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Enforcing Ecological Borders between the Human and the Nonhuman: Adapting *Pygmalion's* Benevolent Galatea into *Frankenstein's* and Contemporary Monsters

Robert Geal

- 1 Humans are evolutionary adaptations of other biological organisms. However, socio-cultural adaptations associated with the Neolithic Agricultural Revolution, the rise of monotheism, and the Scientific Revolution, have contributed to a radical ontological separation of the human from the nonhuman. This false binary opposition facilitates humanity's destructive behaviour towards nonhuman components of the biosphere, threatening the existence of our species. This article analyses how artistic texts culturally erect and enforce borders between the human and the nonhuman by representing the transgression of such borders as being undesirable in various ways. These texts use repeated narrative and thematic *topoi* that are adapted through time to reflect changing historical attitudes towards human/nonhuman borders.
- 2 This article takes an extremely long view of the historical adaptation of ideas about these borders. Such a vast timescale means that my argument here is inevitably heuristic, selecting only a very few examples of broad phenomena. However, even this brief analysis demonstrates how adaptation studies can be used to explore the ways in which important ideas are adapted through various fictional texts to reflect changing cultural attitudes. In this example, ideas about the relationships between humans and nonhumans take different forms in different historical periods, and the ways in which various narratives about those relationships are adapted in those different historical periods provides evidence for the underlying adaptation of these underlying ideas.

- 3 I also discuss human/animal hybrid narratives, but focus principally on the intertextual development of narratives about nonhuman simulacra of humans which become “living” in various ways. This intertextual matrix is adapted from classical myths such as “Pygmalion” (Ovid); through Mary Shelley’s *Frankenstein*; to contemporary films about human/nonhuman borders such as *The Terminator* (Cameron) and *Toy Story* (Lasseter) franchises. Each of these different historical periods produces different intertextual engagements with these borders that reflect specific attitudes and anxieties, facilitating an analysis of how such attitudes themselves adapt across time. Because the article situates humanity within an evolutionary context, it is appropriate to conceptualise the cultural adaptation of such attitudes within the context of the similar concept of memetic evolution developed by Richard Dawkins. In an analogous manner to how genes transmit biological information as they replicate themselves by passing from organism to organism, and adapt through variation and mutation as they replicate, so too memes transmit cultural information as they replicate themselves by passing around and through human societies, also undergoing a process of variation and mutation (Dawkins 352).
- 4 Situating adaptation within the context of human/nonhuman borders also means that this article is an exercise in ecocriticism. Simon C. Estok defines ecocriticism by stating that it is more than
- simply the study of Nature or natural things in literature; rather, it is any theory that is committed to effecting change by analyzing the function – thematic, artistic, social, historical, ideological, theoretical, or otherwise – of the natural environment, or aspects of it, represented in documents (literary or other) that contribute to material practices in material worlds. (Estok 16-17)
- 5 As I have argued in detail elsewhere (Geal, *Ecological Film Theory*), demarcating humanity as ontologically distinct from all other forms of living matter is one of the defining ideological illusions of Western culture, and ecocriticism can be used to demonstrate how this illusion operates.
- 6 There is already an existing body of ecocritical scholarship on the texts I am exploring here, and I am not going to disagree with their broad claims, some of which are outlined below. Indeed, some of this scholarship has also considered how ecological aspects of texts like *Frankenstein* operate in intertextual terms (Morton 144). My subsequent claims about *Frankenstein* itself aren’t original, therefore, but what adaptation studies can do is position such texts in a diachronic context which emphasises how cultural attitudes are adapted through time, with fictional texts being a manifestation of those cultural adaptations. My focus of attention is therefore not on direct engagements between one text and another, but rather on what Robert Stam calls the “ambient discourses” (45) which are “the infinite and open-ended possibilities generated by all the discursive practices of a culture, through the matrix of communicative utterances which ‘reach’ the text not only through recognizable citations but also through a subtle process of indirect textual relays” (27).
- 7 Historically-specific cultural attitudes to human/nonhuman borders are one such “ambient discourse,” with a matrix of fictional intertexts providing evidence for the existence and development of those underlying ambient discourses. As such, I am analysing two interrelated memes operating at any one time. The broader and more determinative meme concerns attitudes about how humans conceptualise their relationships with nonhumans. The more specific and posterior determined meme

concerns fictional narratives about transgressing borders between the human and the nonhuman. Analyses of how this more specific determined meme is adapted across time can provide evidence for the development of the broader, more determinative meme. That is, how does the adaptation of the *topoi* about humans bestowing life on nonhuman simulacra of the human reveal something about the historical development of cultural attitudes about the borders between humans and nonhumans?

