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Algorithms and adjudication

William Lucy

Law School, Durham University, Durham, UK

ABSTRACT

This essay addresses a version of Jerome Frank's question – 'Are Judges Human?' – asking instead: are human judges necessary? It begins, in section II, by outlining the technological developments which inform the view that they are not and critically evaluates the juristic position that seemingly endorses it. That position is labelled 'technological evangelism' and it consists of three claims about law and adjudication: the certainty, determinacy and partiality claims. Section III shows that these three claims are utterly incompatible with what it calls standard and non-standard views of adjudication and law, while section IV considers some ways in which proponents of technological evangelism might try to reject standard and non-standard views. That section concludes that no plausible efforts have so far been made by technological evangelists to reject standard and non-standard views, and that those views therefore maintain their existing explanatory and normative priority. The overall conclusion of the essay is that technological evangelism is not a critical explanatory and normative engagement with law and adjudication as we know them, but an effort to replace them: not a game-changing intervention, but a game-ending one.

KEYWORDS

Adjudication; algorithms; certainty; determinacy; partiality; hard cases

I. The question

When Jerome Frank asked, in 1931, 'Are Judges Human?' he was not just playing the role of iconoclast. He was, after all, a practising lawyer at the time and subsequently became a Judge.[1] One thought behind Frank's question was this: that the expectations some jurists have of judges as they perform their adjudicative task are such as to require them to deny both the need for judgement and the space within which to make choices.[2] Frank's view that this double denial was absurd does not now seem radical, although it might have appeared so at the time, within the context of apparently ill-conceived disputes about

CONTACT William Lucy w.n.lucy@durham.ac.uk

[1]For some details about Frank's career, see RJ Glennon's entry in the *American National Biography* (Oxford UP 1999) vol 8, 362–64.

[2]See 'Are Judges Human? Part One: The Effect on Legal Thinking of the Assumption That Judges Behave Like Human Beings' (1931) 80 *U Penn LR* 17, 17–24, where Frank argues, against Pound and Dickinson, that 'discretion' is obviously in play in adjudication. In 'Are Judges Human? Part Two: As Through a Glass Darkly' (1931) 80 *U Penn LR* 233, Frank continues the argument while defending the claims that the likelihood of litigation and the outcomes of litigated disputes are almost impossible to predict.

Kadi justice and the limits of legal rules.[3] Yet were Frank alive to ask his question today, a number of jurists would not only reject his answer (that judges are indeed 'incurably human'[4] and therefore exercise judgement). They would also change the question, reformulating it thus: 'Must Judges be human?' Their answer is in the negative.[5]

In what follows I sketch, in section II, the technological developments that make the reformulation of Frank's question, and the ostensibly counter-intuitive answer to it, seem plausible. I also outline the alleged virtues that the full realisation of non-human algorithmic adjudication will bring, according to its proponents. Section III then outlines the 'standard view' (or account) of the nature of common law[6] appellate court adjudication and its potential virtues. It shows that most of these virtues cannot be realised by non-human algorithmic adjudication and illuminates some significant contrasts between the standard view and the view of proponents of non-human algorithmic adjudication.

Section IV examines three ways in which proponents of algorithmic adjudication might reject or undermine the standard view: by undermining it's alleged explanatory and normative privilege, by espousing a non-standard view of adjudication, or by eschewing the assumptions and presuppositions of both standard and non-standard views of adjudication. The section argues that the standard view (and most normal non-standard views) constitutes our default explanation of the nature of adjudication, a presumptively valid characterisation of the working and value of this social-institutional practice. Proponents of algorithmic adjudication cannot reject it without also rejecting the social-institutional practice it characterises.

Overall, the essay questions one element of a general position about technological innovation and law that regards the former as a positively disruptive influence upon the latter, a herald for apparently better law and legal systems and, by implication, better societies.[7] The interrogation is conducted within the narrow context of hard case adjudication and shows that in this instance the optimistic view rests upon a questionable, and from one perspective clearly mistaken, understanding of the nature of that process in particular and of law in general. Furthermore, by reminding us of both the nature and virtues of hard case adjudication, the essay serves as a prompt to both technological evangelists (who may simply have misunderstood the nature of adjudication) and those jurists who have forgotten the features of something with which they are all too familiar. While familiarity is often said to breed contempt, here it is the cause of a more insidious – because unremarked – absent-mindedness about the actual and potential value of a significant social institution. If we lack the time or simply do not appreciate the need to speak up for something implicitly accepted as important, then we cannot complain when it is removed or changed beyond recognition.

[3]'Part One' (n 2) 24–31.
[4]ibid 24.
[5]T Sourdin and R Cornes ask a version of this question and provide a sceptical answer in 'Do Judges Need to be Human? The Implications of Technology for Responsive Judging', T Sourdin and A Zariski (eds), *The Responsive Judge: International Perspectives* (Springer 2018) 87–120.
[6]By this non-technical term I refer to the jurisdictions of Australia, Canada, England, Wales and Northern Ireland, New Zealand and the United States of America; the judges and jurists whose work I consider are also predominantly from these jurisdictions as well as Scotland and Israel.
[7]See <www.bbc.co.uk/news/business-58158820> accessed 11 May 2023; <www.thelawyersdaily.ca/articles/11582/estonia-set-to-introduce-ai-judge-in-small-claims-court-to-clear-court-backlog-> accessed 11 May 2023 and <www.thelawyersdaily.ca/articles/17741/robot-justice-china-s-use-of-internet-courts> accessed 11 May 2023. For an assessment of some of the latter developments, see Z Wang, 'China's E-Justice Revolution' (2021) 105 *Judicature* 36.

II. The promise of the future

> [A]ll things … have of late years been in a quicker progress towards perfection than ever. (J Priestley, *An Essay on a Course of Liberal Education* (London: 1765) 162)
> [W]e have to pay in countless ways for the absence of prophetic vision. No doubt the ideal system, if it were attainable, would be a code at once so flexible and so minute, as to supply in advance for every conceivable situation the just and fitting rule. (B Cardozo, *The Nature of the Judicial Process*, New Haven: 1921, 142)

The counter-intuitive answer to Frank's question seems plausible principally because of the development of artificial intelligence in the form of both deep neural networks (DNNs) and recurrent neural networks (RNNs). It is worth illuminating their nature – a story often skated over in the juristic literature – so as to give ourselves the opportunity to judge both the degree of actual progress in the field and the likelihood of promised advances occurring.[8] DNNs are modelled on connections in the human brain and are characterised by an input layer, a layer (or two or tens or hundreds) of hidden processing units (neurons), and an output layer. At the input layer, information in binary form is fed into the network of hidden processing layers: the input might, for example, be different values attached to each pixel that constitutes a labelled image (let's say 'cat') or it could be unlabelled and seemingly random: millions of videos from YouTube. The hidden layers of the network are connected to one another and the input layer, with weights attached to the connections. In this example, let's assume that the hidden layers will attempt to determine the core characteristics of images of cats, thus enabling the network to recognise new images of cats in the future.

This is possible only if, first, one can feed many, many images into the network, a significant number of which are of cats and, second, if the network is able to 'learn' from that large data-set. And, so far, such learning has proved possible only when the network is 'convolutional' and employs, as almost all such networks do, a back-propagation algorithm.[9] The hidden layers in a convolutional neural network – henceforth a 'ConvNet' – are hierarchically ordered, one layer giving an assessment of its confidence in its judgement about the nature of some aspect of an image, that assessment being used by the next layer in its assessment of the same or another aspect of the image and so on, throughout all the layers. Each layer's judgement about the nature of what it 'sees' is based upon an activation map. That is a grid of units each of which 'corresponds to the analogous location in the input image, … each unit get[ting] its input from a small region around that location – its receptive field. … Each unit in each map calculates an activation value that measures the degree to which the region "matches" the unit's

[8] I've been guided by M Mitchell, *Artificial Intelligence: A Guide for Thinking Humans* (Pelican 2020), which is admirably clear for the non-specialist, as is JD Kelleher, *Deep Learning* (MIT Press 2019). Also helpful are RST Lee, *Artificial Intelligence in Daily Life* (Springer 2020); M Burgess, *Artificial Intelligence* (Penguin Random House 2021); W Pietsch, *Big Data* (Cambridge UP 2021); JD Kelleher and B Tierney, *Data Science* (MIT Press 2018) and, for lawyers, C Markou and S Deakin, '*Ex Machina Lex*: Exploring the Limits of Legal Computability' ch 2 of their *Is Law Computable?* (Hart 2020). DNNs and RNNs are vital elements of all recently much publicised Large Language Models (such as GPT-3, GPT-4 and LLaMA). For background, see M Shanahan, 'Talking About Large Language Models' 16 February 2023, 1 <https://arxiv.org/abs/2212.03551> and S Bowman, 'Eight Things to Know about Large Language Models' 2 April 2023, 1 <https://arxiv.org/abs/2304.00612> accessed 11 May 2023. For instances of haste with regard to the implications of these developments for law, see the sources in notes 34–44; slightly less hasty is B Alarie, A Niblett and A Yoon, 'How Artificial Intelligence Will Affect the Practice of Law' (2018) 68 *UTLJ* 106, 115–17.

[9] A gradient descent algorithm is also used, but it can train only single neurons, not networks of them: see Kelleher (n 8) ch 6.

preferred … orientation'.[10] An activation map is triggered if and when what the layer 'sees' matches what it is designed to see, usually a high contrast area of the image.

After the final hidden layer but before the output layer, a ConvNet also has a classification module which is itself a neural network. Staying with our example, the classification module will give the network's overall judgement as to the likelihood of some particular input image being of a cat. That judgement is arrived at on the basis of a calculation, at each hidden layer and fed from one layer to the next: an image recognition ConvNet 'reads' the different values of every element in a receptive field, those marking edges, lines and related features having a significantly different value than those that do not. For every unit in a receptive field, a ConvNet multiplies each value by its corresponding weight and sums the results: that calculation is a convolution.[11]

For a ConvNet to learn, and thus to improve its performance, it needs a back-propagation algorithm which corrects errors in the outputs arrived at on the basis of a training data set. Back-propagation is therefore

> a way to take an error observed at the output units … and to 'propagate' the blame for that error backwards … so as to assign proper blame to each of the weights in the network. This allows back-propagation to determine how much to change each weight in order to reduce the error. *Learning* in neural networks simply consists in gradually modifying the weights on connections so that each output's error gets as close to 0 as possible on all training examples.[12]

Back-propagation will 'work (in principle at least) no matter how many inputs, hidden units or output units'[13] a neural network has. The process of back-propagation, reaching back into the hidden layers of the network and allowing it to eliminate errors, means that this process is often described as deep-learning.

After startling success with image recognition, DNNs have been developed so as to process natural language, first, in the form of sentiment recognition and, subsequently, as a means of both captioning images and translating from one natural language to another. While having many of the significant features of the simplified image recognition neural network just outlined, natural language processing (NLP) networks have additional significant complexities. Two of the most pressing are, first, that which arises from the difficulty of the very first step of NLP and, second, that presented by the fact that, unlike images and pixels, sentences can be of any length.

As to the first problem, the issue is that of translating words into numbers at the input stage. How might we accord a numerical value to the word 'cat', for example? When posed in this blunt way the question seems mind-boggling, since we are seemingly moving from one incommensurable discourse (word meaning) into another (numerical value) without guidance. It turned out, however, that the question was a little less problematic than first appeared, programmers and developers taking their cue from distributional semantics, in which 'the underlying hypothesis [is] … that "the degree of semantic similarity between two linguistic expressions A and B is a function of the

[10]Mitchell (n 8) 80. For more detail about the various layers in a real image recognition DNN and the ways they interact, see Kelleher (n 8) 160–70.

[11]A helpful guide to the complexities here, including those involved in setting the parameters of a neural network (the weights between layers and thus between input and output), is ch 2 of Kelleher (n 8).

[12]Mitchell (n 8) 31 (emphasis in the original); see also endnote 2, 376.

