Abstract

Postwar literature (and postwar SF in particular) is marked by a concern that emerging techno-cultural developments would undermine the sovereignty of the humanist subject. The mass production of culture and an increasing dependency on technologies were seen as inimical to individualism, literary culture, and human agency. In the same period, new research into the cognitive and behavioural capacities of nonhuman animals put further pressure on the exceptional status of the humanist subject. Drawing on recent work in posthumanist theory and animal studies, I produce a new reading of Ray Bradbury's *Fahrenheit 451* in the light of this twofold crisis of human exceptionalism. I claim that Bradbury's novel typifies a broader tendency in postwar culture to use animal life as a metric by which to gauge the supposed technological attenuation of subjectivity, and I explore how his pessimistic diagnosis of the emergent mass culture discovers a surprising conjuncture of human, animal, and technology in the postwar moment.

Literacy, *Bêtise*, and the Production of Species Difference in Ray Bradbury's *Fahrenheit 451*

Ray Bradbury's 1953 novel *Fahrenheit 451* imagines a dystopian future in which literacy is legally proscribed and humanity kept in a state of artificially induced stupidity, aided by a cultural fixation on technological novelty and the banalities of mass produced entertainments. While scholars have offered valuable accounts of Bradbury's elegy for American individualism (Seed, 1994; McGiveron, 1996), in this article I hope to contribute to this ongoing conversation by focusing on an aspect of the novel which has been under-examined in the existing literature: Bradbury's use of animal figures as a device for bringing to light the relationship between technological culture, mass stupidity, and the legacy of individualism. Drawing on recent work in posthumanist theory and animal studies, I argue that *Fahrenheit 451* uses animal life as a metric by which to gauge the attenuation of subjectivity in contemporary culture, and that Bradbury's diagnosis of the emergent mass culture discovers a surprising conjuncture of human, animal, and technology in the postwar moment.

Fahrenheit 451 reflects a generalised anxiety in postwar culture concerning the future of humanist individualism and its relation to animal life. Animal studies insists on the historicity of concepts of species difference, including (and perhaps especially) the historicity of human-animal difference. As Erica Fudge has recently pointed out, 'just as ideas are transformed across time and space, so what it means to be a human is also shifting' (22). This genealogical approach allows us to track the ways in which the figure of 'the human' underwent a profoundly ambivalent transformation in the years following the Second World War. Refusing the optimistic universal humanism associated with the defeat of fascism and the development of the United Nations, many humanists were beset by an anxiety about the future of subjectivity in technologically-rationalised postwar society. For these writers, humanist subjectivity was perceived to be diminished by technological and cultural transformations. In the context of an emerging mass culture, new technologies of entertainment and media were charged with rendering their audiences as docile, passive recipients of received truths. Thinkers as diverse as the novelist Ray Bradbury, the philosophers T. W. Adorno and Max Horkheimer, and the social theorist David Riesman identified, in very different ways, a new horizon of subjectivity engendered by the pacifying effects of technologically-saturated mass culture. In the new society, they asserted, inhuman idiocy was endemic, and technology was drawing humanist subjectivity into ever closer proximity to the (alleged) animal stupidity against which it had formerly defined itself. At the same time, subjectivity was being divested of its autonomy and individuality, becoming as regularised and predictable as the technological apparatuses to which it was subjected.

Ray Bradbury's fiction provides a singularly eloquent and sophisticated exposition of these anxieties, and *Fahrenheit 451* in particular stages the decline of the liberal subject against a backdrop of technological acceleration and an increasingly destructive attitude to the nonhuman world. The success and enduring appeal of Bradbury's novel make it a crucial text for mapping the conceptual relationships between technology and subjectivity. While many Bradbury scholars adopt a broadly affirmative stance towards his analysis of the waning of individualism (Eller and Toupounce, 2004; McGiveron 1996), and defend its continuing relevance to social critique (Patai, 2012), my intentions here are rather different. I am interested in exploring the occluded violence of varieties of individualism such as Bradbury's, and in particular the violence necessary to securitising a notion of humanist subjectivity over and against the nonhuman (whether animal or technological) and the quasi-human (the supposedly deluded, disindividuated masses of late capitalist society).

The postwar conjuncture of humanist subjectivity, animal 'stupidity', and technological regularisation found expression in the repeated invocation, in *Fahrenheit 451* and elsewhere, of animal and technological figures which complicate what Elaine Graham has referred to as the 'ontological hygiene' of humanism (33). These figures focus humanism's anxieties concerning the relationship between the individual and the mass, rationalism and stupidity, and agency and instrumentality. Following these uncanny beasts through *Fahrenheit 451* and contemporary social-scientific and theoretical texts, I aim to connect this constellation of ideas concerning species, individualism, and the idea of 'the mass' to a pervasive thematic of mass death (both animal and human) in postwar culture.

By the mid-twentieth century, the process of technological routinisation, which earlier in the century had transformed the sphere of labour and production, came now to revolutionise the leisure habits of the Western countries (Booker 5). The imperatives of Fordism and Taylorism were translated into the production of culture, as the mass market for film and radio, together with the expansion of international networks of distribution for cultural commodities, meant that a larger section of the population than ever before were positioned as passive consumers of the same standardised and homogenous products of a mass culture industry. This intersection of the rhythms of labour and leisure was noted by T.W. Adorno and Max Horkheimer in their seminal critique of late modernity, *Dialectic of Enlightenment*. According to Adorno and Horkheimer, the new mass culture works 'by subordinating […] all areas of intellectual creation, by occupying men's senses from the time they leave the factory in the evening to the time they clock in again the next morning with matter that bears the impress of the labour process they themselves have to sustain throughout the day' (131).