- 8 One final methodological consideration needs addressing before I sketch out the historical development of these human/nonhuman border memes. This consideration relates to the interactions between the broader and more specific memes. That is, how do fictional texts manifest broad cultural memes such as these borders? It is not as simple as saying that an author, artist or filmmaker consciously sets out to explain his or her culture's attitudes to such borders. After all, Shelley and her Romantic companions at Lake Geneva challenged one another to write ghost stories, rather than stories which demonstrated something about how their culture conceptualised human/nonhuman borders. Rather, I position these memes within the context of what Fredric Jameson calls the "political unconscious."
- 9 From a Marxist perspective, Jameson claims that societies are unjust hierarchical hegemonies, and from a psychoanalytic perspective he claims that this hegemony at least partly operates at the unconscious level. The oppressed are deceived into thinking that their circumstances are "natural" or preferable to various undesirable alternatives, and this ideological illusion requires that any focus on real contradictions and injustices is displaced and obfuscated. Fictional texts obfuscate these contradictions by suggesting that they can be overcome, so that "the individual narrative, or the individual formal structure, is to be grasped as the imaginary resolution of a real contradiction" (Jameson 77).
- 10 In the historical sketch that I am about to provide, broad cultural attitudes to human/nonhuman borders are the "real contradiction" in various ways – human cultures recognise inconsistencies, limitations and contradictions in how the human is designated as distinct from the nonhuman. I will provide various examples of this process, but just to demonstrate the point it is worth quoting Paul Rozin, Jonathan Haidt, and Clark R. McCauley, who provide an example of how human cultures regulate this contradiction through the notion of disgust:
- disgust serves to 'humanize' our animal bodies. Humans must eat, excrete and have sex, just like other animals. Each culture prescribes the proper way to perform these actions – by, for example, placing most animals off limits as potential foods and most people off limits as potential sex partners. People who ignore these prescriptions are reviled as disgusting and animal-like. (Rozin, Haidt, and McCauley 584)
- 11 There is a self-evident component to humanity's animal-like nature, then, but cultures which designate the human as distinct from other animals must regulate and resolve this contradiction. Disgust is a very broad meme, which is adapted through time and across cultures into particular forms – different cultures consider it either polite or impolite to belch during communal eating, for example. More specific narratives can contribute to this broad meme about disgust, demonstrating examples of how disgust operates and provides an "imaginary resolution of a real contradiction" (Jameson 77). In part, as I discuss below, disgust becomes a component of the narrative meme about human/nonhuman borders. But more theoretically, this example demonstrates how human/nonhuman border memes operate – cultures have broad attitudes about

human/nonhuman relationships which have various “real contradiction[s]” (77). A culture’s political unconscious represses such contradictions, which fitfully return in and are imaginarily resolved by narratives about human/nonhuman borders.

- 12 The following (inevitably heuristic) sketch of the historical development of these memes traces them through four different stages, with four attendant forms of political unconsciousness. These stages are Palaeolithic animism, Classical polytheism, Judeo-Christian monotheism, and the evolutionary theory of modern science.

Palaeolithic animism

- 13 Early cultural attitudes to relationships between humans and other animals are represented in texts which conform to the definition of the word “text” in only the broadest of senses. This is because early human cultures were preliterate, and produced very few surviving artefacts which can be used to provide only tentative evidence about cultural attitudes. Nevertheless, the first examples of painting and sculpture from the Upper Palaeolithic (beginning roughly 50,000 years ago) provide clues about how early human cultures perceived relationships between humans and the nonhuman world in an animistic manner.
- 14 Yuval Noah Harari describes animism as “the belief that almost every place, every animal, every plant and every natural phenomenon has awareness and feelings, and can communicate directly with humans” (60). Early art produced by these animistic cultures represents humans and animals in non-dualistic ways that do not adhere to the kind of borders that would later be erected between the human and the nonhuman. The clearest examples of the interconnectivity between humans and animals are provided by images of therianthropes, which are hybrid figures with a mixture of human and animal features. Some of the most well-known and most analysed Upper Palaeolithic therianthropes include cave paintings such as the horned human figure in the Cave of the Trois-Frères (Ariège, France), or the even older human/animal hybrids recently found in Leang Bulu’ Sipong 4 (Sulawesi, Indonesia); and sculptures such as the Löwenmensch (“lion-man”) figurine discovered in Hohlenstein-Stadel (Germany). Gregory J. Wightman claims that these artworks demonstrate that “[f]rom almost the very beginnings of known image production, sapients were preferentially depicting predatory or dangerous animals with human formal characteristics” (72).
- 15 This indeterminacy between the human and the nonhuman is not necessarily an entirely benevolent attempt to connect with the Gaia-like plenitude of “nature.” Rather, the animistic worldview operates within the context of Sigmund Freud’s claim that, throughout human prehistory,
- nature rises up against us, majestic, cruel, and inexorable. [...] Impersonal forces and destinies cannot be approached; they remain eternally remote. But if the elements have passions that rage as they do in our own souls, [...] if everywhere in nature there are Beings around us of a kind that we know in our own society, then we can breathe freely. [...] Perhaps, indeed, we are not even defenceless. [...] [W]e can try to adjure them, to appease them, to bribe them. (Freud 16-17)
- 16 The animistic political unconscious therefore attempts to control the nonhuman world through interaction with it, and Upper Palaeolithic art represents this interaction, so that, for Wightman, “this early attention to such hybrid human-animal imagery [...] mitigate[s] the potentially destructive power of the animal by considering it as