[13]ibid.

similarity of the linguistic contexts in which A and B can appear"'.[14] This hypothesis prompted the construction of multi-dimensional word vectors mapping the company each word keeps. A word vector assigns a numerical value to words by reference to their proximity to one another in a selected data set. Google's Word2Vec word vector had 700,000 input units, each corresponding to a word in its vocabulary, and 700,000 output units, each again corresponding to a word in its vocabulary and was able, as a result of many training epochs, to predict the likelihood of one input unit appearing in conjunction with a particular output unit. Bluntly, it predicted when words would occur adjacent to one another. As a result of training on billions of word pairs, Word2Vec generated word vectors – with three hundred dimensions – for every word in its vocabulary, the 'collection of word vectors for all words in the vocabulary constituting the learned "semantic space"'.[15] Not only are DNNs used to create and learn such word vectors, they can also create and learn sentence vectors, these being the output of the process just described, but applied to sentences rather than single words.

That sentences in natural languages can be of any length means that they are very different, as inputs to a ConvNet, from fixed-size images with determinate pixel intensities. This problem prompted the development of RNNs in which the network's neural activations are sequential and interconnected with one another. Hence,

> [u]nlike a traditional neural network, an RNN operates over a series of time steps. At each time step, the RNN is fed an input and completes the activation of its hidden and output units just as does a traditional neural network. But in an RNN each hidden unit completes its activation based on both the input and the activations of the hidden units *from the previous time step* … . This gives the network a way to interpret the words it 'reads' while remembering the context of what is has already read.[16]

The activations at each step constitute the network's 'encoding of the partial sentence seen so far' and it 'keeps refining that encoding as it continues to process words'.[17] Moreover, 'the output unit in this network processes the hidden units' activation … to give the network's confidence'[18] that that part of the sentence processed so far has a particular meaning or sentiment. That process continues until the whole sentence is read, the output unit then giving a final judgement of confidence as to meaning or sentiment of the whole sentence. The sequential nature of the domain – natural language – with which RNNs deal mean that these networks are 'deep' only in the extended sense of being long; they usually have only one layer.[19]

The development of word and sentence vectors, in conjunction with RNNs, made neural machine translation between languages possible and startlingly fast. RNNs encode sentences, each word being inputted into the network in the form of a word vector: 'one word at a time, the network builds up a representation of … [a] sentence,

[14]ibid 239 (quoting A Lenci, 'Distributional Semantics in Linguistic and Cognitive Research' (2008) 20 *Italian Journal of Linguistics* 1).
[15]ibid 246.
[16]ibid 233.
[17]ibid 236.
[18]ibid.
[19]Kelleher (n 8) provides a helpful guide to the details of RNNs at 170–84. RNNs are supplemented with long-short term memory (LSTM) units (which are themselves layers of neurons and hence a network) so as to remember information in the sequence and to avoid the 'vanishing gradients' problem (ibid 176–77).

encoded in the activations of its hidden units'.[20] At the end of that process, the output unit's judgement of the meaning of the sentence is given as input to another, decoder network, which translates the sentence. Decoder networks are 'simply another recurrent network, but one in which the outputs are numbers representing words that form the translated sentence – each of which is also fed back to the network at the next time step'.[21] Some or other version of this technology is currently available to most smart phone users and generates incredibly quick and fairly reliable results across a number of languages; it is undoubtedly 'a triumph of big data and fast computation'.[22]

There is no reason in principle against extending these astounding developments in NLP into more technical linguistic fields where, for example, the translation is between two languages of the same family, one being a richly technical vocabulary, the other being its non-technical parent or donor. Furthermore, the development of technical language word and sentence vectors makes possible the exact same capacity to predict word and sentence pairs as informs 'standard' neural translation. It is not therefore surprising to find that a number of scholars have initiated just this kind of predictive project with regard to the outcomes of judicial decisions, one of the most widely reported being that of Nikolaos Aletras et al on judgements of the European Court of Human Rights (ECtHR).[23] This study, utilising 'cutting edge NLP methods',[24] claimed to predict the outcome of decisions of the ECtHR with an accuracy level of 79% on average. The study made use of 2000 of the most frequent one-, two-, three- and four-word word groupings (N-grams) constructed from the language of the sample cases and of 'topics', which are clusters of N-grams. Topics and N-grams were used to train Support Vector Machine (SVM) classifiers, an SVM being a machine learning algorithm that has proved successful in text classification and which is easier to train than either a DNN or a RNN.[25] The model created by the authors had thirty topics (sets of similar word groupings) per court judgement and used 'matrix mathematics' and 'vector space models' to 'determine clusters of words that should be similar to one another based upon textual content',[26] those clusters constituting topics.

The N-grams and clusters in the study were built from cases broken down into four sections which correspond with the usual format of ECtHR decisions: procedure, the facts (circumstances and the relevant law), the law and operative provisions. The cases used were those in English that had passed a prejudicial and a second review stage and which involved disputes under Articles 3 (250 cases), 6 (80 cases) and 8 (254 cases) of the European Convention of Human Rights. Hence, the outcomes predicted by the model were of already decided cases, the study's principal claim being 'that the information regarding the factual background of the case as this is formulated by the Court in the relevant subsection of its judgments is the most important part obtaining

[20]Mitchell (n 8) 257.
[21]ibid 258.
[22]ibid 259.
[23]N Aletras and others, 'Predicting Judicial Decisions of the European Court of Human Rights: A Natural Language Processing Perspective' (2016) *Peer J Comput Sci* 2: e93; doi:10.7717/peerj-cs.93. The general issues are illuminated in 'Special Issue: Natural Language Processing for Legal Texts' (2019) 27 *Artificial Intelligence and the Law* 113.
[24]F Pasquale and G Cashwell, 'Prediction, Persuasion, and the Jurisprudence of Behaviourism' (2018) 68 *UTLJ* 63, 68. While the study by Aletras and others (n 23) is accessible to the non-specialist, Pasquale and Cashwell unpack some of its complexities.
[25]Aletras and others (n 23) 2 and 9. See also Kelleher (n 8) 143. SVMs are particularly useful with small data-sets.
[26]Pasquale and Cashwell (n 24) 73.

on average the strongest predictive performance of the Court's decision outcome'.[27] That section of each judgement is a statement of the salient facts and related legal matters about the case made by the court itself at the time it publishes its judgement. The study made no use of the filings of the parties, the arguments used by counsel or any other material available prior to the judgements themselves. Despite these limits, Aletras et al made the bold claim that

> [o]ur work lends some initial plausibility to a text-based approach with regard to ex ante prediction of ECtHR outcomes on the assumption that the text extracted from published judgments of the Court bears a sufficient number of similarities with, and can therefore stand as a (crude) proxy for, applications lodged with the Court as well as for briefs submitted by parties in pending cases.[28]

Now, the power of this study is limited. The data set is small, the model highlights correlations between words the meaning of which it cannot assess and it therefore, at best, mimics rather than replicates the adjudicative process. Nor is it in any genuine sense 'predictive', the decisions having already been made.[29] But the general technical developments in NLP on which it and other similar studies draw undoubtedly make the counter-intuitive answer to Frank's question less counter-intuitive than it might seem. And, on the assumption that the digitisation of data and accompanying technological developments in this field will continue at similar speed, it is not implausible to think both that the full legal record of many jurisdictions will soon be digitised and that the general 'barrier of meaning' might be transcended.

The further digitisation of legal information such as, for example, fillings of the parties and arguments of counsel in ECtHR cases would provide more information for Aletras et al's model and thus potentially increase its predictive power. It would also, applied across whole legal systems, facilitate immediate access to detailed legal information in much the same way as smart phone users can now quickly avail themselves of translations.[30] The phrase 'barrier of meaning' captures the thought that 'humans, in some deep and essential way, *understand* the situations they encounter, whereas no AI system yet possesses such understanding'.[31] The patterns between words picked out by Aletras et al's model were not identified on the basis of their meaning, but simply as a result of preponderance and contiguity. While AI systems that understand situations, meaning and behaviour as humans do are the Holy Grail of some researchers and, if

[27] Aletras and others (n 23) 15–16.
[28] ibid 2.
[29] See Pasquale and Cashwell (n 24) 68–78 for criticisms of the study and, for more general objections to and assessment of this kind of enterprise, M Hildebrandt, 'Law as Computation in the Era of Artificial Legal Intelligence: Speaking Law to the Power of Statistics' (2018) 68 *UTLJ* 12 and the COHUBICOL *Typology of Legal Technologies* <https://publications.cohubicol.com/typology/> accessed 11 May 2023. Mimicry is enough to satisfy the Turing test for artificial intelligence (and therefore a perfectly sufficient indicator of success for artificial legal intelligence in the view of E Volokh: 'Chief Justice Robots' (2019) 68 *Duke LJ* 1135, 1137–42). An ostensibly predictive study with a far larger data set than Aletras et al, and using different methods ('random forests' as opposed to SVMs), is DM Katz and others, 'A General Approach for Predicting the Behavior of the Supreme Court of the United States' (2017) 12 *PLoS One* 1.
[30] It is unclear how far Large Language Models (see n 8, above) will or can facilitate this process. For evaluation of one such law-focussed AI, see P McBride and M Medvedeva, 'Casetext's CoCounsel Through the Lens of the Typology' <https://www.cohubicol.com/blog/casetext-cocounsel-openai-typology/> accessed 27 July 2023. Open AI's Chat GPT has already been used by one judge to check his judgement: <https://www.theguardian.com/technology/2023/feb/03/colombia-judge-chatgpt-ruling#:~:text=ChatGPT%3A%20what%20can%20the%20extraordinary,paying%20fees%20for%20their%20therapies> accessed 27 July 2023. The article reports that Chat GPT 'thought' its use to make judgements was inappropriate.
[31] Mitchell (n 8) 307 (the phrase belongs, says Mitchell, to Gian-Carlo Rota); emphasis in original.

achievable, would allow neural networks not just to predict or mimic what judges deciding cases do, but actually do as judges do, many have doubts. Some think general artificial intelligence is impossible to realise and others regard it as unnecessary: the fact that existing AI systems lack human level understanding of the links, patterns and correlations they discover hardly matters, provided those links are important and helpful to us. If an AI system is better than humans at diagnosing a specific illness, why does it matter that it lacks understanding of the meaning of the connections it identifies and uses?[32]

The vast increases in digitisation of data and the utilisation of RNNs and related technologies for various NLP tasks has triggered an evangelical response among some jurists.[33] They see these developments as portends or actual instances of radically disruptive change both within the legal profession and to our understanding of law. With regard to law in general and adjudication in particular, these developments will, first, 'make *legal uncertainty* obsolete' as a result of 'the accumulation of a massive amount of data and dramatically improved methods of inference'.[34] With regard to the requirements of particular legal standards such as, for example, the reasonableness requirement in the tort of negligence, these developments mean that '[c]itizens will no longer have to operate in a world of *legal uncertainty*, waiting for a judge to determine whether the behaviour was reasonable. Citizens will be informed immediately of what is permissible and what is not'.[35] These 'technological changes will allow the law to be *more precise, better calibrated, more flexible, more consistent*',[36] promising

> the emergence of a seamless legal order, which is universally applicable in real time. In [this situation, dubbed] the legal singularity, disputes over the significance of legal facts will be rare. There may be disputes over facts, but, once found, the facts will map onto clear legal consequences. The law will be *functionally complete*.[37]

In what follows, I combine this collection of nearly synonymous claims under one heading, 'the certainty claim'. It is accompanied by another probably necessarily related claim, namely, that a legal system which reaches this state of certainty will 'obviate the need for ex post adjudication'.[38] For, when the law is certain, there cannot be doubt as to what it requires. If the practice of adjudication exists, in part, to resolve such doubt, then 'the number of cases litigated will plummet', although that seems like an understatement.[39] I dub this 'the determinacy claim' for the simple reason that achieving legal certainty or complete determinacy seemingly makes adjudication unnecessary. The determinacy claim is therefore the certainty claim extended into the context of adjudication.

[32]For doubts about the possibility of general artificial intelligence, see chs 14 and 15 of Mitchell (n 8); B Cantwell Smith, *The Promise of Artificial Intelligence* (MIT Press 2019) and EJ Larson's *The Myth of Artificial Intelligence* (Harvard UP 2021). A statement of the advantages of statistical accounts of causation in AI and beyond is J Pearl and D MacKenzie, *The Book of Why* (Penguin 2018) chs 2–4.

[33]Two moderate instances are Volokh (n 29) and R Susskind, *Online Courts and the Future of Justice* (Oxford UP 2019).

