

Rationality and Reason in Administrative Law – Would a Roll of the Dice be Just as Good?

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Introduction

Those who exercise official power are generally expected to act rationally and reasonably according to a simplified model of decision-making applied in administrative law. Much of the complexity of the actual and at least partly non-rational mental processes that inform human conduct is pushed into a kind of black box not to be opened.

Nevertheless, the real life complexity of what goes on in our brain is not to be denied. It is under increasing investigation particularly in the field of the neuroscience of decision-making. In an online conversation conducted six years ago between leading researchers in the field, one of the important questions in neuroscience was formulated thus:

We also need to understand the neurobiological basis for individual variability in decision-making. When people face the same decisions they tend to make different choices. Some of that is due to their different experiences and learning environments. There are also fundamental genetic differences that give rise to different decision-making styles.¹

In the exercise of statutory discretions, the law permits a degree of unexplained and inexplicable variability under cover of the proposition that a particular exercise of a discretion is a ‘matter on which reasonable minds can differ’. There is a question whether, in

¹ Daeyeol Lee, ‘Kavli Institute for Neuroscience, Yale University School of Medicine in ‘The Neuroscience of Decision-making’, The Kavli Foundation Spotlights, August 2011, accessed 24 November 2017.

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the black box underpinning that variability, there are mental processes in play which are not logical and resemble random choice making of which the decision-maker is unconscious.

There is a related question whether human decision-making in the exercise of statutory powers can be replaced partially or completely by automated decision-making using computers with artificial intelligence systems.

The use of such systems in Australia is well-established, as appears from the Administrative Review Council Report in 2004 which set out 27 best practice principles for aligning decision-making assisted by automation with administrative law values of lawfulness, fairness, rationality, openness and efficiency.² This was followed three years later by the 'Better Practice Guide to Automated Decision Making', published by the Commonwealth Ombudsman's Office in February 2007.

The need for such a guide grew out of the increasing reliance of Australian government agencies on computer systems in the administration of government programs. Their uses include the determination of financial entitlements and have been extended into decision-making relating to rights, obligations and privileges in the fields of taxation, visas and quarantine.

There has been discussion and debate about the development of such systems to exercise administrative discretions. The Administrative Review Council in its report in 2004 cautioned against such applications. On the other hand, the President of the Administrative Appeals Tribunal, Justice Garry Downes, in a speech delivered in 2010 entitled 'Looking Forward: Administrative Decision Making in 2020', described the exercise of discretion as 'The Holy Grail for computer decision-making.'³

Justice Melissa Perry, speaking on the topic at the Cambridge Public Law Conference in 2014 observed:

Automated decision-making systems are grounded in logic and rules-based programs that apply rigid criteria to factual scenarios. Importantly, they respond to input information entered by a user in accordance with 'predetermined' outcomes. By contrast, many

² Administrative Review Council, 'Automated Assistance in Administrative Decision-Making', Report to the Attorney-General, Report No 46/2004.

³ Justice Garry Downes, 'Looking Forward : Administrative Decision Making in 2020' (Paper presented at the Australian Corporate Lawyers Association, 2010 Government Law Conference, Canberra, 20 August 2010) 11.

administrative decisions require the exercise of a discretion or the making of an evaluative judgment. Is a person ‘*a fit and proper person*’ to hold a licence? Are a couple in a ‘*de facto*’ relationship? These are complex and subtle questions incapable of being transcribed into rigid criteria or rules and are, therefore, beyond the capacity of an automated system to determine. Different factors may need to be weighed against each other and may be finely balanced. If automated systems were used in cases of this kind, not only would there be a constructive failure to exercise the discretion; they apply predetermined outcomes which may be characterised as pre-judgment or bias.⁴

In March of this year, an all-party Parliamentary Group on artificial intelligence convened in the House of Lords, published a report entitled ‘Ethics and Legal in AI: Decision Making and Moral Issues’.⁵ The Parliamentary Group, which had been informed by presentations from experts in the field, considered a number of questions including whether artificial intelligence could assist in the decision-making process and whether artificial intelligence could make better decisions. A number of themes emerged from their report. The first of them I have already foreshadowed was expressed thus: ‘Human decision making is yet to be fully understood. We know that human beings don’t always behave as rational players, but it is still unclear what influences the decisions, when, and how.’⁶

Another theme which may have relied upon an untenable premise about AI processes was that:

AI’s role in decision-making should be transparent – Each individual should have access to the rationality behind a decision being made. The process needs to be transparent and easily understood by society.⁷

The premise is that decision-making by artificial intelligence depends upon what lawyers would recognise as rational processes. There is a fundamental question whether, and to what extent, legal rules can be translated into machine logic. As explained in a paper published earlier this year in the journal *Artificial Intelligence and the Law*,⁸ a basic assumption of

⁴ Justice Melissa Perry, ‘iDecide: the legal implications of automated decision-making’ [2014] *Federal Judicial Scholarship* 17 (emphasis in original).

