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# 'The Machine Runs Itself': Law is Technology and Australian Embryo and Human Cloning Law

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## Abstract

Technology law scholarship has a tendency towards the dramatic. Technology causes disruption. Law must catch-up; it must ensure potential benefits from technology and avoid potential harms. There are even concerns that law, as an organiser of human life, is itself becoming eclipsed by forms of technological management. What is often not focused on is the practical process through which concerns about technology become transmuted into legal forms within specific jurisdictions. This paper examines the 23 years of Australian law concerning embryos and human cloning. Inspired by Carl Schmitt's criticism of modernity's political institutions and the laws they produce, what is identified is a machine that runs itself. It is shown to be a highly automated process whereby technical experts manage competing values. Rather than law regulating technology or technology regulating law; the Australian study suggests that law and its making, is technological.

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## Introduction

Technology law scholarship is a fascinating discourse. Highly inter-textual with speculative imaginings of human technological futures,[1] it nevertheless presents as a practical project concerned with ensuring law 'catches-up' with technology or maximises promised benefits and minimises feared harms.[2] In recent years, the phrase 'disruption' has increasingly been used to represent a sense of urgency of change and for change.[3] What is interesting is that much of technology law scholarship is chronologically dislocated. It is caught between a present where an imagined, disrupting technological change faces an inadequate legal and regulatory environment and projected dystopian or cornucopian futures.[4] What is often not considered are the pathways, processes and 'agents of change' that might connect the disrupted present to the possible futures.[5] In short, technology law is full of calls for new and reformed laws and regulation to manage the perceived disruption of a technological change, but often does so in a vacuum of how laws and regulation have changed in response to technology.[6]

This paper is a particular case study on the 23 years of Australian law, regulation and change in response to the media event surrounding Dolly, the cloned sheep, in 1997.[7] Drawing upon Carl Schmitt's criticism of representative political forums and the forms of power and lawmaking processes that they obscure, it is argued that in Australia the embryo and human cloning lawmaking shows that the 'machine runs itself.'[8] What becomes revealed is a highly automated process whereby technical experts manage politics and competing values. It suggests, at least in the specific context of Australia, not a law regulating technology, but a techno-totality where law is technology. In identifying this about Australian lawmaking, this paper's primary register is descriptive. It adapts and uses ideas from Schmitt's critique to reveal, within a very specific context, how technicity infuses the lawmaking process and what this might add to understandings of law and technology. For Schmitt such a realisation about the exercise of lawmaking power within a nation has fatal normative consequences; such 'neutralisation' extinguishes the vitality of the political.[9] There is a challenge in drawing upon Schmitt's ideas to inform a descriptive study such as in this paper. The challenge is to resist

[1] Tranter (2011b).
[2] Bennett Moses (2007b); Bennett Moses (2007a)
[3] Tranter (2017).
[4] Tranter (2011a); Crootof and Ard (forthcoming 2021).
[5] Bennett Moses (2011); Bennett Moses (2007c).
[6] Biagioli and Buning (2019), p 17.
[7] Tranter (2010).
[8] Schmitt (1985), p. 48.
[9] Schmitt (1993).

getting carried away by the beautiful brutality of Schmitt's founding illiberal ontology and building apocalyptic normative conclusions. This paper uses concepts drawn from Schmitt to suggest, within the context of a specific sequence of lawmaking activities in response to technology, a techno-totality where lawmaking of technology seems to be technological. What this might mean for the political (and with the political, the human and the enduring life of the nation) this paper leaves to others to speculate.

This paper builds its description in three parts. The first part sets out Schmitt's criticism of parliamentary forums and the forms of power and lawmaking processes that they obscure. Schmitt criticised these forums as illusionary: that they hide the true site of power and lawmaking 'behind closed doors'.[10] Schmitt provides a framework through which to understand lawmaking in modernity as a technical process managed by experts who neutralise values through an iterative process that mimics deliberative forums. These emphases of experts, representative formalities neutralising values and iteration are then examined through the 23 years of making and revising of the *Prohibition of Human Cloning for Reproduction Act 2002* (Cth) (PHCR Act) and the *Research Involving Human Embryos Act 2002* (Cth) (RIHE Act). It will be shown how a succession of inquiries neutralised value conflict into reform proposals that were enacted by representative legislatures: debate become technically managed through iterations of the inquiry process to manufacture outcomes that became law. The final section will briefly consider two implications from the revealed description of lawmaking in response to technology in Australia. First, whether the finding reflects the particular and unique feature of Australia as a 'Benthamite society.'[11] Second, whether the findings regarding the processes of legal change and the operation of techno-elites is important for technology law scholarship.

## Schmitt and Modern Lawmaking: Neutralisation and the Illusion of Parliamentarism

This part sets out Schmitt's criticism of 'parliamentary' political forums and the forms of power and lawmaking processes that they obscure. It predominately draws upon Schmitt's criticism in *The Crisis of Parliamentary Democracy* (first published in 1923) of forums as illusionary, hiding that power and lawmaking had become a technical enterprise managed by experts

[10] Schmitt (1988a), p 50.
[11] Collins (1985).

'behind closed doors'.[12] His critique provides a framework through which to understand lawmaking in modernity as a technical process managed by experts who neutralise values through iterative processes that mimic deliberative forms.

Carl Schmitt has been a shadow figure in post-war legal and political thought.[13] Highly controversial in his relationship and roles within the Nazi regime and his refusal to undergo de-Nazification, Schmitt's ideas about sovereignty, power and the role of exception have also been used by critical and left leaning scholars to understand and build critique of how public power is enacted and exercised in modernity.[14] For example, Schmitt's work on the relationship between sovereignty, legal orders and the exception deeply informs the work of Giorgio Agamben.[15]

Another focus of Schmitt's opus that has influenced contemporary thought has been his identification that the vectors and forms of power in modernity were strongly connected with 'technology' and particularly the totalisation of technological thinking.[16] Schmitt presented a complex articulation of the relationship between technology and modernity.[17] He identified 'technology' not as physical artefacts per say. Rather, technology was the ethos or overarching rationality of modernity, where process dominates, where there is no substantive difference between a 'silk blouse and poison gas.'[18] In this there can be seen some similarity between Schmitt's envisioning of technology as ethos and Martin Heidegger's later assertions on technological thinking as conceiving the world as 'standing reserve' ready at hand for deployment to any ends.[19] However, while Heidegger sees the ethos of technology properly resting within the ontological, for Schmitt it was technology as made concrete into machines dedicated to process that was its ultimate danger. Recently, Ville Suuronen has shown how Schmitt in his post-war *Glossarium* sees the technological worldview as leading to a process orientated toward remaking of the world and particularly of the human.[20] Suuronen emphasised how Schmitt's engagement with Huxley's *Brave New World* and the anticipation of biotechnology was leading to the 'fabrication of the Homunculus', the manufacturing of the

[12] Schmitt (1988a), p 50.
[13] Müller (2003).
[14] Bikundo and Tranter (2019).
[15] Huysmans (2008).
[16] McCormick (1997); Suuronen (2020); Rossello (2017).
[17] Tranter (2018), p 35,
[18] Schmitt (1988b), p 39.
[19] Heidegger (1977), p 20; Orr (1974).
[20] Suuronen (2020).

human by the human.[21] This was a process whereby any inherent values of the human can be eliminated or chosen at will.[22] A particular word used by Schmitt for this emptying was 'neutralised'.[23] Technology neutralises value, difference and ultimately, the political and what it means to be human.[24]

It is within Schmitt's enduring concern with the political that his orientation towards technology is most evident. [25] For Schmitt legal positivism had caused the state in modernity to be transformed from Hobbes' theological-unity of Leviathan to a 'great machine... [that] runs itself.'[26] As a machine it no-longer represented the unity of a sovereign body politic, but had become a tool through which ends become minimalised against means.[27] The modern state had transformed into 'a huge industrial plant'[28] producing legal formalities that are just forms for directing and organising human subjects: 'decision and command in the sense of a psychologically calculable compulsory motivation'.[29] Law becomes, to use another of Schmitt's suggestive terms, 'motorised'.[30] Schmitt directly links this emptiness to neutrality:

> For technically represented neutrality to function, the laws of the state must become independent of subjective content, including religious tenets or legal justifications and propriety and should be accorded validity only as the result of the positive determinations of the state's decision-making apparatus in the form of command norms.[31]

A key aspect within Schmitt's critique of the neutralising of lawmaking in modernity was the emergence of 'parliamentarism.' Schmitt constructed a historicised ideal of parliament as the first 'representative' forums that replaced absolute monarchies.[32] He identified that the 'ultimate intellectual foundations of parliamentarism'[33] rested on a commitment to 'public deliberation of argument and counterargument, public debate and public discussion, parley'.[34]

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[21] Suuronen (2020), p 621.
[22] For Schmitt, the modern notion of 'values', which suppose a subjectivity between values, was also a profound concern, see Schmitt (2018).
[23] Schmitt (1993).
[24] Suuronen (2020), pp 620-21.
[25] McCormick (1997), p 271.
[26] Schmitt (1985), 48; McCormick (1994); Schmitt (1990), p 48.
[27] Schmitt (1985), p 28.
[28] Schmitt (1985), p 65; Rossello (2017), p 451.
[29] Schmitt (1996), p 70.
[30] Schmitt (1990), p 53.
[31] Schmitt (1996), p 44.
[32] Schmitt (1988a), p 33.
[33] Schmitt (1988a), p 33.
[34] Schmitt (1988a), p 34.

