...] into the complexity of city life" (The Significance 199). This historical narrative of American independence not only establishes the continent's autonomy but establishes a fundamental sense of ownership and control over the American forests as being characteristic of white American identity. In a more contemporary context, Robert Pogue Harrison explores the relationship between humankind and the forest as one of dominance in his study of forests and civilisation, describing how the "neolithic revolution" (197) made agriculture a way of life. It "was a means of cultivating and controlling, or better, domesticating, the law of vegetative profusion which marked the new climatic era" (198). This influence was perpetuated by Europeans during the Age of Discovery upon their arrival in America, ensuring that triumph over forests and natural landscapes became a core component of national identify and progress. This cultivation of the forest remains essential to understandings of human civilisation, where enforcing the binary between human and nature has historically contributed to identity formation and remains representative of human progress. In anthropomorphising the nonhuman, an acknowledgment is made wherein the nonhuman is given value only through its likeness to humankind.

Kingsolver's novel does not reflect the dominance established in these historical paradigms. Indeed, Peter Wenz boldly christens *Prodigal Summer* as "Leopold's novel" (2003), for its ascription to "Aldo Leopold's call for 'a land ethic

[that] changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it" (106). In Kingsolver's novel, the reader is constantly reminded of the protagonists' creaturely drives and their place within a complex ecosystem of living beings, subverting a long-established binary between humankind and nature. *Prodigal Summer* invites readers to consider "whole systems," looking beyond themselves to the biodiversity of Zebulon Mountain, where the novel is set. It follows a year in the lives of Deanna, Lusa and Garnett, residents of a small town in Appalachia. More importantly, Kingsolver situates each character as being within a living, changing ecosystem, as active agents in a living landscape.

Kingsolver focuses her readers' attention to human biology to draw out aspects of the connections between humankind and animal. Kingsolver's approach includes the reoccurring zoomorphism of the human subject. That is, rather than superimposing human characteristics onto nature, Kingsolver emphasises the animal characteristics of her human characters. Within the confines of literary fiction, Kingsolver's strategy is quite unique in its commitment to a zoomorphic approach. Characters conceive themselves as part of a living system rather than only a human community, respond to sexual urges based on scents, and on several occasions, menstruation appears to determine how male characters respond to female characters. While zoomorphism is used frequently in literature, Kingsolver's overarching application of the technique exemplifies the theory of Darwinian evolution in a way that differs from other environmentally minded approaches to literary eco fiction.

In theorising *Prodigal Summer*, Kingsolver concludes that "a biological novel will have to be full of sex" ("Frequently Asked Questions" n.p.). The emphasis placed on animal copulation in addition to the sexual relationships between human characters works to draw parallels between the two groups. Deanna hears the "fierce, muffled sounds of bats mating in the shadows under her porch eaves" (8), sees mating red-tailed hawks nearly fall from the sky in "senseless passion" (19), and observes that "in the high season of courting and mating" the sounds of the birds is like "the earth itself opening its mouth to sing" (53). Correspondingly, organic, earthy language is used to describe sex between Lusa and her late husband Cole, with reference to "damp places" like "fresh earth toward the glory of new growth" (40), It is imagery of the landscape that pervades their union more so than the meeting of bodies, or the fruition of a complex human relationship.

Just as human characters are described using organic imagery, the mountain itself takes on reciprocal human characteristics. Lusa describes how "the mountain's breath began to bear gently on the back of her neck [...] insistent as a lovers sigh" as Zebulon becomes "another man in her life, larger and steadier than any other companion she'd known" (34). The anthropomorphising of the mountain against the zoomorphism of human characters creates a more neutral space from which to examine the biodiversity of the mountain. As the spring turns to summer, "everywhere you looked, something was fighting for time, for light, the kiss of pollen, a connection of sperm and egg and another chance" (10-11). The human characters

are included in this fight, and at the conclusion of the novel bear no more significance than any other living being upon the mountain. Concluding through the eyes of a female coyote, Kingsolver finishes on an expanded view of the mountain itself, an ecosystem of which the humans on the mountain are a small part.