⁵ All-Party Parliamentary Group on Artificial Intelligence, *Ethics and Legal in AI: Decision Making and Moral Issues* (House of Lords, 2017).

⁶ Ibid 5.

⁷ Ibid 6.

⁸ L Karl Branting, ‘Data-Centric and Logic-Based Models for Automated Legal Problem Solving’ (2017) 25(1) *Artificial Intelligence and the Law* 5.

logic-based approaches is that it is possible to create a logical expression of a given text that is a faithful and authoritative expression of the text's meaning. There are three elements of that assumption:

1. That legal texts have a determinate logical structure.
2. That there is a logical formalism sufficiently expressive to support the full complexity of legal reasoning on these texts.
3. The logical expression can achieve the same authoritative status as the legal text from which it is derived.

On the other hand, an artificial intelligence which has learned from a database of cases may use reasoning that does not depend upon logical rules but identification of patterns.

A machine with a deep learning neural network of a kind which is able to learn to predict or determine outcomes by the application of some kind of self-generated algorithm developed from exposure to a large database of cases might also be capable of exercising a kind of discretionary function. The steps leading to a decision based on that kind of machine learning would not readily be accessible. They may be no more translatable into logic and reasoning than the mental processes of the human decision-maker where logic is exhausted and only discretion remains. Machine reasoning, as already noted, may be based upon a kind of probabilistic assessment based on pattern recognition. While such reasoning may be inscrutable, it is not random.

A simple example of an algorithm which can inform human decision-making by generating random outcomes is the toss of a coin or the throw of dice. An early fictional example of its use in court was imagined by the 16th century satirist, François Rabelais in his work *Gargantua and Pantagruel*. The story is told of an elderly judge, Bridlegoose, who is tried for delivering an erroneous judgment in a tax case which he reached by throwing dice. Bridlegoose had been a judge for 40 years. He had delivered 4,000 judgments, 2,309 of which had been appealed to a Supreme Court and affirmed. All of his cases had been decided by throw of dice.

Bridlegoose's defence in the particular case was that he may have misread the dice because of his failing eye sight. He maintained that there was nothing wrong with his way of deciding cases. He pointed to Civil and Canon law rules, some of which provided that in

cases of doubt a lot could be used to determine the divine will. Even so, he would read all the pleadings, place them at either end of a table and, after an extended period, throw dice first to determine the defendant's score, then the plaintiff's. Asked why he bothered with the pleadings at all he said that the forms had to be observed and that the case must be allowed to ripen to maturity. In answer to an associated complaint of unreasonable delay in his decision-making he cited a maxim — 'time is the father of truth'. He also pointed out that cases were more likely to settle when they had dragged on for a while and the litigants were exhausted and running out of money. In the end he was excused partly because he had given so many judgments which had been affirmed on appeal.

An American Judge, John Marshall Gest, who served three terms as a Judge of the Orphans Court in Philadelphia, wrote about Bridlegoose's method in the *American Law Review* in 1924, and observed:

The method of Judge Bridlegoose indeed insures [sic] absolute judicial impartiality, [and] eliminates the irksome task of writing opinions, which to successful litigants are a superfluity and to the losers an aggravation ...⁹

The latter observation would tend to undermine conventional wisdom that the purpose of reasons is to let the losing party know why it has lost.

Judge Gest remarked, no doubt as a criticism of proponents of judicial productivity measures, that Bridlegoose's method might meet with the approval of those theorists of his time who were inclined to regard a court as an administrative machine fulfilling a popular requirement for the hasty dispatch of business. Their views were contrasted, by the Judge, with the view of those whom he called 'the few conservatives left who prefer to regard their court as a place where justice is judicially administered.'

