



## THE NEW BREED

### How to re-imagine living with robots

Francisca Grommé [gromme@essb.eur.nl](mailto:gromme@essb.eur.nl)  
Erasmus University Rotterdam 0000-0002-6809-7422

Adriaan Odendaal [odendaal@essb.eur.nl](mailto:odendaal@essb.eur.nl)  
Erasmus University Rotterdam 0000-0002-8503-6445

Jannes ten Berge [tenberge@essb.eur.nl](mailto:tenberge@essb.eur.nl)  
Erasmus University Rotterdam 0000-0003-0255-021X

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Corresponding author: Francisca Grommé

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### Abstract

In *The New Breed: How to Think About Robots* (2021), Kate Darling argues that to understand our future with robots a lot can be learned from studying our relationships with animals. The animal analogy can help to design our futures with robots and conceptualize robot rights. Specifically, Darling develops an approach to an ethics of responsibility and accountability for robotics based on our historical relations with animals. This approach resonates with other relational work on responsibility and accountability in a more-than-human world. The book can thereby contribute to developing an ethical approach that is sensitive to social and cultural context, and that challenges problematic histories and normative Western frames of thought without becoming particularistic or relativist.

## 1 INTRODUCTION

In *The New Breed: How to Think About Robots* (2021), Kate Darling provides a much-needed fresh perspective on our future with robots. She moves beyond the dominant narrative of humanoid machines replacing people by arguing that our future with robots is much more likely to resemble our relationships with animals. Throughout history, we have used animal strengths and skills to supplement and enhance our capacities and enrich our lives. Understanding this history, she argues, will help us comprehend how robots can be used not to mimic human intelligence, but to complement our physical and sentient capabilities. Furthermore, studying our historical relationships with horses, pigeons and many other species brings home the point that animals have changed our societies in ways we did not plan or foresee. Pigeons are actors in early globalizations, and ownership laws around cattle still reverberate in marital law. Integrating robots as ‘new breeds’ in everyday life can similarly result in far-reaching, and unexpected, societal transformations.

The animal analogy thereby helps understand how we might design our futures with robots and develop an approach to robot rights based on our actual relations with them. In this review essay we first explain how Darling offers what we refer to as a relational (as in: socio-emotional connections) and pragmatic (as in: adapted to always changing and emerging social practices) approach to responsibility and accountability. We next connect her line of thinking with other conversations about more-than-human relationships, primarily feminist science studies and decolonial perspectives. Together, these sections provide reflections on Darling's contribution to construing relational notions of robots as part of wider arrangements of living and caring. Connecting these conversations, we suggest, can support an ethics of responsibility and accountability that is neither particularistic nor universal.

## 2 ACCOUNTABILITY AND RESPONSIBILITY IN THE NEW BREED

A core argument in Darling's book is that comparing robots with human development problematically limits our thinking and encourages moral panic. Once we equate developments in robotics with human evolution, it becomes easy to argue that robots are pushing people from the workplace and replacing human bonds. "The more fruitful path is to explore what else we can come up with," writes Darling, "[robots are] most powerful when their form and function enable them to help us with things we can't do very well ourselves, or even at all" (Darling, 2021, p. 26).

In part 1 (*Work, Weaponry, Responsibility*) Darling explores myriad ways in which work partnerships with animals have had effects beyond improving productivity and eliminating jobs. For instance, pigeons have been used to widen our range of communication and, as a result, expanded human activity globally. New partnerships have thereby qualitatively changed how we work. For robot design this means, Darling argues, that a focus on efficiency and productivity is a political choice rather than a natural trajectory in automation. Such qualitative changes furthermore require thinking through who or what is responsible in case of failure or harm. Darling inventively demonstrates how the history of animal domestication can support developing ethical and regulatory approaches beyond simply holding robots accountable for their own failures (which can be equated with 14<sup>th</sup> century 'pig trials', Ch. 3). Regulation around oxen, for instance, illustrates the possibility of incorporating an enduring human responsibility of care into accountability guidelines. Analogous possibilities for robot accountability offered by Darling are robotics commissions, owner or operator licenses, disclosure of risks, and mandatory training – all of which entail responsibilities falling largely to the owners or producers rather than the machines.

