

RECOGNISING AND DEFINING ANIMAL SENTIENCE IN LEGISLATION: A FRAMEWORK FOR IMPORTING POSITIVE ANIMAL WELFARE THROUGH THE FIVE DOMAINS MODEL

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Animals are increasingly being recognised as sentient through international treaties and domestic legislation. If explicit recognition is to result in meaningful change, it must be accompanied by a corresponding legislative definition of sentience. We argue that best-practice in assessing the welfare of animals of all species requires that the Five Domains model of animal welfare inform the legislative recognition and definition of animal sentience.¹ This is the leading scientific model of animal welfare and recognises that animals can experience both negative and positive affective states.² We propose a definition of sentience that extends current legal responsibilities to not just protect animals from unnecessary and unreasonable negative states but also provide them with opportunities for positive affective states. Finally, we demonstrate how the current legal test for animal welfare compliance can be extended to encompass positive affective states. Reforming law so that is consistent with the Five Domains model elevates standards of animal welfare to provide animals under human care with the opportunity for a life enjoyed, not just endured.

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We would like to express our gratitude to the anonymous reviewers for their comments and suggestions, to the *Monash University Law Review* Editors for their excellence in editing, and to our families, friends and colleagues for their support and for many illuminating discussions. Any remaining errors are our own.

1 David J Mellor, 'Operational Details of the Five Domains Model and Its Key Applications to the Assessment and Management of Animal Welfare' (2017) 7(8) *Animals* 60:1–20 ('Operational Details of the Five Domains Model').

2 David J Mellor et al, 'The 2020 Five Domains Model: Including Human-Animal Interactions in Assessments of Animal Welfare' (2020) 10(10) *Animals* 1870:1–24.

I INTRODUCTION

*'A sentient animal is one for whom feelings matter.'*³

John Webster, Emeritus Professor, University of Bristol

Animals are increasingly being recognised as sentient beings through international treaties and domestic legislation.⁴ To date, corresponding reforms to animal welfare standards have gone largely unrealised. From a legal perspective, this may be because relevant legislation often implies sentience without expressly recognising it. Such failures to expressly recognise and define sentience ultimately result in a failure to move duty of care requirements beyond basic anti-cruelty measures and toward positive animal welfare interventions. Understanding of this distinction informs, for example, exactly what level of responsibility a given jurisdiction chooses to provide, and highlights the subtle but important qualitative differences in various jurisdictions' duty of care provisions.⁵

Science has routinely informed the development of animal welfare law. To that end, a legislative definition of sentience should be consistent with contemporary developments in the science of animal welfare, where it is widely recognised that the Five Freedoms model of animal welfare has been superseded by the Five Domains model.⁶ While the former focuses on avoidance of negative physiological states, the latter focuses on striving toward positive physical and mental states and is more concerned with the psychology of the animal. The Five Domains model assesses animal welfare by reference to four domains (nutrition, environment, health and behaviour) of physical wellbeing, as well as a fifth domain that recognises and considers mental and emotional psychological wellbeing (positive

3 John Webster, *Animal Welfare: Limping Towards Eden* (Blackwell Publishing, 2005) 11.

4 See, eg, *Treaty on the Functioning of the European Union*, opened for signature 7 February 1992, [2016] OJ C 202/54 (entered into force 1 November 1993) art 13 ('FEU'), as amended by *Treaty of Lisbon Amending the Treaty on European Union and the Treaty Establishing the European Community*, opened for signature 13 December 2007, [2007] OJ C 306/49 (entered into force 1 December 2009) art 2(21) ('Treaty of Lisbon'); *Animal Welfare Act 1999* (NZ) ('Animal Welfare Act (NZ)'). See generally Charlotte Blattner, 'The Recognition of Animal Sentience by the Law' (2019) 9(2) *Journal of Animal Ethics* 121; Josh Loeb, 'Defra Delays Sentience Legislation Plans' (2018) 183(24) *Veterinary Record* 731.

5 For example, a Victorian public consultation identified that 'the very existence of animal welfare legislation implicitly acknowledges animal sentience': Victoria State Government, 'A New Animal Welfare Act for Victoria' (Directions Paper, Department of Jobs, Precincts and Regions, October 2020) 17 <<https://engage.vic.gov.au/new-animal-welfare-act-victoria>>. Queensland implicitly recognises animal sentience through its animal protection law but has not explicitly recognised animals as sentient: *Animal Care and Protection Act 2001* (Qld) ('Animal Care and Protection Act (Qld)'). New Zealand explicitly recognised animals as sentient in 2015: *Animal Welfare Amendment Act (No 2) 2015* (NZ) s 4(i) ('Animal Welfare Amendment Act (NZ)'). The Australian Capital Territory recognised animals as sentient in its legislative amendment, and referenced animals' positive and negative states in the accompanying explanatory notes: *Animal Welfare Act 1992* (ACT) s 4A(1)(a) ('Animal Welfare Act (ACT)'); Explanatory Statement, Animal Welfare Legislation Amendment Bill 2019 (ACT) 3.

6 David J Mellor, 'Welfare-Aligned Sentience: Enhanced Capacities to Experience, Interact, Anticipate, Choose and Survive' (2019) 9(7) *Animals* 440:1–16, 9–10 ('Welfare-Aligned Sentience').

affective states).⁷ A legislative definition of sentience should be informed by the concept of welfare-aligned sentience, which defines sentience as the ‘capacity to consciously perceive negative and/or positive sensations, feelings, emotions or other subjective experiences which matter to the animal’.⁸ This article provides such a definition.

Internationally renowned animal welfare scientist Professor David Mellor states that ‘the utility of this definition with regard to the potential subtleties and/or limitations of its policy and legal implications remains to be determined’.⁹ This article responds to Mellor’s clarion call and argues for reforms that go beyond implying animal sentience to explicitly recognise their ability to subjectively experience, extending caregivers’ duties of care to promote positive affective states.¹⁰ Importantly, the proposed legislative reforms reflect standards already being adopted by progressive stakeholders, confirming that such reforms are not only desirable in theory, but attainable in practice.

This article advances a clear, concise legislative definition of sentience which reflects the key elements of the Five Domains model of animal welfare: *Sentience means that an animal experiences negative and positive (physical, mental and emotional) states*. The proposed definition retains the obligations of all persons in charge of animals to protect all animals under their care or control from cruelty (negative states), but also extends those obligations to provide those animals with opportunities for comfort, interest and pleasure (positive states) as part of their daily life experience.¹¹ This is significant. This fundamental reform to recognise and define sentience would extend standards of animal welfare beyond minimum standards concerning animals’ experiences of pain, distress or suffering (anti-cruelty laws) to include legal duties of care and responsibility for the provision of opportunities for positive affective states (positive animal welfare laws). This in turn would entail a review of all current animal husbandry practices, and would elevate standards, practices and outcomes of animal welfare. The authors argue that this change is consistent with general expectations concerning the care and treatment of animals, and that such reforms also meet, either in whole or in part, the objectives of stakeholders genuinely seeking to elevate standards of animal welfare.

Part II of this article considers historical and contemporary perspectives of animal welfare developments in legislative recognition of animal sentience. Part III situates the discussion of sentience within the context of the legal recognition of

7 DJ Mellor and NJ Beausoleil, ‘Extending the “Five Domains” Model for Animal Welfare Assessment to Incorporate Positive Welfare States’ (2015) 24(3) *Animal Welfare* 241.

8 Mellor, ‘Welfare-Aligned Sentience’ (n 6) 1. See also David J Mellor, ‘Updating Animal Welfare Thinking: Moving beyond the “Five Freedoms” towards “a Life Worth Living”’ (2016) 6(3) *Animals* 21:1–20 (‘Updating Animal Welfare Thinking’).

9 Mellor, ‘Welfare-Aligned Sentience’ (n 6) 9.

10 Mellor and Beausoleil (n 7).

11 See also Ian Robertson and Daniel Goldsworthy, ‘To Feel or Not to Feel: That Is the Legal Question’ [2017] (1) *New Zealand Law Journal* 10.

animals. Part IV goes on to propose a legal definition of animal sentience grounded in the Five Domains, which takes account of animals' positive as well as negative states. Part V then demonstrates that such a definition of sentience would require an extension of the current two-limb test of animal welfare compliance to an evolved three-limb legal test. While the former is grounded in the alleviation of negative states, the latter accounts for both the positive and the negative experiences of animals. The extended duty of care conferred by the third limb is highly significant, as it makes it far more difficult to reasonably evidence and justify practices that are inconsistent with scientific best practice in animal welfare yet nonetheless remain lawful under existing legislation. Thereafter, Part VI considers the practical consequences of these changes in terms of animal welfare compliance with law's sentient animal.

II ANIMAL WELFARE LAW AND SENTIENCE: HISTORICAL AND CONTEMPORARY PERSPECTIVES

Sentience is commonly defined as the 'capacity for sensation or feeling'.¹² It is important to note that wherever there is animal protection law, there is implicit recognition that animals are sentient. Animals were implicitly recognised at law as sentient in the United Kingdom as early as 1822, under the *Cruel Treatment of Cattle Act 1822* (UK) ('*Martin's Act*'),¹³ which aimed to protect animals from feeling or experiencing unnecessary suffering. However, the 2007 *Treaty on the Functioning of the European Union* ('*FEU*') is commonly identified as the first legal instrument to *explicitly* state that 'animals are sentient beings'.¹⁴ Since that time, national animal welfare frameworks globally are increasingly recognising animal sentience explicitly in legislation;¹⁵ for example, Germany,¹⁶ Austria,¹⁷ Switzerland,¹⁸ New Zealand¹⁹ and France²⁰ have incorporated legislative provisions that acknowledge animals as sentient.