possessing human – and therefore to some degree predictable and intelligible – motivations” (73).

Classical polytheism

- 17 The next key stage in human cultural development comes with the Neolithic Agricultural Revolution (or at least it does in the Western context, because there are some potentially important differences between how various cultures subsume or retain certain animistic elements [see Geal, *Ecological Film Theory*], although this article doesn't have room to explore these differences). Existing ecocriticism (Garrard 60) has already noted how the move from itinerant and frequently matriarchal hunter-gatherer societies to settled patriarchal agricultural societies, with their attendant urban centres and strict social hierarchies, produced an ecophobic culture separating out human “civilisation” from its binary opposite “nature”. This change occurred in a number of different areas, and produced different forms of ecophobia. The distinction between polytheism (belief in many deities) and monotheism (belief in one deity) is the most important of these differences. Polytheism chronologically preceded monotheism, and introduced the central ecophobic change of attitude.
- 18 This change was a shift from the fear and respect for nature discussed by Freud, to a dominance over nature which meant that it no longer needed to be treated as an equal. As Harari puts it,
- The fact that [animistic] man [sic] hunted sheep did not make sheep inferior to man, just as the fact that tigers hunted man did not make man inferior to tigers. Beings communicated with one another directly and negotiated the rules governing their shared habitat. In contrast, farmers owned and manipulated plants and animals, and could hardly degrade themselves by negotiating with their possessions. Hence the first religious effect of the Agricultural Revolution was to turn plants and animals from equal members of a spiritual round table into property. (Harari 236)
- 19 Indeed, after the Agricultural Revolution, human cultures began to exhibit anxiety about the self-evidently close relationships between humans and animals, and such anxieties were repressed into and resolved by the polytheistic political unconscious. Close relationships with humans had not been threatening, in animistic cultures, because humans had not positioned themselves hierarchically above other animals. Now that nonhuman animals were property rather than equals, humanity's animality was problematic, and polytheism therefore established illusory separations between the human and the nonhuman.
- 20 In some important senses, polytheistic cultures functioned as a transitional stage, because certain animal features and characteristics continued to interact with more explicitly human features and characteristics, most notably in terms of therianthropic deities with, most frequently, human bodies and animal heads. I will address this transitional element in more detail shortly. But even when polytheistic cultures allowed deities to evince close relationships between human and animal features, they erected borders between animals and humans. The intertextual stream informing *Frankenstein* and contemporary examples of human/nonhuman borders flows most explicitly through Greek and Roman myths focusing on hybrids with a mixture of human and bestial features, and on transformations from the human to the nonhuman,

with these transformational narratives mostly collected (and adapted) in Ovid's *Metamorphoses*.