[34]B Alarie, 'The Path of the Law: Towards Legal Singularity' (2016) 66 *UTLJ* 443–55, 445 (emphasis mine); the refrain is repeated at greater length in A Aidid and B Alarie, *The Legal Singularity* (University of Toronto Press 2023) ch 4.

[35]AJ Casey and A Niblett, 'Self-Driving Laws' (2016) 66 *UTLJ* 429, 431 (emphasis mine); see also Aidid and Alarie (n 34) 8–10. Casey and Niblett unpack the point at length in 'The Death of Rules and Standards' (2017) 92 *Indiana LJ* 1401.

[36]Casey and Niblett, 'Self-Driving Laws' (n 35).

[37]Alarie (n 34) 446 (emphasis mine); 'the legal singularity is the idea that law will reach functional completeness, in the sense that practically any legal question will have an instantaneous and just resolution': Aidid and Alarie (n 34) 8.

[38]Casey and Niblett, 'The Death of Rules and Standards' (n 35) 1433.

[39]ibid 1436.

In addition to the attainment of absolute legal certainty, technological change will also eliminate a seemingly pervasive failure of impartiality in the law. Those whose job it is to apply and interpret the law

> are *flawed and biased*. The biases and inconsistencies found in individual judgments can largely be washed away using advanced data analytics. The judgement of one human judge is outweighed by the wisdom of a decision generated by predictive technology that takes into account millions of judgements and decisions.[40]

More pithily, '[h]uman judges, … being human, have human prejudices'[41] and that, of course, is why we should be pleased that in our technological future, the law is 'less biased',[42] its application 'more objective, more consistent' and 'less prone to … biases'.[43] In sum, tools like predictive algorithms, DNNs and RNNs 'will increase *the accuracy, efficiency, and fairness* of many aspects of policing and adjudication if instituted properly'.[44] In what follows, I refer to this bundle of near identical claims with one label: 'the partiality claim'

This, then, is our legal future, a juristic landscape in which legal certainty is absolute, judicial bias impossible and algorithmic adjudication routine. I take this vision – in the form of the certainty, determinacy and partiality claims – seriously in what follows, although there are grounds to doubt that it can or will come to pass: nothing is inevitable in the matter of technological development and our current AI systems fall short of the capabilities assumed by these technological evangelists. Even so, this future could still be ours and it therefore merits attention. There is, moreover, another and even more intriguing reason why it is of interest: it rests upon an understanding of both adjudication and law which, from the perspective of the currently dominant view, appears utterly mistaken. That view rejects the certainty, determinacy and partiality claims. I examine it now.

III. Hard cases and the standard view

In the common law jurisdictions there is a broad philosophical and juristic consensus as to what appellate courts concern themselves with – hard cases – and about the nature of those cases. By that I mean, first, that lawyers and judges have no difficulty finding instances of this type of case, as characterised below, in the appellate court reports of their jurisdictions and which they themselves recognise as hard. And, second, that such instances – while not always characterised in the exact terminology used here – feature in and are illuminated by the best available jurisprudential accounts of adjudication.[45]

[40]Casey and Niblett, 'Self-Driving Laws' (n 35) 437 (emphasis mine). See also 438.
[41]Volokh (n 29) 1156.
[42]Casey and Niblett, 'Self-Driving Laws' (n 35) 431.
[43]Volokh (n 29) 1175; for almost the same refrain see Casey and Niblett, 'Self-Driving Laws' (n 35) 432; Alarie, Niblett, and Yoon (n 8) 108 and 118; Aidid and Alarie (n 34) 119–23; and RM Re and A Solow-Neiderman, 'Developing Artificially Intelligent Justice' (2019) 22 *Stanford Technology LR* 242, 256.
[44]R Simmons, 'Big Data, Machine Judges, and the Legitimacy of the Criminal Justice System' (2018) 52 *U California Davis LR* 1067, 1070 (emphasis mine).
[45]There is no reason of principle behind my use of the hard case/easy case terminology; equivalent terms – clear/problematic, regulated/unregulated – serve just as well. Nor does my use of the term 'hard cases' have anything to do with a legal adage ('hard cases make bad law'), the sense of which is surely always open to question. A more extensive but dated treatment of the matters tackled here can be found in my 'Adjudication', ch 6 of J Coleman and S Shapiro (eds), *The Oxford Handbook of Jurisprudence and Philosophy of Law* (Oxford UP 2002) 206.

Hard cases arrive in appellate courts because they are doctrinally difficult: the facts are agreed but there is a question about the applicable law. The legal doctrinal questions in play take at least the following four forms, although a general issue can underpin each one: (i) Is there an applicable proposition of law in this case? (ii) Which of two (or more) conflicting propositions of law are applicable in this case? (iii) Which of two (or more) competing interpretations of an agreed proposition of law is applicable in this case? And (iv), one of the preceding questions is in play and the answers available to it are morally troubling. The general issue that can underpin each question is this: on the assumption that an applicable proposition of law can be established, do the agreed facts of the case fall within it? Posing the doctrinal questions in hard cases in this abstract form overlooks the detail of actual cases, but that does not detract from the fact that most appellate court cases raise one or more of these questions. It is easy to illustrate the questions at work, most of the cases that follow being drawn from the jurisdiction with which I am familiar. However, a preliminary glance at any undergraduate casebook anywhere in the common law world will generate equivalent examples.

Donoghue v *Stevenson*[46] features in many such books and is a vivid instance of question (i): there was simply no clear answer to the question of whether or not a manufacturer of goods owed a duty of care to the ultimate consumer or user of those goods at the time the case occurred. There was thus genuine doubt as whether or not there was any applicable proposition of law in the case. Almost as famous as *Donoghue* is *Riggs* v *Palmer*,[47] an obvious example of question (ii) in play, since the law of the State of New York accepted the legal propositions that 'no one can benefit from their own wrong' and that valid wills must be given legal effect, both of which were applicable in the case. The case law of the English Court of Appeal and House of Lords on the *mens rea* of murder – cases such as *R* v *Woollin*,[48] *R* v *Nedrick*,[49] *R* v *Hancock and Shankland*,[50] and *R* v *Moloney*[51] – provides a clear instance of question (iii) at work: it was accepted in these cases that intention was part of the *mens rea* of murder, the legal doubt being about what, exactly, intention means or includes. The English Court of Appeal case of *Re A (conjoined twins)*[52] posed not just a question of the same broad type as (ii) – does the principle of sanctity of life trump that of self-defence? – but also showed that the answers to that question were deeply morally troubling. It is therefore a token of the type of issue raised in (iv).

These four types of issue, taken as hallmarks of hard cases, stand in the following relations to one another. While each of the first three questions can arise in one and the same case, making it particularly complex, they cannot be posed of one and the same legal issue. Questions (i) and (ii) cannot be live questions with regard to legal issue X at the same time: there cannot be doubt as to whether or not there is an applicable proposition of law about X and, simultaneously, be a conflict between two competing propositions of law applicable to X. Similarly, questions (i) and (iii) cannot be live at the same time and with regard to the same legal issue; nor can questions (ii) and (iii).

[46][1932] AC 562 (HL).
[47]115 NY 506 (1889).
[48][1999] AC 82 (HL).
[49][1986] 1 WLR 1025 (CCA).
[50][1986] AC 455 (HL).
[51][1985] AC 905 (HL).
[52][2000] EWCA 254.

Since hard cases of type (iv) can include the first three types of question, there is no such incompatibility between it and them.

These four issues give substance to some arresting but glib jurisprudential characterisations of hard cases. So, when Ronald Dworkin describes the latter as cases 'when no settled rule dictates a decision either way' (*TRS* 83)[53] or in which 'reasonable lawyers … disagree' (*TRS* xiv), we can use the four issues to explain the precise nature of the disagreement in particular cases and illuminate the senses in which rules are unsettled, as Dworkin himself does.[54] The four issues likewise inform Neil MacCormick's shorthand descriptions of hard cases, almost every quick statement of his about such cases – they arise 'because the rules are unclear' (*LRLT* 100)[55] – being accompanied by further elucidation. Unclarity arises from three problems, says MacCormick, the first two echoing exactly the first three hallmarks of hard cases. One is the problem of relevancy (*LRLT* 70): is there an applicable proposition of law in this case? The second, that of interpretation (*LRLT* 68): which from a range of apparently applicable propositions of law, or which from a range of competing interpretations of an apparently applicable proposition of law, applies in this case? The third, dubbed by MacCormick 'the problem of classification', is a restatement of the general issue which can underpin the first three hallmarks: does the apparently applicable proposition of law actually apply to the facts of this case? (*LRLT* 68–69, 95 and 203).

Specifying the hallmarks of hard cases provokes the same task with regard to easy cases. And, in fact, a common way of characterising the latter involves subtracting one or all of the elements of the former. So, for example, MacCormick holds that easy – he usually calls them 'clear' – cases exist when there is a relevant, clear, and unambiguous proposition of law applicable to the case and the facts are uncontested (*LRLT* chs II and III). The substance of Dworkin's view is the same, although his statements about what easy cases look like are often brisk: they are cases in which 'it goes without saying' (*LE* 353)[56] what the law is, or in which it is 'obvious' (*LE* 266), being part of 'any competent interpretation of … [the] law' (*ibid*). Both MacCormick's and Dworkin's statements as to the nature of easy cases can be misread, since one might assume that insofar as the law in such cases is 'obvious' or 'clear', they cannot be complex. But the law in relation to a tax issue, for example, can be absolutely clear and yet its application be complicated because it requires the assessment of many matters such as the value of assets and calculations about income, expenditure, investment and profit. Hard cases can and often do lack this degree of intricacy, there being only one clear legal question to answer: does a manufacturer owe a duty of care to an ultimate consumer? Does 'intention' in the *mens rea* of murder extend to the foreseeable consequences of one's conduct?

Neither MacCormick nor Dworkin regard the hard case/easy case distinction as set in stone. It is a matter of degree, there being 'no clear dividing line' (*LRLT* 197) between such cases. Hence hard cases can become easy – most obviously once they have been resolved by a final appellate court – and easy cases can become hard (*LE* 354; *LRLT*

[53]In the text and notes '*TRS*' refers to R Dworkin, *Taking Rights Seriously* (Duckworth 1978).
[54]See the discussion in R Dworkin, *Law's Empire* (Fontana 1986) 15–30 (he devotes separate and sustained attention to the fourth type of hard case in *Life's Dominion* (Knopf 1993) ch 7).
[55]This shorthand reference is to N MacCormick, *Legal Reasoning and Legal Theory* (rev. edn., Oxford UP 1993). MacCormick's principal engagements with the fourth type of hard case are found in *Rhetoric and the Rule of Law* (Oxford UP 2005) 105–08, 155–57, 194–195 and ch 10 of his *Practical Reason in Law and Morality* (Oxford UP 2008).
[56]The abbreviation refers to Dworkin (n 54).

197 and 228; *RRL* 51[57]). As to the latter, consider the question of whether or not the maker of an inaccurate statement owes a non-contractual duty of care to a party who relied upon it and suffered loss as a result. This question was thought unproblematic in English law for about a decade, it having been answered unambiguously in the negative by the majority judgement of the Court of Appeal in *Candler* v *Crane, Christmas & Co.* in 1951.[58] However, in 1963 the House of Lords in *Hedley Bryne & Co., Ltd.* v *Heller & Partners, Ltd.*[59] gave an affirmative answer to that question, it having at some point in the intervening decade (and not least by the time the House of Lords granted leave to appeal from the Court of Appeal decision in *Hedley*[60]) become problematic. The answer to the question posed in 1951 had, by 1962, become an answer about which 'reasonable lawyers … disagree[d]'.

This account of hard and easy cases is the first component of the standard view of adjudication, although we must note that a hard case/easy case distinction is also espoused by most normal non-standard views of adjudication.[61] In addition to affirming that distinction, the standard view holds that in both easy and hard cases judicial decisions are justifiable. MacCormick demonstrated that deductive justification is in principle possible in easy cases, even though the judgements in them do not take that explicit form (*LRLT* chs II and III; *RRL* chs 3 and 4). For Dworkin, if the law is clear, the facts uncontested and the judges apply the law, then their decision is unimpeachable. It has the same virtues, and satisfies the same requirements, as a decision in a hard case, the difference being that those requirements are satisfied without being noticed (*LE* 354).