For Adorno and Horkheimer, the intellectual autonomy that had been the promise of Enlightenment and modernity was no longer able to be cultivated in the soil of market-driven mass culture. The noetic act of 'intellectual creation' is superseded by a new concern with the occupation of 'men's senses'—a shift from wilful subjectivity to docile corporeality.[i] The seduction of the Western masses by standardised cultural goods meant the standardisation of individuals as well as commodities: 'The culture industry as a whole has moulded men as a type unfailingly reproduced in every product' (127).

This anxious narrative of the disindividuation of late-modern subjects by a hegemonic mass culture found an ironic echo in that culture itself. In Don Siegel's 1956 film *Invasion of the Bodysnatchers*, the tranquillity of American suburbia is disrupted by an alien invasion. Neither monstrous nor even obviously inhuman, the aliens of *Bodysnatchers* spread by forming themselves into duplicates of healthy humans. The duplicates are discoverable primarily through their disquieting affective flatness, by their refusal of the Cold War imperatives of faith, patriotism, and heterosexual love, and most of all by their exaggerated lack of individuality. The replacement of healthy American citizens by indistinguishable inhuman clones stages a double anxiety in postwar culture: firstly, the fear of an elusive and indefinite Enemy that threatens American domesticity; and secondly, a concern that in contemporary society, individualism has been attenuated to the point where one citizen can be substituted for another without remark. In Cold War America, these two anxieties form a kind of unity, and the reassertion of individualism therefore becomes an indispensable ideological weapon against Communism. *Bodysnatchers* should not, however, be read as posing a simple opposition between Soviet collectivism and American individualism; the narrative is intelligible only if one grants that, while Soviet Russia may be a paradigmatic regime of disindividuation, the same social forces of standardisation and conformism are also present, if only incipiently, in Eisenhower-era American domesticity.

Contemporary research in the social sciences contributed to this diagnosis of mass disindividuation and conformism. In his highly influential study *The Lonely Crowd* (1950), social theorist David Riesman identified a trajectory of declining individual consciousness, which, though beginning earlier in the twentieth century, was coming to crisis in the years following the Second World War. As glossed by the Cold War cultural historian Alan Nadel, Riesman charted how

> In the eighteenth- and nineteenth-century industrialized West, […] an inner-directed social character emerged that consolidated the values of what is usually called the Protestant Ethic. In the mid-twentieth century, however, this inner-directed individual was being usurped by other-directed people, whose values come not from what Riesman called an internal gyroscope but rather from external radar. (167)

The autonomous individual which had served as the foundation for the political and philosophical projects of post-Enlightenment humanism suddenly found itself to be an endangered species.

Cold War culture (especially though not exclusively in the United States) therefore encapsulated a parallel series of tensions between individualism and conformism, dissidence and ideological orthodoxy, and human agency and technological determination. Intellectual historians of the period have had much to say about this complex of anxieties, but I would suggest that they have not sufficiently attended to its mediation by one of the primary conceptual antagonisms of Western individualism: the relationship between the fantasy figure of 'the human' and its nonhuman others.[ii] In particular, I claim that nonhuman animal life has been drawn upon (often tacitly, sometimes explicitly) as a way of making intelligible the supposedly novel privations which, it was claimed, denatured humanist subjectivity in late-modern mass culture. If the transformations of the postwar period incited anxieties surrounding the disindividuation of the masses (recall Adorno and Horkheimer's assertion that 'The culture industry as a whole has moulded men as a type unfailingly reproduced in every product'), then 'the animal' stands ready to hand as a cultural resource for thinking through concepts of the 'type' or mass. Because of their supposed conformation to type (or species), animal lives are disindividuated by default, according to humanist convention. In this account, animals are bound by a species-specific repertoire of behaviours and dispositions, and can only be individuated artificially and from without, as in the case of companion animals kept by well-meaning if naïve owners, who bestow upon them names and personalities. The animal, as the privileged symbol of the mass, the kind, and the type, figures the negation of humanist individualism. It is little surprise, then, that Yale's 2001 edition of Riesman's *The Lonely Crowd* features on its cover the conventional image of a herd of sheep.

Elaborating further this structural role played by 'the animal' in making sense of the crises of postwar humanism, I'd like to turn to a novel which explicitly thematises animality in relation to technology, mass culture, and disindividuation. Written in a nine-day stretch at a rented typewriter in the basement of the UCLA library, the origin story of Ray Bradbury's *Fahrenheit 451* (1953) invokes a notion of writing as inhuman, automatic labour, its outcome a novel born of a weird miscegenation of human, animal and machine. In Bradbury's own account, the work of producing the novel saw him

> attacking that rentable machine, shoving in dimes, pounding away like a crazed chimp […]. I did not write *Fahrenheit 451*, it wrote me. There was a cycling of energy off the page, into my eyeballs, and around down through my nervous system and out through my hands. The typewriter and I were Siamese twins, joined at the fingertips. (220)

Writing here effaces subjectivity, the subject being an effect rather than a cause of the text. Constituted in and through the technological apparatuses in which it is inextricably entangled, the writing subject owes more to the vital force of inhuman affect than to calculating reason. Bradbury's account of writing strikes this reader as deeply surprising, since his novel's project is seemingly to push back against the hegemony of the inhuman, the technological, and the automatic in postwar society; to reassert literacy and literary culture as a mechanism for *anthropopoiesis*: an institution which can take up the difficult work of producing properly human subjects at a moment when mass culture seemed set to abolish the possibility of humanist individualism.