- 21 The narrative and philosophical shift from the hunter-gatherer's conceptualisation of the therianthrop, and the settled agriculturalist's conceptualisation of the therianthrop, is stark. As Boria Sax puts it, for the hunter-gatherer "the ability to take the form of an animal had been the sign of a great shaman, but this changed in urban societies. In the *Metamorphoses* of the Roman poet Ovid, taking the form of an animal was generally a punishment." (xiii) Temporary metamorphosis without negative consequences is something that can be performed only by gods, whereas humans have metamorphosis imposed on them in a specific manner that replaces humanity with animality which, for Emma Aston, "tends to be couched in terms of catastrophic loss: loss of human form, of power and authority, of articulate speech, of the ability to interact with humanity." (372)
- 22 Ovid recounts many such myths, but one of the clearest (and subsequently most repeated and adapted) is the transformation of the hunter Actaeon into one of the deer he is pursuing, after he accidentally sees the goddess Artemis naked at her bath. This kind of transformation is also couched in somewhat therianthrop terms, so that, as Aston states, those subjected to such metamorphoses do not
 become happy senseless animals, but in fact a particularly terrible kind of hybrid. (This is especially clearly seen in Ovid's account of the stag-transformation of Actaeon at the hands of the angry Artemis; once changed, Actaeon is incapable of human speech, but can still weep – though the tears flow over a face 'not his own' – and retains his original mental faculties [...]). (Aston 372)
- 23 These narratives therefore encode the hitherto positive interchangeability of the human and the animal in traumatic terms, so that polytheism encodes the traversing of the human/nonhuman boundary as a punishment which relegates the metamorphosed figure from the hierarchically superior human into a hybrid combination with the hierarchically inferior nonhuman.
- 24 Polytheistic culture, including Ovid's *Metamorphoses*, also includes stories about the transformation of humans into various other nonhuman elements, such as the metamorphosis of Daphne into a laurel tree to escape the pursuing Apollo. However, such narratives are less explicitly concerned with punishing those who are transformed into non-animals – Daphne is protected by this transformation rather than punished with transformation. Thus, Chiara Thumiger claims that
 Metamorphosis into animals is in some way a seminal case within myths of metamorphosis, and surely the most represented in literary and figurative form. Transformation into plants or elements of landscape, [...] however full of interest, feeds less into the reflection about the boundaries of what a culture defines as 'human'. (Thumiger 384)
- 25 Transformation into an animal is therefore more traumatic than transformation into a plant or inanimate object, with the disruption between neat delineations of the human and the animal being coded as traumatic and/or monstrous.

Transition from Classical polytheism to Judeo-Christian monotheism

- 26 I mentioned above that there is an important transitional component to the polytheistic borders between the human and the nonhuman. Ovid's *Metamorphoses* includes tales of monstrous transformations from the human to the nonhuman, but also includes one important narrative, which is subsequently adapted in various ways, about a non-monstrous transformation from the nonhuman to the human. This is the myth of "Pygmalion", a sculptor who, disgusted by the prostitutes who worked near his home, carved himself a statue of an idealised woman (in later iterations named Galatea), and fell in love with the statue, which was eventually turned into a living woman by Aphrodite, the goddess of love. At no point is this particular metamorphosis coded as traumatic or monstrous, so that even if Ovid's stories repeatedly warn about traversing the borders between human and animal, they do not display a comparable anxiety about borders between humans and the coming-to-life of non-living simulacra of humans. This particular lack of anxiety is significant because of the way that subsequent intertextual engagements with the "Pygmalion" story, including *Frankenstein* and a large number of contemporary films, as I discuss below, do demonstrate anxiety about metamorphosis from non-living human simulacra.
- 27 There are two principal reasons why Ovid's polytheistic culture is simultaneously concerned with borders between humans and animals but not concerned with borders between humans and non-living simulacra of humans, whereas the monotheistic and scientific cultures I am coming to have anxieties about both of these borders. These reasons relate to the transitional nature of polytheistic culture, with monotheistic culture extending and adapting the ecophobic shifts from animism to polytheism. Both of these reasons relate to what Julia Kristeva calls "abjection", which is a complex idea with a number of functions, but is principally relevant here in terms of how human cultures unconsciously regulate borders between the human and the nonhuman by consigning anyone or anything that does not neatly fit either side of those borders to the disgusting corporality and animality of the body: "It is thus not lack of cleanliness or health that causes abjection but what disturbs identity, system, order. What does not respect borders, positions, rules. The in-between, the ambiguous, the composite." (Kristeva 4)
- 28 The first aspect of polytheism's transitional nature concerns the gender specific difference between polytheism and monotheism. Polytheism is transitional because of the more definitively matriarchal nature of the preceding animist culture. For historian Rosalind Miles, animistic "woman, with her inexplicable moon-rhythms and power of creating new life, was the most sacred mystery of the tribe. So miraculous, so powerful, she had to be more than man – more than human." (35) For Kristeva, polytheistic paganism still maintains some of animism's matriarchal components. Comparing polytheism with monotheism, she writes that "[a]bjection appears as a rite of defilement and pollution in the paganism that accompanies societies with a dominant or surviving matrilinear character. [...]. Abjection persists as *exclusion* or taboo (dietary or other) in monotheistic religions" (17, original emphasis). For Kristeva, polytheism therefore has a "surviving matrilinear character" (17). In contradistinction, monotheism is characterised by an attempt at "subordinating maternal power

(whether historical or phantasmatic, natural or reproductive) to symbolic order as pure logical order regulating social performance” (91).