The representation of human solitude is, therefore, a method by which Kingsolver emphasises the absurdity of conceptual binaries between humans and non-humans. The impossibility of solitude frames the representation of complex ecosystems in the beginning and the end of the novel: "Solitude is a human presumption. Every quiet step is thunder to a beetle underfoot, a tug of impalpable thread on the web pulling mate to mate and predator to prey, a beginning or an end. Every choice is a world made new for the chosen" (3, 446-7). The very idea of being isolated despite being a part of an active and diverse ecosystem negates the value of the nonhuman. When characters are zoomorphised, the idea of isolation becomes absurd as characters are explicitly represented within a diverse conglomerate of living things. The image of the beetle underfoot, the brazen reference to the thread of a spiderweb connecting "predator to prey" establishes a space in which to examine the human interactions in the novel through the very same lens each protagonist uses to examine the creatures around them; creatures that each have an impact on the behaviours and lives of others. Suitably then, each character is connected to one other by various degrees of separation, and although the closest interaction between protagonists is by telephone, their relationships and family connections form a web, bringing together all the people in the valley. Binaries are revealed to be unnatural, and an oversimplification of "humans' inextricable connectedness with the material world" (Arons 569). If all things are iterations of the same matter, the act of anthropomorphism becomes more akin to an identification of structural similarities than the diminishing of otherness. Undermining this connection between Kingsolver's representation and queer ecologies, however, is the connection drawn between environmental awareness and education.

Kingsolver makes a connection between education and the ability to recognise and incorporate broader ecological systems into worldviews. The titular allusion to the parable of the Prodigal Son positions environmental education as a redeeming feature. Characters who are more "reckless" in their farming practices or ignorant of ecological processes are guided by the novel's protagonists, and subsequently achieve a form of redemption, and a new perception of their place within the broader environment. Deanna holds a degree in wildlife biology and a thesis "on coyote range extension in the 20th century" (61). As an employee of the US Forest Service, she is responsible for the upkeep of trails throughout the mountains and impeding illegal hunting in the area. She is suitably matched with Eddie Bondo, a young coyote hunter. Entomologist Lusa becomes a carer for her sister-in-law's children and is shocked by their ignorance as they express amazement at the way in which honey is made. Lusa despairs for "all the things that people used to grow and make for themselves before they were widowed from their own food chain" (296) and takes on Crys and Lowell's agricultural education. Through their interactions, the reader is informed about the

life cycles of small insects and bugs, and the ecosystems within the forest that contribute to the biodiversity of the mountain, and ultimately, to food production. Nannie Rawley "went to college once upon a time, and it was after they discovered the Earth was round" (281), and educates her neighbour, Garnett, on ecologically friendly farming. At times, these characters are more akin to mouthpieces for ecological principles than rounded characters. Their pairings with such prodigal individuals and educational roles facilitate learning about the complexities of biodiversity and the role of different animals in supporting the ecosystem, not only for their respective protegees, but also for readers. This is a strategy Kingsolver also employs in her later novel Flight Behaviour (2012), where the protagonist, Dellarobia, meets Ovid, a scientist studying the movements of the endangered monarch butterfly. As a scientist, Ovid is limited in his capacity to educate the community by the limitations of his profession—"scientists who address the public are ridiculed by their colleagues for being imprecise or theatrical" (Trexler 227)—but on a personal level, his personability enables the exchange of knowledge between himself and the novel's protagonist. Prodigal Summer similarly crafts its own parable, where the wisdom of select individuals enlightens characters and teaches moral lessons.

Kingsolver contrasts her two strong female protagonists with Garnett, a religious widower who is working to produce a blight-resistant strain of the American chestnut. Despite pursuing his own form of ecological repair, Garnett is reflective of the conventional farmer, upholding the traditional farming practices of the community in the valley. In his own words, "sometimes horsepower can do what horseflesh cannot" (84) and spraying pesticides is "county right-of-way" (87). While Garnett pursues the development of a blight resistant tree, he sprays herbicide along his fence line to prevent weeds (90-93) and orders his trees in neat rows. He represents a perspective wherein nature is mediated through cultivation, and what is acceptable in nature is determined by what nature can offer agricultural activity. Garnett's ecological interest, therefore, indicates a well-intentioned yet misguided approach to sustainability. Unlike the more activist pursuits of Deanna or the academic interest informing Lusa, Garnett's reluctance to consider Nannie Rawley's organic farming methods are clearly represented as a product of ignorance. Fundamentalist religious dialogue and a value for the "old ways" firmly characterise Garnett as the archetypal elderly man driven by the very binary that Kingsolver is subverting. Thus, the trio of educated matriarchal figures is rounded out with Nannie Rawley, "Garnett's nearest neighbour and the bane of his life" (84). Rawley becomes a mouthpiece for the science behind organic farming and land preservation, challenging Garnett's perceptions around the use of herbicides and God-given dominion over nature, ultimately educating him on the benefits of organic farming for both profit and sustainable practice.