Fahrenheit 451 imagines a future American society in which literacy is morally and legally deprecated. Montag, the novel's protagonist, is a fireman: a worker charged with rooting out the last traces of literary culture. In Bradbury's world, the social function of the fire service is inverted. Instead of protecting culture, property, and life from the dangers of fire, *Fahrenheit*'s firemen are a force for destruction, burning books together with the homes and bodies of the literate dissidents who read them. Montag's introduction in the novel informs us of the new regimes of subjectivity which are produced by mandatory post-literacy. After a day at work in which he had most recently enjoyed the nihilistic spectacle of book burning, Montag returns home where, when we encounter him, he is 'thinking little about nothing in particular' (11). Together with the proliferation of recreational machines and broadcasting devices in the novel, fire is the central figure for the displacement of literacy and cognition by *technē*. In an inversion of the Promethean myth, the acquisition of technics (represented metonymically by fire) which had classically placed humanity in transgressive proximity to godhood initiates instead, in Bradbury's account, a dangerous process which in its late-modern declension threatens to reduce human intellect to inhuman stupidity. When the novel begins, Montag, as a specialist in fire, is presented as having forfeited the intellectual autonomy made possible by literary culture and made impossible by the ascendency of technological reason. He thinks little, and derives aesthetic nourishment only from the proper and efficient working of technology: 'It was a pleasure to burn', as the novel's opening line puts it (9).

With Adorno and Horkheimer, who noted 'the enigmatic readiness of the technologically educated masses to fall under the sway of any despotism' (xiii), Bradbury reads the coming together of technology, culture, politics, and subjectivity as entailing not liberation but domination. The post-literate masses in *Fahrenheit* spend their time absorbed in high-tech diversions, most notably the soap opera 'family' which is broadcast continuously on three of the four walls of the Montag family home. (The aspiration to add a fourth televisual wall, thus achieving a kind of closure in the conflict between techno-culture and subjectivity, instantiates the acquisitive attitude which Bradbury identifies with postwar consumerism, and supplies

Montag with the obligation to go on working in spite of a crisis of conscience.) The effect of all this is to estrange Montag's wife Mildred from (what Bradbury considers as) authentic heterosexual domesticity, as well as diminishing that faculty of critical agency which would allow her to question the despotic nature of the state and its apparatuses. The technological apparatuses which disseminate the new mass media are thus charged with levelling and standardising postwar subjectivities, a tendency which Riesman noted in *The Lonely Crowd*. Under the heading 'Entertainment as adjustment to the group', Riesman asserted that, instead of relying on individual initiative, in the new cultural environment 'The child must look early to his mass-media tutors for instruction in the techniques of getting directions for one's life' (149).

This techno-cultural interruption of the processes of individuation and political subjectivisation impacts, it is suggested, on intellectual life, and in dialogue with Adorno and Horkheimer, Bernard Stiegler has recently argued that this has led to

> a process of *generalized proletarianization*, […] a process that *liquidates all forms of knowledge*, including and especially, today, *theoretical knowledge*. […] While this process of proletarianization may produce a kind of pragmatic intelligence, *metis*, ingenuity, a shrewdness or a cunning *through* which everyone seems to have become "cleverer", it in fact leads to a *generalized stupidity* which, in 1944, comes along with the still very recent advent of the culture industry. (161, emphasis in original)

This substitution of acquisitive, practical knowledge for autonomous reason—which Stiegler significantly frames as the ascendancy of *bêtise*, or animal stupidity—finds an echo in the cynical manipulations of Montag's employer Beatty, a fire chief who perfectly well understands the deleterious effects of the new culture, but whose fascistic preference for homogeneity over agonistic individualism leads him to endorse them. For Beatty, one route to social conformity is to '"Cram [the people] full of non-combustible data, chock them so damned full of 'facts' they feel stuffed, but absolutely 'brilliant' with information"' (80).

The upshot of this highly-mediated culture, where technical and quantitative knowledge enjoys unquestioned epistemological supremacy, is that (what Bradbury would characterise as) spontaneous human individualism is attenuated drastically by the new social forces. As Beatty puts it, '"We must all be alike. Not everyone born free and equal, as the Constitution says, but everyone *made* equal. Each man the image of every other"' (77, emphasis in original). Bradbury contends that post-literate mass society will result in the substitutability of human subjects: anyone can fill any role in the social totality, because all are essentially identical.[iii]

Only literacy can cultivate the kind of agonistic individualism necessary to secure the continuation of properly human subjectivity, as one key character asserts. Faber, a former English professor now living in fear of the state, understands literacy as a mnemonic technology, a bulwark against cultural amnesia: books were a 'type of receptacle where we stored a lot of things we were afraid we might forget' (107).[iv] Persistence in time here is

recognised as a condition for the formation of subjectivity, whether the personal time that marks the ontogeny of the individual or the historical time in which cultures emerge and develop. The new technologies of mass culture dissolve time, continually occupying one's attention and preventing the reflective remembrance which Faber (and through him, Bradbury) sees as necessary to subjective individuation. Without literacy, and therefore memory, political subjectivity becomes impossible, though for Captain Beatty (the voice of technocratic cynicism in the novel), this is preferable to political conflict between individuals. Faber warns the newly literate Montag to be wary of his employer: 'But remember that the Captain [Beatty] belongs to the most dangerous enemy of truth and freedom, the solid unmoving cattle of the majority' (140). Faber's conventional image of the herd here recalls us to the thesis with which I began: that nonhuman animal life was deployed as a conceptual device for making sense of the supposed decline of humanist individualism in the postwar period.

