Precedent and Paradigm: Thomas Kuhn on Science and the Common Law

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Abstract[*]

In *The Structure of Scientific Revolutions,* Thomas Kuhn uses an analogy with the common law to help explain the nature of scientific progress. He says, 'In science…a paradigm is rarely an object for replication. Instead, like an accepted judicial decision in the common law, it is an object for further articulation and specification under new or more stringent conditions.' This chapter argues that this analogy is helpful for three reasons. First, it offers a useful – although non-exhaustive – definition of precedent. Second, Kuhn's account helps to explain when and why precedents must be overturned. This is not because precedents are 'mistaken' exactly, but rather because, as in science, 'malfunctions' arise in the process of solving legal problems. Kuhn's theory explains the two types of change which are necessary for the common law to progress: cumulative and paradigmatic. Third and finally, Kuhn's analogy shows that, while progress in the law is not linear, this complexity is to the law's advantage. Sometimes it is necessary, and even helpful, for the common law to move backward to move forward.

Keywords.

Precedent, Paradigm, Thomas Kuhn, Philosophy of Science

1. Introduction

In the *Structure of Scientific Revolutions* (*The Structure*), Thomas Kuhn uses an analogy with the common law to help explain the nature of scientific progress. He says that:

> In science…a paradigm is rarely an object for replication. Instead, like an accepted judicial decision in the common law, it is an object for further articulation and specification under new or more stringent conditions.[1]

While Kuhn employs this analogy to explain the nature of science, this paper argues that the analogy helps understand the philosophical foundations of precedent as well. This is for three reasons. First, in this passage, Kuhn offers a serviceable – although non-exhaustive – definition of precedent as, *inter alia*, 'an object for further articulation and specification under new or more stringent conditions.' Such a definition is helpful because it helps clarify what is at stake in the project of judicial interpretation. Second, his account helps to explain when and why precedents must be overturned. This is not because precedents are 'mistaken' exactly, but rather because, as in science, 'malfunctions' arise in the process of solving legal problems. Kuhn's theory explains the two types of change which are necessary for the common law to progress:

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[1] Thomas Kuhn, *The Structure of Scientific Revolutions* (50th Anniversary Edition, University of Chicago Press 2012) 23

cumulative and paradigmatic. Third and finally, Kuhn's analogy shows that, while progress in the law is not linear, this complexity is to the law's advantage. Sometimes it is necessary, and even helpful, for the common law to move backward to move forward.

This paper has five parts. The first explains both Kuhn's account of science and the analogy he draws with common law. The second traces the way in which Kuhn's analogy does, and does not, not translate to the law. The focus of the paper then moves on to the value of Kuhn's analogy for understanding the philosophical foundations of precedent. The third part of the paper argues why the definition Kuhn offers – a precedent as an object for further articulation and specification under new or more stringent conditions – is both accurate and helpful. The fourth shows that Kuhn's use of the term 'malfunction' articulates when and why precedents must sometimes be overturned. Both cumulative and paradigmatic change are necessary for the common law to progress. The fifth explains why Kuhn is correct that theories of paradigms are principally theories of agreement.

2. Kuhn on Scientific Progress

It is perhaps surprising that Kuhn begins his analysis of progress in science by drawing a parallel with the common law. *The Structure* is a work in the history and philosophy of science. The master thesis of Kuhn's book is that one kind of science –normal science – involves the gradual accumulation of knowledge within a fixed paradigm.[2] These periods of normal science are interrupted by revolutionary science, which is the result of new paradigms.[3] Examples of these paradigm shifts include the move from Aristotle's analysis of motion[4] to classical mechanics (and then later from classical mechanics to a relativistic view of space, time and motion), steady-state theory to Big Bang cosmology,[5] miasma theory to germ theory, and phlogiston theory to Lavoisier's application of chemical balance.[6]

The parallel Kuhn draws between the common law and normal science is that normal science operates by accumulation within a fixed paradigm. A paradigm offers the prospect of success and is then applied to a series of questions and problems through normal science. In this way, Kuhn argues that a scientific paradigm acts like a precedent or 'accepted judicial decision.' In drawing this parallel, Kuhn argues that a paradigm gets off the ground because of its potential for success. Almost all science is the 'normal science' of experimenting and observing within the broad set of assumptions of the assumed paradigm. 'Inevitably, however, paradigms have their limits. Normal science leads to experimental results which are not explicable in the current paradigm'.[7] Eventually, a tipping point is reached where a paradigm fails to solve problems in sufficiently many situations that a new paradigm competes. This new paradigm becomes the dominant paradigm if it is consistently able to produce better results in a broader range of contexts than the previous paradigm. Kuhn draws a connection here with political revolutions arguing that in both political and scientific revolutions, there is a 'growing

[2] Ibid, Chapter III, Normal Science.
[3] Ibid, Chapter VII, Crisis and the Emergence of Scientific Theories.
[4] Ibid, 121-125.
[5] Warner Marx and Lutz Bornmann, 'How Accurately Does Thomas Kuhn's Model of Paradigm Change Describe the Transition from the Static View of the Universe to the Big Bang Theory in Cosmology?' (2010) 84 Scientometrics 441, 441
[6] Kuhn (n 1) 54-57
[7] '…A novel theory emerged only after a pronounced failure in the normal problem-solving activity.' Ibid, 75

sense…that an existing paradigm has ceased to function adequately in the exploration of an aspect of nature to which that paradigm itself had previously led the way'.[8] Kuhn says this 'malfunction' is a prerequisite to a revolution in both these scientific and political cases.[9] While the analogy Kuhn draws between science and law is imperfect, it is nevertheless helpful. The next section will explain how Kuhn's analogy translates, and does not translate, to the common law.