12 *Macquarie Dictionary* (online at 24 May 2021) 'sentience'.

13 *Cruel Treatment of Cattle Act 1822*, 3 Geo 4, c 71 ('*Martin's Act*').

14 *FEU* (n 4) art 13, as amended by *Treaty of Lisbon* (n 4) art 2(21).

15 See Blattner (n 4).

16 *Bürgerliches Gesetzbuch* [Civil Code] (Germany) § 90a.

17 *Allgemeines Bürgerliches Gesetzbuch* [General Civil Code] (Austria) § 285a.

18 *Swiss Civil Code* (Switzerland) 10 December 1907, SR 210, art 641a(1) [tr Swiss Confederation, 'Swiss Civil Code of 10 December 1907', *Fedlex* (Web Page, 1 July 2022) <https://www.fedlex.admin.ch/eli/cc/24/233_245_233/en>]. See also Ulrich Tröhler and Andreas-Holger Machle, 'Anti-Vivisection in Nineteenth-Century Germany and Switzerland: Motives and Methods' in Nicolaas A Rupke (ed), *Vivisection in Historical Perspective* (Routledge, 1987) 149.

19 *Animal Welfare Amendment Act (NZ)* (n 5); *Animal Welfare Act (NZ)* (n 4).

20 *Loi n° 76-629 du 10 juillet 1976* [Law No 76-629 of 10 July 1976] (France) JO, 13 July 1976, 4204, art 9.

It is instructive to conceptualise the various perspectives and approaches to the legal regulation of animals through three key phases, namely: animal protection laws, animal welfare laws, and now, emergent welfare-aligned sentence laws.

A Martin's Act

The first national animal welfare law in the United Kingdom was enacted in 1822 when the British Parliament, led by Richard Martin, passed *Martin's Act*.²¹ Following this enactment, Martin successfully prosecuted Bill Burns under that Act for beating his donkey, and the case became the world's first known conviction for animal cruelty.²² This sparked the foundation of animal protection societies not just in the UK,²³ but also in Germany and Switzerland.²⁴

Martin's Act ... and the subsequent formation of the RSPCA (UK) in the 1820s influenced similar laws and organisations down under.²⁵ Within the first hundred years of European occupation of the continent, each of the separate colonies established Royal Societies of their own, and various laws mirroring Martin's formulation had been put into place.²⁶

The United Kingdom continued its progressive animal law reform in the mid-20th century, with the development of the Five Freedoms model of animal welfare and the resulting changes to legislation. The impetus for the Five Freedoms model informing animal welfare law standards was the 1964 publication of Ruth Harrison's book *Animal Machines*, which described the intensive livestock and poultry farming practices of the time.²⁷ Harrison's book is considered to be a driving factor in the appointment of a parliamentary committee to investigate the welfare of farm animals.²⁸ In 1965, that committee, chaired by Professor Rogers Brambell, presented the *Report of the Technical Committee to Enquire into the Welfare of Animals Kept under Intensive Livestock Husbandry Systems*,

21 *Martin's Act* (n 13) c 71; James Stewart, *The Rights of Persons* (Edmund Spettigue, 1839) 79.

22 Ivan Kreilkamp, 'The Ass Got a Verdict: Martin's Act and the Founding of the Society for the Prevention of Cruelty to Animals, 1822', *BRANCH* (online, April 2012) <http://www.branchcollective.org/?ps_articles=ivan-kreilkamp-the-ass-got-a-verdict-martins-act-and-the-founding-of-the-society-for-the-prevention-of-cruelty-to-animals-1822>.

23 Marie Blosh, 'The History of Animal Welfare Law and the Future of Animal Rights' (LLM Thesis, The University of Western Ontario, 2012) 33.

24 Erin Evans, 'Constitutional Inclusion of Animal Rights in Germany and Switzerland: How Did Animal Protection Become an Issue of National Importance?' (2010) 18(3) *Society and Animals* 231.

25 Peter Chen, 'Animal Welfare Policy in Australia: Pace, Race and Shelf-Space' in Robert Garner and Siobhan O'Sullivan (eds), *The Political Turn in Animal Ethics* (Rowman and Littlefield, 2016) 175, 176 (citations omitted).

26 *Ibid*; Wallace B Budd, *Hear the Other Side: A History of the Royal Society for the Prevention of Cruelty to Animals in South Australia* (Investigator Press, 1988).

27 Ruth Harrison, *Animal Machines: The New Factory Farming Industry* (Vincent Stuart, 1964).

28 Farm Animal Welfare Council, *Farm Animal Welfare in Great Britain: Past, Present and Future* (Report, October 2009) 6 [18].

subsequently widely referred to as the *Brambell Report*.²⁹ This led animal welfare laws to be revised based upon scientific evidence at that time, which embraced the Five Freedoms model of animal welfare. Briefly, the five freedoms prescribed by this model are ‘freedom from hunger and thirst’; ‘freedom from discomfort’; ‘freedom from pain, injury and disease’; ‘freedom to express [most] normal behaviour’; and ‘freedom from fear and distress’.³⁰

B Treaty of Lisbon

The *Treaty of Lisbon* was the first legal instrument to specifically recognise animal sentience, with art 2(21) recognising that ‘animals are sentient beings’ and requiring that the European Union ‘pay full regard to the welfare requirements of animals’.³¹ However, the Treaty qualifies the ‘full regard’ position by stating that the application of the Treaty’s provision must ‘[respect] the legislative or administrative provisions and customs of the Member States, relating in particular to religious rites, cultural traditions and regional heritage’.³² Any meaningful effect of the recognition of animals as sentient is immediately curtailed by considerations of cultural and economic expediency, underpinned by deference to member states’ sovereignty.³³

The failure of the *Treaty of Lisbon* to define sentience by reference to animals’ negative *and* positive states led member states to continue practices based on minimum standards focused solely on regulating animals’ negative experiences. Practically, this failure to extend responsibilities to include promoting animals’ positive states meant that standards governing the human–animal relationship remained unchanged, and the duty to prevent animals from suffering unnecessarily continued to be interpreted by reference to a wide range of human-centric interests. We argue that the failure of the *Treaty of Lisbon* to accurately define sentience — an outcome that, properly interpreted, would have both retained anti-cruelty responsibilities *and* extended duties of care to include legal obligations with regard to animals’ positive affective states — should be seen as a lost opportunity for

29 FW Rogers Brambell, *Report of the Technical Committee to Enquire into the Welfare of Animals Kept under Intensive Livestock Husbandry Systems* (Report Cmd 2836, 1965).

30 Steven P McCulloch, ‘A Critique of FAWC’s Five Freedoms as a Framework for the Analysis of Animal Welfare’ (2013) 26(5) *Journal of Agricultural and Environmental Ethics* 959, 961, quoting Farm Animal Welfare Council, *Annual Review 2009–2010* (Report, June 2010) 4, archived at <http://web.archive.org/web/20101008080300/http://www.fawc.org.uk/pdf/annualreview09-10.pdf>. See Mellor, ‘Welfare-Aligned Sentience’ (n 6).

31 *FEU* (n 4) art 13. Article 13 states:

In formulating and implementing the Union’s agriculture, fisheries, transport, internal market, research and technological development and space policies, the Union and the Member States shall, since animals are sentient beings, pay full regard to the welfare requirements of animals, while respecting the legislative or administrative provisions and customs of the Member States relating in particular to religious rites, cultural traditions and regional heritage.

32 *Ibid.*

33 See, eg, *Masterrind GmbH v Hauptzollamt Hamburg-Jonas* (Court of Justice of the European Union, C-469/14, ECLI:EU:C:2016:609, 28 July 2016).

meaningful, practical change. The inclusion and recognition of sentience in the *Treaty of Lisbon* was a significant achievement, but failed to evolve animal welfare law beyond anti-cruelty standards.

C New Zealand

New Zealand is an example of failure to achieve meaningful change where legislative recognition of animal sentience is not accompanied by a clear, concise definition that extends human responsibility for animal welfare.³⁴ In 2015, New Zealand amended its *Animal Welfare Act 1999* (NZ) to recognise animals as sentient.³⁵ The amendment, however, did not provide a definition of sentience.³⁶ Although the amendment was originally lauded as highly progressive and consistent with New Zealand's reputation for leadership in global animal welfare, the government at the time went on record as stating that legislative recognition of animals as sentient was 'largely symbolic'.³⁷ This would seem to suggest that the failure to incorporate a legislative definition for sentience was a purposeful omission. Over six years on, and despite a host of regulatory reforms and other animal welfare initiatives, sentience remains undefined and positive animal welfare does not inform animal welfare compliance in New Zealand. Practically, legislative exemptions and welfare compliance are informed only by reference to animals' negative experiences.

D Australia

While the animal welfare laws of most Australian states and territories do not expressly recognise animals as sentient, their very existence implicitly recognises a degree of animal sentience.³⁸ To make it a criminal offence to cause, through any act or omission, negative states of pain or distress that are deemed to be unreasonable or unnecessary is to acknowledge that animals experience such states. Significantly, the Australian Capital Territory ('ACT') has recently amended its *Animal Welfare Act 1992* (ACT) to include recognition of animals as 'sentient beings that are able to subjectively feel and perceive the world around

34 See *Animal Welfare Act* (NZ) (n 4); Robertson and Goldsworthy (n 11) 10–11.

35 Robertson and Goldsworthy (n 11) 10.

36 *Animal Welfare Act* (NZ) (n 4) s 2.

37 Ministry for Primary Industries (NZ), *Animal Welfare Amendment Bill: Report of the Ministry for Primary Industries* (Report, February 2014) 68.