The culture industry's promotion of celebrity becomes, from this vantage point, a strangely inhuman exercise. Adorno and Horkheimer assert that 'Those discovered by the talent scouts and then publicized on a vast scale by the studio are ideal types of the new dependent average' (145). The process of manufacturing celebrity instantiates the tendency, wherever culture and instrumental reason coincide, to efface individual variation and replace it with an appealing though generic substitute. The ideal and the average coincide, and the notion of an exemplary human now functions less as a regulative ideal for political humanism (the universal subject of reason) and more as a morphological marker signifying value in the marketplace of culture (the film star with the attractive but otherwise unexceptional face).

The displacement of individuated subjectivity by the generically appealing face indexes a more general displacement of intellect by corporeality, and for Adorno and Horkheimer, the culture industry's promotion of morphological and behavioural norms places human subjectivity in uncomfortable proximity to nonhuman life: 'Ironically, *man as a member of a species* has been made a reality by the culture industry. Now any person signifies only those attributes by which he can replace everybody else: he is interchangeable, a copy' (145, emphasis added). This shift from cognition to morphology (and a standardised morphology at that) completes the disindividuation of late-modern subjects by the culture industry, and the inhuman remainder of this process is no longer the anthropological 'Man' but the biological species *Homo sapiens*.

If Bradbury's vision of post-literate humanity adheres to this narrative of decline in which humanist individualism becomes inhuman conformity to type, the text's central animal figure of the Mechanical Hound reverses this movement by becoming so thoroughly individualised (albeit artificially) as to render impossible any attempts to account for its behaviour by recourse

to the ethological archive of species-specific behavioural repertoires. Before attending more closely to this key figure, however, I'd like to make an important qualification of the political ontology of animal life which is (implicitly or explicitly) invoked in these discussions of individuation and the species. Recall Beatty's cynical advocation that the ideal society would give up the American attachment to individualism and set out instead on a project of active standardisation of subjectivities: '"Not everyone born free and equal, as the Constitution says, but everyone *made* equal"' by the techno-cultural apparatuses of post-literate society (77, emphasis in original). This fabricated standard, which in the political ontology of humanism represents a kind of artificial distortion of an originary individualism, is presumed to be redundant for nonhuman animals who after all are standardised by default, falling into natural kinds (or species) which exhaustively determine their range of behaviours.

If the idea of a standardised human strikes political humanism as a dystopian nightmare, no such anxiety is felt about the idea of a standardised rat, for example, since rats are apprehended as always-already standardised. The generic Rat is not politically troubling, nor is it a state to be achieved through the work of fabrication; it is simply the default onto-ethological state of all rats, who are held to be constitutionally deprived of the possibility for individuation which is the exclusive inheritance of human beings. Of course, this reading of nonhuman life completely misses the diversity *within* species, flattening individual variation in the effort to construct a generic identity between all individuals of a given species. Strategies to arrest or divert recognition of nonhuman infra-specific variation abound in the epistemologies of humanism. At the level of zoological taxonomy, the concept of the holotype fixes an individual specimen as the archetype of a species; a kind of Platonism of the nonhuman which, while not in itself arresting the apprehension of morphological variation, supplies a zoometric benchmark against which variations can be assessed in terms of deviation and similitude.[v]

Such strategies for domesticating infra-specific differences take place not only at the epistemic level but also at the level of technological and institutional practices, and most prominently so in the rigorously controlled breeding programs that supply animals to agribusiness and scientific research facilities. Not only conceptual animality but also individual animal bodies are made to conform to the species 'type' by these practices of population control. Although selective breeding for research has a long prehistory, the establishment of controlled populations in the late nineteenth and early twentieth century came under more intensive disciplinary regulation in the period when Bradbury was writing, as Lynda Birke has noted:

> Before the Second World War, lab animals might come from a variety of sources, including fanciers; conditions, too, were highly variable, with some animals literally kept in the lab. After 1945, conditions became more standardized, and specific animal houses emerged—changes that helped to perpetuate standardization of animals. (209)

Karen Joy Fowler's recent short story "Us" follows this trajectory up to its apotheosis in the millennial project to produce an International Genetic Standard rat. Narrated by an IGS rat, "Us" sketches a genealogy of rat-human co-domesticity, from the earliest dispersal of rat populations on board the ships of migrating humans to the confinement of rats in the research laboratories of the twenty-first century. These rats, our contemporaries, have undergone a process of selective breeding which sought to displace lively agency in favour of docile instrumentality. 'Our path is one of standardized breeding, standardized handling. Genetic variation has been minimized in the attempt to eradicate the noise of individual personality. The ideal laboratory rat is an apparatus in today's modern lab, a test tube' (484).

If humanism deploys a notion of internally homogenous animal species as a deficient counterpoint to human multiplicity and potentiality, this deployment is only made possible by the forgetting of a whole history of technological disindividuation of animal life. As a promotional document for Charles River Laboratories' animals claims,

> The International Genetic Standard system ensures our customers that, whether they buy CRL animals in Europe, the United Kingdom, Japan, the U.S., or any other Charles River location, the animal will be bred with uniformity. This new generation of animals provides similarity and reliability from plant to plant and country to country. (Charles Rivers Laboratories, 1999)

Through the work of its technological and scientific apparatuses, then, humanism militates against the recognition of nonhuman individuality by *producing* the standardisation which it elsewhere claims simply to have discovered.

Returning to the postwar cultural context, we can see more clearly how a discourse of species is used to make sense of the supposed attenuation of autonomous subjectivity that befalls human populations when both economic production and culture itself are exposed to the forces of technological rationalisation. The International Genetic Standard rat represents the culmination of a trajectory of ever-increasing disindividuation which technological reason enforces on individual subjects (human and nonhuman), and the quasi-subjects which result from this process are characterised first of all by their *substitutability*: any individual can be replaced by any other and, assuming that both are operating within the same environmental context, each will perform predictably and identically. In this analysis, late-modern capitalist culture incites an expansion of the standardising (and inhuman) imperatives of the factory and the laboratory into subjectivity itself.