The positioning of educated characters as those who quietly inform those around them of ecological diversity highlights an interesting paradox. On the one hand, the novel draws attention to humankind's fundamental, primordial links to other living beings. Yet on the other, it requires engagement with the institutions of

knowledge that have historically separated humans from animals, to become aware of these innate connections. Formal education is the key to understanding the human connection to nature yet is also a product of humankind's move away from their animal nature. Adam Trexler notes that in Flight Behaviour, Kingsolver's realism is "underpinned by an account of Anthropocene economics for the poor," and a complication of the "stereotypical certainty of scientists and the ignorance of rural southerners when unpacking cultural nuances of contemporary climate change" (228). A similar narrative exists in *Prodigal Summer*, where characters who have had the privilege of higher education are more deeply connected to and aware of their animal natures. It is not, therefore, through a sense of earthly connection to the land that these characters become educators of biodiversity and natural systems, but through discussion, debate and academic discourse. For example, when Garnett quotes Genesis to Nannie Rawley, she retorts with a recontextualization of the passage alongside the Volterra principle (218, 278). Later, she outlines to him the ongoing debate between intelligent design and evolution. Despite being the more comedic storyline in the novel, the discussions and letter writing between Garnett and Nannie Rawley follow popular lines of debate about the relationship between humankind and nature. Similarly, Deanna attempts to have Eddie Bondo read her Master's thesis to understand the important role of predators. In all of these discussions, scientific and philosophical principles describe the networks existing between different animals and their behaviours, with each individual narrative expanding outwards until its effect on humankind is made apparent. Kingsolver does not do this to demonstrate the ways humankind is impacting their environment, per se, but to highlight humankind's position within a complex, interdependent ecosystem. Human action is an active part of the processes described, and an inherent part of the broader system. What does it mean, then, if awareness of this complex system in the novel is dependent on a privileged education?

The zoomorphising of humans in the novel is therefore complicated by the explicit methods of sharing its ecological message; while in some settings characters are encouraged to consider humans in the context of their animal nature, their ability to do so depends upon a level of intelligence that is categorically human. The novel seems to suggest a process of unlearning, as higher education serves to override evolutionary lessons that place the human subject in a position of superiority over their environment. Paradoxically, the subject must learn in order to unlearn, must engage more deeply with the higher levels of institutional knowledge in order to escape a culturally established truth. This is further complicated, however, by Kingsolver's emphasis on the biology of the human body.

"Sex [...] the greatest invention life ever made": The Female Body

Physicality becomes a key component of the human experience in *Prodigal Summer* through the emphasis on biology alongside the physical impact that humankind has on nature. The novel's biological focus, however, also draws attention

to the way that concepts of selfhood have informed humankind's relationship with the environment. If, as Gumbrecht posits, Western culture is a meaning-culture, then the reality of biology informing identity can be a challenging concept, as the Cartesian notions of selfhood that define Western thinking of identity typically negate the significance of the physical body. Gumbrecht's meaning-culture sees the subject's desire for presence as a reaction to "an everyday environment that has become so overly Cartesian during the past centuries" (116). He posits that "aesthetic experience may help us recuperate the spatial and the bodily dimension of our existence" (116). In other words, a presence-culture would see both spiritual and physical existence integrated in conceptions of self and identity, both individually and communally. According to Gumbrecht, Western theory has "made the ontology of human existence depend exclusively on the movements of the human mind" (17), with theoretical movements that saw "the loss of any non-Cartesian, any non-experience-based type of world-reference" (43). Thus, the physical body has been better likened to something the transient self operates from within, rather than a physical manifestation of the self that exerts overt influence on thought and behaviour. I perceive this as an idea reminiscent of the modernist revelation of the subjective self, and one that continued to define much of postmodern thought, where "concepts and arguments have to be 'antisubstantialist'" (Gumbrecht 18). In practice, social media, distance communication, and virtual reality see the self becoming omnipresent, embodying "the dream of making lived experience independent of the locations that our bodies occupy in space" (Gumbrecht 139). The anti-hermeneutic turn sees this theoretical landscape challenged, and the body is recontextualised as the vehicle through which the subject experiences the world around them.