There have occasionally been cases in which stalemated juries have decided their verdict by tossing a coin. Historically, those verdicts attracted the protection of a general rule enunciated by Lord Mansfield in *Vaise v Delaval*¹⁰ under which such conduct could not be

⁹ John M Gest, 'The Trial of Judge Bridlegoose' (1924) 58 *American Law Review* 402, 409.
¹⁰ (1795) 1 TR 11 [99 ER 944].

proven by evidence from another juror. Judge Gest set out a number of such cases and the general rule in his paper.¹¹

In 2000, a case was reported in the *Cincinnati Enquirer* of a jury which could not decide whether to convict a man of murder or manslaughter for the shooting of his girlfriend.¹² They tossed a coin and convicted him of murder. The jury had been deadlocked 11-1 on each charge with different dissenters and would have been unable to return a verdict without the coin toss. The matter came to the attention of the trial judge and was admitted in court by the foreman. A new trial was ordered. An Assistant Law Professor at the University of Louisville said, reassuringly, of the procedure adopted by the jury, ‘I don’t think it is widespread’.¹³

It may be said, of course, that the resort to a toss of the coin was rational in that it was a rational decision to choose that way of resolving a stalemate. That does not mean the process of decision-making was itself rational. A dissenting juror who was prepared to move from manslaughter to murder on the strength of the result of the toss was not deciding the case by reference to whether guilt of murder had been proven beyond reasonable doubt.

It is easy to distinguish between the external elements of a decision made by the toss of a coin or the throw of dice and a reasoned decision made by a human being. Generally the preference of the person affected and his or her lawyer is for as much visible rationality as possible and a human repository for the exercise of even a discretionary power. That is a preference with a long history. That history takes us back to Lord Mansfield and a famous passage about reason in the exercise of discretion which appears to have originated with him.

In a highly contentious case in 1770 he reversed a judgment of outlawry against John Wilkes.¹⁴ There had been considerable outcry about the case and public pressure on the courts. The tabloid press of the day, in terms which suggest that there are some things that never change, was clear in its views about what the outcome of the proceedings should be. Mansfield said in his judgment ‘[a]udacious addresses in print dictate to us, from those they

¹¹ John M Gest, ‘The Trial of Judge Bridlegoose’ (1924) 58 *American Law Review* 402. Lord Mansfield’s decision was mentioned recently in the judgment of the High Court in *NH v Director of Public Prosecutions (SA)* (2016) 90 ALJR 978; 334 ALR 191.

¹² Associated Press, ‘Jury Flips Coin to Decide Murder Verdict’, *Cincinnati Enquirer*, Cincinnati, 26 April 2000.

¹³ Ibid.

¹⁴ *R v Wilkes* (1770) 4 Burr 2527.

call the people, the judgment to be given now, and afterwards upon the conviction.¹⁵ However, placing the rationality of the law and the integrity of the judicial system against such popular pressure, he said:

The constitution does not allow reasons of state to influence our judgments: God forbid it should! We must not regard political consequences; how formidable soever they might be: if rebellion was the certain consequence, we are bound to say ‘*Fiat justitia, ruat cælum*’.¹⁶

Fiat justitia has endured. So too, has an express statement of a rationality principle from an earlier part of the proceedings in the case when Mansfield, in the exercise of discretion, refused a grant of bail, saying:

It is indeed, in the discretion of the Court, to bail a person so circumstanced. But discretion, when applied to a Court of justice, means sound discretion, guided by law. It must be governed by rule, not by humour: it must not be arbitrary, vague, and fanciful; but legal and regular.¹⁷

His words echoed down the centuries. They were applied to the exercise of official statutory discretions by Lord Halsbury LC in *Sharp v Wakefield*.¹⁸ They have been quoted on many occasions in later decisions including, in 2013, that of the High Court in *Minister for Immigration and Citizenship v Li*,¹⁹ which was concerned with unreasonableness as a ground for judicial review of administrative decisions.

Mansfield’s words and their durability over two and a half centuries reflect a pervasive and persistent expectation of rationality in the exercise of official powers, be they judicial or executive. That expectation is seen as an aspect of the rule of law in our society. That contested concept forms an important context for the rationality principle in constitutional democracies.

¹⁵ Ibid 2561; [98 ER 327, 347].

¹⁶ Ibid 2561–2; [98 ER 327,347].

¹⁷ Ibid 2539; [98 ER 327].

¹⁸ [1891] AC 173, 179.