- 29 The second transitional aspect of polytheism is related to this gendered component, and concerns the difference between creation myths in which various different divine powers create the cosmos and living beings in a somewhat haphazard, polyphonous and multi-gendered manner, on the one hand; and a creation myth in which a single omnipotent and exclusively male deity is responsible for all creation, on the other. Greek myth was never anything like as unified and codified as monotheistic myth, and there are various creation stories in which Zeus creates man (sic), or (as in Ovid’s adaptation) in which Prometheus sculpts the body of man from clay, and Zeus animates man by breathing life into the sculpture. However, a 3rd century CE marble relief, now in the Louvre, but originally from the temple of Aphrodite at Aphrodisias, demonstrates that there are adaptations of the Greek creation myth in which Prometheus continues to sculpt man from clay, but the female deity Athena is the one who bestows life through breath. Polytheistic creation mythology is therefore less patriarchal than monotheistic creation mythology.
- 30 “Pygmalion” repeats and adapts this transitional polytheistic creation myth, with a male agent sculpting a body, and with a female deity bringing that body to life, thereby making it “human”. Ovid’s polytheistic culture does not share monotheism’s anxiety about this process. For monotheism, the exclusively (divine) male usurpation over biological human creation means that a similar (human) male creation of simulacra of human life would threaten to repeat God’s theft – hence the explicit prohibition “Thou shalt not make unto thee any graven image, or any likeness of any thing” (*The Bible*, Exodus 20:4). For polytheism, on the other hand, the creation of humanity is still a collaborative polyphonous process. So, if animism ascribes creation to the divine feminine of mother goddesses represented by sculptures like that known as the Venus of Willendorf, and the monotheistic deity completely usurps this divine femininity, replacing it with an exclusively male form of creation, then polytheism is transitional, with the creation of humanity partly grounded in a male sculpting of the human body, but also partly grounded in a female *animation* of the human body.
- 31 Monotheistic culture therefore adapts narratives about bestial hybridity and metamorphosis in ways that erect borders both between humans and animals, and between humans and the coming-to-life of non-human simulacra of humans. To some extent, *Frankenstein* is the supreme example of this process, but given that it is also grounded in a specifically scientific policing of borders between the human and the nonhuman, I will address that example below. Prior to *Frankenstein*, however, the most direct monotheistic revisions of “Pygmalion” are Jewish stories about golems. These beings are manipulations of the Biblical account of humanity’s creation, where “the LORD God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul” (*The Bible*, Genesis 2:7). Like Adam, golems are formed from clay or mud, but unlike humans, they are made and animated not by God, but by man, so they themselves lack humanity’s soul. Because they transgress the border between the human and the nonhuman, their narrative trajectories culminate in monstrous destructivity. The polytheistic “Pygmalion” narrative, then, has a benevolent creation which does not erect borders between the human and the coming-to-life of the simulacra of the human, whereas the monotheistic golem narratives erect firm borders by coding the crossing of such borders as monstrously destructive.

Modern science and evolutionary theory

- 32 It is certainly the case, however, that intertextual engagements with “Pygmalion” increase both in frequency and in monstrosity, as exemplified in Shelley’s *Frankenstein*, after the advent of the final phase in my historical outline – the scientific era. As with the other eras I am using here, there is a heuristic component to this, and it is also the case that different points of the broader scientific era, which can be approximately associated with the Early Modern period beginning with the European Scientific Revolution, reflect and produce different anxieties about the relationships between humans and nonhumans. The most direct cultural idea derived from modern science which is reflected in the diachronic development of “Pygmalion”-like narratives about human/nonhuman borders is the theory of evolution – the scientific revelation that humans, far from being unique entities created by any kind of divine agent, are biological adaptations just like any other organism. The theory of evolution has the potential to tear down any artificial ontological borders between the human and the nonhuman that polytheistic and monotheistic culture had erected.
- 33 The reader, at this stage, might object that *Frankenstein* was published in 1818, whereas Darwin’s *On The Origin of Species*, the definitive expression of evolutionary theory, was not published until 1859. However, such an objection would not take into account the fact that ideas pointing towards Darwin’s theory were already in quite wide circulation by the time Shelley wrote *Frankenstein*. Michael R. Page summarises the issue as follows:
- How is it then that we can place *Frankenstein* within an evolutionary context when the novel was written decades before Charles Darwin’s *Origin of Species*? The text’s biological theme is self-evident in this respect. The rise of science in the nineteenth century is characterized chiefly by the development of evolutionary theory, culminating in Charles Darwin’s fully realized evolutionary vision. [But] Darwin was not working in a vacuum. Evolutionary ideas were widely circulating in intellectual circles since the late eighteenth century. *Frankenstein* participates imaginatively in the cultural negotiations of those ideas. (Page 81)
- 34 *Frankenstein* has therefore already been positioned within the kind of evolutionary context I am outlining here. Science was beginning to show that humans are embodied organisms like any other, and this traumatic revelation was reflected in narratives such as *Frankenstein*. As Paul Outka puts it,
- In the nineteenth-century transatlantic culture of Europe and the U.S., a range of scientific discourses [...] began to suggest that human identity was physical rather than spiritual, a particularly complex expression of the natural. We became what we had always been in fact: a part of the earth that learned to talk, rather than Beings who transcend the earthly. Such discourses were reflected in a wide range of texts throughout the nineteenth century. [...] I call such moments the ‘organic sublime’, episodes when an individual experienced and recorded an often profoundly disconcerting awareness of the radical material identity between his or her embodied self and the natural world. (Outka 31)
- 35 In terms of my Jamesonian analysis, polytheism and monotheism both had their own forms of political unconsciousness which produced fictional texts expressing repressed anxieties about human/nonhuman borders, in various different ways. *Frankenstein* is the first clear secular scientific articulation of a political unconscious relating to anxieties about the scientific revelation that there are no distinct ontological borders between humans and other animals. Bestowing life on an initially non-living simulacra