My brief foray into the political-ontological matrix which produces these claims of individuality and uniformity was intended to capture something of the bad faith of a humanism which reproduces these claims differently across species lines. The generic animality which allows humanism to think its own demise (apparent in *Fahrenheit* as Faber's 'unmoving cattle of the

majority') is held to be the originary state of nonhuman animal species despite being *produced* through technological intervention. In contrast, Captain Beatty counterposes literate, individuated humanity to the standardised quasi-subjects which comprise post-literate humanity; and this distinction, significantly, rests on the introduction of artifice into human development: '"Not everyone born free and equal, as the Constitution says, but everyone *made* equal"'. The individualism of the United States' Constitution links freedom to natality, and this originary individuality, for Ray Bradbury, can either be further extended by literary culture or curtailed by the diversions of mass culture. While I would stop short of endorsing a thesis of originary individualism for either human or nonhuman, I hope to have shown how this schema opposing artificially standardised humanity to naturally uniform animal species erases the technological work which can generate tendencies towards standardisation for both.

Reading Adorno and Horkheimer, Riesman, and later Bernard Stiegler, one senses that this narrative in which animals are always-already uniform, whereas humans are *becoming* inhumanly regularised under the hegemony of technological reason, must always follow a unidirectional trajectory: humans may become inhuman, but there is no sense of a compensatory possibility of increased nonhuman agency. Stiegler, for instance, asserts that 'Between the human and the animals there is a *change of regime* of individuation which is a *change of relation* to its preindividual funds. Humans individuate *psychically* whereas animals individuate *specifically*' (166). Developing this ontology with reference to Gilbert Simondon, Stiegler defends the exceptionality of human agency: 'Psychic and collective individuation is what occurs when "life problematizes itself". This problematization results in a *decoupling between perception and action*, that is, it means behaving *differently, otherwise* than merely a *reaction'* (168, emphasis in original). To speak of nonhuman agency here is to make a kind of category error; to misread animal reactivity as a form of wilful subjectivity. Human psycho-social individuation may be interrupted—and this is the fate of late-modern subjects who are nothing other than 'non-inhuman beings faced with the fact of being-inhuman' (162), in Stiegler's tellingly negative formulation—but animals are forever retained within the enclosure of 'reaction', ontologically incapable of offering an authentic response.

Ray Bradbury, however, is less certain of the irreversibility of this trajectory. In *Fahrenheit 451*, he imagines that the same technological processes which render humans docile and compliant may, when directed instead at the nonhuman world, result in the monstrous graduation of animal life into agency and subjectivity. These tendencies are embodied in the novel by the Mechanical Hound, a figure of ontological indistinction which focuses Bradbury's fears of a post-organic Nature. Neither strictly machine nor beast, the Hound is at once a mechanomorphic animal and a theriomorphic technology. It functions, on the one hand, as a thoroughly instrumentalised nonhuman animal. It is a tool of the fire service, engineered to

enforce the regime of mandatory post-literacy by hunting and killing literate dissidents. In this guise, the Hound recalls its namesake the Cartesian beast-machine in being denied agency by a humanism which reserves for itself the privileges of autonomy and self-mastery; it tracks its targets 'like a moth in the raw light' (36). Wondering about the possibility of the Hound malfunctioning or worse, wilfully disobeying (and perhaps endangering) its human masters, Montag fearfully suggests to Captain Beatty that the Hound might not like him. The Captain replies:

> "Come off it. It doesn't like or dislike. It just 'functions'. It's like a lesson in ballistics. It has a trajectory we decide for it. It follows through. It targets itself, homes itself, and cuts off. It's only copper wire, storage batteries, and electricity." (38)

The Hound here materialises the Cold War imperatives of technological militarism. Like a 'ballistic' missile, it follows the 'trajectory' set for it by its human masters. The boundaries between repressive technologies and animal life become obscure, the one assimilated to the other under a regime of anthropogenic instrumentalisation which is capable of apprehending nonhuman materiality only as *means* to some (usually violent) end.

For Bradbury, late-modern technocracy orients itself towards the nonhuman world by way of a fantasy of control, which renders animals and technologies as thoroughly domesticated and transformed into predictable, compliant instruments. As we have seen, however, this reduction to docile instrumentality equally designates the fate of human life in postwar culture, according to Bradbury and his co-thinkers. Significantly complicating Beatty's account of the domesticated Hound, Bradbury imagines the nonhuman instrument metamorphosing into something like a quasi-agentive subject. This quasi-agency manifests first of all in the Hound's refusal to abide by orthodox taxonomies of nonhuman life; to resist the ascription of identity that would make it fully knowable and therefore pliable. It is an uncanny or queer beast which 'slept but did not sleep, lived but did not live' (35). A figure of ontological indistinction, the Hound is post-organic yet somehow still vital: 'something that was not machine, not animal, not dead, not alive, glowing with a pale green luminosity' (174). Its constitution revisits the postwar *topos* in which the animal body is the site at which the risks generated by threatening new technologies are made manifest, from the 'glowing luminosity' of nuclear radiation to the 'capiliary hairs in [its] nylon-brushed nostrils' (35).[vi] As a post-organic substitute for wool, nylon attests to Bradbury's anxieties about the displacement of 'natural' animality by artifice, as well as suggesting the novelties of the new consumer culture (women's stockings being the most iconic use of nylon in the 1950s).[vii]