Prodigal Summer is a novel that focuses on the body, specifically its biology, and emphasises how physical presence informs identity. The experience of Being in the world re-establishes the subject's primordial links with the physical world, situating the self as part of a living system. Biological function actively informs the feelings and behaviours of its characters. As relationships develop, emphasis on sex in the context of its biological value suggests that Kingsolver employs sexual practice as a method of re-establishing the conceptual bond between humanity and their nonhuman counterparts, rather than as a mechanism to explore psychological connection between people or to represent enjoyment. Already by page five of the novel, we see the staunchly independent Deanna corrupted by the much younger Eddie Bondo. She is zoomorphised, and her cautionary response to him strikes a delicate balance between that of a human and of an animal. Clearly accustomed to being alone on the mountain, Deanna answers his banter in the "way of the mountain people in general - to be quiet when most agitated" (5). He approaches silently, catching her sniffing a stump as she tracks the path of an animal. She remains defensive as she considers his manner, weapons and potential threat before concluding that the term "predator was a strong presumption" (6). The interaction is recorded almost as one between two animals, as language alluding to the innate "fight or flight" response is employed to describe their meet-cute. Long silences stand between clipped verbal interactions, as each considers the other between vocalisations. Verbs such as "bite", "intruding," "tensed," "watched," and "measured" characterise Deanna as a cornered animal judging the potential threat in her territory. It is this instinctual, biological drive that characterises the relationships and behaviours of several characters in the novel, drawing physicality into their characterisation.

Biology is the fundamental link between humankind and their environment, providing space for the zoomorphism of the novel's human characters to occur and blur the lines between human and animal. At a fundamental level, presence is innate to human development, where awareness of the body and utilisation of the senses has allowed for human survival in the wilderness. Gumbrecht speaks of this evolution, positing that earlier societies upheld presence cultures through the vision of the human subject as being "a part of and surrounded by a world" (25) considered to be God's creation. This sense of presence is maintained throughout medieval thought, where "spirit and matter were believed to be inseparable" (25). As the concept of the contemporary self develops, so too does a detachment from the body and the physical, as notions of selfhood are increasingly associated with the psychological self. Indeed, the postmodern self is characteristically fragmented and decentred, with no connection to the body at all. Contextually, white American identity comes to be informed by a fundamental separation from nature, and entry into a cultural environment that is primarily meaning based.

In the context of Gumbrecht's theory of presence, Prodigal Summer demonstrates how the disembodied notion of selfhood comes into conflict with the sensory experience of the physical body. Kingsolver emphasises the sensory experience and innate physical drives of her characters. These challenges the foundations of humankind's intellectual development, specifically the versatility of the self that meaning culture has allowed individuals to derive. Prominent references to pheromones, scents, and menstruation are used to blur the delineation between the abstract, psychological self, and the physical body. The physical experience is a clear informant of understanding and interpretation, re-establishing connections between the body and world-appropriation. Deanna, for example, "knew some truths about human scents. She'd walk down city streets in Knoxville and turn men's heads [...] on the middle day of her cycle" (94), while Lusa and Cole court "with an intensity that caused her to ovulate during his visits" (41). Kingsolver's emphasis on these biological characteristics challenges personal agency where humans are so clearly and powerfully influenced by their bodily responses and physicality. Lusa's ovulation changes to suit the courtship of a male; she attributes men's attraction to her fertility ("No wonder men were fluttering around her like moths: she was fertile" (232)); and Eddie Bondo allegedly finds Deanna on the trail when he "sniffed you out, girl" (94). Kingsolver frames the biology of the female body as the driving force behind sexual attraction, shaping human relationships in the novel as being more effectively defined by their biological components over notions of kinship, social connection or identity. In this way, Kingsolver uses sexual desire as humankind's fundamental, long-lasting link to their biological selves, or their animal selves, using this perspective to emphasise the shared biological processes between animals and humans. In the same way that Gumbrecht seeks to re-establish presence as a defining characteristic of human experience and understanding, Kingsolver emphasises how physicality has a significant influence on the individual's behaviour and psyche.

Biological influence is seen and recognised across the animal kingdom as an explanatory agent for animal behaviour. However, social and cultural progress in the West sees sexuality as a personal faculty, and a characteristic of individual identity. This is not to say that sexuality is chosen, but that its expression is inherently personal. To factor biology into this equation contradicts the developed sense of individual agency over sexual expression. For example, the idea that a human female's cycle is impacted by the mere presence of a male contradicts popular perceptions of bodily autonomy. The functions of the body serve the purpose of establishing each character's connection with their biological, animal selves. It is these biological processes that are then used to evidence budding relationships in the novel, instead of the more complex, emotional, and psychological connections typically employed.