38 The *Animal Care and Protection Act* (Qld) (n 5) defines pain as including 'distress and mental or physical suffering': at sch 1 (definition of 'pain'). The *Animal Welfare Act 1985* (SA) ('*Animal Welfare Act* (SA)') defines harm as 'any form of damage, pain, suffering or distress': at s 3 (definition of 'harm'). The *Animal Welfare Act 2002* (WA) ('*Animal Welfare Act* (WA)') refers to 'pain' and 'distress evidenced by severe, abnormal physiological or behavioural reactions': at s 5 (definition of 'harm' paras (b), (c)). The *Prevention of Cruelty to Animals Act 1979* (NSW) ('*Prevention of Cruelty to Animals* (NSW)') defines pain as 'suffering and distress': at s 4 (definition of 'pain'). In most states these definitions cover all vertebrates. Fish are excluded in Western Australia and South Australia and are included in the Northern Territory only when in captivity. In some states these provisions also cover cephalopods (Australian Capital Territory) and crustaceans (Australian Capital Territory and New South Wales — for human consumption; Victoria — adult decapods).

them'.³⁹ Other states are considering similar legislative changes, including Victoria⁴⁰ and Western Australia.⁴¹ The Northern Territory also considered the legislative recognition of sentience, but ultimately elected not to proceed with such recognition on the basis that it was implicit.⁴² It is important to recognise that claims that sentience is implicit in existing animal protection laws and therefore does not need to be legislatively defined, while technically accurate, miss the opportunity for legislative alignment with best scientific practice grounded in positive animal welfare. With the exception of the ACT, which expressly recognised animal sentience in its *Animal Welfare Amendment Bill 2019* (ACT), no Australian state or territory currently makes an explicit statement regarding sentience in its animal welfare legislation.

In respect of animal protection law, Australia's federal arrangement leaves responsibility for the management of animals and animal welfare primarily to each individual state and territory. While this may be associated with uneven policy innovation and development, federalism can encourage a beneficial sense of competition among the states whereby desirable policy outcomes in one state or territory may prompt similar innovation in others.⁴³ While the Commonwealth has no direct power over regulation in the domain of animal welfare, it has enacted valid laws that impact animals, chiefly through the regulation of quarantine,⁴⁴ border control⁴⁵ and the import and export of live animals.⁴⁶ However, 'state and territory governments [retain] primary authority for the welfare of animals' as a residual legislative power.⁴⁷ As previously acknowledged, while not expressly recognising animals as sentient (with the exception of the ACT), existing state and territory legislation does implicitly recognise animal sentience insofar as it is a criminal offence to inflict, by any act or omission, negative states of pain or distress

39 *Animal Welfare Act (ACT)* (n 5) s 4A(1)(a).

40 Victorian Government, 'Andrews Labor Government Delivers More Support for Animal Welfare' (Media Release, 19 October 2017) <<https://www.premier.vic.gov.au/andrews-labor-government-delivers-more-support-animal-welfare>>.

41 *Review of the Animal Welfare Act 2002: Summary Report on the Public Consultation* (Report, June 2020) 8–9.

42 See Legislative Assembly Social Policy Scrutiny Committee, Parliament of Northern Territory, *Inquiry into the Animal Protection Bill 2018* (Report, May 2018) 19–20 [3.7]–[3.12]. The Northern Territory Parliament's Social Policy Scrutiny Committee declined to recommend the inclusion of animal sentience because it was 'of the view that recognition [of sentience] is implicit in the Bill and does not need to be explicitly stated in the Objects of the Bill': at 20 [3.12].

43 Brian Galligan, 'Processes for Reforming Australian Federalism' (2008) 31(2) *University of New South Wales Law Journal* 617, 639–40, citing Albert Breton, *Competitive Governments: An Economic Theory of Politics and Public Finance* (Cambridge University Press, 1996) ch 9.

44 *Biosecurity Act 2015* (Cth) ('*Biosecurity Act*').

45 *Australian Border Force Act 2015* (Cth).

46 *Australian Meat and Live-Stock Industry Act 1997* (Cth); *Biosecurity Act* (n 44); *Imported Food Control Act 1992* (Cth); *Export Control Act 1982* (Cth).

47 Chen (n 25) 176.

that are deemed to be unreasonable or unnecessary.⁴⁸ Given the federal nature of animal welfare law and regulation in Australia, animal welfare law has developed in a fragmented way. For example, although states and territories prohibit animal cruelty, what constitutes an ‘animal’ is defined differently in different jurisdictions, and as a consequence a number of species are excluded from the benefit of legislative protections. For example, despite being recognised as having complex anatomical structures and mental states, cephalopods may or may not be captured by anti-cruelty protections depending solely upon their location.⁴⁹ Given the seemingly inchoate nature of animal welfare law across Australia, the legislative recognition of animal sentience in the ACT has the potential to prompt other jurisdictions to follow their initiative and reform animal welfare laws to recognise and expressly define the sentience of animals.

E Constitutional Advancements

Legislative recognition and definition of animal sentience represents a conservative step in achieving elevated animal welfare standards compared with developments elsewhere in the world. Some nations have achieved constitutional recognition of the inherent value of animals, resulting in an emerging and rich vein of comparative constitutional jurisprudence.⁵⁰ Eisen recognises that this constitutional jurisprudence is moving beyond solely humanist conceptions of constitutional theory to consider non-human animals.⁵¹ This fundamentally challenges conventional anthropocentric accounts of constitutionalism. As Eisen states, ‘what is surprising ... is that animal interests matter *at all*’.⁵²

That the animal experience has been considered as informing the nature and extent of animal protection provisions in various constitutional arrangements is significant. For example, in Switzerland, protecting animal ‘dignity’, as referenced in the *Swiss Constitution*,⁵³ has been interpreted by the Swiss Federal Supreme Court as generating an obligation to consider the interests and wellbeing of animals throughout the legal system.⁵⁴ Swiss legal scholars have subsequently drawn a distinction between interpreting animal ‘dignity’ as importing deontological conceptions of dignity (sometimes referred to as biocentric or ethical dignity)

48 See above n 38.

49 *Animal Welfare Act (ACT)* (n 5) ss 7–8; *Prevention of Cruelty to Animals Act (NSW)* (n 38) s 5; *Animal Welfare Act 1999 (NT)* ss 7–9; *Animal Welfare Act (WA)* (n 38) s 19; *Animal Care and Protection Act (Qld)* (n 5) ss 17–18; *Animal Welfare Act (SA)* (n 38) s 13; *Prevention of Cruelty to Animals Act 1986 (Vic)* s 9; *Animal Welfare Act 1993 (Tas)* ss 7–8.

50 Jessica Eisen, ‘Animals in the Constitutional State’ (2017) 15(4) *International Journal of Constitutional Law* 909, 918.

51 *Ibid.*

52 *Ibid* (emphasis in original).

53 *Federal Constitution of the Swiss Confederation* (Switzerland) 18 April 1999, SR 101, art 120(2) [tr Swiss Confederation, ‘Federal Constitution of the Swiss Confederation of 18 April 1999’, *Fedlex* (Web Page, 13 February 2022) <<https://www.fedlex.admin.ch/eli/cc/1999/404/de>>].

54 *X und Y gegen Gesundheitsdirektion des Kantons Zürich und Mitb* [X and Y vs the Department of Health of the Cantons of Zurich & Co] (2009) BGE 135 II 384, 391 (Federal Supreme Court of Switzerland) [tr author].

versus interpreting it according to a ‘pathocentric’ model focused exclusively on animal experience.⁵⁵ Swiss constitutional practice necessitates consideration of the animal experience when considering a relevant law.

Similarly, the Indian Supreme Court has applied the concept of a ‘species best interest’ standard when considering the value of the animal experience. To that end, the Court’s leading decision under certain provisions of the *Prevention of Cruelty to Animals Act 1960* (India), interpreted in light of the Constitution’s duty of compassion, held that:

We have to examine the various issues raised in these cases, primarily keeping in mind the welfare and the well-being of the animals and not from the stand point of the Organizers, Bull tamers, Bull Racers, spectators, participants or the respective States or the Central Government, since we are dealing with a welfare legislation of a sentient-being, over which human-beings have domination and the standard we have to apply in deciding the issue on hand is the ‘Species Best Interest’, subject to just exceptions, out of human necessity.⁵⁶

These examples are not exhaustive but they do serve to illustrate that nations, through their constitutional arrangements, can and do meaningfully consider the wellbeing of sentient animals at the highest level. This represents a fundamental and paradigmatic shift. While constitutional progress of this sort in Australia is almost unimaginable, legislative recognition and definition of animal sentience is not. Notwithstanding the distinction between *constitutional* recognition and the focus of this article on *legislative* recognition and definition of animal sentience, the fundamental approaches to matters informing a construction of sentience in the former are illuminating and warrant consideration.⁵⁷

F Evolving Standards of Welfare through Legal Regulation

Since *Martin’s Act*, animal welfare laws have evolved from an exclusive focus on animal protection, that is, prohibiting treatment that causes an animal to suffer and criminalising blatant acts of cruelty, to a broader understanding of animal welfare, albeit with an extended focus on prohibiting treatment that is likely to cause suffering. Recognising and defining sentience at law — that animals experience

55 Gieri Bolliger, ‘Legal Protection of Animal Dignity in Switzerland: Status Quo and Future Perspectives’ (2016) 22(2) *Animal Law Review* 311, 354–5; Margot Michel, ‘Law and Animals: An Introduction to Current European Animal Protection Legislation’ in Anne Peters, Saskia Stucki and Livia Boscardin (eds), *Animal Law: Reform or Revolution?* (Schulthess, 2015) 87, 91–2.