Hard case judicial decision making cannot immediately be justified deductively, since such justifications require clear and unambiguous propositions of law and they are exactly what is missing in such cases. Justification in hard cases is therefore a matter of judges showing that their 'reading' of the law, the proposition they think applies in the face of doubt, competition and argument, is the best available. For MacCormick, appellate court judges routinely use three broad types of argument to support that kind of judgement: arguments from coherence, consistency and consequences (*LRLT* chs V–VIII; *RRL* chs 6–10).

Arguments from consistency and coherence are similar in that both embody intra-systemic considerations. That is, they involve assessing rival legal arguments in a hard case by reference to their effects within the legal system. They differ in that the scope of arguments of coherence is broader than that of arguments of consistency. Arguments of the latter kind embody 'a fundamental judicial commandment: Thou shalt not controvert established and binding rules of law' (*LRLT* 195). The effect of this commandment is that any argument in a hard case that does so controvert an established and binding rule of the legal system is likely to be problematic. That is not to say such arguments

[57]'*RRL*' in text and notes refers to MacCormick, *Rhetoric* (n 55). Joseph Raz makes the same point about hard and easy cases, albeit in the terminology of 'regulated' and 'unregulated' disputes: see *The Authority of Law* (2nd edn, Oxford UP 2009) 182.

[58][1951] 2KB 164.

[59][1963] 2 All ER 575 (judgement delivered 28 May 1963).

[60][1961] 3 All ER 891 (judgement delivered 18 October 1961).

[61]One proponent of the normal non-standard view maintains that all cases are hard: see M Kelman, *A Guide to Critical Legal Studies* (Harvard UP 1987) 4 and compare D Kennedy, *A Critique of Adjudication* (Harvard UP 1997) 60. Those wondering why I eschew a common (but utterly unhelpful) dualism often used in the US to characterise accounts of adjudication ('formalism' v 'realism') should consult B Tamanaha, *Beyond the Formalist-Realist Divide* (Princeton UP 2010). In Tamanaha's terms, the standard view is an instance of 'balanced realism': ibid 6.

are never accepted by the courts. Rather, they are only likely to be accepted, says MacCormick, when also supported by consequentialist and coherence arguments. The latter are broader than consistency arguments because they test, reject or commend an argument in a hard case by reference to its resonance with the principles and values of the wider legal system, not just those in play in the particular area of law in which the hard case has arisen. MacCormick says such arguments rest on the assumption 'that the multitudinous rules of a developed legal system should 'make sense' when taken together' (*LRLT* 152).

Consequentialist arguments, by contrast, are in some degree extra-systemic, being concerned 'with what makes sense in the world' (*LRLT* 103). Such arguments are crucial according to MacCormick because in many hard cases considerations of consistency and coherence do not completely determine the decision (*LRLT* 110; *RRL* 104). How are judges to decide whether or not a decision one way or the other in a hard case 'makes sense in the world'? The criterion of sense is yielded by evaluating the consequences in the world of the competing possible decisions: 'choosing between rival possible rulings in a case involves choosing between what are to be conceived of as rival models for, rival patterns of, human conduct in … society' (*LRLT* 104; see also *RRL* ch 6). This process of evaluation is not, however, unmoored from the law, raising broad questions of what might be good and bad, desirable or undesirable. For judges are principally concerned with the 'juridical consequences' (*RRL* 106) of a decision one way or the other, the legal implications it has in terms of licensing or prohibiting certain conduct, and the effect the decision will have upon '[t]he values … of the branch of law in question' (*RRL* 114). Of course, such assessments are based upon more general assumptions about what, in terms of human conduct, is likely to happen as a result of a judicial decision. But, 'in the main, consequentialist reasoning is focused not so much on estimating the probability of behavioural changes, as on possible conduct and its certain normative status in light of the ruling [proposed]' (*RRL* 110).

MacCormick's assessment of the significance of consequentialist arguments in hard cases illustrates a point of disagreement with Dworkin. In hard cases, according to Dworkin, '[j]udges must make their … decisions on grounds of principle, not policy' (*LE* 244), such grounds serving to 'justify a political decision by showing that the decision respects or secures some individual or group right' (*TRS* 82 (see also 90)). Arguments of principle must, Dworkin says, take the form of all arguments used by judges to justify their decisions in hard cases. They have to derive from an interpretation of the law that (i) fits 'the brute facts of legal history'; and (ii) 'which [also] shows the community's structure of institutions and decisions – its public standards as a whole – in a better light from the standpoint of political morality' than any other (*LE* 255–56). Opposed to arguments of principle are arguments of policy, which Dworkin thinks are not and should not be the basis of hard case decisions. Policy arguments 'justify a political decision by showing that the decision advances or protects some collective goal of the community as a whole' (*TRS* 82). They are therefore structurally very similar to the consequentialist arguments MacCormick thinks are at the core of hard case decision-making.

Although MacCormick and Dworkin disagree on this point, their typologies of the different arguments in play in hard cases clearly overlap. Arguments of consistency and coherence, on the one hand, and arguments of fit, on the other, are virtually indistinguishable, all being concerned with the brute facts of legal history: the cases, statutory

provisions and related propositions of law relevant to the case in hand. There are also likely to be significant contingent overlaps between consequentialist arguments and Dworkinian arguments of justification in particular cases. For, demonstrating that one or other solution to a hard case shows the community's structure of institutions and decisions in its best possible political light will often involve the same types of assessment and engage the exact same values 'as choosing between rival models for and rival patterns of human conduct in society'. For all their differences, both types of argument are plainly normative, entailing moral, political and related judgements about the relative merits of each solution to the case.

Furthermore, Dworkin and MacCormick agree that the process of hard case decision making allows different judges to arrive at different answers in one and the same case. This is inevitable for Dworkin once we appreciate that in hard cases the threshold test of fit with the legal record almost never determines an answer to the case; judges then have to choose the answer they think shows the legal record in its best possible moral and political light. At this point, judges'

> own moral and political convictions are … directly engaged. But the political judgment … [they] must make is … complex and will sometimes set one department of [their] … political morality against another: [their] … decision[s] will reflect not only [their] … opinions about justice and fairness but … [their] higher-order convictions about how these ideals should be compromised when they compete. Questions of fit arise at this stage … as well, because even when an interpretation survives the threshold requirement, any infelicities of fit will count against it. … *Different judges will disagree about each of these issues and will accordingly take different views of what the law of their community, properly understood, really is*. (*LE* 256; emphasis mine)[62]

For MacCormick, it is the nature of consequentialist arguments, and the fact that they are usually the most powerful type of argument in hard cases (*RRL* 104), that explains the possibility of different judges giving different answers in the same case. Such arguments are 'intrinsically *evaluative*' (*LRLT* 105; emphasis in the original) and 'in part at least *subjective*' (*LRLT* 105; emphasis in the original). The former means consequential arguments

> ask […] about the acceptability or unacceptability of … consequences. *There is however no reason to assume that …* [they] *involve […] evaluation in terms of a single scale*, such as the Benthamite scale of supposedly measurable aggregates of pleasures and pains. Judges characteristically refer to criteria such as 'justice', 'common sense', 'public policy', and 'convenience' or 'expediency' in weighing the case for and against given rules. *It should not be assumed without proof that these really all boil down to the same thing*. (*LRLT* ibid.; emphasis added)

And the latter, for MacCormick, entails that

> [j]udges evaluating consequences of rival possible rulings may give different weight to different criteria of evaluation, differ as to the degree of perceived injustice, or of predicted inconvenience which will arise from adoption or rejection of a given ruling. Not

[62]Surprisingly, Dworkin made this point in conjunction with his right answers claim, the latter being perhaps the most controversial aspect of his account of how hard cases are and should be decided. For his position see: *A Matter of Principle* (Oxford UP 1985) ch 5; 275–78 of 'A Reply by Ronald Dworkin', in M Cohen (ed.), *Ronald Dworkin and Contemporary Jurisprudence* (Duckworth 1984); and *LE* 412–13 (although the idea doesn't seem to feature at all in later work: see *Justice for Hedgehogs* (Harvard UP 2011) ch 19). For some criticisms see *LRLT* 246–55; AD Woozley, 'No Right Answer', ch 8 of Cohen, *Ronald Dworkin*; J Finnis, 'On Reason and Authority in *Law's Empire*' (1987) 6 *Law and Philosophy* 357, 370–80; and B Bix, *Law, Language and Legal Determinacy* (Oxford UP 1993) ch 4.

> surprisingly, they differ, sometimes sharply and even passionately, in relation to their final judgement of the acceptability or unacceptability all things considered of a ruling under scrutiny. At this point we reach the bedrock of value preferences which inform our reasoning *but which are not demonstrable by it. At this level there can simply be irresolvable differences of opinion between people of good will and reason*. (*LRLT* 105–06; emphasis added)[63]

These claims show beyond doubt that Dworkin and MacCormick regard the doctrinal choices open to judges in hard cases as genuinely open. And, if they are correct, they not only provide an insight into how MacCormick, Dworkin and other proponents of the standard view understand law's nature; they also make good sense of two features of hard case adjudication in the common law world that some regard as surprising.

On this view of adjudication, and in stark opposition to the certainty claim made by technological evangelists, law cannot be a medium in which every question has already been asked and answered. New legal questions can arise and that possibility in part explains why appellate courts exist. Since new questions can be posed, the answers to which are not obvious, the medium is therefore incomplete, at least at the level of hard cases. A felicitous way to characterise the standard view's understanding of law is, then, this: it takes law to be relatively indeterminate, the 'relatively' operating to highlight when indeterminacy arises (at the level of hard cases) and its specific sources (the four features of hard cases). Of course, particular proponents of the standard view build more complicated accounts of the nature of law upon the foundations of this relative indeterminacy claim, but the details of those accounts need not occupy us here.[64] For the point of emphasising what is absolutely obvious about the standard view's understanding of law is to highlight how different it is to the understanding of law in play in the hands of technological evangelists. On the latter view, the law's relative indeterminacy will soon be history; the certainty claim will be true.

The two features of common law adjudication the standard view illuminates are, first, the existence of dissenting judgements and, second, the existence of cases in which a panel of judges agree on the resolution of the case, but offer different reasons for their individual decisions.[65] Neither possibility should surprise given Dworkin's and MacCormick's characterisations of the deliberations involved in hard case adjudication; what might surprise instead is that there are relatively few dissents and plural decisions in the final appellate courts of the common law world. Nor is it odd to capture this possible plurality of reasons and disagreement in hard cases by claiming that deciding them is a matter of judgement.[66] This might seem stunningly obvious, but use of the term is doubly

[63]The status of the claims in both quotes might be undermined by MacCormick's renunciation of a Humean account of the foundation of moral and, presumably, other values in the revised edition of *LRLT* (at xvi). However, he does not explore the issue there, although his subsequent work employs a hybrid view of values and normative reasoning combining insights from Adam Smith and Immanuel Kant: see *RRL* 1, 86–88 and *Practical Reason in Law and Morality* (Oxford UP 2008) chs 1–3.

[64]For Dworkin, see *LE*, chs 6–10 and *Hedgehogs* (n 62) ch 19; for MacCormick, see *LRLT* chs IX and X, *RRL* chs 1 and 2 and his (with Ota Weinberger) *An Institutional Theory of Law* (Reidel 1986) chs I, II IV and IX.

[65]Plurality judgements in the House of Lords, the final appellate court of England, Wales and Northern Ireland until 2009, were encouraged by the fact that judges of the court could not give joint judgements: technically, they were offering opinions in a parliamentary debate. This and other constitutional idiosyncracies disappeared in 2009 when the UK Supreme Court was established (see part III of the Constitutional Reform Act 2005).

[66]Although in a much narrower sense than that invoked by Cantwell Smith (n 32, xv–xvii and ch 10) to undermine the possibility of general artificial intelligence. It is closer to the 'non-reckonable' sense of judgement in play in M Chirimuuta, 'Rules, Judgment and Mechanisation' (2023) 1 *Journal of Cross-Disciplinary Research in Computational Law* <https://journalcrcl.org/crcl> accessed May 11 2023.

helpful. First, it can function as a shorthand characterisation of the process of deciding hard cases as sketched above, judgement being a necessary response to the law's relative indeterminacy (I use the term this way in what follows). Judgement, on this view, stands opposed to the determinacy claim that technological evangelists espouse. Second, use of the term reminds us of one of its senses, namely 'discernment, discretion, understanding'.[67] That is surely what good faith appellate court judges aim for in resolving hard cases and, of course, it explains how and why they can come to different decisions: judgement, legal or otherwise, is not always univocal.