Schmitt emphasised that this commitment to public debate and argument in parliament had its crescendo in the making of law:

> … only those regulations which have come into effect with the cooperation and participation of the popular assembly are called laws, then it is because the popular assembly, that is parliament, has taken its decisions according to the parliamentary method, considering arguments and counterarguments.[35]

However, Schmitt goes on to argue that this ideal form of parliament had not endured in the twentieth century. For him liberal notions of democracy corrupted public life and representative forums.[36] Schmitt's understanding of democracy is pejorative. He conceived it polemically as imposition by majority.[37] In discussing Schmitt's notion of democracy Lawson, Bikundo and Tranter argued that 'according to Schmitt the problem with democracy is in the formulation of the will of the people and knowing how to confirm this will. Thus, democracy requires homogeneity and the "elimination or eradication of heterogeneity"'.[38] Schmitt argues that the development of the full franchise led to parliaments composed of representatives from irreconcilable and incommensurable groups, splintering the underlying homogeneity that discourse and debate requires to be functionally effective.[39] In losing homogeneity the parliamentary forums no longer were the locus where discussion leads to law. The true site of power and lawmaking moved elsewhere:[40] 'small and exclusive committees of parties or of party coalitions make their decisions behind closed doors'.[41] 'Parliamentary' forms of public debate and discussion remain but have been neutralised, reduced to - in Schmitt's colourful imagery - an 'empty formality...superfluous decoration, useless and even embarrassing, as though someone had painted the radiator of a modern central heating system with red flames in order to give the appearance of a blazing fire.'[42] An aesthetics, a going through the motions, rather than substance. The solution for Schmitt was simple and brutal. The need for a truly representative ruling elite representative, in Schmitt's version of the term, as embodying the

[35] Schmitt (1988a), p 43.
[36] Schmitt (1988a), p 49. See also Smeltzer (2018), p 595.
[37] Schmitt (1988a), p 23-25; Lawson et al (2019), p 5.
[38] Lawson et al (2019), p 6 quoting Schmitt (1988a) p 9.
[39] Lawson et al (2019), p 7.
[40] Schmitt (1988a), p 49.
[41] Schmitt (1988a), p 50.
[42] Schmitt (1988a), p 6.

people and soil as a totality; a 'solution' that he enthusiastically identified with the Nazi Reich from 1934.[43]

What Schmitt identifies is that technological thinking has two specific manifestations when considering public power and lawmaking in modernity. The first is a tendency towards neutralising, in the elimination of ends, values and absolutes and focusing on process and means. Machine thinking writ large and specifically law become hollowed out as a mechanism through which desirable ends could be achieved. The second, and related, was the decoupling of power from the public forums of debate and representativeness that he classically identified in parliamentarism. These forums and practices remain but had been specifically neutralised into a 'mere façade'[44] with the true location of power hidden from public view. Together these suggest the technicalisation of lawmaking in modernity, a process whereby technical competent experts 'behind closed doors' fashion law that is then rubber stamped by the formal lawmaking institutions.[45] What Schmitt identified was that in modernity lawmaking is technological and not the product of public debate and compromise that orthodox political thinking delineates. Rather than the organic and discursive imagery of the 'coffee-house'[46] state involving public debate, agreement and comprise, the presiding imagery is hard, industrial and technical. He tells a story of the machine state pumping out laws designed by small cabals of technical experts. A key part of this process is that this mechanistic production goes through the forms of public debate, not as a substantive precursor to the exercise of power, but as formalities that neutralise conflict through sublimating competing values to a technical process. Further, this machine state producing machine law is iterative, repetitive, if not indefatigable. The 'huge industrial plant' keeps pumping out law.

Schmitt's criticism of parliamentarism comes with an agenda. It is part of his longstanding and long-ranging criticism of how liberalism fails the political, opening the space for the presentation of more total accounts of power.[47] This is not the agenda of this paper. Rather, it takes inspiration from Schmitt's critique, particularly as elaborated in his Weimer-era *The Crisis of Parliamentary Democracy*, as a way to conceive lawmaking in modernity as neutralisation. It involves three emphases. The first is the role and function of technical experts

[43] Smeltzer (2018), pp 600-3. On Schmitt's specific account of 'representation' and 'democracy' in contrast to 'liberal' conceptions see Schmitt (2008), pp 271-9.
[44] Schmitt (1988a), p 49.
[45] Tranter (2018), p 40.
[46] Pincus (1995).
[47] Scheuerman (2002), p 380; Smeltzer (2018).

that are located external to the 'representative' organs of the state. The second is utilisation of 'representative' processes of discussion and debate as formalities through which values become neutralised. The third is process and iteration; that this structure repeats through time, reissuing and updating law. In the next part these emphases are examined within the record of Australian embryo and human cloning lawmaking.

## Neutralisation in Australian Embryo and Human Cloning Lawmaking

In this part Schmitt's vision of lawmaking in modernity – of experts, representative forms neutralising values and iteration – are examined through the 23 years of making and revising of the PHCR Act and the RIHE Act. A series of inquires neutralised value conflict into reform proposals that were enacted by representative legislatures. Through this what is revealed is a highly automated process whereby competing values were managed by technical experts, suggesting not law regulating technology, but a techno-totality where law is technology.

This part is in several subparts. The first provides a schematic overview of the major milestones in the 23 years of Australian embryo and human cloning lawmaking. The second highlights directly the role of experts manifested through quasi-independent inquires. The third looks in detail at the machinery of the inquiry process, and how wider public conflict on fundamental values became neutralised through a process of 'consultation', to produce an 'authoritative' report. The fourth identifies how this structure of expert inquiries leading to an authoritative report was not only channelled into law by compliant legislatures, but was iterative; repeating across time.

*An Overview of Australian Embryo and Human Cloning Lawmaking*

The history of Australia's embryo and human cloning lawmaking is in four phases. The first phase, the *Dolly phase*, covers the 1990s. The birth of Dolly made front-page news in Australia in February 1997,[48] with the propagation and manipulation of stem cells following in scientific journals in 1998.[49] Dolly's birth triggered a substantial reporting within the Australian media about cloning and stem cell technologies.[50] In 1998 the Australian Health Ethics Committee (AHEC) was asked by the Minister for Health and Aged Care to report on various issues relating to human cloning. The report, 'Scientific, Ethical and Regulatory Considerations

[48] 'Cloning of Sheep Stuns Scientists', *The Age,* 24 February 1997, p 1; Ronald Kotulak, 'Scientists Clone Lamb from Cell to Make History', *The Courier Mail*, 24 February 1997, p 1.
[49] Thomson and Marshall (1998); Thomson et al (1998); Shamblott et al (1998).
[50] Tranter (2010), pp 56-60.

Relevant to Cloning of Human Beings' (the AHEC Report), was released in December 1998 and recommended the Government legislate to prohibit human cloning and regulate research on human embryos.[51]

The *Andrews / original legislation phase* began in 1999 when the Minister for Health requested that the Standing Committee on Legal and Constitutional Affairs review the AHEC Report and advise the Government on a legislative course of action. The Committee produced its report 'Human Cloning: Scientific, Ethical and Regulatory Aspects of Human Cloning and Stem Cell Research' in August 2001 (the Andrews Committee/Review/Report).[52] Following the majority recommendations of the Andrews Report and the endorsement of the Council of Australian Governments, Parliament considered the *Research Involving Embryos and Prohibition of Human Cloning Bill 2002*, subsequently split into separate bills and passed as the *Prohibition of Human Cloning Act 2002* (Cth) and the *Research Involving Human Embryos Act 2002* (Cth). Together the Acts:

- prohibited human cloning and several other practices;
- prohibited the creation of human embryos for any purpose other than attempting to achieve a pregnancy in a woman; and
- allowed certain uses of excess human embryos created through assisted reproductive technology under strict regulation and licence.[53]

Both Acts included sections mandating a review process three years after receiving royal assent.[54] This led to the *Lockhart / amending legislation phase*. The second review committee, the Legislation Review Committee (LRC) chaired by John Lockhart QC was appointed to review the Acts and produced its report in 2005 (the Lockhart Committee/Review/Report).[55] The Lockhart Report made 54 recommendations. Notably, it recommended maintaining the prohibition against human reproductive cloning but that human somatic cell nuclear transfer (SCNT cloning, commonly referred to as therapeutic cloning) should be permitted under licence and subject to certain conditions.[56] The *Prohibition of Human Cloning for*

[51] Australian Health Ethics Committee (1998).
[52] Standing Committee on Legal and Constitutional Affairs (2001).
[53] *Prohibition of Human Cloning for Reproduction and the Regulation of Human Research Amendment Bill 2006* (Cth), Bills Digest no. 59 2006-07.
[54] *Prohibition of Human Cloning for Reproduction Act 2002* (Cth), s 25; *Research Involving Human Embryos Act 2002* (Cth), s 47.
[55] Legislation Review Committee (2005).
[56] Legislation Review Committee (2005), pp xxii-xxiii, 163 and 172.