56 *Animal Welfare Board of India v Nagaraja* (2014) 7 SCC 547, [12] (Supreme Court of India).

57 Reference to international constitutional jurisprudence is important for at least two additional reasons. First, it demonstrates that recognising and defining animal sentience either constitutionally or legislatively is entirely consistent with the current legal paradigm. It does not call for a fundamental reconsideration of the status of animals within our legal system, and is therefore, the authors contend, more likely to translate into practical benefits for animals in the immediate term. Second, reference to international constitutional jurisprudence demonstrates the relevance and importance of embedding positive animal welfare law as an entirely achievable legal reform that will elevate welfare standards across multiple jurisdictions.

both negative (eg pain, distress, suffering) and positive (eg comfort, interest, pleasure) states — extends human caregivers' legal duties of care to include not just preventing negative states but also promoting positive states (that is, it provides for welfare-aligned sentience laws).

Currently, the degree and nature of legal protection available to an animal depends less on the species of animal and more on the human use of the animal involved.⁵⁸ Factors such as an animal's environment, its degree of dependency upon people, and all additional circumstances relevant to the species and its purpose or use inform the legal obligations of the human caregiver.⁵⁹ Given that the largest single use of animals is as a source of food for people, economic, environmental and social considerations demand a delineation of animals into two distinct categories: those used for agriculture/production, and those with non-agricultural uses. Consequently, regulation of animals reflects both the circumstances of the animal and the interests of people. For example, '[c]ompanion animals tend to be regulated under a range of instruments,⁶⁰ reflecting their ubiquity in the urban environment but also the ad hoc nature of lawmaking around non-production animals'.⁶¹ The laws governing treatment of companion animals criminalise various acts or omissions that may constitute permissible treatment of animals used in research. Some species designated as pests or invasive species are directly regulated by the government and may lawfully be culled. These legal realities are apt to lead to confusion, as the same animal might be afforded different levels of protection depending on its location, circumstances, or use. A rabbit, for example, might experience a different quality of life depending on whether it is a pet, a research animal, or a designated pest.

Recognising the importance of animal welfare standards to animals and people alike raises questions as to how to appropriately balance, prioritise and define welfare standards and legal protections. Scientific recognition that animals experience not only negative but also positive affective states raises questions about how to meaningfully and appropriately extend the human caregiver's responsibilities in recognition of animal sentience. The authors argue that, notwithstanding challenges relating to offence exemptions that qualify animal welfare in consideration of other interests, explicitly recognising and defining animals as sentient extends legal concern to the whole spectrum of animals' subjective experiences and affective states, not merely negative ones. The consequences of failing to provide a clear, scientifically authoritative and enforceable definition of animal sentience are evident in a range of contexts, from the limited effect of the *Treaty of Lisbon* through to New Zealand's 'merely

58 Ian A Robertson, *Animals, Welfare and the Law: Fundamental Principles for Critical Assessment* (Routledge, 2015) 17.

59 Ibid 17–18.

60 See, eg, *Companion Animals Act 1998* (NSW); *Domestic Animals Act 1994* (Vic); *Animal Management (Cats and Dogs) Act 2008* (Qld); *Dog and Cat Management Act 1995* (SA); *Animal Welfare Act (WA)* (n 38).

61 Chen (n 25) 177.

symbolic' recognition of animal sentience.⁶² Law that does not recognise and define animal sentience inherently limits itself to the anti-cruelty paradigm of animal welfare law.

This article now turns to consider the philosophical and legal distinctions informing the legal position of animals, as well as the burgeoning science informing animal welfare, before going on to consider the emerging approach to welfare-aligned sentience laws.

III ANIMAL SENTIENCE IN CONTEXT: RIGHTS (AND INTERESTS) IN ANIMAL WELFARE

When considering the legal regulation of animals, a fundamental and informing distinction is the difference between rights and interests. This is particularly important in the analysis of animal welfare. As Scanlon says: '[t]here is fairly wide agreement among philosophers writing about rights that claims about rights involve, on the one hand, claims about duties that particular agents have and, on the other, claims about the values that these duties protect or promote, which ground the claim that there are such duties'.⁶³

Talk of rights is pervasive in modern legal systems and as a consequence there is much disagreement generally, as well as in the specific context of animal welfare, about what things or entities can be rights-holders. A useful distinction often drawn in the rights literature is between the interest theory of rights and the will theory of rights.⁶⁴ The interest theory of rights proposes that for a thing or entity to be a rights-holder, an interest in their wellbeing is sufficient reason to hold some other person(s) to be under a duty.⁶⁵ Therefore, rights are claims that require a correlative duty upon another,⁶⁶ and such claims entail necessary and feasible limitations upon the actions of individuals or institutional agents.⁶⁷ Simply put, according to the interest theory, an interest is sufficient to generate a right. On the other hand, the will theory (also called the choice theory) proposes that a mere interest is not sufficient to define a rights-holder; what is necessary is that an individual or entity *can* exercise choice or will and is capable of exercising their legal rights.⁶⁸ These

62 Neil Wells and MB Rodriguez-Ferrere, *Wells on Animal Law* (Thomson Reuters, 2nd ed, 2018).

63 TM Scanlon, 'Rights and Interests' in Kaushik Basu and Ravi Kanbur (eds), *Arguments for a Better World: Essays in Honor of Amartya Sen* (Oxford University Press, 2009) vol 1, 68, 69.

64 Visa AJ Kurki, 'Why Things Can Hold Rights: Reconceptualizing the Legal Person' in Visa AJ Kurki and Tomasz Pietrzykowski (eds), *Legal Person-Hood: Animals, Artificial Intelligence and the Unborn* (Springer, 2017) 69, 78–9 ('Why Things Can Hold Rights').

65 *Ibid.*

66 Judith Jarvis Thomson, *The Realm of Rights* (Harvard University Press, 1990) 41, citing Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions: As Applied in Judicial Reasoning and Other Legal Essays*, ed Walter Wheeler Cook (Yale University Press, 1919) 38.

67 TM Scanlon, 'Rights, Goals, and Fairness' in Stuart Hampshire (ed), *Public and Private Morality* (Cambridge University Press, 1978) 93, 103–4.

68 Carl Wellman, *Real Rights* (Oxford University Press, 1995) 8.

theories inform and help orient various positions regarding the rights-holding status of young children and the severely mentally disabled, and how the rights of such individuals are theoretically conceived.

Consideration of these theories and their implications is useful when thinking about what we mean when we say ‘animal rights’ and what we mean by ‘animal welfare’. Francione describes what he calls ‘legal welfarism’ as explicitly supporting the position that animal exploitation is morally justifiable, and claims, self-admittedly in a simplified way, that ‘the welfarists seek the regulation of animal exploitation; the rightists seek its abolition’.⁶⁹ Radford notes that ‘[t]he notion of exploitation is widely used in this context in an entirely derogatory manner, but other species have long since been integral to our society, and exploitation is an inevitable consequence of social interdependence. It is the *nature of the exploitation* which is important’.⁷⁰ He acknowledges that humans have often exploited their position of dominance, yet recognises that ‘to suggest that we should somehow isolate ourselves from them is not only fanciful, it is also a denial of the human condition. We are part of the animal kingdom, not separate from it, and, like all other forms of life, each of us has to exploit our environment in order to survive’.⁷¹

Radford’s position emphasises the inseparability and interdependence of people and animals and conceptualises the human–animal relationship in a way that can anchor pragmatic and necessary animal law reform within the current legal paradigm. The authors accept Radford’s pragmatic view in informing welfare-aligned sentient animal law reform.

A Animals as Animate Property

Animal law has been described as specialist property law because of animals’ special legal classification as animate property.⁷² It is also recognised that animal law is about more than simply a designation of ownership; animal welfare law imposes responsibilities in respect of the inherent value of the animal and the animal’s life experience.⁷³ Positive animal welfare law extends current concepts of animal welfare beyond simply a respect for life, to compassion and respect for the full life experience of animals — not just negative experiences, but positive experiences as well.

Notwithstanding the current legal classification of animals, recognition of sentience (together, as we argue, with its corresponding definition) anchors claims that animals have interests beyond the amelioration of pain and suffering, which

69 Gary L Francione, *Rain without Thunder: The Ideology of the Animal Rights Movement* (Temple University Press, 1996) 1, 10 (emphasis omitted).

70 Mike Radford, *Animal Welfare Law in Britain: Regulation and Responsibility* (Oxford University Press, 2001) 10 (emphasis added).