¹⁹ (2013) 249 CLR 332.

In judicial decision-making the expectation of rationality is underpinned by the requirement that judges give reasons for their decisions. In *Wainohu v New South Wales*,²⁰ Justice Kiefel and I referred to the centrality to the judicial function of a public explanation of reasons for final decisions and important interlocutory rulings. We quoted from the first edition of *Broom's Constitutional Law*, published in 1866, in which it was said:

A public statement of the reasons for a judgment is due to the suitors and to the community at large — is essential to the establishment of fixed intelligible rules and for the development of law as a science ...²¹

Despite their centrality to the judicial function, the provision of reasons for administrative decisions is not a requirement of the common law. The High Court so held in *Public Service Board (NSW) v Osmond*.²² A majority of the Court of Appeal of New South Wales²³ had held that the Public Service Board of New South Wales was obliged to give reasons for dismissing Mr Osmond's appeal to that Board against a decision refusing his application for appointment to the position of Chairman of a Land Board. The High Court allowed an appeal against the decision of the Court of Appeal.

Gibbs CJ in the High Court held that the conclusion reached by the majority in the Court of Appeal, reflected in the judgment of Kirby P, was 'opposed to overwhelming authority'.²⁴ In answer to policy arguments which favour the giving of reasons, Gibbs CJ referred to the risk of casting additional burdens on administrative officers with associated costs and delay and perhaps a lack of candour on the part of the officers concerned.²⁵ The other members of the Court agreed with the Chief Justice.

Deane J referred to statutory requirements for the provision of reasons and observed:

²⁰ (2011) 243 CLR 181.

²¹ Ibid 213 [54], as quoted in *De Iacovo v Lacanale* [1957] VR 553, 557–8 (Monahan J).

²² (1986) 159 CLR 656.

²³ *Osmond v Public Service Board of New South Wales* (1984) 3 NSWLR 447.

²⁴ *Public Services Board (NSW) v Osmond* (1986) 159 CLR 656, 662–3.

²⁵ Ibid 668.

That is a good thing since the exercise of a decision-making power in a way which adversely affects others is less likely to be, or to appear to be, arbitrary if the decision-maker formulates and provides reasons for his decision.²⁶

It might be said that a decision given without reasons or the possibility of reasons is arguably, at least from the point of view of the person affected by it, functionally equivalent to a decision made by a toss of the decision-maker's coin or dice. We often say that things happen by chance when we do not know why they happen.

A practical effect of statutory requirements for reasons for decision has been to direct attention to the logical aspect of the decision-making process involving fact finding and the application of legal rules which might otherwise be intuitive and more or less susceptible to extraneous mental thought processes, prejudices and values.

In the 1970s I was a part-time legal member of the Social Security Appeals Tribunal in Perth. It was then an administrative body providing a species of non-statutory review of decisions in relation to social security benefits. One regular class of case before the Tribunal required a determination whether two recipients of benefits were 'living together on a bona fide domestic basis as man and wife'. If they were, they were entitled to only the married rate of benefit which was less than twice the single rate. Prior to the introduction of the administrative law package in the second half of the 1970s a typical expression of relevant conclusionary fact-finding by a departmental officer appeared on a claimant's file in the following terms 'there is no way these two aren't shackled up together'. This was no doubt a holistic and intuitive view. After the introduction of the package, white forms with blue boxes appeared on the file with sections to be filled in by the officers setting out evidence, facts found and conclusions therefrom. Whether the actual quality of decision-making was improved, I do not know. Undoubtedly, a discipline was imposed which had not existed before and the logical processes of reasoning required by the text of the Act had to be applied.

It took a while for the function of reasons for decision to be understood. Not long after my appointment to the Federal Court in 1986, I was asked by a senior officer of a Commonwealth Government Department to come and speak to departmental staff on how to frame their reasons to avoid being overturned on judicial review. I declined. Perhaps I had

²⁶

Ibid 675.

that conversation in mind when I wrote in *Minister for Immigration and Ethnic Affairs v Taveli*²⁷ of the requirement under the *Administrative Decisions (Judicial Review) Act 1977* (Cth) for:

A properly authenticated statement of reasons ... as evidence of the truth of what it says, namely, that the findings made, the evidence referred to and the reasons set out were those actually made, referred to and relied upon in coming to the decision in question.²⁸