*Reproduction and the Regulation of Human Embryo Research Amendment Act 2006* (the 2006 Amendment Act) came into effect in 2007, giving effect to both these recommendations.

The 2006 Amendment Act also required that the PHCR Act and the RIHE Act be reviewed within three years,[57] giving rise to the third review – *the Heerey phase*. In December 2010 another LRC chaired by Peter Heerey QC was commissioned and produced its report in May 2011 (the Heerey Committee/Review/Report).[58] The Heerey Report recommended that the basic structure of the PHCR and RIHE Acts should remain, but proposed enhancing the powers of the National Health and Medical Research Council (NHMRC) Embryo Research Licensing Committee.[59] The Heerey Report recommended the continuation of the ban on human reproductive cloning and the permissibility of SCNT, subject to existing statutory controls.[60]

This phased history of Australian embryo and human cloning lawmaking can be presented schematically in Figure 1.

| Phase | Legislation and Reviews | Milestones and outcomes |
|---|---|---|
| **Dolly phase**<br><br>**1990 – 1998** | No nationally consistent legislation<br><br>State-based legislation,[61] supplemented by NHMRC Guidelines, later augmented by the *Gene Technology Act 2000* (Cth)<br><br>Australian Health Ethics Committee report - Scientific, Ethical and Regulatory Considerations Relevant to Cloning of Human Beings (AHEC Report)[62] | Some State-based regulation of embryonic research and prohibitions on human cloning but also conflict with NHMRC Guidelines[63]<br><br>Intense media interest following birth of Dolly |

[57] *Prohibition of Human Cloning for Reproduction and the Regulation of Human Embryo Research Amendment Act 2006* (Cth), Schedule 1, s 8 and Schedule 2, s 35; *Prohibition of Human Cloning for Reproduction Act 2002* (Cth), s 25A; *Research Involving Human Embryos Act 2002* (Cth), s 47A.
[58] Legislation Review Committee (2011).
[59] Legislation Review Committee (2011), pp 15-19.
[60] Legislation Review Committee (2011), pp 15, 42 and 53.
[61] *Infertility Treatment Act 1995* (Vic); *Human Reproductive Technology Act 1991* (WA); *Reproductive Technology Act 1988* (SA).
[62] Australian Health Ethics Committee (1998).
[63] Cooper (2006), p 31.

| | | |
|---|---|---|
| | | AHEC Report recommends legislating to prohibit human cloning and regulate research on human embryos |
| **Andrews / original legislation phase**<br><br>**1999 – 2002** | Standing Committee on Legal and Constitutional Affairs review and report (Andrews Report)[64]<br><br>*Prohibition of Human Cloning Act 2002* (Cth)<br><br>*Research Involving Human Embryos Act 2002* (Cth) | Parliament follows majority recommendations of Andrews Report<br><br>Human cloning and other practices prohibited<br><br>Creation of human embryos for research prohibited<br><br>Research involving surplus embryos permitted under licence |
| **Lockhart / amending legislation phase**<br><br>**2005 – 2006** | Legislation Review Committee review and report (Lockhart Report)[65]<br><br>*Prohibition of Human Cloning for Reproduction and the Regulation of Human Embryo Research Amendment Act 2006* (Cth) | Parliament follows majority recommendations of Lockhart Report<br><br>Therapeutic / SCNT cloning permitted under licence<br><br>Prohibitions on human reproductive cloning maintained |
| **Heerey phase**<br><br>**2010 – 2011** | Legislative Review Committee review and report (Heerey Report) | Legislative regime unchanged |

*Figure 1: Schematic Overview of Australian Embryo and Human Cloning Lawmaking*

[64] Standing Committee on Legal and Constitutional Affairs (2001).
[65] Legislation Review Committee (2005).

*Experts*

The immediate message from Figure 1 is the centrality of committee-led inquiries and reports as the key milestones in the history of Australian embryo and human cloning lawmaking. Each of the phases is defined by a central report (AHEC Report, Andrews Report, Lockhart Report and Heerey Report) drafted by experts and presented as authoritative because of its expertise.

The AHEC Report established this pattern of experts and authoritative expertise. A 'Working Group' conducted the inquiry and report. In the cover-letter to the Minister of Health that preferences the report, the Working Group emphasised its expertise in health law and ethics, medical science and public policy.[66] The honorifics of the members of the Working Group – professors, doctors and a Dame – were provided.[67] Furthermore, the cover-letter noted that a draft of the report was sent to other experts for consultation prior to finalisation. This consulted group was similar to the experts in the Working Groups; professors and doctors with expertise in law, health, ethics and policy, located within universities, research centres, hospitals and think-tanks.[68] The wording around this note in the cover-letter is particularly striking.

> The Working Group prepared a draft of the report … which was circulated for comment to a wide range of scientists, ethicists and persons knowledgeable in the area … The Working Group chose not to conduct public consultation as so many International and National pronouncements from professional groups and community groups indicated a consensus of opinion on prohibiting the cloning of human beings.[69]

The experts of the Work Group engaged with other experts and 'knowledgeable' persons, it considered the position statements from other specialist 'professional' and 'community' groups. Furthermore, from this quote, the report and its recommendations are projected as arising from 'consensus' from these communities of experts; suggesting the highest standard of truth within techno-scientific discourses, peer acceptance.

Furthermore, the very format and style of the AHEC Report followed the aesthetics of a technical, scholarly work. It was arranged in chapters with numbered paragraphs. It used

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The Working Group comprised Professor Don Chalmers, Dr Bernadette Tobin, Dr Peter McCullagh, Dr Wes Whitten and Dame Margaret Guilfoyle, Australian Health Ethics Committee (1998), p ii.

[67] Australian Health Ethics Committee (1998), p ii

[68] Australian Health Ethics Committee (1998), pp 47-49.

[69] Australian Health Ethics Committee (1998), p ii

footnotes, a detailed bibliography and glossary of terms.[70] As can be seen in Figure 2, the text of the AHEC Report would not look out of place within an academic publication; there were long and detailed sentences, technical abbreviations were deployed and it incorporated quotes from other academic literature.[71]

placentation.[38] Survival time was quite limited. There has been nothing to suggest that any reasonable prospect exists, in the foreseeable future, for the development of technology to replace the human uterus between the third and fifteenth week.

2.45 As indicated earlier, alternatives to some proposed uses of ES cells in transplantation are also the subject of active research. Discoveries using either approach may advance understanding and further research in the other. One of the most active areas relates to replacement of neurons damaged by disease. As already indicated, neurons with some functional characteristics have been produced from murine ES cells.[11] Paralleling this, a number of laboratories have identified neuronal precursor cells in the brains of adult mice and some of the conditions necessary for the further differentiation of these cells have been identified[39,40]. Commenting on their results, one of these laboratories surmised that: "*identification of factors that induce or inhibit the in situ proliferation and differentiation of these cells may allow for their eventual manipulation in the intact adult mammalian CNS to replace cells lost to injury or disease*". Very recently, it has been reported, for the first time, that some neurons in the adult human brain retain the capacity for all division (an observation coincidentally discussed in the same issue of *Science* which carried the report of the first human ES cell line[41]). Similarly, in another field of very active research, the derivation of multipotent haemopoietic stem cells from a murine ES cell line[9] has been paralleled by the identification of cells with similar potential in adult mouse bone marrow.[42]

2.46 A consideration which applies to proposals for transplantation to replace cells damaged by disease, irrespective of whether they are prepared from ES cell lines or from cells obtained from other sources, is the extent to which the transferred cells may also be damaged by the disease process. There may be major differences between the response in different transplantation situations. For example, the most recent review of the outcome of pancreatic islet transplantation to diabetic patients noted that less than 10% of recipients had achieved insulin independence.[43] In an earlier review by the same author the point was made that control of the autoimmune process underlying juvenile diabetes, rather than islet cell transplantation, should be the objective: "*Our personal goal as transplanters should be obsolescence*".[44] On the other hand, the transplantation of dopamine-producing neurons as therapy for Parkinsonism has produced a measure of stable improvement in some patients and may ultimately find a place in regular clinical practice.[45]

[38] Lerner U, Saxena BN and Dierfalusy E, Extracorporeal perfusion of the human fetus, placenta and foeto-placental unit. *Karolinska Symposia on Research Methods in Reproductive Endocrinology*, (4, 310-25, 1971)
[39] Reynolds BA and Weiss S, Generation of neurons and astrocytes from isolated cells of the adult mammalian central nervous system. *Science*, (255, 1707-10, 1992)
[40] Richards LJ, Kilpatrick TJ and Bartlett PF, *De novo* generation of neuronal cells from the adult mouse brain. *Proceedings of the National Academy of Science USA*, (89, 8591-5, 1992)
[41] Barinaga M, News of the week. New leads to brain neuron regeneration. *Science*, (282, 1018-9, 1998)

[42] Spangrude GJ and Johnson GR, Resting and activated subsets of mouse multipotent haematopoietic stem cells. *Proceedings of the National Academy of Science USA*, (87, 7433-7, 1990)
[43] Sutherland DE, Gruessner AC and Gruessner RW, Pancreas transplantation: a review. *Transplantation Proceedings*, (30, 1940-3, 1998)
[44] Sutherland DE, Pancreas and islet transplantation: now and then. *Transplantation Proceedings*, (28, 2131-3, 1996)
[45] Wenning GK et.al, Short-and long-term survival and function of unilateral ultrastriatal dopaminergic grafts in Parkinson's disease. *Annals of Neurology*, (42, 95-107, 1997)



*Figure 2: Page 20 AHEC Report*[72]

This was not a 'popular' document admitting a broad readership. Rather it was a document by a group of experts expressed in the idiom and forms of techno-science discourse. As such its text and recommendations come across as reasoned and reasonable, the product of highly trained and, in the words of report, 'knowledgeable' persons,[73] whose opinions had been validated by a broader community of experts.