The third component of the standard view elucidates what the justification of hard and easy case judicial decisions entails, over and beyond the types of argument typically adduced by judges. For it is proper, when faced with the claim that easy cases can be justified deductively, or that hard case judicial decisions are usually supported either by arguments of fit and justification or by arguments from coherence, consistency and consequences, to ask: how, exactly, do such arguments justify the decisions arrived at, the consequences that flow from them and that general method (adjudication) of resolving disputes?

The standard view's answer to this question has five sub-components, the first two being that the articulation of such arguments is (i) a public, transparent statement of (ii) the reasons for the decision, an attempt to show that it is rationally warranted. The tradition, in the apex courts of the common law world, of providing long, discursive judgements offering assessments of all the arguments, cases and statutory provisions cited before the court by counsel, is an obvious means of doing this, a matter of judges 'showing their work'. That these judgements are published shows that this is a matter of public justification, aimed at the parties to the dispute and the wider legal and civic community. Arguments of fit and justification, or of consistency, coherence and consequences justify, if at all, by being public statements of the reasons for decisions. Judicial decisions are transparent and purport to be rational; the institution of adjudication – of judges deciding legal disputes by reference to the law – is therefore also transparent and ostensibly rational.

Closely related to the public statement of reasons for the decision is the idea that that statement, and the application and interpretation of the law it entails, is not self-seeking or to the personal benefit of the judges deciding the case. All the common law legal systems insist that the judicial application and interpretation of the law should be unbiased and impartial and all endorse a range of formal and informal requirements to ensure that. Some of the rules of natural justice or due process are instances of the former, whereas judicial training programmes and diversity initiatives are examples of the latter.[68] Of course, the idea of judicial impartiality, like the idea of impartiality in

[67] See *The Shorter OED*. Dworkin reminded us of the link between judgement and discretion in *TRS* at 31–33 as did a former Lord Chief Justice: T Bingham, *The Business of Judging* (Oxford UP 2000) 37–38.

[68] In England and Wales, the formal legal requirements are found in cases like *Serafin* v *Malkiewicz* [2020] UKSC 23; *R* v *Bow Street Metropolitan Stipendiary Magistrate and others, ex parte Pinochet Ugarte* (No. 2) [1999] 1 All ER 577; *Dimes* v *Proprietors of Grand Junction Canal* (1852) 3 HL Cas. 759 (elucidated in D Ormerod and D Perry (eds), *Blackstone's Criminal Practice* (Oxford UP 2022) ch D3 and T Endicott, *Administrative Law* (5th edn., Oxford UP 2021) chs 4 and 5). Some informal examples are: the Court and Tribunal Judiciary's *Equal Treatment Bench Book* <www.judiciary.uk/wp-content/uploads/2023/04/Equal-Treatment-Bench-Book-April-2023-revision-3.pdf> and their *Judicial Diversity and Inclusion Strategy 2020–2025* <www.judiciary.uk/announcements/judicial-diversity-and-inclusion-strategy-2020-2025-launched/judicial-diversity-and-inclsuion-strategy-2020-2025/> both accessed 11 May 2023.

general, is reasonably complex and it certainly does not entail that judges should be 'neutral' about the law and its underpinning values. Just like football referees and tennis umpires, their role requires them to uphold the rules of the system and, in that obvious sense, they are and must be partial. But that marks the limit of their partiality, an openness to argument, to difference, and a slowness to judge highlighting good judge-craft and exemplifying part of what impartiality entails here.[69] So, while the standard view accepts the possibility of partiality and bias in adjudication, it does not regard these vices as ubiquitous. It therefore stands opposed to the partiality claim as affirmed by technological evangelists.

The general institution of adjudication, and hence particular judicial decisions, might be justified in another way. For proponents of the standard view hold that most appellate courts occupy a *prima facie* legitimate place in the constitutional structure of the polities of which they are part. When judges decide cases they are not, therefore, acting beyond the powers conferred upon the institution they animate. If appellate courts exist, in part or solely, to resolve disputes about the proper interpretation and application of the law, then judges deciding cases – and providing public statements of the reasons for their decisions – appears unobjectionable. Of course, whether decisions in hard cases, or in easy cases for that matter, impose a genuine obligation to obey upon those ostensibly bound by them, is a broader matter than this issue of institutional competence. It is not therefore surprising to see jurists offering general accounts of the obligation to obey the law as part of the process of describing and justifying the institution of adjudication.[70]

The fifth and final way in which adjudication might be justified on the standard view is this: it is a relatively predictable dispute resolution process. Appellate court decision making is relatively predictable at both the retail level, there usually being only two options open to the judges in any particular case and, hence, at the wholesale level, across whole swathes of appellate court decisions. Yet it is not just the fact that there are only two options available in most appellate court cases that makes the outcomes of the process relatively predictable; it is that the judges deciding between the limited number of options utilise, as Dworkin, MacCormick and others have shown, a limited number and type of arguments to justify their choices. That arguments of fit and justification, or coherence, consistency and consequences figure in judges' justifications of their decisions means that those who know the law can quite easily think themselves into the position of the judges deciding particular cases. Of course, since judges can and do disagree about the weight of these arguments in particular cases, it is not possible to be absolutely certain of the outcome. But no one holds that judicial decisions – or the decisions of football referees, tennis umpires, or arbitrators for that matter – are or should be 100% predictable. While hard case outcomes are never absolutely certain, proponents of the standard view regard them as closer to that point on the probability spectrum than the point of utter unpredictability.[71]

[69]For a more detailed statement, see my 'The Possibility of Impartiality' (2005) 25 *OJLS* 3 and, more briefly, *Law's Judgement* (Hart 2017) 96–110. The notion's importance is taken for granted by Dworkin, implicit within the idea of law as integrity: see *LE* 213, 217–24 and ch 7. For MacCormick's laconic but pertinent remarks, see *LRLT* 17–18 and 234.

[70]A bold and noteworthy example is *LE* at 190–216. For MacCormick's initial view of institutional competence, see *LRLT* at 55–58.

[71]Karl Llewellyn, whom some might be surprised to find linked with the standard view because of his oft touted legal realist credentials, thought appellate court outcomes across the US were 'reasonably reckonable', that is, as akin to

The three components of the standard view – the hard case/easy case distinction, belief in the possibility of rational justification and an account of how, exactly, adjudication justifies and can be justified – are easily summarised. Sticking to hard case adjudication, the standard view holds that, at a general level, it is a relatively transparent, rational, impartial, legitimate and predictable means of resolving disputes, while also insisting that particular decisions can be evaluated as better or worse along these five dimensions. Furthermore, these five dimensions represent what the standard view takes to be the potential virtues of this social institution: adjudication is a good means of resolving disputes insofar as it is predictable, rational, transparent, impartial and legitimate. It is also clear that the standard view sees law as relatively indeterminate, that hard case adjudication is a matter of judgement, and that: (i) the arguments judges use to decide such cases need not be the same, different judges being able to weigh those different arguments differently; and (ii) that even when judges in hard cases use the same arguments to justify their resolution of the case, they can weigh those arguments differently and thus arrive at different solutions.

The contrast between the standard view and the account of algorithmic adjudication sketched in section II is now clear. There are, in fact, a series of vivid contrasts. Whereas proponents of the latter seem committed to eradicating judgement from the law, in part because they think the law can be made perfectly certain, the standard view regards judgement as an unavoidable feature of hard case adjudication and devotes much time to scrutinising and explicating what it entails. The standard view also holds that adjudication in general and hard case decision making in particular are ostensibly rational and transparent processes: judges' reasons for their decisions are published and are therefore open to critical scrutiny. Technological evangelists cannot endorse these commitments to transparency and rationality, for the simple reason that humans can neither comprehend how DNNs arrive at the judgements they produce nor understand exactly how and what they 'learn':

> the scale of the networks (in terms of the number of neurons and the connections between them), the distributed nature of the representations, and the successive transformations of the input data as the information flows deeper into the network, makes it incredibly difficult to interpret, understand, and therefore explain, how … [a] network is using an input to make a decision.[72]

It might, at some point, be possible to open and elucidate the workings of these networks and hence for human agents to understand what is going on; but there is not currently a great deal of progress being made on the journey towards (humanly) explicable artificial intelligence.[73]

Since technological evangelists cannot ensure that adjudication is either rational or transparent, it is difficult for them to show that adjudication is also a legitimate

assessing the outcomes of 'a reasonable, sometimes a very good, business risk': *The Common Law Tradition: Deciding Appeals* (Little, Brown 1960) 50. That degree of predictability was sufficient, for him, to establish the merit of adjudication as a dispute resolution mechanism. Frank – a truer 'realist' in this respect – disagreed: see 'Part Two' (n 2) 234–35.

[72]Kelleher (n 8) 245–46.

[73]See LH Gilpin and others, 'Explaining Explanations: An Overview of the Interpretability of Machine Learning' arXiv.org > cs > arXiv:1806.00069 (3 February 2019) for general discussion of 'XAI', the attempt to make artificial intelligence explicable (last accessed 11th May 2023). Note also Recital 71 of the European Union's General Data Protection Regulation (Regulation (EU) 2016/679) <https://gdpr-info.eu> accessed 11 May 2023.

process, either in terms of institutional competence or with regard to the broader issue of the capacity of judicial decisions to impose an obligation to obey. Legal decisions might still be made on this view, albeit by DNNs and the like, but whether that process is properly described as adjudication is surely in doubt. Non-human algorithmic 'adjudication' is not obviously an ostensibly rational, transparent or legitimate process and deploys a form of 'judgement' opaque to humans: can that really be an instance of adjudication?

It does not help to claim, in response, that provided non-human algorithmic adjudication passes the Turing test, it will therefore look sufficiently like the real thing to be regarded as the real thing.[74] For satisfying the test in this context requires publicly stated, explicable decisions and that is exactly what is currently lacking with regard to the outputs of DNNs. Moreover, even if we go along with the thought experiment and allow that hurdle to be cleared, just imagine what would have to be done to implement the test. Presumably something like this: have disputants submit their dispute to litigators and have it heard by a court in the usual way, the exception being that the judges are robots. But the Turing test is already corrupted at this point, since the litigants and their counsel know the adjudicator is not human. If we deceive them, then the test could be operationalised, but the ethics of doing that are, at the very least, questionable. Perhaps the solution is to set up a system of non-human algorithmic adjudication that operates alongside the real thing, ensuring that all the inputs are exactly the same in both processes and then compare the judgements. That may well be possible at some point, but it raises an obvious question: why? Why mimic something that already seems to work (on the standard view, at least) reasonably well? And why go to all this trouble if DNNs can indeed achieve the level of certainty about the law that some technological evangelists promise? The institution of adjudication will in that case be pointless: hard cases will not (cannot?) arise and all cases will be easy.

The disappearance of hard case adjudication has another significant and beneficial advantage according to technological evangelists: judicial bias or partiality will also disappear. While evangelists seemingly regard the latter as ubiquitous, proponents of the standard view accept that both are possible, yet hold that existing legal, professional and other bulwarks against partiality and bias work in all but the most egregious instances.[75] It is difficult to see how partiality and bias can be almost ubiquitous within current systems of appellate court adjudication, unless the meaning of those two terms is stretched beyond current limits. I therefore examine in some depth what proponents of algorithmic adjudication might mean by bias and partiality in the next section; for now, the key point is the contrast between this view and the standard view as to their incidence.

Finally, note who espouses the standard view. Its three components, including the numerous sub-components of the third, are plainly found in the work of MacCormick and Dworkin and are informed by their familiarity with US, English and Scots law. But their work on adjudication is only the most lauded and discussed segment of the standard view and we must add to it the work of some approximate contemporaries: Steven Burton, Martin Golding, Joseph Raz and Frederick Schauer.[76] It was also endorsed

[74]The idea underpins the whole argument in Volokh (n 29). He offers no plausible story as to how the test might be operationalised in the context of adjudication: see 1156–78 and 1182–91. The original statement of the test is AM Turing, 'Computing Machinery and Intelligence' (1950) 59 *Mind* 434, 434–35.