71 Ibid.

72 Robertson (n 58) 87.

73 See generally Mellor, ‘Welfare-Aligned Sentience’ (n 6).

extends caregivers' duties to provide for animals' positive affective states. Legislative recognition and definition would effectively and properly extend the legal responsibilities of the human caregiver for law's sentient animal. Animal welfare laws informed by Mellor's concept of welfare-aligned sentience can be achieved by drafting legislation recognising that animals experience both negative and positive affective states.⁷⁴

The unusual designation of animals as animate property represents attempts at law to reconcile regulation of animal welfare with existing legal categories. Kurki argues that the distinctions law draws between *persons* and *things* (or *subject* and *object*) has led to a conflation of rights and rights-holding with *persons* only.⁷⁵ A number of contemporary developments in animal welfare law seek to recognise animals at law by extending the designation of legal person-hood.⁷⁶ Although advocacy of this sort is directed toward a conceptual and structural shift at law, some scholars do reason that it is possible to argue for 'thing-hood' as a legal classification capable of possessing rights.⁷⁷ Kurki traces the etymology of person-hood in relation to things, and challenges the fundamental axiom at law that only 'persons' can hold rights, arguing that 'defining a legal person as an entity that holds rights serves to muddle our understanding of both right-holding and legal personhood, because there are either legal nonpersons that hold rights or legal persons that do not hold rights'.⁷⁸

This conflation of rights with persons, Kurki argues, is found to be logically inconsistent when one takes the example of the position of children and animals. The distinction is made apparent in comparing the interest theory of rights with the choice or will theory of rights.⁷⁹ Simply put, the former position holds that rights exists for those persons or things that have an interest in being or not being treated in some particular way.⁸⁰ For example, the interest theory of rights holds that children have a right not to be physically abused. Although children themselves cannot directly enforce this right, it may be (and in fact is) argued that the interests of the child and the corresponding duty upon others to refrain from such actions

74 Ibid 9–10.

75 Kurki, 'Why Things Can Hold Rights' (n 64) 77.

76 Randall S Abate and Jonathan Crowe, 'From inside the Cage to outside the Box: Natural Resources as a Platform for Non-Human Animal Person-Hood in the US and Australia' (2017) 5(1) *Global Journal of Animal Law* 54; Steven M Wise, 'Hardly a Revolution: The Eligibility of Nonhuman Animals for Dignity-Rights in a Liberal Democracy' (1998) 22(4) *Vermont Law Review* 793.

77 Steven M Wise, 'The Legal Thinghood of Nonhuman Animals' (1996) 23(3) *Boston College Environmental Affairs Law Review* 471; Visa Kurki, 'Animals, Slaves, and Corporations: Analyzing Legal Thinghood' (2017) 18(5) *German Law Journal* 1069 ('Animals, Slaves, and Corporations').

78 Kurki, 'Animals, Slaves, and Corporations' (n 77) 1079.

79 Ibid 1079–81.

80 Matthew H Kramer, 'Refining the Interest Theory of Rights' (2010) 55(1) *American Journal of Jurisprudence* 31, 33.

nonetheless constitutes a ‘right’ worthy of protection and enforcement.⁸¹ Conversely, the will or choice theory of rights holds that rights exist only where a person or thing can effectively enforce those rights.⁸² The latter conception of rights-holding seemingly requires a higher threshold, and fails to recognise the rights of children (and other natural persons incapable of exercising will or choice, such as foetuses and the cognitively impaired) at law for failure of a personal capacity to enforce those rights. To take this approach, denying certain persons rights under the will or choice theory of rights, is deemed socially unacceptable. Essentially, social interests and consequentialist reasoning preferences the interest theory of rights.

Therefore, under animal welfare legislation, animals (as legal things) possess rights pursuant to the interest theory of rights, where it is recognised that animals have an interest in not experiencing unnecessary pain or suffering.⁸³ A conversion of the status of animals from legal things to legal persons is not necessary to secure animal rights. Non-human animals already hold legal rights, even though they are considered animate property and are not legal persons. Animals possess, it is argued, a type of ‘thing-hood’ capable of holding rights, which, by extension, reciprocally imposes duties upon others. Notwithstanding the normative issues associated with classifying animals as animate property, it is nevertheless possible to deal with non-human animals as ‘things’ at law, capable of enjoying a limited conception of interest-based rights as understood within an interest theory of rights paradigm. Further recognising animals as sentient within this context serves to extend their interests and the correlative duties upon human caregivers.

B An Interest-Based Approach to Animal Sentience

Rights for animals is a polarising issue, with tension largely arising between those who regard animals purely as a commodity, and those who believe that animals are owed a duty of care. It is critical to draw some fundamental distinctions between key terms, as many are apt to conflate ‘interests’, ‘protection’, ‘welfare’ and ‘rights’.⁸⁴ An interest theory of rights supposes that an individual’s wellbeing and interests are sufficient to generate legal rights (legally protected interests) and, as Stucki argues, ‘the interest theory does little conceptual filtering beyond requiring that right holders be capable of having interests’.⁸⁵ Stucki goes on to say that ‘the fairly modest and potentially over-inclusive conceptual criterion of “having interests” is typically complemented by the additional, more restrictive moral

81 Kurki, ‘Animals, Slaves, and Corporations’ (n 77) 1080.

82 See Matthew H Kramer and Hillel Steiner, ‘Theories of Rights: Is There a Third Way?’ (2007) 27(2) *Oxford Journal of Legal Studies* 281.

83 Kurki, ‘Animals, Slaves, and Corporations’ (n 77) 1080.

84 Robertson (n 58) 10; Cass R Sunstein and Martha C Nussbaum (eds), *Animal Rights: Current Debates and New Directions* (Oxford University Press, 2004); Robert Garner, *A Theory of Justice for Animals: Animal Rights in a Nonideal World* (Oxford University Press, 2013).

85 Saskia Stucki, ‘Towards a Theory of Legal Animal Rights: Simple and Fundamental Rights’ (2020) 40(3) *Oxford Journal of Legal Studies* 533, 542. See also Joel Feinberg, *Rights, Justice, and the Bounds of Liberty: Essays in Social Philosophy* (Princeton University Press, 1980) 167, 159–84.

criterion of “having moral status”⁸⁶ With that in mind, it is useful to examine, as a starting point, the duty of care owed to animals that is advanced by Garner, who adapts a Rawlsian approach to the question of the moral status of, and our consequent obligations to, the sentient animal.⁸⁷ Garner argues that we might come to a proper and reasoned idea of justice for animals through a Rawlsian framework.⁸⁸ His arguments revolve around three central tenets. First, he seeks to establish that sentient animals are inherently owed justice, as opposed to merely moral concern.⁸⁹ Second, he defends a particular account of what animals are entitled to as a matter of justice, which he calls the ‘enhanced sentience position’.⁹⁰ For Garner, the reason for affording animals rights/duties of care, as opposed to merely moral concern, is that ‘the exclusion of animals as rights holders is likely to diminish the importance attached to [our] moral duties [to them] ... because of the high status accorded to rights in modern society’.⁹¹ This is a consequentialist formulation; the increased potential for positive animal welfare justifies the rights-based recognition.

On this view, animals have a right not to suffer and a strong enough interest in continued life that only very weighty human interests can justify sacrificing their lives.⁹² This still renders animals’ interests qualified as opposed to absolute, though it does elevate animal interests as a primary consideration in the balancing of competing preferences or priorities. If an ‘enhanced sentience position’ is accepted as a desirable theory of justice for animals, it follows that society ought to adopt the mitigation of animal suffering as the primary near-term goal regarding the human treatment of animals. Garner’s argument does not regard the painless killing of animals as morally problematic, though it does prohibit ‘the infliction of suffering on animals for human benefits’.⁹³ It is important to remember that there is a degree of subjectivity in applying responsibility for animals’ positive affective states: it requires an external assessment of what is reasonable and/or necessary, as well as subjective consideration of an animal’s experience. Given the prevalence of animal exploitation for human benefit in prevailing societal structures and institutions, this enhanced sentience framework may provide a starting point in approaching acceptable treatment of the sentient animal and reasoned application of an appropriate legal test.

With the concept of an enhanced sentience position in mind, it is useful to consider Cochrane’s ideas on how people may morally and ethically justify continued use

86 Stucki (n 85) 542. See also Matthew H Kramer, ‘Do Animals and Dead People Have Legal Rights?’ (2001) 14(1) *Canadian Journal of Law and Jurisprudence* 29, 33.

87 Garner (n 84) 2–3.

88 Ibid. See also John Rawls, *A Theory of Justice* (Belknap Press, 1971) 504.

89 Garner (n 84) 1–2.

90 Ibid 15, 133.

91 Ibid 95, citing Tom Campbell, *Rights: A Critical Introduction* (Routledge, 2006) 49.

92 Garner (n 84) 15–16, 133.

93 Ibid 18, 135.

of the sentient animal in certain contexts.⁹⁴ In framing appropriate uses of animals under welfare standards that recognise animal sentience, it is necessary to interrogate key ethical and moral issues, including autonomy, agency and personhood.⁹⁵ Cochrane argues that most sentient animals lack traits that might be necessary for personhood, which is to say that they lack ‘the ability to frame, revise and pursue their own particular conceptions of the good’.⁹⁶ On this definition, it is difficult to argue that animals have an intrinsic interest in making choices about the shape and direction of their lives, pursue desires, or realise such desires can benefit them.⁹⁷ The philosophical crux of this argument is that

because [sentient animals seemingly] lack the capacity to *reflect* upon their choices and desires — to decide for themselves the kinds of goals and goods they want to pursue — subjecting an external will on them, say through directing them to the performance of certain kinds of labour, is not *intrinsically* problematic in the way that it is for persons.⁹⁸

If one accepts the premise that sentient animals possess autonomy and agency, but limited incidents of personhood, then we may be ethically and morally (and, it follows, legally) justified to utilise sentient animals in certain contexts.

Irrespective of whether one accepts Garner’s consequentialist conception of an enhanced sentience position of animals and the argument for animal rights as an appropriate theory of justice, recognition of animal sentience at law invariably *extends* certain animal interests. An interest-based approach would suggest that sentient animals have an interest in being recognised as members of the community whose interests count in the determination of the public good.⁹⁹ Furthermore, sentient beings have powerful interests in not being made to suffer. This is not to say that suffering cannot be useful, morally appropriate or overridden by other interests; it is simply to say that suffering ordinarily makes the lives of sentient creatures worse.¹⁰⁰ These arguments rest on the presumption that ‘[a]ll sentient creatures possess certain future-oriented interests, which require continued life in order to be satisfied’, and that ‘continued life ordinarily permits more overall well-

94 Alasdair Cochrane, ‘Labour Rights for Animals’ in Robert Garner and Siobhan O’Sullivan (eds), *The Political Turn in Animal Ethics* (Rowman and Littlefield, 2016) 15 (‘Labour Rights for Animals’).