of the human adapts and reinforces the existing monotheistic border between the human and the nonhuman. That border is now under increased pressure, because science is beginning to articulate the fact that such a border is a culturally constructed illusion, rather than an inevitable “natural” divide. When the “Pygmalion”/golem narrative is adapted in light of these scientific developments, it reveals increasing anxieties about the surety of the border, and therefore represents the crossing of the border as increasingly monstrous.

- 36 One of the increasingly monstrous components of this scientific adaptation is a return to the abject. Whereas Galatea was entirely non-abject, and golems were only somewhat abject (transgressive, but not abject in a disgusting embodied sense), Frankenstein’s Creature has a fundamentally abject body. Kristeva thinks of “the corpse [as] the most sickening of wastes [because it] is a border that has encroached upon everything. It is no longer I who expel, ‘I’ is expelled” (3-4). As such, corpses need to be purified and expelled from symbolic human space. The same does not apply to sculptures, which can occupy human space without needing to be purified or expelled. Thus, when Shelley comes to (unconsciously) adapt Pygmalion’s animation of the nonhuman, she replaces non-abject sculpture with the fundamentally and definitively abject combination of dead human body parts. Thus, as Paul Youngquist puts it, although the Creature is “[b]orn without the sustenance of a mother’s body, he nonetheless incarnates its abjection. He is consistently described by others and describes himself as filthy, loathsome, disgusting, hideous” (159). This abject nature operates to regulate the border between the human and the nonhuman by disavowing the scientific revelation that the border is illusory. Therefore, for Outka,

the horror and violence that the creature’s appearance universally precipitates is a repressive operation, the forceful denial of the fact of our own materiality. [...] The monster’s body is our own writ (literally) large. The horror the monster produces [...] is a repressed moment of self-recognition (Outka 40).

- 37 We are the Creature – not divinely made, but fundamentally material; on the other side of a border which it is becoming clear no longer really exists, but which must be fictionally erected all the more forcefully, with all our materiality repressed onto the entirely illusory other side. Evolutionary theory shakes the border, while the political unconscious of secular scientific culture resolves this contradiction, and props the border back up.
- 38 This secular scientific political unconscious about human/nonhuman borders continues to function in contemporary film culture. I only have room to discuss two examples, but these demonstrate how ostensibly very different narratives adapt the benevolent creation of “Pygmalion” into something more transgressive and monstrous. The first of these two narratives, *The Terminator* and its sequels, has the most overtly monstrous “living” nonhuman simulacra of the human. In the near-future, humanity has been almost wiped out by Skynet, an artificial intelligence that controls military systems, and that builds partly organic and partly mechanical cyborgs called terminators to infiltrate and kill the last human survivors. Narratively, these cyborgs continue *Frankenstein’s* *topos* of assigning malevolence to something made to replicate humans and (ultimately) made by humans – the cyborgs are directly created by Skynet, but this system was designed by humans.
- 39 Like Frankenstein’s creation, the terminators are both violently monstrous and abjectly monstrous. The hybridity of the cyborg body and brain (with numerous point-of-view