While notionally a fully-automatic, thoroughly instrumentalised stimulus-response machine not dissimilar from the stupefied humans seduced by the new mass culture, in other respects the Mechanical Hound resembles the properly autonomous subject of modernity. We

learn that the uncanny Hound 'did not touch the world' (176), and in this it echoes the self-regarding mythology of humanism. The human, in this account, transcends worldliness; it discovers its own subjectivity in an act of intellection (the Cartesian *cogito*), and exists first of all as pure subjectivity, being embedded in worldly relations only accidentally. Animals, in contrast, are apprehended as aboriginally worldly, immersed in (and fully determined by) their environmental contexts: 'There is, for the wolf, a continuity between itself and the world', claims George Bataille (24). More negatively, in many post-Romantic and ecocritical accounts, this supposed human worldlessness is figured as a privative divorce of humanity from its natural environment; a kind of ontological homelessness (Bate 2001).[viii] As Ralph R. Acampora sketches this position, we humans are said to 'initially find ourselves as discrete objects whose original problem is to figure out how to connect to the world' (4). Humanism fantasises that we exist 'in some abstract, retro-Cartesian position of species solipsism where our minds seem to just float in a rarified space of pure spectatorship apart from all ecological enmeshment and social connection with other organisms' (ibid.). As the post-organic successor to Bataille's wolf, Bradbury's Hound inhabits this imagined space of ontological homelessness like a monstrous parody of transcendental subjectivity. Constitutionally dissociated from what Acampora describes as the 'climaticity' (33-34) of its environmental context, the Hound is 'like a wind that didn't stir grass' (*Fahrenheit* 176).

In contrast, the environmental milieu of the novel's human masses now consists of '"clubs and parties, […] dare-devils, jet cars, motorcycle helicopters, […] sex and heroin, more of everything to do with automatic reflex"' (80), as Beatty puts it. Montag's wife Mildred is permanently plugged in to 24-hour media, and she struggles to differentiate between her intimate social relationships and her soap-opera 'family', a 'gibbering pack of tree-apes that said nothing, nothing, nothing and said it loud, loud, loud' (59). These technologies *captivate* their audience, to appropriate Martin Heidegger's term for the supposedly impoverished ability of animals to transcend their environmental contexts. If formerly 'throughout the course of its life the animal [was] confined to its environmental world, immured as it were within a fixed sphere', in *Fahrenheit* post-organic animality has achieved transcendence just as human subjectivity has become fully immured in (and continuous with) its technological and media ecologies (Heidegger, cited in Buchanan 73).

Bradbury's account of an artificial future for organic animality further troubles the prestige of humanism by refusing one of its key organising principles. As we have seen, humanism deploys taxonomic and technological strategies for fixing and standardising the multiplicity of nonhuman animal life. In this account, the concept 'species' names discrete and imporous *types*, and the animals within each type are held to be substantially identical in terms of behaviour and character. Over and against these supposedly disindividuated nonhumans,

humanism reserves for itself the privileges of individuated subjectivity. In *Fahrenheit 451*, the Mechanical Hound again encroaches on human exceptionalism by exceeding the fixity of species taxonomies. Its body is an uncanny amalgam of various nonhuman morphologies, a composite of different traits and capacities from a heterogeneous collection of animals. The Hound is a 'metal dog' (155), but its canine form is complicated by its 'eight legs' with 'rubber-padded paws', and its 'multi-faceted eyes' (37). Jacques Derrida notes that 'the human' of humanism opposes itself to a notion of animality which flattens differences between nonhuman animals, and which thereby fabricates a generic animal as an impoverished counter-point to human subjectivity (*The Animal That Therefore I Am* 34). In its weird conjugation of canine and insect morphologies, the Hound instantiates not so much generic animality as it does the coming obsolescence of the humanist species concept. Bradbury worries that the emergence of post-organic nature will lead to the abolition of static and predictable species differences. He is anxious that technology, which is claimed to standardise and disindividuate human subjects, will have the opposite effect on nonhuman animals: it will multiply differences, producing new forms of animal life which escape the taxonomies that made them intelligible, and therefore tractable.

Bradbury argues for a tactical retreat from the technological reason of late-modern mass culture, working through this topographically in the novel. As a new convert to the individuating potentials of literacy, Montag finds himself legally proscribed and is pursued by his former colleagues the Firemen. He flees the city – the privileged space of modernity – and finds refuge on the margins of an agrarian community. This spatial relocation materialises the rejection of modernity, and the deployment of the countryside repeats the postwar *topos* of the salvific potential of organic authenticity: in fleeing the city, Montag 'was moving from an unreality that was frightening into a reality that was unreal because it was new' (180). This new space allows for a partial reconciliation with human animality. Finally rejecting the inauthentic city, Montag rediscovers corporeality as organic dynamism: running from his former colleagues, he was 'the only man running alone in the night city, the only man proving his legs!' (178) In contrast, the media-fixated masses watch his flight from their windows and screens 'like grey animals peering from electric caves' (179). Mass culture, then, not only assaults autonomous reason; it also devitalises the natural (including the naturalness of human life, the physicality of running).