So reasons are good, but it is a theme of this lecture that the rationality model for official decisions has its limits. So much was acknowledged in the context of judicial decision-making by Oliver Wendell Holmes Jnr in the much quoted remark in his book *The Common Law*, published in 1881:

The life of the law has not been logic: it has been experience. The felt necessities of the time, the prevalent moral and political theories, intuitions of public policy, avowed or unconscious, even with the prejudices which judges share with their fellow-men, have had a good deal more to do than syllogism in determining the rules by which men should be governed.²⁹

The judicial function inevitably requires judgments which are normative or evaluative in character and cannot be explained only by the application of legal rules with logically mandated outcomes. Examples include decisions turning upon the characterisation of conduct as reasonable or done in good faith or careless or the characterisation of events following on from conduct as foreseeable or too remote to attract liability.

In the field of discretionary decisions such as sentencing or the grant or withholding of equitable remedies, the judge's reasons are expected to explain the factual and legal basis of the decision including the significance attributed to different circumstances of the case. That said, the High Court has spoken of the sentencing process as involving an 'instinctive

²⁷ (1990) 23 FCR 162.

²⁸ Ibid 179.

²⁹ Oliver Wendell Holmes, Jnr, *The Common Law* (first published Kittle, Brown, and Co, Boston, 1881, 1991 Dover ed) 1.

synthesis'.³⁰ Discretion is not treated as wrongly exercised by a sentencing judge just because appellate judges might have exercised it in a different way. In this context, we hear the familiar statement that the particular exercise of a discretion is a matter on which reasonable minds might differ. Beyond a certain point in judicial reasoning in such cases, there is a gap from logical application of the legal rules to the actual decision — a gap which cannot be bridged by purely logical steps.

There may be complex mixes of fact finding and value judgments in the application of criteria which condition the existence or exercise of a statutory power by a public official. There were criteria of that kind in play in the *Malaysian Declaration Case*, decided in 2011.³¹ They conditioned the power of the Minister for Immigration to declare a country as a safe third country to which asylum seekers might be sent pursuant to s 198A of the *Migration Act 1958* (Cth). The decision-maker's assessment or evaluation may be required by the criterion or it may be the criterion itself. It is possible but not easy to reduce the decision-making process to logical rules where evaluative elements are involved and even more so where the decision-maker's state of mind itself conditions the exercise of the power.

Although rationality as a requirement of official decision-making has its limits, it is expected of all decision-makers to the extent that it can take them towards their decision. An exercise of a statutory power must be supported by reasoning which complies with the logic of the statute. It must lie within that class of reasoning pathways which support a valid exercise of the power. That class may be large for a broad discretion conferred in a statute without a well-defined purpose. It may be more limited in other cases.

Compliance with the logic of a statute in this sense requires that the reasoning process of a decision-maker in deciding to exercise a power under the statute:

- is a reasoning process — ie, so far as possible a logical process, albeit it may involve the exercise of a value judgment, including the application of normative standards, and the exercise of discretion;
- is consistent with the statutory purpose;

³⁰ *Wong v The Queen* (2001) 207 CLR 584, 611 [75]; *Markarian v The Queen* (2005) 228 CLR 357, 373-5 [37]; *Director of Public Prosecutions v Dalglish* [2017] HCA 41, [4]–[12].

³¹ *Plaintiff M70/2011 v Minister for Immigration and Citizenship* (2011) 244 CLR 144.

- is based on a correct interpretation of the statute, where that interpretation is necessary for a valid exercise of a power — an error of law which does not vitiate a decision is thereby excluded;
- has regard to considerations which the statute, expressly or by implication, requires to be considered;
- disregards considerations which the statute does not permit the decision-maker to take into account;
- involves findings of fact or the existence of states of mind of the decision-maker which are prescribed by the statute as necessary to the exercise of the relevant power;
- does not depend upon inferences which are not open or findings of fact which are not capable of being supported by the evidence or materials before the decision-maker.

The permitted pathways to the statutory decision may also be limited to those that comply with procedural requirements which may be express or implied. Decision-making which complies with the logic of the statute will also require a diligent endeavour by the decision-maker to discharge the statutory task. The matters listed go to power. They cover varieties of jurisdictional error, a term coined for historical reasons. They are not exhaustive, but reflect the requirement that the exercise of a statutory power should be rational in the sense which I have used that term.