shots from the robotic perspective) involves an inherent abjection, given Kristeva's claim that the abject is "[w]hat does not respect borders, positions, rules. The in-between, the ambiguous, the composite" (4). But the cyborg's border-problematizing status is made more abject by emphasising the grotesque corporality of the hybrid interaction between organic and machinic components. When wounded in the arm, the first film's Terminator (Arnold Schwarzenegger) cuts open the limb to fix the underlying metal structure. The bloody gape in the arm is horrific on its own, but the full abjection of the images, including a lingering close-up, involves the combination of internal biological body parts with machine components, particularly when veins squelch over the metal rods inside the arm which the Terminator manipulates to make its fingers move. The Terminator also performs surgery to remove a damaged biological eye, with the camera lingering over the disgustingness of the procedure with close-ups on drops of blood and then the eyeball itself in a grimy sink, and a pristine white towel used to soak up the contaminating blood from the eye socket. The Terminator then turns to observe itself in a mirror, showing the spectator the full horror of the bloody empty socket and the mechanical red eye within, before an extreme close-up of the same.

- 40 The Terminator sustains this damage in combat with the film's human protagonists, and in preparation for the final showdown with the same, so that this hybrid bodily abjection connects directly with malevolence against humans. The second film in the franchise, *Terminator 2* (Cameron), also stresses Kristeva's claim that abjection necessitates purification: "the artistic experience [...] is rooted in the abject it utters and by the same token purifies" (17). The Terminator in the first film is destroyed by being crushed, but this leaves parts of its machinic body behind to contaminate human space. These parts are used, in the second film, to accelerate the Skynet programme, so they narratively contribute to the anthropogenic development of that which threatens the borders between humans and nonhumans, and which threatens to exterminate humanity. At the end of the film, a reprogrammed Terminator (Arnold Schwarzenegger, again) agrees to remove its own body's dangerous defilement of human space by sacrificing itself in the purifying fires of a vat of molten metal, thereby preventing contamination from one side of the human/nonhuman border to the other. The self-annihilation of this second Terminator is all the more purifying given that it has begun to learn and empathise with human emotions, saying "I know now why you cry". In this move from malevolence to benevolence, the Terminator closes the gap between the ontological categories of human and nonhuman, so that even when the cyborg ceases to be narratively monstrous, its hybrid problematization of human/nonhuman borders still means that it is an abject threat to humanity's illusory uniqueness which needs to be entirely removed from human space.
- 41 This sustained abjection in the movement from malevolence to benevolence is also manipulated in an ostensibly very different film like *Toy Story*. The nonhumans in this film, and its sequels, are not monstrous or malevolent in a similar manner to terminators, although there are also films about self-animating toys which are violently monstrous (see Geal, *Animated Images*). Nevertheless, the "living" small simulacra of humans in *Toy Story* both problematize and subsequently reinforce borders between humans and nonhumans. The most central and most repeated element of this border work is an unexplained injunction against revealing to humans that the toys have human-like consciousness, agency, emotions and physical abilities. The *Toy Story* films never answer or even ask why the toys do not reveal their abilities

to humans (nor do they answer or ask why the toys have these abilities). *Something* prevents this revelation from happening, and the nature of this “something” is both unspecific but also unquestioned/unquestionable. This “something” is so important to the toys that they do not reveal their abilities to humans despite torture (when Woody [Tom Hanks] is burnt by a magnifying glass, and subsequently splashes his head in milk to dull the pain), and despite the threat of being run over by a truck. Even when Buzz (Tim Allen) thinks that he is a real astronaut rather than a toy, something in his unconscious upholds this prohibition, and he passively allows himself to be played with.