[75]They cannot counter court-packing, although that might be relatively uncommon. For a shocking instance, see J Murphy, *The Province and Politics of the Economic Torts* (Hart 2022) 237.

[76]See SJ Burton, *An Introduction to Law and Legal Reasoning* (3rd edn, Wolters Kluwer 2007) and his *Judging in Good Faith* (Cambridge UP 1992); M Golding, *Legal Reasoning* (Broadview Press 2001) and part I of his *Legal Reasoning, Legal Theory*

by a number of significant predecessors in the common law world, not the least of whom was Karl Llewellyn and, although the point is not crucial for present purposes, the standard view is common among civilian jurists.[77] Remember that this fairly wide and relatively deep juristic consensus resides not in a shared terminology, but in the fact that these jurists affirm the three components of the standard view. While we must not let the use of different idioms obscure convergence on matters of substance, nor should we assume that consensus shows that the standard view is correct or illuminating. That there is a consensus is interesting, but determining its veracity and power is another matter. One test of veracity and power is explored in the next section; it concerns the capacity (or not) of that view to capture and illuminate the views of the participants in this aspect of the social world.

IV. Rejecting the standard view

Does it matter that the standard view denies the certainty, determinacy and partiality claims and therefore offers a picture of both adjudication and law utterly incompatible with the technological evangelist view? Can't the latter simply reject the standard view? I consider three rejection strategies here, which seem to exhaust the available logical space. I begin with the least and end with the most radical option. The first seeks to undermine the standard view's explanatory privilege, the second offers a non-standard account of adjudication and law, while the third changes the nature of the discussion. As will become plain, it is unlikely that technological evangelists can avail themselves of the first or second options; it is equally plain that the third is implausible.

A. The standing of the standard view

For proponents of the standard view, it is the best initial statement of the nature of adjudication in the common law world, having explanatory and normative priority over other views. What is the basis of this privilege and how might technological evangelists undermine it?

Its proponents regard the standard view as the starting point for all other attempts to explain and understand adjudication because, first, it fits the facts of that practice as many participants in the practice understand them. Appellate court judgements display a great deal of discursive effort: the judges that make them work hard at giving and evaluating the reasons for their decisions and neutralising objections. Such judgements also deploy the type of arguments that proponents of standard views say they do: arguments of fit and justification, or of coherence, consistency and consequences are plainly visible, although rarely explicitly labelled as such. Judges therefore often come close to speaking the

and Rights (Routledge 2007) (although note that the legitimacy subcomponent of the standard view hardly features here); Raz (n 57) ch 10, part I of his *The Morality of Freedom* (Oxford UP 1988) and chs 10, 11 and 14 of his *Ethics in the Public Domain* (Oxford UP 1994); and F Schauer, *Thinking Like a Lawyer* (Harvard UP 2009) chs 1–5, 9–10.

[77] For Llewellyn, see n 71 and his *The Case Law System in America* (University of Chicago Press 1989); also notable is B Cardozo, *The Nature of the Judicial Process* (Yale UP 1921) lecture IV. For some civil law instances of the standard view see: A Aarnio, *Reason and Authority* (Dartmouth 1997) part III and ch 17 of his *Essays on the Doctrinal Study of Law* (Springer 2011); R Alexy, *A Theory of Legal Argumentation* (Oxford UP 1989); A Pecznik, *On Law and Reason* (Springer 1989); J Wroblewski, *The Judicial Application of the Law* (Kluwer 1992); and the essays in DN MacCormick and RS Summers (eds), *Interpreting Precedents: A Comparative Study* (Dartmouth 1997) and *Interpreting Statutes: A Comparative Study* (Dartmouth 1991).

language jurists use to describe and explain what judges do, but the fact that the languages of both groups is not identical is unproblematic. Jurists, after all, offer explanatory accounts of adjudication that aim for generality and seek to illuminate features of that practice which are of broad moral, political and intellectual interest. They are also able, by professional calling, to draw upon the insights and tools of almost all the disciplines in the academy in that task. Judges deciding appellate cases, by contrast, face both the burden of decision – cases have to be decided – and the constraint of time (cases are scheduled to be heard and decided in a limited period). There is little space for general reflections on the nature of adjudication when one is busy adjudicating.

Of course, judges sometimes speak and write extra-judicially about their task and, on the whole, they espouse the standard view. For instance, American, English and New Zealand judges are resistant to the alleged realist insight that the way in which they decide cases is determined by how well or badly they breakfasted, bridle at accounts of adjudication which claim they are peddlars of 'systematic mendacity' about how they decide cases (either in the cases themselves or extra-judicially), and object to being called 'activist'.[78] Furthermore, judges from these jurisdictions as well as from Canada, Australia and Israel, repeatedly emphasise the combination of relative constraint and relative freedom that defines the appellate adjudicative task, on the standard view. None, so far as I know, claim to have absolute freedom to decide such cases however they like and none, so far as I know, claim that that task is one in which the outcomes are anything like certain in advance of hearings and deliberation.[79] Nor does the existence of participant-iconoclasts undermine the significance of the high level of agreement as to the nature and value of adjudication among most participants.[80] Almost no complex social practice or institution – think, for instance, of the 'family' or 'friendship' – is regarded in exactly the same light by all whose conduct constitutes it.

A second reason why the standard view has explanatory privilege, initially at least, becomes clear once we consider a sceptical riposte to the first. The riposte is this: why regard as virtuous the fact that some or other account of an aspect of social life corresponds with much of what the participants think and say about it? It can seem absurd to repeat the truistic starting point of all meaning-based, or interpretative, or *Verstehen* approaches to understanding and explaining social life, but questions like this make it necessary.[81] Those approaches hold that social life is a product of human conduct,

[78]The last objection belongs to Lord Cooke, Forward to B Gray and B McLintock (eds), *Courts and Policy: Checking the Balance* (Brookers 1995) x–xi, the previous complaint being voiced by Lord Hoffman, then a High Court Justice, in 'Judging Judges' (1989) 105 *Law Quarterly Review* 140, 144. For the first, see Judge A Kozinski, 'What I Ate for Breakfast and Other Mysteries of Judicial Decision Making', ch 8 of DM O'Brien (ed), *Judges on Judging: Views from the Bench* (4th edn, Sage 2013).

[79]Some instances: Lord Dyson, *Justice: Continuity and Change* (Hart 2018) ch 3; Lord Thomas of Cwmgiedd, 'Reflections of a Serving Lord Chief Justice' and Lord Justice Laws, 'Should Judges Make Law?' respectively chs 3 and ch 15 of J Cooper (ed), *Being a Judge in the Modern World* (Oxford UP 2017); Bingham (n 67) chs 2 and 3; A Barak, 'A Judge on Judging: The Role of a Supreme Court in a Democracy' (2002) 116 *Harvard LR* 19, 22–24, 30–36 and 62–116; M Kirby, *Judicial Activism* (Sweet and Maxwell 2004), xv, 26–30 and chs 3 and 4 and his 'Judging: Reflections on the Moment of Decision' (1999) 18 *Australian Bar Review* 4; RJ Sharpe, *Good Judgement: Making Judicial Decisions* (University of Toronto Press 2018) chs 3–8. Also, see the judicial views recounted in chs 5–8 of A Paterson, *The Law Lords* (MacMillan 1982) and in chs 3–5 of his *Final Judgment: The Last Law Lords and the Supreme Court* (Hart 2013).

[80]Two high profile participant-iconoclasts were American Judges: see Frank (n 2) and any of Richard Posner's writings on adjudication (see, for example, his *How Judges Think* (Harvard UP 2008)).

[81]For a classic statement of the approach, see M Weber, *Economy and Society – A New Translation* (Harvard UP 2019) ch 1, which is best accompanied by G von Wright, *Explanation and Understanding* (Routledge 1971) and ch 1 of C Geertz's, *The Interpretation of Cultures* (Basic Books 1973). Chs 1, 3, 4 and 5 of C Taylor's *Philosophy and the Human Sciences*

that conduct having meaning for its authors and others: their conduct is often based upon reasons of their own or of others and is frequently a response to expectations and conventions about conduct that the authors and others share, many of these being embodied in a variety of social institutions and practices.

On this view, one way of attempting to ensure that we properly understand an instance of conduct, or a social practice or institution, is to capture how the participants themselves understand it, getting a picture of their reasons for the conduct in question, or of what they take to be the point or value of the practice or institution of which their conduct is part. Since we know from experience that particular instances of conduct can look identical yet have very different meanings ('arm raising' as an instance of conduct could be an example of voting, pointing, an effort to draw attention to something, or part of a dance move, among many other potentially 'meaningful' deeds), the injunction to attend to participants' views as to the nature of their conduct should not need recommendation. Indeed, that injunction seems an almost undeniable requirement of reason: if we accept that social life is meaningful, its meaning being borne and constructed in part by the beings whose conduct constitutes it, then our attempts to understand social life must 'therefore' begin by accessing what those beings take their conduct to mean.

That methodological injunction is the basis of standard view's explanatory privilege; how might it be undermined? Technological evangelists could contest it in what is, in the history of the social sciences, a standard way. For we find in that history numerous approaches to the explanation and understanding of social life which insist upon the widespread possibility that participants can be systematically wrong about the nature, causes or effects of some aspect of social life, or their conduct and its meaning. Some traditional versions of Marxism, for example, invoke an account of ideology which understands the latter as false consciousness, a body of ideas or patterns of thinking which obscure the true nature of social reality (such as portraying the genuinely exploitative nature of the wage relation as if it were a fair exchange between equals).[82] Similarly, some varieties of psychology insist that agents can be systematically misguided as to the reasons for and nature of their conduct and therefore hold that agents own views on these matters, and on the corresponding aspects of social life in which their conduct occurs, are the source of those agents' own and of wider social problems.[83]

Since each approach casts doubt upon the value of having recourse to participants' views about the nature of their conduct and the aspect of social life it constitutes or in which it figures, in the attempt to understand and explain both, their structure might be mimicked by technological evangelists. They might offer reasons why participants' views about the nature of adjudication should be rejected or regarded as unimportant. But one thing is clear from these two approaches: both cast doubt upon the views of

(Cambridge UP 1985) are astute treatments of the underlying issues, as are chs 1–7 of Q Skinner's *Visions of Politics Volume 1: Regarding Method* (Cambridge UP 2002).

[82]See K Marx, *Capital I*, vol 35 of the *Marx-Engels Collected Works* (Lawrence and Wishart 1996), 81–94, 185–6 and 537–42; *Capital II*, vol 36 of the *Collected Works* (Lawrence and Wishart 1997) 227; and *Capital: Volume III* (Penguin 1974) 209. An acute treatment is D Meyerson, *False Consciousness* (Oxford UP 1991).

[83]There is discussion as to whether or not the Freud corpus can amount to a genuine 'social theory' with notions such as repression and denial at its core, even though Erich Fromm's work went in that direction: see *The Sane Society* (Holt 1955) and *Escape from Freedom* (Holt 1969). On the general issue, see H Kaye, *Freud as a Social and Cultural Theorist* (Routledge 2019).

participants only after taking them seriously. Were participants' views not so taken, then it would be impossible to know either that participants were in the grip of false consciousness or that they were repressing various events in their life histories and suppressing various dissonant drives or desires. In each instance, what the participants say, do and believe is measured against social and psychological reality, properly understood. The latter term bears significant – perhaps even crippling – epistemological and ontological weight here, since the explanation and understanding of social reality offered by these accounts, and against which participants views are measured, purport to be 'better' than participants' views. They are allegedly 'better' because closer to capturing the nature and truth of social reality, showing how it really is, which, of course, may be a matter of showing it to be the result of the operation of various explanatory laws or law-like generalisations. Against a body of such generalisations, participants' views have often come to be regarded as explanatory surface-froth or noise, providing only hints as to, or distorted pictures of, the true nature of social reality.