In part 2 (*Companionship*) we are introduced to a defining feature of how humans relate to the more-than-human world: through anthropomorphizing. Darling's laboratory research demonstrates we are biologically hardwired to treat robots like living things. This is also true for companionship animals, where our relationships are similarly empathic and self-centered at the same time (e.g., designer dogs). We can use these insights to develop new socio-emotional connections with robots in the same way we do with therapy animals. Furthermore, psychological research describes cases in which robots have allowed children to share emotions they would rather not share with adults. The risk is not so much in developing such new connections, Darling argues, rather it is in obscuring the instrumental nature of robots, and most of all, prioritizing marketing interests while downplaying risks of algorithmic bias and privacy breaches.

Part 3 (*Violence, empathy and rights*) picks up on these themes to engage with the debate on 'robot rights': the idea that robots can be assigned inherent rights. This is the "wrong conversation" (p. 179) according to Darling. Based on our history with animals, 'robot rights' will very likely be based on self-centered empathy and anthropomorphism, rather than the application of a morally consistent philosophy. A more likely direction of development will be a patchwork of contextually determined laws, institutions, and cultural norms. Although not flawless, Darling suggests accepting our tendency to regulate based on empathy.

What Darling thereby offers is an approach to accountability and responsibility that is relational (based on socio-emotional connections), and what we refer to as pragmatic (adapted to always changing and emerging social practices) and empirical. As she acknowledges, such an approach can sit uncomfortably with ethics approaches to AI based on "simple ethical rules" to be programmed into the technology (Darling, 2021, p. 65).

But because this approach draws on our often-flawed histories with animals, it also raises questions: will this create a desirable state of affairs for robots, and the living environments they function in? And will this approach move us into the direction of moral relativism and particularism because of its emphasis on context? We connect with other literatures that also propose relational approaches to accountability and responsibility to navigate these questions. Connecting these conversations offers a reflection on Darling's argument and allows us to further explore her contributions.

### 3 CONNECTING THE NEW BREED WITH SPECULATIVE FABULATION

Darling does the important work of offering new 'figurations' for our lives with robots in the shape of examples and stories with symbolic significance. In these stories, scholars in feminist science studies argue, it matters which actors are foregrounded, which environments actors are placed in, and how they form bonds with others (Castañeda & Suchman, 2014). For instance, the figuration of robots as primates enacts the development trajectory of AI as a linear evolution towards human-like autonomy. Darling's examples, by contrast, give us stories of partnerships in which animals (and, by extension, robots) help humans unlock the sensory world around them. A complementing approach is Donna Haraway's practice of 'speculative fabulation' (Haraway, 2016): finding figurations that address problematic histories to reconfigure ideas about living together, for instance, by including different notions of intelligence and kinship (Castañeda & Suchman, 2014).

In *Staying with the Trouble* (Haraway, 2016) Haraway gives an example of a human-animal relationship Darling also draws on: people's relationships with pigeons. As Darling explains, pigeons can be thought of as predecessors of modern communication technologies because of their capacity to deliver messages at a great distance. In addition, they are forerunners of drones, as illustrated by medication-delivering pigeons. Complementing this analysis, Haraway develops an interpretation of human-pigeon relationships as interspecies relationships that can initiate different modes of living together. In the US art project *Pigeon Blog*, pigeons, artists, engineers, and pigeon fanciers collaborated to measure air pollution in areas where the burden is unequally distributed by race and class. In another, a pigeon loft in colonized Australian Aboriginal territory was installed to control the pigeon population through contraceptives in their food. Thereby, an attempt is made to control colonization's effect on endemic wetland birds, without irreparably damaging the relationship between humans and pigeons.<sup>1</sup>

At the heart of such projects is a recognition of enduring historical legacies, as well as an intention to recuperate them through changed more-than-human relationships. Reflecting on the effort to develop a relational approach based on our histories with animals, these figurations can help to think about the human capacity to respond ('response-ability') to historically shaped problems. Compared to Darling's work, our history with animals is not conceived as a parallel trajectory, instead, these stories about *Pigeon Blogs* and lofts integrate interspecies relationships into a wider social and historical context in ways that are political as they address social inequalities and environmental issues. Together, we suggest, Darling's and Haraway's stories can form a collection of figurations that can support an ethics of responsibility that is neither particularistic or relativist, nor based on simple and universal rules.