- 42 I have argued elsewhere that the toys’ “living” humanlike-ness transgresses Biblical prohibitions against bestowing life on non-living simulacra of humans (Geal, *Animated Images*), but in the diachronic context I am employing here, this transgression is part of broader anxieties about human/nonhuman borders. The toys reflect our culture’s simultaneous awareness that humans are not an ontologically distinct category, and our unquestioning repression of that awareness. Most tellingly, on the one occasion when the toys do reveal their abilities to a human they do so in a definitively monstrous manner. This monstrosity, moreover, employs intertextual references both to *Frankenstein*’s shift from benevolent to malevolent creation, and to abject examples of transgressive human/nonhuman hybrids.
- 43 This malevolent monstrosity is brought about when the toy torturer Sid (Erik von Detten) prepares to blow up Buzz. The monstrosity of Sid’s toys is actually established prior to this, when Woody and Buzz are first taken to his house, where they meet various toys made monstrous by Sid’s *Frankenstein*-like behaviour. Donning a surgical mask, Sid plays at being a “doctor”-creator, hybridising his sister’s doll’s body with a snarling pterodactyl head. Previously created abject hybrids, including Babyface, a one-eyed baby’s head on mechanical spider legs, then appear to scare Woody and Buzz. In addition, one of Sid’s toys, a green disembodied hand in a jack-in-the-box, references the green skin of *Frankenstein*’s Creature from *Bride of Frankenstein*’s (Whale) official poster (the film itself being in black and white). All of the film’s toys were presumably made by humans, in some off-screen moment prior to the specific narrative, but when the narrative does show toys being made by a human creator, the results are specifically abject in their hybridity and intertextuality.
- 44 Woody and Buzz soon discover that these unfortunates are visually monstrous but not malevolent, although their monstrosity will be employed to take revenge on Sid, when the toys finally reveal their abilities, and emphasise their grotesqueness. This revelation has Babyface’s mechanical legs and the *Frankenstein*-like hand grabbing at Sid, and even the central character Woody becomes monstrous when he reveals his ability to talk and think to a human. His string-activated talk box begins to operate without being pulled, and the voice then mentions Sid’s name. The incredulous Sid picks up Woody, who will soon speak directly by moving his mouth, but not before his head spins round 360° in a reference to the violently disgusting abject occupation of the (human) girl Reagan’s (Linda Blair) body by a (nonhuman) demon in *The Exorcist* (Friedkin).
- 45 Both *The Terminator* and *Toy Story* films therefore demonstrate that our contemporary political unconscious has anxieties about the borders between humans and nonhumans which need to be obliquely expressed so that they can be unconsciously resolved. This article has argued that these borders have a history, and that certain fictional

narratives are repeatedly adapted in ways that demonstrate the development of historical attitudes about those borders. Contemporary texts that adapt elements of “Pygmalion” and *Frankenstein* can either depict the nonhuman simulacra of the human as purely malevolent; or present benevolent nonhumans who nonetheless still police borders between the human and the nonhuman, revealing continuing anxieties about humanity’s jealous monopolisation of its illusory uniqueness. Ecophobia can therefore be seen to take different forms, and these forms have a history. The study of how ecophobic narratives intersect and adapt can help us to uncover that history, and better understand our own culture’s illusory ecophobic border work.

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ABSTRACTS

Humans are evolutionary adaptations of other biological organisms. However, socio-cultural adaptations associated with the Neolithic Agricultural Revolution, the rise of monotheism, and the Scientific Revolution, have contributed to a radical ontological separation of the human from the nonhuman. This false binary opposition facilitates humanity's destructive behaviour towards nonhuman components of our biosphere, threatening the existence of our species. This article explores the historical development of artistic texts that demonstrate anxieties about transgressing borders between the human and the nonhuman. These texts use repeated narrative and thematic *topoi* that are adapted to reflect historical attitudes towards human/

nonhuman borders. Palaeolithic culture produced art which demonstrated a lack of borders between the human and the nonhuman, but following the Agricultural Revolution, ecophobic cultures produced fictional narratives warning about the monstrous consequences of transgressing human/nonhuman borders. The article traces these ecophobic borders from the polytheistic 'Pygmalion' narrative, through the monotheistic/scientific *Frankenstein* narrative, to contemporary films about human/nonhuman borders such as *The Terminator* and *Toy Story*.

Les humains sont des adaptations évolutives d'autres organismes biologiques. Cependant, les mutations socioculturelles associées à la révolution agricole néolithique, à la montée du monothéisme et à la révolution scientifique ont contribué à une séparation ontologique radicale entre l'humain et le non-humain. Cette fausse opposition binaire facilite le comportement destructeur de l'humanité envers les composantes non humaines de notre biosphère, menaçant l'existence de notre espèce. Cet article explore le développement historique de textes artistiques qui témoignent de l'anxiété liée à la transgression des frontières entre l'humain et le non-humain. Ces textes utilisent des topoï narratifs et thématiques récurrents qui sont adaptés pour refléter les attitudes historiques envers les frontières entre l'humain et le non-humain. La culture paléolithique a produit un art qui démontrait l'absence de frontières entre l'humain et le non-humain, mais ensuite la révolution agricole, les cultures écophobes ont produit des récits de fiction mettant en garde contre les conséquences monstrueuses de la transgression des frontières entre humain et non-humain. L'article retrace ces frontières écophobes depuis le récit polythéiste de Pygmalion jusqu'aux films contemporains sur les frontières entre humains et non-humains tels que *Terminator* et *Toy Story*, en passant par le récit monothéiste/scientifique de *Frankenstein*.

INDEX

Keywords: ecocriticism, abjection, political unconscious, memes, Pygmalion, Toy Story, Terminator, religion, natural selection, film

Mots-clés: écocritique, abjection, inconscient politique, mèmes, Pygmalion, Toy Story, Terminator, religion, sélection naturelle, film

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