The importance of the AHEC Report in delineating the content and trajectory of Australian cloning and stem cell law cannot be overstated. Its recommendations, a ban on reproductive

[70] Australian Health Ethics Committee (1998), pp. 50-65.
[71] Hyland (2004); Patriotta (2017).
[72] Australian Health Ethics Committee (1998), p 20.
[73] Australian Health Ethics Committee (1998), p ii.

cloning, national regulation of human embryo research and a watching brief on the potential of therapeutic cloning,[74] set a national agenda for lawmaking in relation to cloning and stem cells, and also provided a content list for what should be in law.

How the AHEC Report became the ur-text for Australian lawmaking is easily identified. The Andrews Committee's terms of reference were to review the AHEC Report.[75] Unlike AHEC, or the later LRCs, the Andrews Committee was the least 'expert.' Chaired by Liberal MP Kevin Andrews, the committee was comprised of the then members of the Parliament of the Commonwealth of Australia, House of Representatives Standing Committee on Legal and Constitutional Affairs.[76] Within Schmitt's understanding of lawmaking in modernity the Andrews Committee could be seen as an outlier – a residual non-expert zone where power could be channelled into law. However, tempering this observation is what the Andrews Report did. Although the Andrews Committee received 357 submissions 316 from private citizens[77] and held open public forums in Melbourne and Canberra,[78] it endorsed the plan for law according to the AHEC. The Andrews Committee stated its support for the 'general approach taken by AHEC', while noting the need for its recommendations to be placed in the context of scientific developments since the earlier inquiry.[79] Practically, the AHEC Report was referred to or referenced in the Andrews Report 161 times. The AHEC's recommendation to prohibit reproductive cloning is directly reproduced in the Andrews Report's recommendation for criminal prohibition and penalties.[80] The AHEC's call for national regulations became elaborated and schematised in the Andrews Report's recommendations around the establishment of a national law establishing a regulator and licencing regime.[81] The Andrews Report also reflected the AHEC's recommendation on a watching brief on the potential of therapeutic cloning, recommending that the AHEC be tasked with this role.[82]

[74] Australian Health Ethics Committee (1998), pp v-vi.
[75] Standing Committee on Legal and Constitutional Affairs (2001), p xvi.
[76] Namely, Kevin Andrews MP, Nicola Roxon MP, Bruce Billson MP, Julie Bishop MP, Alan Cadman MP, Duncan Kerr MP, Alan Griffin MP, John Murphy MP, Stuart St Clair MP, Danna Vale MP, Michael Ronaldson MP (until February 2000), Kirsten Livermore MP (until August 2000) and Frank Mossfield MP (until September 1999); Standing Committee on Legal and Constitutional Affairs (2001), p xiv.
[77] Standing Committee on Legal and Constitutional Affairs (2001), pp 7, 237-250.
[78] Standing Committee on Legal and Constitutional Affairs (2001), p 7.
[79] Standing Committee on Legal and Constitutional Affairs (2001), p 213.
[80] Standing Committee on Legal and Constitutional Affairs (2001), p 224 Recommendation 4.
[81] Standing Committee on Legal and Constitutional Affairs (2001), pp 221-229 Recommendations 1, 2, 3, 5, 6, 7, 8.
[82] Standing Committee on Legal and Constitutional Affairs (2001), p 229 Recommendation 9.

The Standing Committee on Legal and Constitutional Affairs, as a committee comprising members of Commonwealth Parliament, which could be regarded as a more traditional site for the exercise of power in modernity, essentially endorsed what the experts recommended from AHEC. While it rhetorically asked itself fundamental questions, such as the demands of 'respect for human life' and 'the appropriate limits of science',[83] this was not the reality of the report. Rather, it presented a nine-point blueprint for how the four recommendations from the AHEC should be turned into law and regulatory apparatuses within Australia. Indeed, the Andrews Report can also been seen as a highly technical document – not just in its stylistic similarity to the AHEC Report with numbered paragraphs, abbreviations and references – that applied the parliamentarians' knowledge of the Australian constitutional arrangements and legal and regulatory traditions and practices to generate an institutional model giving effect to the AHEC recommendations.

The LRCs that followed in 2006 and 2011 returned to the composition of the AHEC Working Group of technical experts. Both the Lockhart and Heerey Reviews were chaired by former judges. The other members were from scientific, medical and legal fields, including professors of bioethics, microbiology, neurology, neuroscience, immunology, as well as a member of the clergy and expert in health ethics.[84] What was noticeable was that no member of either LRC was 'political', that is a current or former member of parliament or even a past or serving civil servant. Membership was because of technical expertise in the health sciences or the learned professions of law, philosophy and theology. One expert in health law and ethics served on both committees.[85] The lack of the political was considered a virtue, with some commentary about the Lockhart Committee praising that the nonpartisan, technical expertise of the members allowed for clear communication.[86]

The first emphases of Schmitt's vision of lawmaking in modernity concerns the role of 'small and exclusive committees' of experts, external to the representative organs of the state. The committees with the greatest role in framing and amending Australia's 23 years of lawmaking on human cloning and embryo research comprised 24 individuals. In the case of the AHEC

[83] Standing Committee on Legal and Constitutional Affairs (2001), p x, 2.
[84] The members of Lockhart Committee comprised Hon John Lockhart QC, Assoc Prof Ian Kerridge, Prof Barry Marshall, Associate Professor Pamela McCombe, Professor Peter Schofield and Professor Loane Skene, Legislation Review Committee (2005), p 188. The members of the Heerey Committee comprised Hon Peter Heerey QC, Professor Loane Skene, Professor Ian Frazer, Rev Kevin McGovern and Dr Faye Thompson, Legislation Review Committee (2011), pp 11-12.
[85] Professor Loane Skene.
[86] Skene et al (2008), p 135.

Report, a five member Working Group tasked with advising the Government following the Dolly-inspired media frenzy, comprised of scientists, ethicists, a retired senator and a lawyer, whose broad recommendations were adopted by the Andrews Committee and framed the initial legislative response. For the Lockhart and Heerey Committees, statutorily mandated independent committees of experts, whose recommendations led to arguably the most controversial change around regulation of therapeutic cloning and its continuance. In this context of committees of technical, apolitical experts, the Andrews Committee does seem like a throwback to an earlier period where there was a stronger coherence of lawmaking within parliamentary forums. However, such an assessment ignores the location of the Andrews Committee and its substantive effect in channelling the core recommendations of the AHEC Report into law. It seems unambiguous that the experts have played a leading role in Australian embryo and human cloning lawmaking.

*Inquiry Process as Neutralisation of Values*

Schmitt argued that the intellectual foundations of parliamentarism – public deliberation, debate and discussion – had been corrupted by the loss of homogeneity in modern democracies. He saw the competing and irreconcilable interests and values of incommensurable groups as undermining the effective functioning of a system rooted in public discourse and debate.[87] It is axiomatic that human cloning and embryo research has been a source of controversy and debate since the announcement of Dolly in 1997.[88] The diversity of views and conflicting values were acknowledged by the review committees themselves and revealed in the media reporting during the public debates.