A key bodily function that Kingsolver leans upon is menstruation. As Lauren Rosewarne discusses in her 2012 book *Periods in Pop Culture*, menstruation has long been considered a social stigma for women. Rosewarne cites numerous sociologists and psychologists who identify menstruation in Western culture as a "private event not to be talked about in public" (14), where "emphasis on secrecy" (11) perpetuates a mentality of shame around menstruation and the body. It follows that reference to menstruation is "strikingly absent" (11) from popular media, and it would be fair to say that in fiction, the menstrual cycle is rarely mentioned if at all. By drawing attention to biological process, Kingsolver launches an ecofeminist dialogue around the female body and re-establishes the significance of physical presence as an informing part of the human experience. As Sargisson argues, "Ecofeminism speaks in terms of natural bodily functions" where such references "attempt to articulate the politics of exclusion noted by other forms of feminism" (58). In Kingsolver's representation, the body resurfaces as a depoliticised working object, demonstrating how physicality does, in fact, bear impact on selfhood and identity. Simultaneously, however, the logic of this depends on a dualism based on sex, which is regressive in terms of representing the diversity of women. Her approach, therefore, highlights a disparity between biological and social understandings of human identity.

As this point, I have demonstrated that there are two main perspectives from which to examine the relationship between the human subject and the environment in *Prodigal Summer*. The first examines the way in which human agency has created a division between the subject and their primordial origins. From this perspective, the novel explores the somewhat more familiar use of anthropomorphism by contrasting it with the zoomorphism of the human subject. The second approach to Kingsolver's representation of the human subject is in regard to physical experience, where the novel offers a contrarian interpretation of human existence as if it were essentially defined by biology and animality. This provides a useful point from which

to consider human identity, and to critically evaluate the effectiveness of leaning on humankind's animal nature to re-establish bonds with the natural environment. In a sociological context, there are disadvantages to such a representation that are important to consider. Characters such as Deanna and Nannie Rawley see their worth as intrinsically linked with the body and its ability to reproduce, where species survival takes precedence as the core goal of the individual. Deanna expresses concern about her age, describing menopause leading her to become an "obsolete female biding its time until death" (333). The "flows, cycles, and rhythms" (Sargisson 58) that ecofeminist texts typically connect with the cycles of nature are manipulated here to signify Deanna's biological redundancy. Biology is not strictly related to physicality, but to function. There is a sense of an ending when Deanna is made redundant by her inability to bear children and her failure to find a mate. Similarly, Nannie Rawley claims that in their mature age, she and Garnett are biologically "a useless drain on our kind" (375) without the ability to reproduce. Though clearly the subjective view of each character, these perspectives serve as a reminder of the female individual's perceived biological value in the context of their specieshood.

When the dominant lens is human as species, the intricacies of interpersonal relationships and individual identities are overridden by the primal imperative to reproduce. Effectively, Prodigal Summer becomes a contrarian interpretation of human existence as being defined by biology and animality. Even as Deanna's worst fears are allayed by a pregnancy, her narrative continues to be demonstrated through the "enthusiastic cycle of fertility and rest" (Prodigal Summer 333). Copulation is described as "the body's decision, a body with no more choice of its natural history than an orchid has, or the bee it needs" (26-7). There are two notions in play here that, in a contemporary setting, are problematic: firstly, the notion that biological urges are equal to consent, and secondly, the presentation of reproduction as an inherent responsibility. According to Pamela Geller, "the hegemonic bodyscape at work in contemporary Western science is in large part informed by biomedicine. In its representation of certain bodily differences, the biomedical bodyscape conveys heteronormative notions about sexual divisions of labour, gendered identities, and intimate interactions" (512). While contemporary bodyscape research queries the sex binary, Prodigal Summer's representation of heterosexual, cisgender, white women, fails to demonstrate a diverse representation that may allow for a queering of the biological self. As such, female character identities appear to be intrinsically tied to their biological function.

While this representation of female identity is certainly present, it also contributes to the exploration of humankind as an intelligent and self-aware species. Leder recognises sex in the novel as not only being tied in with characters' biology, but also the "conscious human processing of that biology" (230). This is most evident in moments where characters become explicitly aware of their biology and attempt to dissect its influence on their psychological responses, and subsequent actions. Leder offers the example of Lusa dancing with her nephew Rickie. As Lusa dances, she observes that in the animal kingdom, dancing is a "warm-up for the act". Humans, on

the other hand, can "distinguish a courtship ritual from the act itself" (418). The social and cultural aspects of human civilisation create "contexts and assign meanings" (Leder 230) to biological behaviours. However, whilst humans in the novel are aware of the role of biology, there is little occasion for more diverse or socially complex urges to be represented, and the essentialist binary remains.

