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## The New Breed: What our History with Animals Reveals About our Future with Robots by Kate Darling

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Book Review

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## The New Breed: What our History with Animals Reveals About our Future with Robots by Kate Darling

### Abstract

ROBOTS WERE ONCE RELEGATED to roles that were “dirty, dull, or dangerous,”<sup>3</sup> such as welding parts on car assembly lines, but today, they occupy more visible spaces in our workplaces, homes, and public areas. This visibility has provoked questions frequently seen in media inciting moral panic: Will robots cause job loss? Will robots become sentient? In *The New Breed: What our History with Animals Reveals About our Future with Robots* (“The New Breed”), Kate Darling explains that these fears are misplaced and that our tendency to anthropomorphize robots fosters false determinism. Darling imagines a different kind of agency, drawing on our historical relationships with animals, to shape future thinking about robotic technology. Reflecting on robots as a new breed or strain allows us to envision them as ontological interpolations rather than human-replacements.

## Book Review

***The New Breed: What our History with Animals Reveals About our Future with Robots* by Kate Darling<sup>1</sup>**AMANDA TURNBULL<sup>2</sup>

ROBOTS WERE ONCE RELEGATED to roles that were “dirty, dull, or dangerous,”<sup>3</sup> such as welding parts on car assembly lines, but today, they occupy more visible spaces in our workplaces, homes, and public areas. This visibility has provoked questions frequently seen in media inciting moral panic: Will robots cause job loss? Will robots become sentient? In *The New Breed: What our History with Animals Reveals About our Future with Robots* (“*The New Breed*”), Kate Darling explains that these fears are misplaced and that our tendency to anthropomorphize robots fosters false determinism. Darling imagines a different kind of agency, drawing on our historical relationships with animals, to shape future thinking about robotic technology. Reflecting on robots as a new breed or strain allows us to envision them as ontological interpolations rather than human-replacements.

The book is divided into three parts, which examine workplace integration, companionship, and the treatment of robots. In the first section, Darling explains, “New technologies often inspire concern, but perhaps not quite in the same way

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1. (Henry Holt and Company, 2021).
  2. Amanda Turnbull (she/her) is a PhD candidate at Osgoode Hall Law School and Schulich Fellow, Schulich School of Law, Dalhousie University. The author is grateful to Professor Carys Craig, Professor Kate Sutherland, and Professor Peter Oliver for their continuing support.
  3. Darling, *supra* note 1 at 7.

as robots,”<sup>4</sup> and although robotics is progressing, it is still limited to human collaboration. In lieu of envisioning these limitations as part of a disrupted and dystopic future beset by nefarious androids bent on exterminating humanity, Darling suggests that we hit pause and question why we are trying to recreate human skills. Rather, we should think about how robots *supplement* our abilities, much like animals have done historically. Leech therapy, for example, dates to ancient Egypt and is still in use today, mainly to aid with healing skin grafts.<sup>5</sup> Ferrets have also historically complemented our skill set, and continue to do so in the telecommunications industry, helping to run cable in narrow spaces.<sup>6</sup>

The comparison to animals also has implications for responsibility within the robotic domain. Darling identifies and separates direct harm caused by industrial robots from indirect harm such as racial profiling, gender bias, and ableism precipitated by robots that are driven by code. She chooses to focus only on autonomously caused physical harm in the book, aligning it with harm prevention measures adopted historically in the animal realm. She provides a range of examples, including the following: consequences for owners of habitually goring oxen in Mesopotamia;<sup>7</sup> laws that required owners to fence in animals in order to prevent wandering pigs during the Industrial Revolution;<sup>8</sup> more recently, licenses to reduce the risk of aggressive dog behaviour in Austria;<sup>9</sup> and funds for sheep farmers to compensate them for losses incurred as the result of canine attacks in the United States.<sup>10</sup>

These measures from the animal kingdom provide a template for dealing with autonomously caused physical harm, but the indirect harm that Darling brackets and sets aside—such as racial bias, gender bias, and ableism—is embedded in society and is thus inseparable from direct harm. For example, in designing service robots and their component technologies, what consideration is given to inclusive space rather than to optimized space for robotic performance? Expressed differently, does “the devil” reside in the details of the design? Additionally, the

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4. *Ibid* at 6.