The valid exercise of a power conferred by a statute may require more than rationally in the sense of compliance with the logic of the statute discussed above. Reasonableness may require more than mere rationality in this sense. In *Li*,³² the Migration Review Tribunal had refused an adjournment to an applicant for an occupationally-based visa. The applicant was awaiting a revised skills assessment from a body called Trade Recognition Australia. The Tribunal proceeded to a decision adverse to the applicant without waiting for that revised assessment which was critical to her success. In holding that the decision of the Tribunal was vitiated by unreasonableness, Hayne, Kiefel and Bell JJ referred to *Wednesbury Corporation*³³ and said:

³² (2013) 249 CLR 332.

³³ *Associated Provincial Picture House Ltd v Wednesbury Corporation* [1948] 1 KB 223.

The legal standard of unreasonableness should not be considered as limited to what is in effect an irrational, if not bizarre, decision — which is to say one that is so unreasonable that no reasonable person could have arrived at it.³⁴

Indeed, the Master of the Rolls, Lord Greene in *Wednesbury Corporation*, made the point that bad faith, dishonesty, unreasonableness, attention given to extraneous circumstances, and disregard of public policy, were all relevant to whether a statutory discretion was exercised reasonably.³⁵ As the joint judgment said in *Li*:

Whether a decision-maker be regarded, by reference to the scope and purpose of the statute, as having committed a particular error in reasoning, given disproportionate weight to some factor or reasoned illogically or irrationally, the final conclusion will in each case be that the decision-maker has been unreasonable in a legal sense.³⁶

The decision-maker exercising a statutory power may tick all the logical boxes and yet make an unreasonable decision. Mere rationality may not take the decision-maker the whole distance to decision where a discretion is to be exercised. Reasonableness imposes an additional element which may partake of proportionality. Metaphorically speaking, while it might be rational to use a sledge hammer to crack a peanut it will generally not be reasonable to do so.

The limits may not only be encountered where a discretionary decision is to be made. Sometimes decisions have to be made in the face of unresolvable uncertainty or in the face of alternatives which are within power and where, on the basis of the materials before the decision-maker, no relevant distinction can be drawn between them. In a paper entitled ‘Rationally Arbitrary Decisions (in Administrative Law)’,³⁷ Professor Adrian Vermeule of the Harvard Law School described limits to rationality by reference to cases in which decision-makers run out of what he called ‘first--order reasons’ for their decisions.³⁸ He argued that the law should not adopt a cramped conception of rationality which would require decision-makers to do the impossible by reasoning beyond the point at which reason has exhausted its powers. His observations were made particularly in the context of decisions of

³⁴ (2013) 249 CLR 332, 364 [68].

³⁵ [1948] 1 KB 223, 229.

³⁶ (2013) 249 CLR 332, 366 [72].

³⁷ Adrian Vermeule, ‘Rationally Arbitrary Decisions (in Administrative Law)’ (25 March 2013), *Harvard Public Law Working Paper* No 13-24 <<https://ssrn.com/abstract=2239155>>, 2.

³⁸ *Ibid* 6.

regulatory agencies in the United States balancing competing considerations in the face of absence of information which enables a clear determination to be made.

Vermeule poses the question: how can a court decide when reasons run out and it is rational to be arbitrary? He proposes, as one criterion, what he calls ‘mirror-image reversibility’ in order to judge when that case has arisen. If there are two possible outcomes, A and B in the exercise of a statutory power and an agency decision either way could be characterised as arbitrary then one can say first-order reasons have run out. In such a case, he argues the court should accept that the agency had to make one of two arbitrary decisions and the court should defer to its choice — there being no other basis for attacking it. In such a case, on Vermeule’s argument, although he does not say so, the decision could have been determined by a throw of the dice.³⁹

Risk assessment may inform a rational and rationally applied precautionary principle in some areas where risk can be assessed. But there is a difference between risk and uncertainty. Absent risk there may just be uncertainty. As Vermeule puts it ‘in decisionmaking under genuine uncertainty agencies operate at the frontiers of reason’.⁴⁰ In some cases there may be risk on both sides of the decision-making ledger.