The foreword to the Andrews Report acknowledges the different perspectives of scientists, ethicists, lawyers and people with disabilities.[89] In acknowledging this, the report connected to the idea of 'consultation.' The Lockhart Committee likewise acknowledged the 'large questions' it was tasked to grapple with and confirmed the 'widely divergent views' held around the country.[90] That report described the purpose of its public consultation process as seeking 'the views, values and "standards" of the community' and observed that those 'standards' within and between Australian communities 'varied enormously'.[91] The Heerey Report also noted the challenging questions related to 'ethics, social values, community

[87] Lawson et al (2019), p 7.
[88] Bonnicksen (2002); Petersen (2002); Goldenblatt (2016); Shafique (2020).
[89] Standing Committee on Legal and Constitutional Affairs (2001), pp ix-x.
[90] Legislation Review Committee (2005), p v.
[91] Legislation Review Committee (2005), p 161.

attitudes and the need for scientific research' and the 'broad range of views' that the Committee encountered.[92]

Each of the Committees adopted similar processes towards this desired 'consultation.' All three provided for a process where the public could make written submissions.[93] The Andrews and Lockhart Committees also held public forums/meetings and private face-to-face meetings with identified stakeholders, experts or authorities.[94] The Heerey Committee, in addition to receiving written public submissions, invited selected individuals and organisations to meet with the Committee to make further submissions and answer questions.[95]

The media reporting following Dolly's announcement has been described as hysterical.[96] At the height of the debate in mid-2001, coverage was 'massive' with major metropolitan newspapers devoting full pages.[97] Generally the debate was polarized along pro and anti positions, with the media framing the debate as a contest between advocates of the therapeutic possibilities and religious zealots.[98] Within the public discourse there was general consensus as to the relevant ethical and social issues (e.g. scientific progress and medical advancements, moral questions about early life) but strongly divergent and tightly held responses.[99] A sense of the spectrum of views can be gleaned from comparing, for example, media accounts which could not resist raising the science-fictionalised prospect of cloning being used to replicate the vilest characters in history or pre-selecting genetically modified babies;[100] to less-sensationalist warnings that allowing even restricted stem cell research threatened to open the floodgates for developments tomorrow 'which public opinion today would not tolerate';[101] to those who championed embryo research, although distinguishing their position from the universally condemned prospect of human reproductive cloning.[102]

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[92] Legislation Review Committee (2011), p 5.
[93] Standing Committee on Legal and Constitutional Affairs (2001), p 7; Legislation Review Committee (2005), p 18; Legislation Review Committee (2011), p 14.
[94] Standing Committee on Legal and Constitutional Affairs (2001), p 7; Legislation Review Committee (2005), pp 19-20.
[95] Legislation Review Committee (2011), p 14.
[96] Tranter and Statham (2007), p 362.
[97] Harvey (2005), p 129.
[98] Harvey (2008), p 34.
[99] Dodds and Ankeny (2006), p 103.
[100] Steve Dow (1997) 'Ethicists Predict Human Cloning', *The Age*, 25 February 1997, p 7; Graeme Leech (1997) 'The Genetic Gene', *The Australian*, 1 March 1997, p 22.
[101] George Pell (2002) 'Decision a Pyrrhic Victory for Pragmatism', *Sydney Morning Herald*, 9 April 2002, p 13.
[102] Richard Yallop (2002) 'No Ban, Urges Stem Pioneer', *The Australian*, 14 August 2002, p 5; Stathi Paxinos (2001) 'Italian Scientist Prepares to Clone Humans', *The Age*, 6 August 2001, p 7.

Tranter's analysis of Australian print media between 1997 and 2002 revealed that, compared to human cloning, embryo research and access to excess IVF embryos attracted more rationalisations and balanced reporting from the media, with many items published from supporters and opponents.[103] However, some interests were less commonly featured, such as arguments for reproductive cloning for same sex couples, or were considered at the fringes of the debate and were actively marginalised by the media.[104] During the Lockhart and Heerey Reviews, members of both Committees published public opinion pieces advocating for a 'far sighted approach' to stem cell research and the continuation of research into therapeutic cloning.[105]

What can be seen from the reports and the media coverage was a variety of values and interests, many antagonistic, circulating around the issues raised by cloning and embryo research. The conflicts often were presented as an 'ethical divide' over fundamental questions, such as the value and moral status of the human embryo, leaving 'little room for reflective preference transformation'.[106] Faced with this complexity of values and strongly held heterogeneous beliefs, notions of consensus and compromise – for Schmitt the hallmarks of parliamentary lawmaking in modernity – do seem impossible. However, rather than abandoning notions of genuine public debate and discourse, the Committees seemed to embrace them.

In each report there were strong statements that the Committee had considered competing values and opinions in the spirit of debate, discussion and deliberation. The Andrews Committee employed the same expression as Schmitt in his critique, stating that 'these are not matters to be decided *behind closed doors*' but rather 'profound issues that require ongoing attention and discussion'.[107] Members of the Lockhart Committee described the approach to their 'discursive' deliberations as committed to 'fair, rigorous and transparent' debate, such that the unforced force of the better argument should prevail and recommendations not be pre-determined.[108] Unlike the Andrews and Lockhart Committees, the Heerey Committee was more circumspect regarding its deliberations and the report does not discuss any particular method or principle. However, some safe assumptions can be made as to the discursive and

[103] Tranter (2010), pp 58, 76.
[104] Tranter (2010), pp 63, 74; Harvey (2008), p 34.
[105] Loane Skene (2011) 'It's a vision thing: the case for a far-sighted approach to stem cell research', *The Conversation*, 14 June 2011 (URL: https://theconversation.com/its-a-vision-thing-the-case-for-a-far-sighted-approach-to-stem-cell-research-1790); Kerridge and Bendorf (2011), pp 156-157.
[106] Dodds and Ankeny (2006), p 103.
[107] Standing Committee on Legal and Constitutional Affairs (2001), p xiii. Author's emphasis.
[108] Skene et al (2008), pp 133-134.

deliberative nature of the inquiry. It was required to 'consider' the legislation, 'taking into account . . . community standards' and 'consult' a broad range of persons with expertise in or experience of relevant disciplines'.[109] Its report also noted the process adopted by the Committee of receiving and considering public submissions, as well as hearing a 'broad range of opinions' from selected individuals and considering a range of questions, informing its recommendations.[110]

Deliberative processes such as those ostensibly adopted by the Committees, including engaging with the public and stakeholders and testing arguments behind value conflicts, are intended to make policy decisions justifiable and defensible.[111] It is hoped that where there is value conflict, disputes might be resolved through a deliberative process, supported by a shared commitment to rationality, critical reasoning and reflective engagement.[112] However, critical analysis of the Committees and their reports reveals a number of ways in which the deliberative intent is undermined or corrupted and the conflict between values neutralised.

In terms of identifying the range of values and interests, the capacity for genuine and wide public engagement was undermined by time constraints and the circumscription of the debate to certain issues.[113] The Andrews and Heerey Committees received 347 and 264 written submissions respectively.[114] The Lockhart Review attracted considerably more interest, receiving 1035 written submissions, but openly conceded that time constraints impeded its consultative processes.[115] The time frame for submissions to the Heerey Committee was just two months.[116] Further, Ankeny and Dodds highlight how the process of the Lockhart Review 'tended to privilege expert views' and those from 'pre-identified and well organized community groups', while the report disproportionately quotes from certain submissions.[117] They conclude there were 'few opportunities for participation' except from pre-identified stakeholders and that consultative processes were mostly passive.[118] The Lockhart Review has been described as having a narrower scope, focussed on technical issues and missing 'more

[109] *Prohibition of Human Cloning for Reproduction Act 2002* (Cth), s 25A; *Research Involving Human Embryos Act 2002* (Cth), s 47A.
[110] Legislation Review Committee (2011), pp 5, 14-15.
[111] Ankeny and Dodds (2008), p 219.
[112] Parker (2009), p 581.
[113] Ankeny and Dodds (2008), p 223.
[114] Standing Committee on Legal and Constitutional Affairs (2001), p 7; Legislation Review Committee (2011), p 14.
[115] Legislation Review Committee (2005), pp 17-18.
[116] Legislation Review Committee (2011), p 14.
[117] Ankeny and Dodds (2008), p 222.
[118] Ankeny and Dodds (2008), p 222.

wide-ranging consideration of public opinion', yet hearing from many of the same organisations which made their interests known in the Andrews Review.[119] Similar criticisms can be made of the Heerey Committee, having regard to the almost identical terms of reference and the comparatively small number of submissions received. The Heerey Committee conducted face-to-face interviews with just 30 people, representing 14 organisations, many of whom appeared at earlier reviews.[120]

Ankeny and Dodds suggest that the consultative processes to claim deliberative legitimacy, certain characteristics must be attained, including inclusive engagement and adequate citizen participation.[121] The practical limitations of the reviews inhibited broad participation in the debates and circumscribed the scope of issues discussed. Thus whilst the 'process' appears consistent with and facilitative of the intellectual foundations of parliamentarism, the effect was that broad and inclusive deliberation was evaded, both in terms of the size of the public and the issues debated. The essential conflict of values became neutralised by an expert-led process of managing the scope of the conflict or avoiding it altogether.