5. US Food & Drug Administration, “Product Classification: Leeches, Medicinal” (7 March 2022), online: <[www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPCD/classification.cfm?ID=NRN](http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPCD/classification.cfm?ID=NRN)> [perma.cc/CG4Y-5T2Y].

6. CABLExpress, “Ferrets: The Best-Kept Secret in Cabling” (26 July 2016), online (blog): <[www.cablexpress.com/education/blog/ferrets-the-best-kept-secret-in-cabling](http://www.cablexpress.com/education/blog/ferrets-the-best-kept-secret-in-cabling)> [perma.cc/A63E-TGCT].

7. Darling, *supra* note 1 at 68.

8. *Ibid* at 70.

9. *Ibid* at 73.

10. *Ibid* at 74.

scholarship on technology-facilitated violence informs us that technology is not actually the problem when it comes to gendered and racialized harm.<sup>11</sup> The problem is that technology amplifies the harm already present in society. This is a very human problem, rather than an animal one. The question arises, then, does the animal comparison work in a more fulsome discussion of harm? Put differently, does Darling avoid discussing indirect harm because it exposes a flaw in the robot–animal comparison?

Putting aside harm prevention, Darling also deals with our societal penchant for blame in her discussion of responsibility. Historically, we have attempted to assign moral blame to animals—we even put them on trial for egregious conduct. Rats, for example, were summoned to trial in Lucenay, France in the sixteenth century for destroying barley crops.<sup>12</sup> Animals were assigned moral responsibility and put on trial for centuries. Today, she explains, it surfaces as a “new blame game” involving alleged killer robots, spurring conversations about accountability, for which there is also an alternative precedent: creating legal personhood as we have done for the corporations<sup>13</sup> and, more recently, rivers.<sup>14</sup> This involves ascribing legal rights and responsibilities to juristic—or artificial—persons as we would for natural persons. But, as Darling tells us, while the concept of legal personhood may sort out how we divvy up responsibility amongst all who create, build, program, and train robots, it may be overhasty. We have previously dealt with divided responsibility with regard to animals between owners, trainers, and handlers, and applying an animal lens of comparison may “[allow] us to break out of the robot-human comparison mold.”<sup>15</sup> Darling admits that it is not perfect, but simply an alternative.

To reinforce her claim, she surveys the existing law and technology scholarship that examines the shortcomings of the robot–human comparison: the android

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11. Suzie Dunn, “Is it *Actually* Violence? Framing Technology-Facilitated Abuse as Violence” in Jane Bailey, Asher Flynn & Nicola Henry, eds, *The Emerald International Handbook of Technology-Facilitated Violence and Abuse* (Emerald, 2021) 25.

12. Darling, *supra* note 1 at 78.

13. For a discussion of the flaws inherent to the nature of the corporation, see Joel Bakan, *The Corporation: The Pathological Pursuit of Profit and Power* (Penguin, 2004) [Bakan, *The Corporation*]. See also Joel Bakan, *The New Corporation: How “Good” Corporations are Bad for Democracy* (Allen Lane, 2020) [Bakan, *The New Corporation*].

14. See e.g. *Tē Awa Tupua (Whanganui River Claims Settlement) Act 2017* (NZ), 2017/7. See also Sean Nixon, “Quebec River Has Legal Personhood: What That Means for Granting Nature Rights,” *The Lawyer’s Daily* (25 March 2021), online: <[www.thelawyersdaily.ca/articles/25603/quebec-river-has-legal-personhood-what-that-means-for-granting-nature-rights-sean-nixon](http://www.thelawyersdaily.ca/articles/25603/quebec-river-has-legal-personhood-what-that-means-for-granting-nature-rights-sean-nixon)> [perma.cc/52JW-K4SL].