A homely example of a decision-maker’s response to unresolvable uncertainty is the challenge sometimes faced by the Commissioner of Taxation or his officers in making default assessments of a taxpayer’s assessable income, absent any reliable information about finances. In *Trautwein v Federal Commissioner of Taxation*,⁴¹ the Court spoke of the nature of decision-making by the Commissioner in such cases. Latham CJ said:

In the absence of some record in the mind or in the books of the taxpayer, it would often be quite impossible to make a correct assessment. The assessment would necessarily be a guess to some extent, and almost certainly inaccurate in fact. There is every reason to assume that the legislature did not intend to confer upon a potential taxpayer the valuable privilege of disqualifying himself in that capacity by the simple and relatively unskilled method of losing either his memory or his books.⁴²

³⁹ Ibid 9.

⁴⁰ Ibid 13.

⁴¹ (1936) 56 CLR 63.

⁴² Ibid 87.

A ‘guess’ has more of the random in it than an estimate. It may involve the selection of a figure from a plausible range but there is an inescapable element of the arbitrary in the decision-making process. Many years after *Trautwein* in *Briggs v Deputy Federal Commissioner of Taxation (WA)*,⁴³ Sheppard J, after quoting from the judgment of Latham CJ, said:

It may be true ... that sec 167 is not the gateway to fantasy and that it is not open to the Commissioner either to pluck a figure out of the air or to make an uninformed guess. But that the process may go close to guesswork, and yet be lawful, is established by what Latham CJ said in the passage quoted from his judgment in *Trautwein*.⁴⁴

Is a throw of the dice in cases of unresolvable uncertainty an acceptable surrogate for a guess by the umpire.⁴⁵ The position of the Supreme Court of the United States in that respect is not encouraging. Justice Kagan, writing for the Court in 2011 in an immigration case, *Judulang v Holder*, said:

if the [Board of Immigration Appeals] proposed to narrow the class of deportable aliens eligible to seek [legal] relief by flipping a coin — heads an alien may apply for relief, tails he may not — we would reverse the policy in an instant. That is because agency action must be based on non-arbitrary, ‘relevant factors’ ...⁴⁶

The last quoted proposition does not work for all forms of decision-making. Cases may arise in which a decision-maker has to allocate a limited number of licenses to one of a number of equally deserving applicants or otherwise choose between competing interests with equally valid claims. Allocation by ballot, while arbitrary in one sense, reflects the choice of the ballot outcome as a relevant, indeed determinative, factor. There are examples of statutory provisions providing for decision by ballot. The *Mining Act 1978 (WA)* provides, in s 105A, for the mining warden to determine, by use of a ballot, which of a number of applicants equal in time should be granted a tenement. The provision was

⁴³ 87 ATC 4278.

⁴⁴ Ibid 4293-4.

⁴⁵ A term adopted by Vermeule, above n 34, 7, 7, from the dissent of Judge Noonan in *Tucson Herpetological Society v Salazar*, 566 F 3d 870, 833.

⁴⁶ 132 S Ct 476 (2011).

discussed by the High Court in *Hot Holdings Pty Ltd v Creasy*⁴⁷ on the question whether the warden's decision to hold a ballot was available to certiorari. The answer to that question was 'yes'. There are other examples in the statute books. If those statutes and the preceding discussion establish anything it is that random processes are not inconsistent in certain cases with lawful decision-making.

In a book entitled *Random Justice*, Professor Neil Duxbury at the London School of Economics undertook an extended consideration of the use of randomisation for social decision-making purposes. The primary thesis which emerged from the book is that there is an aversion to decision-making by lot —an aversion which is indicative of a distinct attraction, possibly even an addiction, to reason. Even where resort to lot will produce decisions that are impartial and cost effective when compared with the time and cost of reasoning a way to a decision, there rarely exists any inclination to decide by resort to sortition.⁴⁸ The process of legal decision-making is generally considered to be more important he suggests than the quality of the decisions. His explanation for the preference for reason over impartial lots is expressed thus:

what we seek, particularly in legal decision-making, is not right answers but attributable answers—answers for which somebody can be held responsible or accountable. More than this, we commonly want legal answers which are serious as well as attributable ...⁴⁹

That is perhaps the general answer to the question about the use of dice or their equivalent in administrative decision-making — always acknowledging that there may be non-logical elements, even random processes, affecting the reasoning and choices of the decision-maker. It is only human nature to want to have somebody to praise or blame for a decision. It is hard to do that when the decision turns on the roll of the dice.

⁴⁷ (1996) 185 CLR 149.

⁴⁸ Neil Duxbury, *Random Justice* (Oxford University Press, 1999) 14.

⁴⁹ *Ibid.*