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<sup>1</sup> For other examples of artistic explorations, see: Parikka, 2011; Drift, 2019.

## 4 CONNECTING WITH NOTIONS OF CULTURAL DIFFERENCE

*The New Breed* supports its central analogy through a myriad of culturally specific examples of animal-human relationships. Most of Darling's cross-cultural comparisons are included to demonstrate how we have lived with, thought of, or related to animals in fundamentally *similar* ways throughout history and across cultures. For example, Darling draws a thread between modern Western sentimentality around pet dogs and the ceremonial care with which the royal guard dog Abuwtiyuw was interred in the Giza Necropolis by an unnamed pharaoh in 2280 BCE Egypt. By consolidating diverse cultural contexts into shared norms and social practices Darling is able to extrapolate generalizable insights about possible future relationships between robots and humankind as singular species. However, these comparisons also prompt us to consider how cultures fundamentally *differ* in how they perceive, relate to, and treat animals.

The multifarious configurations of animal-human relations found in indigenous cosmologies and epistemologies around the world can offer an important challenge to predominant Western conceptualizations of animal subjectivities and bodies – and by extension, of robots. There is a compelling example of this early in the book (part 2) where Darling discusses the role animist beliefs in Shintoism have played in shaping comparably unique human-robot relationships in Japan. While mourning pet dogs is seemingly universal, in Japan the practice also extends to robotic dogs. While Christian and Islamic beliefs make a clear distinction between that which is 'alive' and 'not alive', in Shintoism inanimate objects possess an enduring spirit which enables people to create emotional connections with, amongst other things, machines.

Darling does not expand much more in this direction. However, connecting Darling's work with James Bridle's recently published *Ways of Being* (Bridle, 2022) can offer such a complementary further exploration. In his book, Bridle gives several examples of how Western-influenced legal systems have been expanded to include indigenous beliefs regarding the natural world. Most notably, New Zealand's 2017 Tupua Act protecting the Whanganui River and its tributaries as an "indivisible and living whole" (Rodgers, 2017, p. 269). This bringing-together of Māori beliefs and the predominantly Western legal framework (Crown Law) of New Zealand symbolizes a progressive approach to accountability and responsibility rooted in non-Western cosmology and history. Bridle further argues that looking at indigenous ideas, knowledges, practices, and beliefs can engender "new frameworks for justice, equality and ecological flourishing" that offset the histories of colonial domination and cultural imperialism persisting in the technology industry (Bridle, 2022, p. 268).

The power of Darling's central animal analogy is that it allows us to think outside of and against the predominant narratives about technology. Incorporating decolonial perspectives to this analogy can widen the conversation Darling started by looking at human-animal relationships outside the normative frame of Western thought, social practices, and law.

## 5 CONCLUSION

Providing a compelling analogy between our history with animals and our future with robots, *The New Breed* guides its readers to thinking beyond narrow and human-centric conceptualizations of our future with robots. In this review essay, we showed that the book's uptake of a relational and (implicit) pragmatic approach resonates with other conversations that together can guide an ethics of responsibility and accountability that is sensitive to social and cultural context, and challenges problematic histories and normative Western frames of thought without becoming particularistic or relativist. Within this context, *The New Breed* offers important new directions for thinking about how we construct a future that we will increasingly



share with machines. It provides powerful stories about human-animal relationships that address the need to develop an ethics around robots beyond human centrism or replacement.

### Data Access Statement

No new data generated or analyzed.

### Contributor Statement

This review article is the result of conversations between the three authors. Each of the authors contributed to the development of the argument, its realisation into a written text and the editing process.

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