15. Darling, *supra* note 1 at 82.

fallacy,<sup>16</sup> where we start to envision robots having free will just because they look and act human; the development of incongruous legal doctrine as a result of aligning the human and non-human;<sup>17</sup> and escaped corporate and human responsibility for unpredictable actions.<sup>18</sup> While keeping a human in the loop is one way that we have been avoiding unexpected outcomes as we automate our workplaces, this model, too, has had unanticipated consequences where there is shared blame—in the airline industry, for instance, where there have been crashes resulting from both human and machine error. Here, again, we have solutions for this sort of liability, but we perceive the situation differently. It creates a “moral crumple zone”<sup>19</sup> where responsibility is misattributed to humans and may result in potential new forms of worker harm. Our default anthropocentric narrative needs a corrective that Darling suggests may be found in a comparison with animals.

In the second part of the book, Darling discusses companionship between humans and robots. As social animals, we project our own experiences and emotions onto both beings and non-beings: From our family pets and childhood teddy bears to naming our cars, we are yoked to our need to project ourselves in order to stave off loneliness and survive. We are now seeing therapeutic social robots being used in elder care, like PARO the robot seal.<sup>20</sup> In the education setting, Human Robot Interaction (HRI) research investigates how children engage with robotic teaching assistants.<sup>21</sup> During the ongoing pandemic, Spot the robo-dog was engaged to enforce social distancing in parks in Singapore.<sup>22</sup> Further, authors like Kazuo Ishiguro are writing books written from the point of

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16. See Neil M Richards & William D Smart, “How Should the Law Think About Robots?” in Ryan Calo, A Michael Froomkin & Ian Kerr, eds, *Robot Law* (Edward Elgar, 2016) 3 at 4.
  17. See e.g. Ryan Calo, “Robots in American Law” (2016) University of Washington School of Law Legal Studies Research Paper No 2016-04, online: <papers.ssrn.com/sol3/papers.cfm?abstract\_id=2737598> [perma.cc/56F5-GKG7].
  18. See e.g. Peter M Asaro, “A Body to Kick, but Still No Soul to Damn: Legal Perspectives on Robotics” in Patrick Lin, Keith Abney & George A Bekey, eds, *Robot Ethics: The Ethical and Social Implications of Robotics* (MIT Press, 2012) 169 at 182.
  19. Madeleine Clare Elish, “Moral Crumple Zones: Cautionary Tales in Human-Robot Interaction” (2019) 5 *Engaging Science, Technology & Society* 40 at 40.
  20. See PARO Robots, “PARO Therapeutic Robot” (2014), online: <www.parorobots.com> [perma.cc/SY8T-85LC].
  21. See e.g. Peter H Khan Jr & Solace Shen, “NOC NOC, Who’s There? A New Ontological Category (NOC) for Social Robots” in Nancy Budwig, Elliot Turiel & Philip David Zelazo, eds, *New Perspectives on Human Development* (Cambridge University Press, 2017) 106.
  22. Maryam Shah, “Robot ‘dog’ Named Spot to Help Social Distancing Efforts at Singapore Park,” *Global News* (9 May 2020), online: <globalnews.ca/news/6925970/singapore-robot-dog-park-coronavirus> [perma.cc/GNT5-NM42].

view of a companion robot,<sup>23</sup> effecting a new narrative voice in literature. These examples give rise to more misplaced moral panic: Is it ethical to bond with a robot?

Darling suggests that we just need to reorient the robot-as-human-substitute mindset to one of robot-as-supplement: “Like animals, social robots give us an opportunity to learn, not just about new challenges with technology integration but also about ourselves.”<sup>24</sup> What we ought to be worried about is not robotic companionship with non-beings, but rather how these relationships could be exploited through, for instance, predatory corporate behaviour.<sup>25</sup> Our anthropocentric focus obscures the fact that corporations have *carte blanche* in respect of how they use our emotional attachments to social robots.