So, both of these relatively antique, ostensibly non-*Verstehen* approaches – invoked here not because they are particularly compelling but to illustrate a possible structural similarity between them and some accounts of adjudication – do indeed start with participants' views.[84] And that simply cannot be said of the technological evangelist account of adjudication and law: none of the work referred to in section II says anything about what participants in the institution and practice of adjudication say or think about it or what they say and think about law. This failure to engage with participants' views means not only that technological evangelist accounts cannot mimic the structure of classically 'sceptical' accounts of social reality like Marxism and Psychoanalysis, but also that they cannot copy the structure of normal, non-standard accounts of adjudication. I spell out why below.

B. The normal non-standard view of adjudication (and law)

One reason why technological evangelists cannot undermine the standard view by offering a non-standard account of adjudication is exactly the same as the reason why they cannot undermine the standard view by offering a classically sceptical response to participants' views: an utter failure to engage with those views. But there is another reason: the technological evangelist account of adjudication and law has almost nothing in common with existing non-standard accounts. It looks so unlike them that it cannot properly assume the same label. To see this, and to appreciate the truly exceptional nature of the technological evangelist view, we must sketch the contours of the normal non-standard account of adjudication.

That view – hereinafter the 'Nnsv' – is in fact a family of views, all of which make the following three claims. First, and in common with the standard view, that the nature of law is such as to allow previously unasked and unanswered doctrinal questions to arise, those questions being the fulcrum of hard cases. Second, that the process of deciding hard cases runs roughly along the lines delineated by the standard view: hard case adjudication is a realm of normative choice or, as was said above, a matter of judgement. And, third,

[84]Two more recent approaches to social explanation and understanding, which share some of the features of classical Marxism (as well as other types of critical social theory) and a *Verstehen* orientation, are S Haslanger, *Resisting Reality* (Oxford UP 2012) and M Archer, *Realist Social Theory: A Morphological Approach* (Cambridge UP 1995).

that the evaluative judgements judges make when deciding hard cases are either: (i) often or sometimes weaker and more questionable than the judges invoking them think; and/or (ii) often or sometimes mischaracterised by the judges themselves. As a result, hard case adjudication is neither as rationally compelling nor as legitimate as judges and proponents of the standard view would have us believe.

Both limbs of this latter critique, as well as the two previous claims, are front and centre in two well-known instances of the Nnsv. First, consider the Feminist Judgments project.[85] Most of the work under this rubric embodies a version of the Nnsv which holds that the considerations judges use when deciding hard cases are not as weighty and determinative as they think because those considerations invoke objectionably gendered ideas and understandings. The main burden of the project, which has been implemented in a number of jurisdictions, is therefore to re-write existing judicial decisions so as to highlight and avoid, if possible, such ideas and understandings. The authors of these alternative judgements adopt the prevailing conventions of judicial judgement writing in the jurisdiction in question and are bound by the normal rules of precedent and statutory interpretation applicable in the court in which the case was decided. By giving judgement in a case which has already been decided, the authors of feminist judgements provide an insight into both the possibilities of and barriers to a judicial decision, on the specific issue in dispute, that eschews harmful gendering.[86]

For the second critique, think back to *Donoghue* v *Stevenson* and the way Lord Atkin characterised a vital part of his judgement: the neighbour principle. He constructed this as a juristic echo of an obvious moral-cum-religious equivalent, clearly being of the view that a legal system including that principle was better than one that did not.[87] His judgement also demonstrated that he thought that principle well founded in the law, it making good sense of many existing pockets of liability and also providing a mechanism for deciding novel future cases. But something Lord Atkin and the other judges either missed or suppressed were the political effects of their decision and, on Duncan Kennedy's version of the Nnsv, this is a typical failing of common law adjudication. All such decisions, for Kennedy, displace what he dubs 'ideological stakes', these being the effects of a decision one way or another upon 'an ideology [understood] as a universalisation project […] of an ideological intelligentsia […] that sees itself as acting "for" a group with interests in conflict with those of other groups'.[88] As a general matter, he claims appellate court judges are either unaware of or suppress these effects, that being the result of the fact that they are in denial about the ideological nature and the ideological consequences of their decisions.[89]

These exemplary versions of the Nnsv do something technological evangelist accounts do not: they engage, more or less closely, with the views of some participants. That is the first barrier facing the move to interpret technological evangelist accounts of adjudication as if they were non-standard accounts. Yet that dissimilarity is only one of three

[85]There are a number of such projects, the first being published in 2006: see *Special Issue: Rewriting Equality* (2006) 18 (1) *Canadian Journal of Women and the Law*. My focus here is R Hunter, C McGlynn and E Rackley (eds), *Feminist Judgments* (Hart Publishing 2010).
[86]Most of the essays in Hunter (n 85), make this point, two excellent instances being chs 9 and 12.
[87]See n 46 at, for example, 580–83.
[88]Kennedy (n 61) 23 and 39.
[89]ibid chs 1–3 and 8. I have complained about some aspects of Kennedy's general argument in 'What's Wrong With Ideology?' (2000) 20 *OJLS* 283.

significant differences. The second is plain from the fact the Nnsv denies exactly what the standard view denies, namely, *at least* two of the claims – about certainty and determinacy – that make the technological evangelist view (hereinafter 'the TEV') distinctive. Adjudication, on the Nnsv, is a matter of judgement that takes place within the realms of choice left open by the constitutive features of hard cases. Mature versions of that view do not call for the rejection and replacement of the practice of adjudication but, rather, object to how it is currently conducted in some or many instances.[90] They are thus immanent critiques of the current practice of adjudication, or of particular instances of it, holding that it or they fall short of the alleged virtues of the institution. More specifically, hard case decisions are usually impugned by versions of the Nnsv because they fall short of satisfying the rationality and legitimacy conditions.

But surely the third difference is that the Nnsv also, and again in common with the standard view, denies the technological evangelists' third claim, about the ubiquity of bias and partiality? This partiality claim requires more attention than it has hitherto received for, while judgement is central in all standard and normal non-standard accounts of adjudication, the issues of bias and partiality are not. They undoubtedly feature but, with regard to standard accounts, usually only as brief invocations of the normal juridical treatments, in case law and commentary, of these notions. In the Nnsv, juridical understandings of bias and partiality feature hardly at all, although a strained sense of the latter could be argued to be in play in some. By contrast, the TEV holds that partiality and bias are pervasive. This claim is not only radical but revelatory, since the TEV promises relief from a situation many did not know existed. Indeed, on any view but the TEV, partiality and bias, as juristically understood, are exceptional in current common law systems of appellate court adjudication. By that I mean that there are few recorded instances in those jurisdictions of judges deciding cases in which, for example, they stood to gain financially from the result (partiality), or in which they were explicitly prejudiced against one or other litigant (bias).[91] However, it might be that the TEV uses the terms bias and partiality in broader senses than those recognised in the law of the common law jurisdictions. What sense or senses might be in play? There are two salient possibilities and in each, for the sake of simplicity, I treat partiality and bias as synonyms.

One sense those terms might have in the TEV comes in a wider and a narrower version. The wide version is this: the process of hard case adjudication (and perhaps adjudication in general) is biased and partial because judges deciding cases always favour and uphold the law and its constitutive values. Insofar as judges have a duty of fidelity to the law of their jurisdictions, then this kind of partiality will be ubiquitous and judges who fail in it will face censure. But note how curious it is to characterise this feature of the judicial role, mirrored in many other roles – referee, umpire, arbitrator – in which

[90]Some proponents of the Nnsv adopted the abolitionist strategy in early work. Two examples: 'The state, and with it the judge, are destined to disappear as people come to feel their brotherhood … Arbitrators are an improvement; mediators even better': D Kennedy, 'Form and Substance in Private Law Adjudication' (1976) 89 *Harvard LR* 1685, 1771; 'An idiom of popular power could be developed, along with an accessible thesaurus of public empowerment to replace the elite lexicon of the law … [T]o achieve this state of affairs we must … quieten certain voices. For instance, lawyers will have to adopt a more humble tone and speak *sotto voce*, if at all': A Hutchinson, *Dwelling on the Threshold: Critical Essays on Modern Legal Thought* (Carswell 1988) 22. For Hutchinson's mature account of adjudication, see *It's All in the Game: A Nonfoundationalist Account of Law and Adjudication* (Duke UP 2000) chs 6–10.

[91]See the sources in n 68 above.

rule application is an important element, as an instance of partiality and bias. If there is anything those two notions have in common across these contexts, it is surely recourse by the rule applier to inappropriate considerations in the process of application. Yet it is perfectly proper, indeed required, for rule appliers to apply the rules in play, thereby upholding them and the values they instantiate. That is exactly the kind of partiality (or bias) we demand of them and that their roles embed. We do not say that judges are biased or partial towards the law and its underpinning values simply because they are duty bound to uphold and apply the law. Or, if we do, that is a strained sense of both terms.

There might be a narrower but no less strained version of this objection in play when the partiality claim is affirmed by the TEV. For what might be being impugned is not the fact that judges are upholding the law and its underpinning values, but the specific area of law in question and its values. This is a more focussed critique than that just outlined, being an attack upon the content of some particular segment of the law and a complaint about the values which inform it, not a grievance about the law and its constitutive values *tout court*. This narrower form of critique is, of course, typical of many versions of the Nnsv and of some versions of the standard view.[92] If this is what proponents of the TEV have in mind when they claim that adjudication is partial and biased, then (provided the particular argument is made out) it is almost but not completely unobjectionable.

The objection is this: note (again) the strain involved in describing this kind of substantive value critique of an area of law as an attack upon, or an unmasking of, instances of partiality and bias. Those instances of TEV cited in section II that fit the profile of this type of critique content themselves with claiming that large areas of current law are beset by allegedly radical uncertainty and will be replaced, as a result of technological advances, by altogether more determinate bodies of directives. Tax law is adduced as one example and the vast array of legal doctrines constituted by rules and standards another.[93] Insofar as there is a value critique here, it must be that these areas of law, because uncertain, do not and cannot serve the values that certainty promotes or embodies. That argument is not obviously an instance of unmasking, although it plainly has critical heft, if true. There is, however, one reason to doubt its plausibility, which is that it takes judgement to be the opposite of certainty. If the presence of judgement does indeed entail a form of problematic or radical uncertainty (as opposed to the uncertainty involved in choosing between two options), then the argument must be accepted. But the obvious question – why and how does judgement entail radical uncertainty? – demands an answer first. No answer is offered in this work, its authors simply affirming the existence of ubiquitous uncertainty, uncertainty being assumed (rather than shown) to be problematic.[94]

[92]A classic instance from the Nnsv is Roberto Unger's 'deviationist doctrine' analysis of the law of contract: RM Unger, *The Critical Legal Studies Movement: Another Time, A Greater Task* (Verso 2015) 143–78. Compare with C Fried, *Contract as Promise* (2nd edn, Oxford UP 2015), a standard view approach.

[93]For the former see Alarie (n 34) and Casey and Niblett, 'Death of Rules and Standards' (n 35) for the latter.

[94]See Alarie (n 34), where he begins with the prophesy quoted above ('The legal singularity will … make legal uncertainty obsolete': 445) and proceeds to illustrate supposedly baleful uncertainty in tax law (446–51) with an entirely typical difficult legal-doctrinal question (who is an employee?), at no point showing such 'uncertainty' to be problematic or unusual; Casey and Niblett, 'Death of Rules and Standards' (n 35) 1402, which posits a 'trade off' between certainty and 'calibration' ('the fit of a law to its legislative purpose' 1403, fn 3) without anywhere specifying the benefits and disadvantages of each or of uncertainty and a lack of calibration; and Aidid and Alarie (n 34) ch 4 which does nothing to fill these gaps.