Montag's flight culminates in an encounter in which he mistakes a wild deer for the Mechanical Hound. The deer marks the threshold between the artifice of the city and the organicism of the rural, and Montag's encounter with it is thoroughly corporeal: 'He smelled the heavy musk-like perfume mingled with blood and the gummed exhalation of the animal's breath' (185). Following this encounter, he becomes 'fully aware of his entire body, his face, his

mouth, his eyes stuffed with blackness, his ears stuffed with sound, his legs prickled with burrs and nettles' (186-187). He discovers fire for the first time as a source of shelter and warmth, rather than as technological violence, and this discovery coincides with a revaluation of his own (formerly disavowed) animal embodiment:

> [T]here was a foolish and yet delicious sense of knowing himself as an animal come from the forest, *drawn* by the fire. He was a thing of brush and liquid eye, of fur and muzzle and hoof, he was a thing of horn and blood that would smell like autumn if you bled it out on the ground. (187)

Montag's reconciliation with the fleshy corporeality of his own existence is carefully qualified, as Jonathan R. Eller and William F. Toupounce point out in their literary biography of Bradbury:

> [Montag] imagines himself taking on an animal's shape in the forest—thereby recovering his instinctive nature—and discovers a reverie of the forge that restores the power of language, so distorted in the city, to its proper capacity to reveal the meaning of things. (195)

It is a thoroughly personalised embodiment that is disclosed by his escape from the city: not the generalised animal being described by humanism but an intimate and individualising knowledge of one's own body as the necessary support or substrate of intellectual life.

Beginning from this bodily substrate, literacy induces a process of subjectivisation, a superstructure of individuated consciousness which separates the human individual from the nonhuman type or mass. In the woods, Montag encounters a group of literate refugees from the city; intellectuals who could not be assimilated by the technological reason that dominates late modernity. One of them, Fred Clement, was the '"former occupant of the Thomas Hardy chair at Cambridge in the years before it became an Atomic Engineering School"' (192). Another, Granger, welcomes Montag '"back from the dead"' of the devitalised homogeneity of urban culture. Granger is a social theorist who wrote a monograph entitled *The Fingers in the Glove: The Proper Relationship Between the Individual and Society* (193), a title suggestive of David Riesman's elegy for American individualism, *The Lonely Crowd*.

The collective effort of these scholars to preserve literary and critical culture ensures the continuation of properly human subjectivity. Like the mythical Phoenix, Granger claims, the animalised mass of human society periodically destroys itself in a conflagration brought on by an excess of technological *bêtise* (whether by fire or nuclear weapons). Unlike that '"damn silly bird"', humanity is bestowed (at least in principle) with the power of memory, so that '"some day we'll stop making the goddamn funeral pyres and jumping into the middle of them. We pick up a few more people who remember each generation"' (208-209). The work of memory links social history to personal individuation, and literature is the technological condition of this anthropopoietic procedure; the Phoenix, as animal, remains constitutionally excluded from the possibility of subjectivity.

In a typically postwar response to instrumental reason, Bradbury suggests that the world beyond the city (and thus, beyond the *bêtises* of mass culture and deleterious technology) functions as a clearing in which the disindividuated humanity of late modernity can rediscover the humanist inheritance of literacy, autonomous reason, personal identity—in short, everything that is said to separate the human from the animal. But what happens to animals in this conjuncture? The city renders animal life as uncanny, monstrous, and threatening. The Mechanical Hound resists the confinement of animal being to the discrete and knowable corrals of 'species', troubling taxonomies and disputing the singularity of human world-transcendence. In the countryside, however, nonhuman animals are figured in more familiar terms. Leaving the city, Montag recalls a much earlier experience in the countryside:

> He remembered a farm he had visited when he was very young, one of the rare times he had discovered that somewhere behind the seven veils of unreality, beyond the walls of parlours and beyond the tin moat of the city, cows chewed grass and pigs sat in warm ponds at noon and dogs barked after white sheep on a hill. (182)

Undoing the inversion of 'natural' predator-prey hierarchies which had been so viciously effected by the terrifying Hound, animals here conform to their conventional roles within the human-centred mixed-species agrarian community. No longer wilfully agentive, threatening or ontologically ambiguous, the farm animals exhibit predictable and comfortingly familiar behaviours. The rural clearing which restores human individualism reasserts in the same gesture that the essence of animal life is conformation to type. Bradbury's response to late modernity's tendency to unsettle the discourse of species is to insist on the rejection (or at least, the domestication)[ix] of technological reason, and to reassert the anthropopoietic potential of literacy. The repudiation of mass culture and at least some technologies will, he hopes, incite a return to an authentic and supposedly originary mode of species-being which guarantees the individuality (and sovereignty) of the bourgeois literate subject while simultaneously underwriting an essentialism (and subjection) of the nonhuman.

Fahrenheit 451 offers a rehabilitation of humanism (and a restoration of humanity's sovereign power over the nonhuman world) through a strategic rejection of certain aspects of late modernity. Montag's escape from the Mechanical Hound reflects a desired escape from technologies as well as from a denatured nature, both of which having become intractable and threatening by the mid-twentieth century. Bradbury's rejectionist attitude echoes that of other postwar critics of technological reason, most notably Martin Heidegger. As Bruno Latour critically characterises this position: 'To become moral and human once again, it seems we must always tear ourselves away from instrumentality, reaffirm the sovereignty of ends, rediscover Being; in short,' says Latour, with an appropriately canine image, 'we must bind back the hound of technology to its cage' (247).

Latour's image of confinement captures some of the violence at stake in this desire for the restitution of humanist propriety. I want to conclude by reading the last pages of Bradbury's novel with a close attention to the (often bloody) exclusions and erasures made possible by the centering of a certain understanding of autonomous subjectivity as a normative political and ethical concept. As we have seen, throughout *Fahrenheit 451* technological modernity is indicted for having weakened distinctions between human and animal life. Humans have become docile and herdlike through their acquiescence to technologies and media apparatuses of control, while at the same time (and by some of the same means) animals have become individuated, unnatural, and threatening. It is not only, of course, the simple matter of taxonomic precision that is at stake in this challenge to the ontology of humanism; rather, this affront to the propriety of humanist subjectivity has far-reaching ethical and political implications.