The Committees also fell short of the rhetoric by adopting aggregative rather than genuinely deliberative approaches to certain issues. This was most clearly demonstrated on the topic of human reproductive cloning. Little criticised the Andrews Report for its failure to consider the various issues arising in relation to reproductive cloning or provide any reasoning to support its conclusion.[122] Twenty pages of the Andrews Report catalogue the submissions received on issues relevant to human reproductive cloning.[123] However, in reaching its conclusion the Committee merely stated that it 'agrees with the emphatic opposition' and that the individual members reached their conclusions for a 'variety of reasons'.[124] The Committee did not even go so far as to describe exactly which reasons it was persuaded by or why, as should be expected in a deliberative, reflective approach.[125] Similarly, the Lockhart Committee, despite its unequivocal commitment to a 'discursive' process and avoiding pre-determining recommendations, dispensed with the issue of reproductive cloning on the basis of 'widespread feelings in the community' and 'ethical and safety concerns', without further elaboration.[126]

[119] Harvey (2008), p 37.
[120] Legislation Review Committee (2011), p 96.
[121] Ankeny and Dodds (2008), p 220.
[122] Little (2002).
[123] Standing Committee on Legal and Constitutional Affairs (2001), Chapter 6.
[124] Standing Committee on Legal and Constitutional Affairs (2001), p 92.
[125] Little (2002), p 82.
[126] Legislation Review Committee (2005), p 163; Skene et al (2008), p 136.

The Committee went on to state that its recommendation for continuing the prohibition of the practice would apply 'even if the community view might be open to challenge'.[127] Parker has described this approach as a 'head-counting methodology for deriving recommendations', entirely without the robust or transparent debate the Committee claimed as among its working principles.[128] The Heerey Committee dealt with human reproductive cloning in almost identical terms, citing a contravention of 'the most basic understanding of human dignity' and an absence of submissions in support.[129]

What this suggests is that the rhetoric of rigorous and transparent debate and discussion projected by the Committees was mostly façade. The stated preference for 'pragmatic discourse' (the phrase used by the Lockhart Committee)[130] was only a commitment to 'ground rules' for deliberations and not, the more important, 'criteria for decision-making'.[131] The conflict of values which might otherwise have been genuinely debated and tested was neutralised by a process which, at least on certain issues, abandoned its foundational principles and reverted to recommending a policy position without (or with inadequate) justification and reasoning.

The Committees also neutralised value conflict by emphasising their role in 'balancing' competing interests and thereby appeasing the losers in the contest. For example, regarding the Lockhart Committee, Parker observed that unless the Committee was prepared to claim to have 'resolved' otherwise inconsistent and irreconcilable interests, then the Committee must be taken to claim to have 'arrived at some "compromise" between the opposing positions'.[132] The status and value of the human embryo, in the context of destructive research, is illustrative. In each report, the recommendations on therapeutic cloning were presented as a satisfactory compromise between competing interests. This is obvious from the rhetoric of compromise deployed in the reports. There is reference to 'balance [needing] to be struck between the special status of the human embryo ... and facilitating research',[133] or balancing 'the social and moral value [of] ... the human embryo' against 'the social and moral value [of] ... the treatment of disease'.[134] The Heerey Report noted the 'profound concerns that have been expressed about

[127] Skene et al (2008), p 136.
[128] Parker (2009), pp 582-583.
[129] Legislation Review Committee (2011), p 42.
[130] Skene et al (2008), p 134.
[131] Parker (2009), p 585.
[132] Parker (2009), p 584.
[133] Standing Committee on Legal and Constitutional Affairs (2001), p 166.
[134] Legislation Review Committee (2005), p xiii; Skene et al (2008), p 137.

embryo research, particularly SCNT', while also considering 'the possible, future benefits of human [embryonic stem] cell research'.[135] That report then refers to the legislation – the very laws that the Heerey Committee was tasked with reviewing – as the neutralising compromise, by permitting research but 'only under licence and ethical oversight'.[136] Indeed, that the Andrews Committee felt it necessary to recommend a three year moratorium on SCNT,[137] can be seen as an attempt at placating advocates disappointed by the Committee's recommendation on other embryo research. The Heerey Committee recommended the continuation of SCNT, permitted following the recommendations of the Lockhart Report and 2006 Amendment Act. However, in an 'almost apologetic'[138] additional comment and apparent conciliatory gesture to opponents of the research, the Committee noted 'the lack of progress in SCNT research' and suggested this should be considered in future licensing applications.[139]

The attempts at balancing competing values by the Committees provide another example of how conflict was neutralised. Where there were seemingly irreconcilable interests – as Schmitt asserts there must be in heterogeneous, full-franchise democracies – the theory of debate and discussion yields to an expertly managed process of formulating an appropriate compromise, complete with placating gestures towards the losing side. That the Committees tended to not be transparent as to the actual 'ends' of their show of deliberation – namely, 'coming to, and recommending for enactment, particular moral conclusions'[140] – demonstrates how value conflict was neutralised and debate managed through a technical inquiry process, mimicking deliberative forms and conducted by expert committees.

*Report, Law...Repeat*

This part demonstrates how the authoritative reports produced by experts through neutralisation were channelled into law by compliant legislatures. Further, this process of committee→report→enactment was iterative, repeating across the 23 year history of Australia's embryo and human cloning lawmaking.

The combined effect of expertise, consultation and the aesthetics and conventions of technical, academic discourse means that the reports 'exude authority.'[141] As noted, the Andrews Report

[135] Legislation Review Committee (2011), p 50.
[136] Legislation Review Committee (2011), p 50.
[137] Standing Committee on Legal and Constitutional Affairs (2001), p 122.
[138] David van Gend (2011) 'Cloning: The Blighted Science', *Quadrant Online*, 1 November 2011 (URL: https://quadrant.org.au/magazine/2011/11/cloning-the-blighted-science/).
[139] Legislation Review Committee (2011), p 53.
[140] Parker (2009), p 584.
[141] Tranter (2018), p 39.

channelled the recommendations of the AHEC Report. There was some initial controversy when the report was initially delivered to the Government, with the media reporting a Cabinet decision to ban research using surplus IVF embryos as contrary to 'the recommendations of an all-party parliamentary committee'.[142] However, a day later it was reported that the Prime Minister would take 'personal soundings' on the issue before a final Cabinet decision was made.[143] Ultimately Cabinet decided to follow the recommendations of the Andrews Report, though a conscience vote was permitted to government MPs on the legislation giving effect to it.[144]

The original drafting of the *Research Involving Embryos and Prohibition of Human Cloning Bill 2002* (Cth) permitted some forms of embryo experimentation and as such would not have permitted members of Parliament to vote in opposition to cloning and all forms of embryo experimentation.[145] In response, the combined bill was split and the *Prohibition of Human Cloning Act 2002* (Cth) (as it was then called) and RIHE Act passed both houses, with minor amendments from the Senate, giving effect to the majority recommendations of the Andrews Committee.[146]

The process following the release of the Lockhart Report was remarkably similar. It was again initially reported that the Prime Minister bluntly announced to a party room meeting that Cabinet had decided to 'reject the Lockhart review'.[147] After a backlash from colleagues,[148] the Prime Minister retreated from his position and again permitted a conscience vote for government MPs on the amending legislation, while maintaining his personal opposition.[149] Though introduced as a private member's bill[150] and without formal support from the Government, the *Prohibition of Human Cloning for Reproduction and the Regulation of Human Embryo Research Amendment Bill 2006* (Cth) translated the Lockhart Report's majority recommendations into law. While the resulting legislation has been described as a

[142] 'Embryo work banned', *The Courier Mail*, 26 February 2002, p 1.
[143] Michelle Grattan and Deborah Smith (2002) 'Howard to study stem cell research', *The Sydney Morning Herald*, 27 February 2002, p 7.
[144] Sean Parnell (2002), 'Go-ahead on embryos – PM supports cell research', *The Courier Mail*, 5 April 2002, p 1; Tranter (2010), p 58.
[145] Dodds and Ankeny (2006), p 99.
[146] Tranter (2010), pp 58-60.
[147] Simon Grose (2006), 'Government pays lip service to stem cell debate', *Australian Science*, August 2006, p 31.
[148] Harvey (2008), p 39.
[149] Nemes (2008), pp 141-142.
[150] By Senator Kay Patterson.

'dampened' and 'conservative' version of the recommendations,[151] ultimately all but one were accepted in substance.[152] Indeed, the revised explanatory memorandum details how each of the 54 recommendations were dealt with and given effect.[153] Only one recommendation was expressly rejected, relating to the creation of human-animal clones for research.[154]

The Heerey Report is different in that it mostly recommended the continuation of the legislative regime already in place and did not propose any controversial changes. Though many of the issues for consideration were the same as in 2002 and 2005, there was not the same level of interest during the time of the Heerey Review. There was familiar opposition from religious and conservative stakeholders to the practices already permitted by law following the Andrews and Lockhart Report, such as destructive research on surplus embryos and the use of SCNT.[155] However, these critical questions no longer generated the same public interest that was evident in 1997-2002 and the media reports in 2011 tended towards highlighting calls from the research sector to reduce regulatory red-tape and expand the list of permitted research techniques.[156]

That the framework of Australia's cloning and embryo research laws is primarily the 'product' of the work of three Committees is illustrative of Schmitt's notion of neutralisation: law, not through representative debate and discussion, but as a manufactured outcome. This is further demonstrated by the way in which those outcomes are channelled into law. This can be seen through the endorsement of and reliance on the reports by parliamentarians during the debates of 2002 and 2006. Conscience voting was permitted by both major parties, theoretically opening the door for meaningful deliberation without party politics and platforms.[157] When it was announced there would be a free vote in 2002, there was speculation among commentators that it was adopted not in the spirit of encouraging deliberation, but to protect political parties from the risk of internal divisions and community backlash for adopting a 'party line' position