These reasons suggest it is unlikely that this first and clearly strained sense of partiality underpins the TEV. What about the second sense? It holds that the partiality claim highlights the general but possibly implicit biases and cognitive shortcomings which affect judges in the interpretation and application of the law. These biases may well be thought of as extra-legal or non-legal influences upon judicial choices, rather than being embedded in the law itself: so, for instance, if I'm a misogynistic or racist judge my application of the law in hard cases, where the applicable law is not obviously gendered or racialised, might consistently go against women litigants or members of various ethnic groups. Yet that kind of bias or partiality is surely fairly easily noticeable and hence any claim about its ubiquity across the judiciary as a whole in any common law legal system needs support.[95]

Of course, if such partiality or bias is implicit and universal, then that changes matters, but the basis of that claim must be interrogated. Some might be tempted to extrapolate from the supposed general truths about implicit bias and the other rational shortcomings of human decision-makers disclosed by the work of Daniel Kahneman and others, to claims about bias within the specific context of adjudication.[96] That move is by no means straightforward. One reason why is highlighted by the proponents of that work themselves, since they hold that many of the biases and shortcomings they have discovered exist only in a particular broad type of thinking. So, for example, if our biases and rational shortcomings are most likely to hold sway in realm of 'fast' thinking rather than 'slow', some work must be done to show where hard case adjudication belongs: it is not obviously an instance of 'fast' thinking.[97] That kind of work, of course, assumes a close engagement with what some of the participants in this practice say and do, for how else could one show that judicial thinking is just as prone to bias and rational shortcomings as other domains? And it is exactly that kind of engagement which is lacking in the TEV in its current form. Indeed, the TEV seems so uninterested in or dismissive of what participants say and think about adjudication and law as to suggest an *a priori* commitment to the insignificance of their views. The grounds of that commitment are, however, opaque, unless it arises from an uncritical adoption of and wholesale extrapolation from this work.

A second reason for caution concerns the standing of the rational shortcomings and biases identified by that work. For it is argued by some that many of these supposed biases and failings are, in fact, perfectly rational rules of thumb or decisional shortcuts.[98] That argument requires only a grain of plausibility in order to problematise the move from these supposed truths about thinking in general to claims about thinking within the adjudicative context. Extrapolating from the alleged widespread existence of rational mistakes such as, for example, confirmation bias, to its existence in any particular context, is just as dubious as assuming that use of the gaze heuristic shows the ubiquity

[95]It could be garnered from the large body of work by critical race theorists, which doesn't feature at all in the TEV. A US-centric introduction to this body of thought is R Delgado and J Sefancic's *Critical Race Theory: An Introduction* (3rd edn, New York UP 2017); see also their edited collection *Critical Race Theory: The Cutting Edge* (3rd edn, Temple UP 2013).

[96]See D Kahneman, P Slovic and A Taversky (eds.), *Judgement Under Uncertainty: Heuristics and Biases* (Cambridge UP 1982); D Kahneman and A Taversky, 'On the Reality of Cognitive Illusions' (1996) 103 *Psychological Review* 582; D Kahneman, *Thinking, Fast and Slow* (Allen Lane 2011); and D Kahneman, O Sibony and C Sunstein, *Noise* (William Collins 2021).

[97]See the characterisation of System 1 thinking in Kahneman, *Thinking* (n 96) 20. Even if we accept that System 1 'impressions and feelings … are the main source of the explicit beliefs and deliberate choices of System 2' (ibid 21) thought, that provides no specific warrant for a connection in any particular context.

[98]See G Gigerenzer, *Rationality for Mortals* (Oxford UP 2008) and his *Gut Feelings* (Allen Lane 2007) for instances.

of all fast and frugal heuristics.[99] Finally, if the biases and rational shortcomings research programme is indeed the basis of the TEV's partiality claim, then one would expect the work of Kahneman and others to loom large within it. It does not. It is either completely absent or is cited only rarely and very briefly. Neither strategy suggests that the work is being invoked to bear substantial argumentative weight, except perhaps in an uncritical and superficial way.[100]

These, then, are the reasons why the TEV cannot be regarded as offering a non-standard account of adjudication (and law); it cannot therefore reject the standard view in that way. Furthermore, it is worth pointing out just how close standard and non-standard views of adjudication are, so that it is plain that adopting the latter is never a complete rejection of the former. Not only do both standard and non-standard views deny the TEV's certainty, determinacy and partiality claims, they also take participants' views seriously. As to the latter, they differ only in the degree to which they critically engage with participants views: normal non-standard accounts often provide reasons as to why participants views are in some respects mistaken. Much of the feminist judgements work shows that judgements are often wittingly or unwittingly gendered, while other critical legal work like Kennedy's highlights the normative-cum-political moves either wittingly made and undeclared or unwittingly made in judicial decisions.

Standard accounts of adjudication do not eschew critical engagement with the views of participants and are not therefore qualitatively different from normal non-standard accounts; they differ only in degree or in initial predisposition, being more inclined at the outset towards sympathetic rational reconstruction of participants' views.[101] That task is not radically different to the one in which normal non-standard accounts are engaged, since neither approach regards participants' views as incorrigible. Hence the critical thrust of both views usually takes the form of immanent critique, the criticism and evaluation of participants views and performances, and of the institution as a whole, being made in light of the institution's (and thus the participants') professed values and ideals.

C. Changing the subject

Unless the TEV engages with participants' views, or offers an explicit and compelling argument as to why they must be ignored, it cannot be regarded as a challenge to the standard view or as offering a non-standard view of adjudication. Neither the

[99]On confirmation bias, see Kahneman, *Thinking* (n 96) ch 7; for fast and frugal heuristics, see Gigerenzer, *Rationality for Mortals* (n 98) ch 2.

[100]Neither Kahneman's work – undeniably central to the field – nor related scholarship appears in Alarie, above n 34 (although there is a single *en passant* claim (that there is 'a large literature in psychology' documenting the limits of human decision making: 450) that could be an oblique reference), nor in Aidid and Alarie (n 34) (in which they take it to be an established truth that judicial decisions are riddled with cognitive illusions at 119–23 ('The Pitfalls of the Modern Judiciary'), despite (i) some of the research cited dealing with juries; and (ii) most of the rest [e.g., C Guthrie et al, 'Inside the Judicial Mind' (2001) 86 *Cornell LR 777*] being accepted without question, so that neither the relevance of the illusions 'discovered' nor the range of the studies are interogated). Kahneman's work is also absent from Volokh (n 29), Simons (n 44), Alarie, Niblett, and Yoon (n 8) and from Casey and Niblett's 'Self-Driving Laws' (n 35) (although there is a glib invocation of 'deep-seated cognitive biases' in fn 9). Kahneman's work is cited once in fn 20 of Casey and Niblett's 'Rules and Standards' (n 35), and some related scholarship is cited at fn 116. Kahneman's *Thinking* (n 96), features in the Further Reading list of Susskind (n 33), being cited just once (at 284, endnote 13) as a means of referring to this study: S Danziger, J Levav, and L Avnaim-Pesso, 'Extraneous Factors in Judicial Decisions' (2011) 108 *Procs of the National Academy of Sciences USA* 6889.

[101]For elucidation, see ch 2 of MacCormick and Summers, *Statutes* (n 77), and their *Precedents* (n 77) 10–12.

engagement nor dismissal option can be ruled out, but what can be said, as of now, is that neither has been adopted by the TEV. And that leads to the third and final rejection strategy. Perhaps proponents of the TEV have not explored these options because they regard them as irrelevant. For they are engaged not in the enterprise of attempting to explain, understand and criticise our current practice of adjudication and the understanding of law upon which it rests, but instead seek to replace both. Demolition rather than renovation is the aim; immanent critique cannot be their intellectual and practical goal.

There is nothing wrong, in principle, with the goal of eradication. It was, indeed, adopted by some proponents of the Nnsv in early work.[102] But if the TEV is to be regarded as a genuine instance of it, its proponents must do two things. First, candidly declare that that is their goal. Once made, such a declaration will remove the confusion that arises from invoking the 'technological developments will disrupt current practices' trope in this context. For disruption – the disturbance of existing patterns, things and modes of thought – retains patterns, things and modes of thought, but in new, possibly even random arrangements. Suppose the books on my shelves are in that sense disrupted: they will then appear either in a different order to the original one or in a different place (they are now strewn around the floor). Books and shelves remain. Burning the books and the shelves is not in any normal sense a disruption, but an eradication. Similarly, if the books and shelves remain, but are or can never be used again, then that, too, looks unlike a disruption; the books and shelves have become redundant. Redundancy and eradication, although different, are practically the same: neither that which is redundant nor that which no longer exists is of any use. If adjudication and law are heading in either direction on the TEV, then its proponents should say so and embrace the radical nature of their proposal.

The second task proponents of the TEV must discharge, if that view is to be a plausible instance of the eradication strategy, is to provide reasons why either eradication or redundancy is salient. After all, one need not be a Burkean conservative in order to require reasons for demolition (or redundancy), and this applies just as much to social practices and institutions, like adjudication, as it does to parts of one's home. Such reasons are hard to find in the TEV, principally because the certainty, determinacy and partiality claims are unfounded, the arguments supporting each no more than assertions or assumptions.[103]

With regard to the certainty claim, the argument involves a move from the existence of uncertainty in the law to a claim that such uncertainty can and should be eradicated. Yet at no point is the kind and level of uncertainty that both standard and non-standard views accept as characteristic of hard cases shown to be problematic (as opposed to quotidian and unexceptionable). Judgement is also assumed to be the enemy of certainty and, in a sense, it is: when judgement is in play there is a choice to be made and that choice is usually between at least two options. More often than not, we cannot be absolutely certain in advance which way the choice will be made. But should such uncertainty, ubiquitous in hard cases, be thought problematic? Such arguments as are provided in the TEV simply assume that uncertainty – all uncertainty – is bad. Similarly, partiality

[102]See n 90.

[103]For the kinds of argumentative haste described in the following paragraph see the sources in notes 34–39 and 94 (with regard to certainty and determinacy) and notes 40–43 and 100 (partiality and bias).

and bias are assumed to be bad and, while arguments can be formulated to show that,[104] none are offered by proponents of the TEV. Nor do they provide arguments to show that partiality and bias are ubiquitous; that is simply assumed on the basis of a hasty and dubious extrapolation in which the juridical meaning of those terms is lost. Each of these claims could have been critically tested in an obvious way: they could have been bumped up against the views of participants in the practice. They, as both standard and non-standard views of adjudication tell us, do not regard any sliver of uncertainty as always and ever bad; nor do they think judgement is always and ever the enemy of certainty, nor that all decision makers are always and ever partial and biased. Such a test assumes some degree of interest in and respect for the views of participants and, as has been shown, proponents of TEV lack both.

Until these two steps are taken, the eradication strategy is implausible. We might impute it to proponents of the TEV, but doing so seems uncharitable, since it shows how little they have done to support it. Then again, proponents of the TEV have done very little to undermine or reject the standard view in other ways, so this is perhaps less surprising than it would otherwise be. That the standard view stands as an obstacle to the TEV is clear. But, what is equally clear, is that inattentiveness and wilful blindness ensure not all obstacles are always seen.

V. Endnote

Were law and adjudication actually to change in the ways the TEV forecasts – were the certainty and determinacy claims to come true – then they would not merely be changed. Rather, they would cease to exist. Adjudication is likely to become extinct in the face of absolute legal certainty and determinacy, both being possible, for some proponents of the TEV, because technology will enable the formulation of real time legal micro-directives that inform every individual of their exact legal status. These directives, combining the law's prohibitions, permissions and requirements with each and every person's location in legal space and time, will constitute a system of complete control if accompanied by immediate enforcement and/or the application of sanctions.[105] On this view, law is conceived neither as a body of general propositions applicable to broad swathes of human conduct, nor as a medium in which the kind of interpretative disputes characteristic of hard case adjudication can arise. Although some regard such a regime as 'radically better'[106] than the form of law we currently have, many others would see it as an instance of technological managerial direction, 'a one-way projection of authority'[107] from law-giver to law-addressee, allowing the latter no space in which to either question directives or to act contrary to them. That kind of regulatory regime, and the technologies which might facilitate it, is not a disruption of, or challenge to, or even a game-changer for, law and adjudication as they currently exist. It is a 'game-ender'.[108]

[104]See n 69 for some instances.
[105]See Alarie (n 34) 446 and 455; Aidid and Alarie (n 34) 8; Casey and Niblett, 'Self-Driving Laws' (n 35) 430–31 and 439–40.
[106]The phrase is from the subtitle of Aidid and Alarie (n 34).
[107]LL Fuller, *The Morality of Law* (rev. edn, Yale UP 1969) 192.
[108]R Brownsword, 'Law, Authority, and Respect: Three Waves of Technological Disruption' (2022) 14 *Law, Innovation and Technology* 5 at 7. For a related version of this theme, see my 'The Death of Law: Another Obituary' (2022) 81 *Cambridge LJ* 109 and A Supiot's 'Foucault's Mistake' (2021) 132 *New Left Review* 125, 129–32.

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