The final section of the book tackles the issue of how we treat robots. In this section, Darling also draws on our “incredibly convoluted”<sup>26</sup> history of animal rights, which is a crucial topic that arguably could have been raised earlier in the book in order to address the incongruity of animal needs and human goals. She highlights the history of this incongruity: In Ancient Greece, for example, philosophers advocated for kindness toward animals, and in India, the doctrine of *ahimsa* emphasizes non-violence toward all living creatures.<sup>27</sup> In Europe, however, poor treatment of animals was rife until the upper class began bonding with their pets during the Victorian era.<sup>28</sup> It was empathy, as opposed to philosophy, that led to positive change in the treatment of animals. Further, the anti-vivisectionist movement, which was tied to the work of the suffragettes—specifically, Frances Power Cobbe—led to the world’s first animal protection law.<sup>29</sup> In light of this, animal law may be seen as always having had an intersectional framework. This is an important point that Darling could have emphasized: The animal-robot comparison offers a more inclusive and balanced default narrative for thinking about robotic agency since it contemplates how experience and identities intermingle.

Although Darling provides an overview of the complicated history of animal rights, she does not address the uncomfortable issue of eclipsing animals’ needs for our empathetic needs. Prioritizing human needs simply reinscribes the failed

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23. *Klara and the Sun* (Alfred A Knopf, 2021).

24. Darling, *supra* note 1 at 172.

25. See Ian R Kerr, “Bots, Babes and the Californication of Commerce” (2003) 1 UOLTJ 285. See also Douglas Rushkoff, *Coercion: Why We Listen to What “They” Say* (Riverhead Books, 1999); Bakan, *The Corporation*, *supra* note 13; Bakan, *The New Corporation*, *supra* note 13.

26. Darling, *supra* note 1 at 188.

27. *Ibid* at 188.

28. *Ibid*.

29. *Cruelty to Animals Act* (UK), 1876, 39 & 40 Vict, c 77; Darling, *supra* note 1 at 191.

system that we have had in place since antiquity. Recent scholarship by Maneesha Deckha highlights how our legal system repeatedly fails to account for the systemic violence against animals through its binary property-personhood paradigm, suggesting instead a new legal subjectivity that is not based on personhood.<sup>30</sup> This work may be helpful in furthering Darling's new starting point.

"Our tendency to anthropomorphize animals is deep,"<sup>31</sup> and we see this reflected not only in our companionship with animals but elsewhere in society through, for example, Anna Sewell's perennially best-selling novel, *Black Beauty*,<sup>32</sup> or Greenpeace's "Save the Whales" campaign.<sup>33</sup> However, at the same time, we continue to consume meat, bringing Darling to her point that we "separate animals into friends, workers [and] food."<sup>34</sup> We are inconsistent. Darling acknowledges that "putting robot rights and animal rights side-by-side can be problematic,"<sup>35</sup> but she clarifies that it is not about equating the two, but about drawing parallels as an alternative to the robot-as-human analogy.

*The New Breed* is accessible to a wide-ranging readership since Darling provides an engaging survey of the social, legal, and ethical perspectives in robotics and pairs it with the challenging topic of animal history. Ultimately, Darling accomplishes what she set out to do: provide a biomimetic<sup>36</sup> starting point to reposition the flawed, fictitious thinking that robots will replace us. Some robots will be tools, others will be companions;<sup>37</sup> we do have choices about how to integrate robots in society.

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30. *Animals as Legal Beings: Contesting Anthropocentric Legal Orders* (University of Toronto Press, 2021).

31. Darling, *supra* note 1 at 196.

32. Anna Sewell, *Black Beauty* (Hodder & Stoughton, 1973).

33. Willie Mackenzie, "A Brief History of Commercial Whaling and Greenpeace" (10 September 2018), online (blog): <[www.greenpeace.org/international/story/18307/history-commercial-whaling-greenpeace](http://www.greenpeace.org/international/story/18307/history-commercial-whaling-greenpeace)> [perma.cc/TVG3-N7BP].

34. Darling, *supra* note 1 at 202.

35. *Ibid* at 220.

36. Biomimetics "is a broad academic trend of looking to solutions in nature in order to problem-solve" (*ibid* at 103).

37. Darling has previously articulated the position that agency is dependent upon the function of the particular technology—in some cases it will be a tool, in others, it will be a social actor. See Kate Darling, "'Who's Johnny?' Anthropomorphic Framing in Human-Robot Interaction, Integration, and Policy" in Patrick Lin, Ryan Jenkins & Keith Abney, eds, *Robot Ethics 2.0: From Autonomous Cars to Artificial Intelligence* (Oxford University Press, 2017) 173.