95 Gary E Varner, *Personhood, Ethics, and Animal Cognition: Situating Animals in Hare’s Two-Level Utilitarianism* (Oxford University Press, 2012).

96 Cochrane, ‘Labour Rights for Animals’ (n 94) 20; Alasdair Cochrane, ‘Do Animals Have an Interest in Liberty?’ (2009) 57(3) *Political Studies* 660; David Miller, ‘Political Philosophy for Earthlings’ in David Leopold and Marc Stears (eds), *Political Theory: Methods and Approaches* (Oxford University Press, 2008) 29.

97 Tzachi Zamir, *Ethics and the Beast: A Speciesist Argument for Animal Liberation* (Princeton University Press, 2007).

98 Cochrane, ‘Labour Rights for Animals’ (n 94) 20 (emphasis in original).

99 Garner (n 84) ch 6.

100 Alasdair Cochrane, ‘Animal Rights and Animal Experiments: An Interest-Based Approach’ (2007) 13(3) *Res Publica* 293.

being'.¹⁰¹ Of course, it is likely that not 'all sentient creatures possess this interest in equal measures'.¹⁰²

The legal classification of animals as animate property, or as possessing a type of thing-hood, does not prevent the law taking account of animal interests. Indeed, recognising animals as sentient and defining the incidents of sentience serves to extend animals' interests to positive affective states, imposing further duties upon persons, entities or institutions responsible for the care and control of animals. A theoretical grounding for animal sentience within a legal framework, such as that sketched above, allows us to contemplate what legal obligations and responsibilities might look like if we were to take account of the enhanced sentience position of animals. We argue that Mellor's Five Domains model of animal welfare and his concept of welfare-aligned sentience provides the necessary foundation for translating the recognition of animal sentience into a legislatively appropriate definition. The nature and extent of an animal's interests should be informed by the best scientific evidence available, taking account of the various domains of animal welfare.

IV SENTIENCE AND THE FIVE DOMAINS

Despite the fact that there is no singular definition of sentience, definitions consistently acknowledge, at a minimum, that a sentient being is capable of experience and feeling.¹⁰³ Webster states that sentient animals demonstrate their ability to feel pain and suffering, as well as pleasure, and that these feelings motivate animals to seek satisfaction to avoid suffering.¹⁰⁴ Mellor defines animal sentience as a capacity 'to consciously perceive by the senses; to consciously feel or experience subjectively'.¹⁰⁵ The New Zealand Veterinary Association states that sentience is 'the ability to feel, perceive or experience subjectively. (ie the animal is not only capable of feeling pain and distress but also can have positive psychological experiences, such as comfort, pleasure or interest'.¹⁰⁶ A review of wider literature reveals that sentience is commonly defined in this way, as 'the ability to feel, perceive, or experience subjectively'.¹⁰⁷

101 Cochrane, 'Labour Rights for Animals' (n 94) 24–5.

102 Ibid. See also Alasdair Cochrane, *Animal Rights without Liberation: Applied Ethics and Human Obligations* (Columbia University Press, 2012).

103 See Ian JH Duncan, 'The Changing Concept of Animal Sentience' (2006) 100(1–2) *Applied Animal Behaviour Science* 11; Eleanor Boyle, 'Neuroscience and Animal Sentience', *Animal Sentience* (Article, March 2009) <<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.573.1658&rep=rep1&type=pdf>>.

104 John Webster, 'Sentience and Animal Protection' in Marc Bekoff (ed), *Encyclopedia of Animal Rights and Animal Welfare* (Greenwood Press, 2nd ed, 2010) 507, 507–8, citing D Fraser and IJH Duncan, "'Pleasures", "Pains" and Animal Welfare: Toward a Natural History of Affect' (1998) 7(4) *Animal Welfare* 383, 384.

105 Mellor, 'Welfare-Aligned Sentience' (n 6) 1.

106 New Zealand Veterinary Association, 'Position Statement: Sentience' (Position Statement, November 2018).

107 Robertson and Goldsworthy (n 11) 12.

As Blattner states, '[w]hen legislators refer to sentience ... they usually use a broad definition that includes both the ability to experience pain and pleasure and the intrinsic importance to the being experiencing those feelings'.¹⁰⁸ In the context of increasing formal recognition of animal sentience in both international and domestic legal instruments, Mellor's concept of 'welfare-aligned sentience' captures key features of sentience that translate to legally enforceable duties.¹⁰⁹ As previously acknowledged, it 'confers a capacity to consciously perceive negative and/or positive sensations, feelings, emotions or other subjective experiences which matter to the animal'.¹¹⁰ Though the legal implications of such a definition remain to be seen,¹¹¹ we argue that they extend the duty of care/responsibility of human caregivers to include the positive affective states of animals. Where a legislative definition of animal sentience recognises both the negative and positive experiences of animals, it follows that there is a corresponding shift in necessary legal duties.

The Five Domains already form the basis for progressive regulatory systems implemented by leading animal welfare organisations internationally.¹¹² The Five Domains provide a systematic model for identifying and assessing welfare impacts across four physical or functional and one mental domain.¹¹³ This model is 'a valuable reference for the courts and lawyers in implementing credible, scientific and objective measures within an already multifactorial, potentially complicated, and subjective field'.¹¹⁴

The Five Domains model assesses welfare much more broadly than its forerunner, the Five Freedoms model. The Five Domains model has a particular focus on promoting positive welfare outcomes (which differentiates it from the Five Freedoms model) in addition to minimising negative welfare impacts on animals.¹¹⁵ There is significant ethical–legal literature on the Five Freedoms model of animal welfare, which, as already noted, prescribes freedom from thirst and hunger; freedom from discomfort; freedom from pain, injury and disease; freedom to express most normal behaviour; and freedom from fear and distress.¹¹⁶ The fact that the Five Freedoms are now widely recognised as having been superseded by the Five Domains should in no way be interpreted as undermining the significant

108 Blattner (n 4) 125.

109 Mellor, 'Welfare-Aligned Sentience' (n 6).

110 Ibid 1, 9.

111 Ibid 9.

112 TC Green and DJ Mellor, 'Extending Ideas about Animal Welfare Assessment to Include "Quality of Life" and Related Concepts' (2011) 59(6) *New Zealand Veterinary Journal* 263, 265.

113 Mellor, 'Operational Details of the Five Domains Model' (n 1) 3; Mellor and Beausoleil (n 7) 242; Robertson and Goldsworthy (n 11) 13.

114 Robertson and Goldsworthy (n 11) 13.

115 Ibid.

116 See Mellor, 'Updating Animal Welfare Thinking' (n 8); McCulloch (n 30) 961, quoting Farm Animal Welfare Council (n 30).

role of the Five Freedoms in the evolution of animal law. The principles of the Five Freedoms still underpin animal welfare law in most jurisdictions, informing enforcement powers to act not only when an animal has suffered, but also when an animal is deemed *likely* to suffer.¹¹⁷ However, while the Five Freedoms model of animal welfare underpins and justifies anti-cruelty law, it does not prescribe the provision of opportunity for positive affective states. This is the critical difference between the two models: by explicitly recognising the affective state of the animal, the Five Domains model not only retains anti-cruelty provisions, but recognises and extends the responsibility of human caregivers with regard to positive affective states. For example, satisfying the freedom to display ‘normal patterns of behaviour’ would necessitate an interpretative approach that considers the broader object and purpose of the legislation and extrinsic materials that may be relevant to contextualising this requirement. The modern approach to statutory interpretation, legislated for at the Commonwealth level and in every state and territory,¹¹⁸ would require that this freedom be interpreted in the context of the welfare model in which it arises, that is, properly construed as an obligation informed by alleviation of negative states only. Significantly, statutory reform grounded in the Five Domains model and drawing upon positive animal welfare would, by virtue of the modern approach to statutory interpretation, extend current legal duties to additionally provide animals with opportunities to experience positive affective states. Although evaluation of the affective state of an animal is subjective, its inclusion should stimulate deeper consideration of the mental/psychological wellbeing of the animal by the courts and, in particular, expert witnesses called to assist the courts with these decisions.

Understanding the Five Domains is key to understanding what evidence is necessary to demonstrate compliance with the updated legal test for animal welfare (as explored in Part V), and should be reflected in a legal definition of sentience. The ability to demonstrate compliance is critical to ensure that animals in care are provided with opportunities to experience positive affective states.

A legislative definition fit for regulatory and compliance purposes is:

Sentience means that animals experience negative and positive (physical, mental and behavioural) states.

This definition is specific enough to orient progressive law reform and consistent with the Five Domains, yet broad enough to flexibly adapt to changes as scientific advancements in animal welfare are made.¹¹⁹ For legislative purposes, the word ‘physical’ covers domains of nutrition, environment and physical aspects of health.

117 See, eg, *Animal Welfare Act (NZ)* (n 4) s 130(1); *Animal Welfare Act (ACT)* (n 5) s 6A.

118 *Acts Interpretation Act 1901* (Cth) s 15AA; *Legislation Act 2001* (ACT) s 139; *Interpretation Act 1987* (NSW) s 33; *Interpretation Act 1978* (NT) s 62A; *Acts Interpretation Act 1954* (Qld) s 14A; *Legislation Interpretation Act 2021* (SA) s 14; *Acts Interpretation Act 1931* (Tas) s 8A; *Interpretation of Legislation Act 1984* (Vic) s 35(a); *Interpretation Act 1984* (WA) s 18.