"I don't love animals as individuals [...] I love them as whole species": The Self Becoming Animal

While Prodigal Summer could be read as a call-back to essentialist ecofeminism, I suggest that a broader perspective reveals Kingsolver's novel as providing a more nuanced representation of the disconnect between humankind and the environment. Prodigal Summer highlights a key challenge for environmental fiction and its mission to reconstruct an ecocentric relationship between humans and the natural world. The representation of "whole systems" is achieved by the interrelationship of anthropomorphised landscapes and animals, and zoomorphised human characters. The final chapter of the novel prominently and finally demonstrates the conflation achieved by this strategy throughout, as the reader follows a coyote along the same tracks Deanna follows at the beginning of the novel. The reader experiences a full anthropomorphisation of the coyote female, as she enjoys the smell of the air after rain, feels restless away from her children, and tracks the trail of another animal. Her biology is referred to subtly, in a way that reveals her species only to the reader paying close attention. The first indication that she is not human is when she "lowers her nose to pick up speed" (444-5), which, in the context of the passage, is a faint indication of her animality against her very human emotions and observations about the surrounding landscape. The coyote mirrors Deanna's movements in the first chapter, coming full circle and rounding out the novel's brief capture of the ecosystem of Zebulon Valley. As the coyote is anthropomorphised through the mirroring of Deanna's actions, Deanna is once again, and perhaps more powerfully, zoomorphised as her actions are contextualised by the movements of a wild animal.

The success of this representation is based on the emphasis of commonality, the biology and behaviour shared by humankind and animals. As Buell says, "if the passage from society to environment is dramatized by the plot of relinquishment, the bond between the human and the nonhuman estates is expressed through the imaginary of relationship" (*The Environmental Imagination* 180). The imagined relationship in *Prodigal Summer* is somewhat more complicated, in that it is based on shared biological experience. At the level of species, the novel represents not strictly an *imagined* relationship, but a shared experience based on the biological imperative to survive. It is at the individual level that this representation begins to show flaws, where the evolutionary and biological aspects of the human experience clash with individual experiences and perceptions of identity and autonomous selfhood. We can therefore see two different approaches to navigating modern estrangement between

humankind and nature. Kingsolver achieves something unique on the level of species by zoomorphising humankind, an approach that challenges human dominance over nature by reducing human agency and the perception of difference between humans and animals.

Recontextualising a relationship that has historically been based on dominance and the perseverance of a binary between human and nonhuman without losing a fundamental sense of human identity is difficult, as it works against fundamental values of contemporary selfhood. As Buell argues, "one motive for the personification of nature [is] to offset what might otherwise seem the bleakness of renouncing anthropomorphism" (180-1). In other words, it seems more coherent for the subject to consider nature in an anthropomorphised context, than to consider the self outside of the bounds of being human. But this implies that the value of the nonhuman is only apparent if some semblance of humanity is recognisable in it. The frequent strategy of anthropomorphising the animal is therefore inherently problematic in that it purports that the only way for something nonhuman to have inherent value is to make it appear human. We can see in Kingsolver's novel an example of the reverse, where the human subject is reconnected to their biological function and aligned more closely with their animal counterparts. By envisioning the individual as a single entity within a broader living dynamic, Kingsolver promotes an understanding of humans as non-exceptional, integrated parts of an ecological system.

Whilst zoomorphisation has the effect of challenging contemporary convictions around the malleability of gender and individual identities, it is an approach that also challenges some of the cornerstones of the perception of human dominance over the natural world. *Prodigal Summer* is a novel that contributes to a broader conversation around the perceived binary between humankind and the environment, a conversation that faces the challenge of re-envisioning humankind in a changing world. According to Trexler, the "rise of realist fiction in the Anthropocene shows a wider transformation of human culture" (233). Environmental fiction is a particularly focused narrative environment where the way humankind is perceived in and as part of the world can be dissected, explored and reconfigured. Through its evident authorial intent, realist environmental fiction particularly often draws parallels between facts and fiction, where new literary methods offer platforms from which to re-examine the human experience and human purpose. Kingsolver's novel reminds its readers of humankind's origins, representing humans not in the context of their achievements, of progress, or even as part of human societies, but as a species.

Submission received 17 November 2022 Revised version accepted 16 May 2023

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