The stakes of this debate lie in the partitioning of forms of life (however defined) into those whose killing is apprehended as a *homicide*, and those who are subject to what Jacques Derrida has described as a 'non-criminal putting to death' ("Eating Well" 278). This question of killing is rarely addressed as such in the debates surrounding animal ethics. Ethical discourse largely prefers the prophylaxis of a methodology which determines the status of animals negatively as non-persons to a positive thought which would explicitly thematise the violence that such a designation licenses. *Fahrenheit 451* is thus unusually frank in its treatment of violence, ending as it does with an atomic conflagration which exterminates both the uncannily individuated animals and the 'solid unmoving cattle of the [human] majority' who reside in the city. This far-reaching violence demonstrates the lethal mobility of humanist species concepts. As Cary Wolfe has argued, 'as long as this humanist and speciesist *structure* of subjectivization remains intact […] then the humanist discourse of species will always be available for use by some humans against other humans' (8, emphasis in original).

Fahrenheit 451 engages with attempts to police the boundaries of subjectivity in the late modern moment where technological saturation is charged with dissolving the classical subject. Bradbury locates human-animal difference in the disappearing distinction between the individual person and the mass of the species, and is sensitive to the function of violence in securing the singularity of the subject. The novel proposes that nuclear annihilation might afford an opportunity for humanity proper – that is, the literate individuals outside of the city who are spared the effects of the bomb – to rebuild a world where (at least some) humans might be restored to individuality, and where animals would no longer be abject or machinic, but would return to their former dispositions of organic docility.

The apocalyptic denouement of *Fahrenheit 451* strikes a troubling, aristocratic note. Bradbury wishes for a culling of the herd, for purifying violence against the post-literate, quasi-human masses of the modern city. 'The mass' names those who lack individuated personhood,

and are thus subject to exclusionary violence for the benefit of individual subjects: the 'non-criminal putting to death' that Derrida identifies in his work on animals. The concept of the mass is elaborated first of all in humanism's thought of the nonhuman animal, but it is by no means coterminous with the species boundary. Above all, then, *Fahrenheit 451* demonstrates that animal figures are central to the (potentially lethal) management of human as well as nonhuman lives in pursuit of humanist individualism.

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[i] Sunjoo Lee gives a more affirmative account of the uses of embodiment in Adorno, Horkheimer, and Bradbury in "To Be Shocked to Life Again: Ray Bradbury's Fahrenheit 451."

[ii] See, for example, Margot A. Henriksen's *Dr. Strangelove's America: Society and Culture in the Atomic Age* and Alan Nadel's *Containment Culture: American Narratives, Postmodernism and the Atomic Age*, both of which are preoccupied with the relationship between the individual and the mass, while having little to say about nonhuman life.

[iii] In fact, Beatty here misidentifies the constitution with the declaration of independence, a telling error the implications of which are carefully unpacked in Joseph F. Brown's "'As the Constitution Says': Distinguishing Documents in Ray Bradbury's *Fahrenheit 451*."

[iv] Faber notes that books were 'only one type of [cultural] receptacle' which could perform this work of *anamnesis* (107). Literature is privileged because 'good writers touch[ed] life' especially often, as Faber the Leavisite asserts (108); other forms are in principle capable of doing the same, though they have been more thoroughly captured by the imperatives of commercial culture.

[v] The International Code of Zoological Nomenclature defines the holotype as 'the single specimen […] designated or otherwise fixed as the name-bearing type of a nominal species or subspecies when the nominal taxon is established', <http://www.nhm.ac.uk/hosted-sites/iczn/code/> [accessed 15th August, 2014].

[vi] In this connection, see especially the proliferation of radioactive animals in the monster movies of the 1950s, most famously *Them!* and *The Beast from 20,000 Fathoms*.

[vii] In *Nylon and Bombs: DuPont and the March of Modern America*, Pap A. Ndiaye claims that 'In the 1950s, nylon symbolized a new way of life, the future, the spirit of America and its mythical modernity' (2). As Ndiaye demonstrates, this euphoric assessment obscures the extent to which nylon manufacturing was economically and technologically linked to the production of plutonium for nuclear weapons. DuPont was a primary manufacturer of both, and the mass market for consumer goods (figured metonymically by nylon stockings) had its origin and condition of possibility in the temporary prosperity afforded by the postwar arms economy.

[viii] Within ecocriticism, this post-Cartesian anxiety has incited a broadly Heideggerean turn towards dwelling, rootedness and attentiveness to the specificities of place; see especially Jonathan Bate's *The Song of the Earth* (London: Picador, 2001). Ralph R. Acampora and other phenomenologically-inclined environmental philosophers suggest instead that the ontological divorce inaugurated by modernity was only ever an enabling fiction, a narcissistic conceit reliant upon the forgetting of an originary being-in-the-world, and a world, moreover, which comprises multi-species communities.

[ix] Bradbury's commitment to the domestication (rather than the abolition) of technology is evidenced in a letter of 1974, where he offers qualified praise of robots, so long as they are subservient to human will: '[Books, like robots,] are extensions of people, not people themselves. Any machine, any robot, is the sum total of the ways we use it. […] A motion picture projector is a non-humanoid robot which repeats truths which we inject into it. Is it inhuman? Yes. Does it project human truths to humanize us more often than not? Yes.' 'Ray Bradbury: "I Am Not Afraid of Robots. I Am Afraid of People" (1974)'.