119 Mellor, ‘Welfare-Aligned Sentience’ (n 6) 9.

‘Mental’ states are clearly distinguishable as a separate category to ‘behavioural’ states.

In order to understand what constitutes a complete and proper legislative definition of sentience, it is necessary to be clear about how the law currently defines animal welfare — that is, by taking account of only half of the sentient animal’s life experience. As previously mentioned, the precursor to the Five Domains was the Five Freedoms, which influenced animal welfare legislation in the United Kingdom and beyond from the mid-20th century. Although revolutionary at the time, the Five Freedoms model of animal welfare has now been superseded by the Five Domains model, the latter reflecting advancements in scientific knowledge of animal welfare.¹²⁰ Despite these advancements, it is the Five Freedoms model that continues to inform legal approaches to animal welfare compliance, with the core focus on amelioration of the negative states of animals. As such, contemporary animal welfare legislation focuses primarily on criminalising acts or omissions that may or do result in an animal experiencing negative states that are not legally justifiable. The current legal duty regarding animal treatment is based on four key concepts which frame the current legal test for animal welfare compliance: ‘pain’, ‘distress’, ‘unnecessary’ and ‘unreasonable’. That is, compliance with animal welfare obligations continues to be assessed based purely on whether an animal has experienced unnecessary or unreasonable pain or distress.

V A REVISED ANIMAL WELFARE TEST

Legislative recognition of animal sentience must include a clear and complete legislative definition if it is to elevate legal standards of animal welfare. A legislative definition is essential to move animal husbandry practices beyond obligations that merely prevent suffering, toward standards requiring that animals under care have the opportunity to experience positive mental and emotional states.¹²¹

A *The Current Two-Limb Test*

The current two-limb test of animal welfare compliance requires that the following two assessments be made:¹²²

1. *Has the animal experienced, or is it likely to experience, pain or distress?*

If the animal does not experience pain or distress then the first limb is not met, and there is no breach of the current legal standard. If the above question is answered in the affirmative, thereby satisfying the first limb, then the second limb is considered.

120 Mellor, ‘Updating Animal Welfare Thinking’ (n 8); Mellor, ‘Operational Details of the Five Domains Model’ (n 1); Mellor and Beausoleil (n 7).

121 See F Wemelsfelder, ‘How Animals Communicate Quality of Life: The Qualitative Assessment of Behaviour’ (2007) 16 (Supplement 1) *Animal Welfare* 25.

122 See Robertson (n 58) 93–102.

2. *Was the pain or distress experienced by the animal either necessary or reasonable?*

This second test engages directly with the defences and exemptions available in animal welfare legislation. Unsurprisingly, opinions differ on what constitutes necessary or reasonable treatment of animals. We argue that law reform that includes the express recognition of animal sentience directly affects the legal assessment of what is reasonable and necessary pain or distress under this limb. This is an important distinction, as expert evidence given by veterinarians and other animal welfare experts is used by the court in applying this legal test. Legal recognition of an animal as sentient, we argue, will warrant a higher threshold for the ‘necessary’ or ‘reasonable’ criteria to be met under this limb.

B Extending the Responsibilities of Caregivers

It is entirely possible to reconcile a definition of sentience with the current animal welfare paradigm and, therefore, to extend the scope of legal responsibility for animals under human care and control. Situating sentience within the antecedent concept of responsibility circumvents normative debates about rights and property which, although important, arguably frustrate the opportunity for practical positive animal welfare outcomes within existing legal frameworks.

Legislative recognition and definition of sentience is one of the surest means of elevating standards of animal welfare, and can be achieved without modification to the legal designation of animals. As Kurki’s conception of rights powerfully demonstrates, things, as well as persons, can and do have legal interests.¹²³ Consequently, the debate about the legislative recognition of animal sentience and its legal and practical implications can progress without being sidelined by normative debates regarding the appropriateness or otherwise of the legal classification of animals. Significantly, the legal effect of designating certain animals as sentient necessarily modifies the obligations and duties that human beings owe to legally sentient animals.

C The New Third Limb

Under the proposed legislative reforms, the two-limb test preventing unnecessary and/or unreasonable pain or distress to an animal would remain in force.¹²⁴ With reforms to animal welfare legislation in New Zealand, Australia and elsewhere recognising animals as sentient,¹²⁵ animal welfare compliance will no longer be assessed simply in terms of an animal’s suffering as a result of act or omission, but will take into account animals’ positive affective experiences. A legislative

123 Kurki, ‘Why Things Can Hold Rights’ (n 64); Kurki, ‘Animals, Slaves, and Corporations’ (n 77) 1086.

124 Robertson (n 58) 93–102.

125 Jane Kotzmann, ‘Recognising the Sentience of Animals in Law: A Justification and Framework for Australian States and Territories’ (2020) 42(3) *Sydney Law Review* 281, 308–9.

definition that requires responsibility for both negative and positive experiences would require that a third limb be appended to the current test for animal welfare compliance. The third limb queries:

3. *Did the standard of human intervention, care and/or control fail to provide a positive experience adequate and appropriate for the animal(s)?*

In jurisdictions with animal protection law, this third limb would result in an enforceable obligation to provide animals with opportunities to experience comfort, interest and pleasure. The provision of such opportunities presupposes the ability of animals to manage their choices and decisions — including, for example, engaging in stimulating activities and having positive social relationships — as elements of positive life experience.¹²⁶ The revised test would therefore consider and assess whether the human caregiver has fulfilled their responsibility to provide positive psychological experiences for animals under their care or control. Such evidence may extend to an animal demonstrating comfort, interest, pleasure and/or confidence appropriate to the species, environment and circumstances of the animal.¹²⁷ When determining whether compliance has been demonstrated to the requisite legal standard, courts should be guided by the assessments of suitably qualified experts with specialised knowledge in such matters.¹²⁸

The third limb highlights why positive animal welfare law is so significant. Under the legislative requirement that both negative and positive states of animals be considered, exemptions that obviate animal welfare requirements would be far harder to satisfy.

VI PRACTICAL CONSEQUENCES FOR LAW'S SENTIENT ANIMAL

Legal provisions securing positive affective states for animals are not implausible. Rather, it already appears to be common practice among leading farmers, researchers, transporters, zoos and other stakeholders who recognise the benefits of ensuring that animals have a quality of life that goes well beyond simply addressing negative states.¹²⁹ There are likely to be enormous economic, social and

126 See Mellor, 'Updating Animal Welfare Thinking' (n 8) 11; Mellor, 'Operational Details of the Five Domains Model' (n 1) 3.

127 Robertson (n 58).

128 See, eg, *Evidence Act 2008* (Vic) s 79.

129 See, eg, Mellor, 'Operational Details of the Five Domains Model' (n 1); Mellor et al (n 2); DJ Mellor and M Burns, 'Using the Five Domains Model to Develop Welfare Assessment Guidelines for Thoroughbred Horses in New Zealand' (2020) 68(3) *New Zealand Veterinary Journal* 150; Daniel Warsaw and Janet Sayers, 'The Influence of Animal Welfare Accreditation Programmes on Zoo Visitor Perceptions of the Welfare of Zoo Animals' (2020) 8(3) *Journal of Zoo and Aquarium Research* 188; DJ Mellor and KJ Stafford, 'Integrating Practical, Regulatory and Ethical Strategies for Enhancing Farm Animal Welfare' (2001) 79(11) *Australian Veterinary Journal* 762; Rick Obrian Hernandez, Jorge Alberto Sánchez and Marlyn H Romero, 'Iceberg Indicators for Animal Welfare in Rural Sheep Farms Using the Five Domains Model Approach' (2020) 10(12) *Animals* 2273:1–16; Joy A Mench, 'Animal Welfare: Science, Policy, and the Role

environmental benefits in implementing initiatives which are likely to motivate and, where necessary, compel average animal caregivers to do better. Significantly, and of great practical importance, these proposed reforms would make it more difficult to reasonably evidence and justify welfare exemptions under existing animal welfare laws.

A Evidencing Positive States

The evolution of regulatory practices from animal protection to animal welfare was occasioned by scientific insights, most notably the Five Freedoms model of animal welfare.¹³⁰ It has been well over half a century since the Five Freedoms first shaped animal welfare legislation for the better, yet those same scientific standards continue to inform animal welfare legislation even as it is broadly acknowledged that they no longer reflect best scientific practice in assessing the wellbeing and welfare of animals.

As previously discussed, it is the Five Domains model of animal welfare that is now broadly accepted as representing best practice for animal welfare assessment, considering animal welfare from a broader perspective than the Five Freedoms.¹³¹ The Five Domains model provides the basis for progressive approaches being implemented by leading animal welfare organisations internationally,¹³² as well as an objective and scientific reference for courts and lawyers to assess welfare compliance.¹³³ The ability to assess and demonstrate animal welfare compliance is critical for all stakeholders. Legislatively recognising and defining animal sentience would elevate standards of animal welfare so that today's best practice becomes tomorrow's standard practice.

How far these duties extend in terms of an owner's legal responsibility to provide positive experiences for animals in artificial environments such as agricultural and food production and urban settings becomes germane when considering the nature and scope of legal responsibility. For example, the limitations of stalking, killing and consuming prey that are a reality of many animals in the wild, including dogs and cats, are set aside where owners regularly supply food to meet the physical needs of the animal. From a legal perspective, this behaviour complies with the obligation to provide proper and sufficient food. However, the legal focus on the wellbeing of the animal, and not the amount or type of food provided, is evidenced by the fact that owners have been successfully prosecuted for overfeeding their companion animals. In an agricultural context, it is more often the case that criminal proceedings arise in relation to underfeeding rather than overfeeding.

of Veterinarians' in Barry Kipperman and Bernard E Rollin (eds), *Ethics in Veterinary Practice: Balancing Conflicting Interests* (Wiley Blackwell, 2022) 21.