[151] Ankeny and Dodds (2008), p 225; Harvey (2008), p 40.
[152] Lysaght and Kerridge (2012), p 196
[153] Revised Explanatory Memorandum, *Prohibition of Human Cloning for Reproduction and the Regulation of Human Embryo Research Amendment Bill 2006* (Cth), Appendix 1.
[154] Legislation Review Committee (2005), p xxiii; Revised Explanatory Memorandum, *Prohibition of Human Cloning for Reproduction and the Regulation of Human Embryo Research Amendment Bill 2006* (Cth), Appendix 1.
[155] Legislation Review Committee (2011), pp 42-54.
[156] Tim Dean (2011) 'Australian stem cell researchers call for less regulatory red tape', *Australian Biotechnology News*, 2 March 2011 (URL: https://www.labonline.com.au/content/life-scientist/news/australian-stem-cell-researchers-call-for-less-regulatory-red-tape-1132184227); Andrew Elefanty et al (2011) 'Striking the balance in laws for stem cell research', *The Conversation*, 24 April 2011 (URL: https://theconversation.com/striking-the-balance-in-laws-for-stem-cell-research-309).
[157] Ankeny and Dodds (2008), pp 224-225.

on contentious issues.[158] Faced with the complexity of the issues under consideration and given the freedom (or risk) of a conscience vote, 'many parliamentarians deferred to the reports'.[159] Numerous parliamentarians commended the Andrews Report, particularly the extensive inquiry process, its deliberations and the 'balanced' nature of the recommendations.[160] Even Committee members opposed to the bill prefaced their comments by referring approvingly to the consultative review process.[161] Parliamentarians supporting the bill went so far as to acknowledge the report's recommendations as the template for the legislation, commending the report for what they learned from it or citing it as a reason for the assuredness of their own conclusions.[162]

Similar patterns can be observed regarding the Lockhart Report and the debate of the 2006 bill. There were exceptions. In the context of legalising SCNT, some members of Parliament were surprised to be debating the permissibility of acts widely condemned only a few years before.[163] Others reminded colleagues that their decision-making power as parliamentarians could not be outsourced to expert committees.[164] A few accused the Lockhart Committee of being biased towards the pro-research community.[165] However, as with the 2002 legislation, numerous MPs commended the intelligence and expertise of the Lockhart Committee and endorsed its careful

[158] Dean Jaensch (2002), 'More conscience voting to shake security blankets', *The Advertiser*, 11 April 2002, p 18.
[159] Tranter (2018), p 39.
[160] *Commonwealth Parliamentary Debates*, House of Representatives, 20 August 2002, p 5242 (Simon Crean, Leader of the Opposition); *Commonwealth Parliamentary Debates*, House of Representatives, 20 August 2002, p 5255 (Nicola Roxon); *Commonwealth Parliamentary Debates*, House of Representatives, 28 August 2002, pp 6055-6056 (Petro Georgiou); *Commonwealth Parliamentary Debates*, House of Representatives, 28 August 2002, p 6065 (Barry Wakelin); *Commonwealth Parliamentary Debates*, House of Representatives, 21 August 2002, p 5410 (Duncan Kerr).
[161] *Commonwealth Parliamentary Debates*, House of Representatives, 22 August 2002, p 5465 (John Murphy); *Commonwealth Parliamentary Debates*, House of Representatives, 28 August 2002, p 6104 (Kevin Andrews, Minister for Ageing).
[162] *Commonwealth Parliamentary Debates*, House of Representatives, 20 August 2002, p 5259 (Bruce Billson); *Commonwealth Parliamentary Debates*, House of Representatives, 20 August 2002, p 5249 (Stephen Smith); *Commonwealth Parliamentary Debates*, House of Representatives, 22 August 2002, p 5455 (Julie Bishop); *Commonwealth Parliamentary Debates*, House of Representatives, 27 August 2002, pp 5864, 5866 (Lawrence Ferguson).
[163] *Commonwealth Parliamentary Debates*, House of Representatives, 4 December 2006, p 134 (John Anderson, Deputy Prime Minister); *Commonwealth Parliamentary Debates*, House of Representatives, 5 December 2006, p 70 (Patrick Secker); *Commonwealth Parliamentary Debates*, House of Representatives, 5 December 2006, p 116 (Steven Ciobo); *Commonwealth Parliamentary Debates*, House of Representatives, 6 December 2006, 118 (John Howard, Prime Minister).
[164] *Commonwealth Parliamentary Debates*, Senate, 6 November 2006, p 157 (Eric Abetz).
[165] *Commonwealth Parliamentary Debates*, House of Representatives, 4 December 2006, p 123 (John Murphy).

consideration.[166] Members stated expressly that they were 'persuaded'[167] by the Lockhart Report or advocated that the 'weight' of its recommendations should sway the House towards accommodating them.[168] Members told the House that the bill for consideration 'encapsulated' the Lockhart Committee's recommendations and urged it to 'deal with those recommendations seriously'.[169] Senators were encouraged to pass the legislation so that the recommendations might be implemented.[170] Julie Bishop, who appointed the Committee, was candid when she 'recommended [the Lockhart Report] to all members and senators as a document to guide their decision on this difficult topic'.[171]

Despite the ostensibly deliberative forms which prefigured the passage of the 2002 legislation and 2006 Amendment Act, the process of report-law-repeat, replicated just four years apart, suggests a 'mechanical' and 'automatic' lawmaking.[172] The iterative nature of this 'legislative factory' is exemplified by the inclusion of mandated three-year reviews built into the law itself,[173] as if it were, in Schmitt's terms, an industrial machine. It must be acknowledged that the Heerey Review is different to its predecessors and its recommendations have not been enacted.[174] These were concerned mostly with the powers of the licensing authority, but also included a recommendation for a further review, this time at five years.[175] However, its overarching recommendations were to 'maintain' what was already determined by the Andrews and Lockhart Reviews. That is, the continuation of the existing prohibitions and permissions. In that sense, the recommendations of the Heerey Review to 'take no action' have also been followed by parliament. Viewed across 23 years, what can be observed is an iterative mechanical process of 'motorised law'[176] - of technical inquiries, producing recommendations which, notwithstanding some minority objections, were ultimately enacted – with the review

[166] *Commonwealth Parliamentary Debates*, House of Representatives, 6 December 2006, p 10 (Laurence Ferguson); *Commonwealth Parliamentary Debates*, House of Representatives, 6 December 2006, p 17 (Margaret May); *Commonwealth Parliamentary Debates*, House of Representatives, 6 December 2006, p 56 (Joe Hockey, Minister for Human Services); *Commonwealth Parliamentary Debates*, House of Representatives, 6 December 2006, p 63 (Michael Keenan); *Commonwealth Parliamentary Debates*, House of Representatives, 6 December 2006, p 118 (John Howard, Prime Minister).
[167] *Commonwealth Parliamentary Debates*, House of Representatives, 6 December 2006, p 33 (Bruce Billson, Minister for Veterans' Affairs).
[168] *Commonwealth Parliamentary Debates*, House of Representatives, 6 December 2006, p 44 (Kay Elson).
[169] *Commonwealth Parliamentary Debates*, House of Representatives, 30 November 2006, p 13 (Julie Gillard)
[170] *Commonwealth Parliamentary Debates*, Senate, 6 November 2006, p 5 (Natasha Stott Despoja).
[171] *Commonwealth Parliamentary Debates*, House of Representatives, 6 December 2006, p 58 (Julie Bishop, Minister for Education, Science and Training).
[172] Tranter (2018), p 40.
[173] *Prohibition of Human Cloning for Reproduction Act 2002* (Cth), ss 25 and 25A; *Research Involving Human Embryos Act 2002* (Cth), ss 47 and 47A.
[174] Foong (2018), p 384.
[175] Foong (2018), p 384; Legislation Review Committee (2011), pp 15-19.
[176] Schmitt (1990), p 53; Scheuerman (2002).

process itself and expert work of the Committee members deferred to and relied upon as justification for the outcome.

*Law within the Techno-Totality*

What the examination of the history of Australian embryo and human cloning laws reveals is not exactly the usual story of law regulating technology. There was a familiar 'outcome'; that is, laws, regulations, processes and decision-makers were established to deal with the actual, and imagined, applications and implications of the knowledge and technologies heralded by Dolly. Australian law 'caught-up', possibly even overtook, cloning and stem cell technologies. However, that is not exactly the total story revealed through this examination. Rather, through Schmitt's critical eyes, the process through which these laws were made, adjusted and settled, was technological. Compliant parliaments 'rubber stamped' the workings of small cabals of experts who neutralised value conflict through drafting authoritative technical reports that gestured towards public debate and discussion. Indeed, the elected representatives were, on the whole, thankful to the work of the Committees for neutralising the value conflict and providing sensible 'solutions.' Further, there was suggestion of automation and repetition; of report, law, repeat.