130 Brambell (n 29) 9–10.

131 Robertson (n 58) 164; Mellor, 'Updating Animal Welfare Thinking' (n 8) 13–14; Tristan J Colonius and Rosemary W Earley, 'One Welfare: A Call to Develop a Broader Framework of Thought and Action' (2013) 242(3) *Journal of the American Veterinary Medical Association* 309.

132 Green and Mellor (n 112).

133 Robertson and Goldsworthy (n 11) 13.

Consider how the principles for a sentient animal might be applied in other contexts, such as the provision of shelter. Despite the requirement in the Five Freedoms for the provision of shelter, adequate shelter remains a frequent concern in farming practices. The reality is that shelter is often not provided on the basis that it is unrealistic or financially prohibitive, or extends beyond common practice.¹³⁴ Although adequate shelter for animals is a legal requirement and animal stress has a negative impact on production, there are still many instances where shelter is not provided or is otherwise inadequate. While it is true that some animals may choose to stand in the sun or rain despite having access to shade, this doesn't mean they should be left with no alternative. Commensurate with sentience-aligned animal welfare is the opportunity to choose.

Recognising animals as sentient under the proposed definition will, we argue, limit arguments invoking legislatively available defences or exemptions and reduce the prospects of success of such arguments, which will ultimately improve animal welfare standards. Recognition and definition of animal sentience entails a legislatively enforceable commitment to the comfort of an animal, informed not simply by the judgement of the human caregiver but by the animal's subjective experience. In this context, arguments seeking to justify noncompliance with legal requirements would arguably be less compelling and perhaps, in some cases, entirely unavailable.

Veterinarians have a pivotal role in assisting courts in both assessment and expert evidence, ultimately informing any determination of an animal's welfare. Nonetheless, the concept of animal health is distinctly different from that of animal welfare. Although veterinarians receive considerable training in matters of animal *health*, a range of additional experts should be consulted to complement the expertise of veterinarians and assist courts in assessing, understanding, and making determinations in respect of animal *welfare*.¹³⁵ Depending on relevant circumstances and context, animal behaviourists, specialist advisors (for example, farm advisors), zoologists, trainers, specialised animal nutritionists, biologists and a host of other suitably qualified experts can offer expertise directly relevant to assessing an animal's wellbeing and therefore its welfare. Legislation that extends caregiver responsibility for the positive states of animals would necessitate specialised knowledge beyond that of veterinarians alone.

134 See, eg, Jeremy R Bryant, Frances Huddart and Karin E Schütz, 'Development of a Heat Load Index for Grazing Dairy Cattle' (2022) *New Zealand Journal of Agricultural Research* (advance) <<https://doi.org/10.1080/00288233.2022.2114504>>; Richard Osei-Amponsah et al, 'Heat Stress Impacts on Lactating Cows Grazing Australian Summer Pastures on an Automatic Robotic Dairy' (2020) 10(5) *Animals* 869:1–12; Boyu Ji et al, 'A Review of Measuring, Assessing and Mitigating Heat Stress in Dairy Cattle' (2020) 199 *Biosystems Engineering* 4.

135 See, eg, Susan J Hazel, Tania D Signal and Nicola Taylor, 'Can Teaching Veterinary and Animal-Science Students about Animal Welfare Affect Their Attitude toward Animals and Human-Related Empathy?' (2011) 38(1) *Journal of Veterinary Medical Education* 74; ES Paul and AL Podberscek, 'Veterinary Education and Students' Attitudes towards Animal Welfare' (2000) 146(10) *Veterinary Record* 269; 'Proceedings of the First OIE Global Conference on Evolving Veterinary Education for a Safer World' (Conference Proceedings, World Organisation for Animal Health, 12–14 October 2009).

The biggest single use of animals is as a source of food, so it is appropriate to consider the impact to the food/agricultural industry of legislative definitions that extend the responsibility for animals under care and control.¹³⁶ In terms of practical outcomes, agricultural food producers are not likely to have to ‘retool’ in the immediate term, as producers and retailers are likely to be provided with sufficient time to change equipment and procedures in order to comply with new legislative standards of animal husbandry. This was evident in the poultry industry, where legislation dictated a sunset clause on the lawful use of battery cages in favour of colony cages.¹³⁷ With the legislative recognition of animals as sentient, it is foreseeable that there will be changes to what is considered acceptable in terms of animal husbandry practices and procedures. For example, de-beaking and colony cage systems in the poultry industry may become the subject of further scrutiny, and practices like tail docking and castration without anaesthesia would foreseeably lose favour compared with credible alternatives that enhance positive animal experience, such as the use of behavioural modifiers and improved facilities.¹³⁸ Given the reliance of animals on human caregivers and decision-makers, positive legislative change will require the reassessment and revision of standards regulating the ‘birth to slaughter/death’ experience of animals destined to become food for human consumption.¹³⁹

Legislative reform may also result in a range of less obvious changes to caregiver obligations. Bullying provides a useful example. For the average observer, it is easy to drive past a farm and observe a group of animals drinking, feeding, sleeping and moving about and assume all is well. It may not be immediately evident, but in many cases a closer look would reveal that the behaviours of dominant animals are negatively impacting on the experience of the subservient ones. It may come as a surprise to many, but bullying is just as common in the animal kingdom as it is in human society, and the impacts on animal experience can be just as significant.¹⁴⁰ Recognition of these impacts may lead obligations to shift with respect to, for example, the number of watering troughs per hectare to ensure availability of water to stock on the basis of not just freedom from thirst, but also

- 136 Emma Roe, ‘Ethics and the Non-Human: The Mattering of Animal Sentience in the Meat Industry’ in Ben Anderson and Paul Harrison (eds), *Taking-Place: Non-Representational Theories and Geography* (Ashgate, 2010) 261.
- 137 Harold Mayaba, ‘Assessing the Impact of Phasing Out Battery Cages and Switching to Colony Cages in the Poultry Industry of New Zealand’ (Masters in Agri-Commerce Thesis, Massey University, 2019) 13–15.
- 138 Robertson (n 58) 104.
- 139 Recognition of animals as sentient will require re-evaluation of standards relating to, for example, transport (eg carrying densities, transport times), slaughter procedures and facilities, and entertainment uses (eg racing, rodeos, etc).
- 140 See, eg, Tine Rousing and Françoise Wemelsfelder, ‘Qualitative Assessment of Social Behaviour of Dairy Cows Housed in Loose Housing Systems’ (2006) 101(1–2) *Applied Animal Behaviour Science* 40; Scott E Pooch and Jonathon L Beckett, ‘Changing Demographics of the Commercial Dairy Calf Industry: Why Use Beef on Dairy?’ (2022) 38(1) *Veterinary Clinics of North America* 1; AJ Connolly and Chief Innovation Officer of Alltech, ‘Precision Dairy Farming in the Future: Can Technology Replace Cow Sense?’ (Conference Paper, Cornell Nutrition Conference for Feed Manufacturers, 17 October 2018).

comfortable access. Similarly, continued wilful blindness to the provision of shade and shelter will foreseeably garner increased attention not only regarding the requirement for providing protection from the elements, but on the basis that the animal should have a choice to experience comfort, interest and pleasure.

For governments seeking to elevate standards of animal welfare, the authors recommend consideration of the following key points:

- The Five Freedoms model no longer reflects best scientific practice for the assessment of animal welfare, and has been superseded by the Five Domains model of animal welfare.
- Taking responsibility for animals' positive experiences is entirely achievable and is already demonstrated by leading caregivers across a host of contexts involving the care and control of animals.
- A legislatively enforceable definition of sentience necessarily requires the consideration of scientific evidence. The Five Domains model of animal welfare provides appropriate, demonstrable criteria against which relevant evidence can be appraised.
- The current two-limb legal test for animal welfare compliance should be expanded to an updated three-limb test.¹⁴¹
- Determining compliance with animal welfare standards already relies heavily on the accounts of expert witnesses, and this would continue to be the case as courts apply the three-limb legal test.

VII CONCLUSION

Recognising animals as sentient and defining sentience in line with the Five Domains model of animal welfare will extend the current legal responsibilities of human caregivers to include the facilitation of opportunities for positive affective states. On the authority of the Five Domains model, legal reform incorporating positive animal welfare law involves two parts, namely: legislative recognition of animals as sentient and, critically, an accompanying legislative definition stating that sentience means that an animal experiences negative and positive (physical, mental and emotional) states. Such a definition will shift legal standards of acceptable animal care beyond a focus on the mere prevention of suffering, and toward standards that ensure animals under care experience positive mental and emotional states which are consistent with public expectations regarding animals' quality of life. In the context of philosophical debates about the legal recognition of animals, this proposed law reform can elevate standards of animal welfare in a way that is consistent with established legal paradigms.

Recognising and defining animal sentience requires an expanded three-limb legal test for animal welfare compliance. This expanded test recognises that less pain is not the same as more pleasure. Significantly, this evolves the 200-year animal protection/welfare model predicated on minimising an animal's unnecessary pain,

141 Robertson and Goldsworthy (n 11) 12–13.

distress and suffering to mandate that human caregivers provide animals with opportunities to demonstrate positive affective states such as comfort, interest and pleasure. This law reform is specific enough to necessitate a thorough revision of current and future animal uses within society, yet inherently flexible enough to allow for statutory interpretation to evolve with best scientific practice.