These findings suggest something important for thinking about law and technology. The focus has shifted from the speculative question of how law should respond to technology, to a much more informed perspective of how law and regulation is made in response to technology. What is significant is that this process itself seems highly technological. As is central to technology law scholarship, law is often called-forth to respond to the implications of technological change. Law is the attempt by present humanity to legislate for desirable technological futures.[177] However, the findings from considering Australia's cloning and human embryo lawmaking is that this law is also a manifestation of technology, whether as technicity or *techné*. It suggests, as Schmitt articulated, that the power and institutions of the State have become technological. Surface forms of representation might remain, but beneath this veneer, actual power lies with a techno-totality facilitating experts in organising, managing and planning, the future.

[177] Tranter (2018) p 40-1.

## Benthamite State or Law is Technology?

The previous part revealed the lawmaking around Australian embryo and human cloning law was a highly automated process whereby competing values were managed by technical experts. This suggests not law regulating technology, but a techno-totality where lawmaking is itself technological. This part considers the implications of this finding. It is possible that the finding reflects the particular and historically unique feature of Australian public institutions as 'Benthamite.' However, there is sufficient generality to suggest that it reflects tendencies in lawmaking in modernity, such that questions of process and the operation of techno-elites should be important topics for technology law scholarship.

From a different intellectual tradition to Schmitt, H.L.A. Hart's renovation of positivist jurisprudence involved three core concepts; rules, officials and acceptance.[178] Hart provided for a theory of legal change, identifying within legal systems secondary rules that allowed officials to replace and reform primary rules.[179] Whereas, Austinian positivism presented a static legality that externalised notions of change, Hart reconnected to the reformist position of Bentham, that laws change, and should change, to meet the needs of the present.[180]

In Australia, the influence of Bentham over public institutions and conceptions of public power, has been much stronger than was evident in Hart's mid-twentieth century England.[181] Indeed, Hugh Collins has suggested that Australia is best conceived as a Benthamite state.[182] Although attracting criticism from some that read his statement literally and then tried to identify if key public figures had read Bentham,[183] the broad outline of Collins' thesis has merit. During the key late colonial period when the institutions of modern Australia – such as representative legislatures, public sector, adult suffrage, labour regulation, secularism, uniform education – were emerging, there was a progressive sense that law and public power should, and could, be used for the greater good. This legacy within Australia enshrined a governing culture where legislation and regulation were proactive and reformist.[184] A distinct institutional embodiment of this culture has been the emergence of quasi-independent, law and policy review

[178] Hart (1994).
[179] Hart (1994), p 94.
[180] Hart (1983).
[181] Llewellyn (2019).
[182] Collins (1985).
[183] Melleuish and Chavura (2016); Berg (2017).
[184] Barnes (2018).

commissions.[185] While a distinct Hartian-era reform in the UK,[186] law reform commissions found an expanded scope and methodology in Australia. In the UK and other Commonwealth countries, law reform commissions have remained particularly focused on common law reform undertaken by judicial and legal academic experts. In Australia, especially the Commonwealth-level Australian Law Reform Commission (ALRC) under the stewardship of foundation chair Justice Michael Kirby (1975-1984), they developed a broader scope to consider wide-reaching social justice issues and particularly a focus on adaption to technological change. The Kirby-era ALRC also pioneered the participatory consultation process of public hearings and submissions.

Since the 1980s entities like the ALRC have multiplied at the Commonwealth-level in Australia, and also in the form of Commonwealth and State cooperative agencies.[187] Well known examples of leading Commonwealth-level entities are the Productivity Commission and the Australian Human Rights Commission.[188] An example of a cooperative agency is the National Transport Commission.[189] While each of these organisations have distinct policy focuses, there is a strong similarity in forms of methods. There is the production of draft reports that ground a consultation process that leads to a final report to government.[190] Further, while there are well known examples where a report was rejected by Government, particularly the conflict between the Abbott Coalition Government and the Australian Human Rights Commission over its 2014 'National Inquiry into Children in Immigration Detention',[191] these entities generally have an excellent record in having their recommendations enacted. Indeed, they often report on the statistics of recommendation enactment as evidence of performance.[192]

This network of 'agents of change' across the Australian public landscape do seem to encapsulate a Bentham-like desire for institutions tasked with reforming law. Within this context, the work of the AHEC, the Andrews Committee and the LRCs – of experts charged with providing answers to a 'wicked problem', responding with detailed technical reports and a public consultation process, and having their recommendations enacted – follows a distinctly Australian pattern.

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[185] Tilbury (2005).
[186] Gardiner and Martin (1963); Farrar (1974).
[187] Weisbrot (2005); Barnett (2011).
[188] Bennett Moses et al (2015).
[189] On the National Transport Commission as an engine of transport law and policy reform see Brady (2019)
[190] Tranter (2015), p 358.
[191] Australian Human Rights Commission (2014). On the political controversy of the report see Brodie (2015).
[192] See for example Australian Law Reform Commission (2019), p 31; Productivity Commission (2019), 20-1.

The question for technology law scholarship is how much of the Australian cloning and human embryo lawmaking is revelatory beyond the specificities of Australian public culture and institutional arrangements. The Benthamite heritage in Australia possibly makes Schmitt's critique of lawmaking in modernity as technological particularly evident. Technology law scholarship does not have a detailed theory of legal change. Its orthodox approach highlights potential 'disruption' calling for change, but is mostly silent on the processes, expectations and structures that do, or should, be tasked with legal responses to technology. Often the addressee of technology law scholarship, particularly in the US, is the judiciary where there is an expectation that often the courts and the common law are the first responders to technologically disrupted law.[193] Roger Brownsword, inspired by Hart, provides a more public policy response, conceiving that technological implications require regulation.[194] For him it then becomes an issue for 'officials' to determine the policy ends and the appropriate mechanisms (normative instruments along with technological management) to achieve those ends. Like Hart, Brownsword does suggest that there is some minimal 'content' that should guide ends and means, to ensure the continuance of healthy human communities.[195] However, the secondary processes through which these ends and means are determined remain open.

Lyria Bennett Moses is one of the few technology law scholars who has focused on 'agents of change' in relation to the institutions and processes whereby law is adapted to technology.[196] Her focus is particularly Australia where, as has been noted, the institutional apparatuses are particularly evident. However, this does not limit the implications of this study. Schmitt's critique of lawmaking in modernity as becoming a technical exercise by experts can capture the global technology law movement. Ultimately, technology law scholars occupy a privileged space in how national sovereign communities change law in response to technology. Even without the obvious institutional networks and cultures of agents of change that are evident in Australia; there is influence and impact in serving on ad hoc commissions, advising departments and governments, appearing before committees, voicing opinions in the highbrow media. Brownsword's recent *Law, Technology and Society* is essentially a blueprint about the orientation that techno-elites should possess to regulate and manage flourishing human futures with, and through, technology.[197] The highly refined skills in instrumental thinking of how

[193] See for example Fairfield (2021).
[194] Brownsword (2019), pp 3-35.
[195] Brownsword (2019), pp 111-133.
[196] Bennett Moses (2011).
[197] Brownsword (2019), p 132.

legal rules and principles should apply to imagined futures, that then has influence on how representative forums make law, is the business of technology law scholarship.

This reveals three issues for technology law scholarship. First, is a substantial absence of attention within technology law scholarship on the actualities and adequacies of how panic or reasoned concern about possible technological change becomes 'channelled' into law within specific nations. The role of the messy realm of politics, interest groups and representative forums in orthodox accounts of lawmaking in the Global North, or through Schmitt, more critical accounts of the role of techno-elites securing law through the neutralisation of politics, has yet to influence technology law's descriptive or normative accounts of lawmaking. Second, there is a 'meta' dimension concerning the role and place of technology law scholars as a global techno-elite in framing public discourse and legal responses to technologies. Both of these disclose a third issue for technology law, and that relates to the endpoint of Schmitt's work on the technicity of public power, law and lawmaking in modernity. The process of lawmaking examined in relation to Australian cloning and human embryo laws, the 'gap' in technology law on process, the instrumental reasoning of technology law as a distinct elite, suggests the triumph of the technological mindset. There is a performative irony deep within the basic structures of technology law where responses to the real or imaged impacts of technology are met with technologicalised thinking.[198] It suggests the triumph of technology and the destabilising of old ontological certainties around the human, reason and making of world. This could be terrifying, a techno-totality that offers no escape, or it could uncouple technology law from its preoccupations and urge it to reimagine the human, the social, the machine and the world, in ways that could provide for genuine better futures.[199]

## Conclusion

Drawing upon Carl Schmitt's ideas of neutralisation, this paper revealed that the making and changing of the Australian embryos and human cloning laws show a machine running itself. That is a highly automated process whereby politics and competing values are managed by technical experts. This showed, in the specific context of the Australian embryos and human cloning laws, not a law regulating technology, but a techno-totality where law is technology. In doing so it highlighted significant issues for technology law scholarship about its lack of

[198] Thornton (2002), p 3.
[199] Tranter (2018), pp 107-8.

adequate thinking about processes of legal change, the role and awareness of techno-elites and the pervasiveness of the technological worldview.

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