3. Precedent as Paradigm

What is a paradigm in a legal context? In explaining the nature of science, Kuhn uses the idea of paradigm in a range of different ways.[10] He says it can be a framework or mindset.[11] It may also be a way of 'solving puzzles.'[12] These multiple uses of the word paradigm are a familiar criticism of Kuhn's account but, in drawing the parallel with law, the flexibility of the idea of a paradigm is advantageous. A legal paradigm may take different forms but at root, as in science, a legal paradigm is a method or test for solving a legal problem. This method can be an approach or philosophy, as in the case of textualism[13] or common law constitutionalism.[14] A paradigm may also be a legal doctrine if the doctrine, such as *Wednesbury* unreasonableness[15] or the tort of negligence,[16] is also a method or test for solving legal problems. Further, they are methods which adopt a particular philosophy or approach. They are not neutral, they are driven by a hypothesis about how a legal problem should be solved. Now, Kuhn's analogy does not hold perfectly because, on Kuhn's account, all precedents are

[8] Ibid, 92
[9] Ibid, 93
[10] Indeed, it is a familiar critique of Kuhn's theory that he uses the idea of 'paradigm' in a wide range of ways. Margaret Masterman, 'The Nature of a Paradigm' in I Lakatos and A Musgrave (eds) *Criticism and the Growth of Knowledge* (CUP 1970) 59
[11] Kuhn (n 1) 85.
[12] Ibid, 52
[13] '…Textualism does not admit of a simple definition, but in practise is associated with the basic proposition that judges must seek and abide by the public meaning of the enacted text.' John F Manning, 'Textualism and Legislative Intent' (2005) 91 Virginia Law Review 419, 420
[14] Common law constitutionalism is a theory of public law which has achieved prominence in the United Kingdom. There are different versions, but the core idea is that constitutional courts are guardians of fundamental democratic values such as the rule of law. For a helpful account of the theory please see Thomas Poole, 'Back to the Future? Unearthing the Theory of Common Law Constitutionalism' (2003) 23 OJLS 435, 440. Indeed, Kuhn's account of paradigms also helps explain the work that these two theories of law are doing. It articulates that these are methods or tools for solving particular legal problems.
[15] [1948] 1 KB 223 Lord Greene [234]: '…It may be still possible to say that, although the local authority have kept within the four corners of the matter which they ought to consider, they have nevertheless come to a conclusion so unreasonable that no reasonable authority could ever have come to it. In such a case, again, I think the court can interfere.'
[16] *Donoghue v Stevenson.* [1932] UKHL 100. Lord Atkin: 'You must take reasonable care to avoid acts or omissions which you can reasonably foresee would be likely to injure your neighbour. Who, then, in law, is my neighbour? The answer seems to be – persons who are so closely and directly affected by my act that I ought reasonably to have them in contemplation as being so affected when I am directing my mind to the acts or omissions which are called in question.'

paradigms.[17] This cannot be correct. Precedents and paradigms are not synonymous. In law, not all precedents are paradigms and not all paradigms are precedents. Not all paradigms are precedents because a way of solving a legal problem may not have been adopted, or adopted yet, in a particular jurisdiction. Originalism is a paradigm of constitutional interpretation, for instance, but it is not a precedent in Canada. Additionally, not all precedents are paradigms. An accepted judicial decision is not necessarily a method or test for solving a legal problem. An accepted judicial decision may instead be the equivalent of an experiment in science: one instance of the application of a paradigm to a particular case. Any precedent may, however, become a paradigm over time, depending on how it is used in the common law. A precedent may well become a method for solving a legal problem if the issues raised by a particular case raise issues that arise more generally.

To help clarify the way in which process in science sometimes traces progress in law, the following table compares the two domains. The table demonstrates both the cumulative process which occurs through ordinary science and judicial decisions, and well as the – necessarily – disruptive process which sometimes occurs through overturning precedents too.

	Science	**Law**
Normal Phase	Classical mechanics; using Newton's equations to calculate motion of planets etc.	Uncontroversial judgements based on previous precedents, e.g. application of Lord Atkin's 'neighbour principle' from *Donoghue v Stevenson.*
Extraordinary Anomalies or Malfunctions	Lack of Galilean invariance of Maxwell's equations, orbit of Mercury.	Cases arise giving contradictory, unsound, or unjust outcomes, e.g. the test in *Anns v Merton*[18] for establishing the existence of a duty of care in the tort of negligence in the United Kingdom.
Adoption of Paradigm	Special and General Relativity seem to explain a number of observational anomalies (e.g. orbit of	A higher court employs a new test, legal doctrine, or approach as a method for solving a legal problem, e.g.

[17] This must be what Kuhn means because he draws an equivalence in the original analogy: 'In science…a paradigm is rarely an object for replication. Instead, like an accepted judicial decision in the common law, *it is* an object for further articulation and specification under new or more stringent conditions.' Kuhn (n 2). 23 (emphasis added)
[18] [1977] AC 728.

	Mercury) well, in addition to satisfying a range of desirable theoretical properties, and achieve broad acceptance.	overturning the *Anns* test in *Murphy v Brentwood.*[19]
New Normal	Using equations of General Relativity to solve problems of motion on a day-to day basis, and it is well understood when Newtonian approximation is appropriate	Judgments applying the new three stage test which includes proximity, rather than the two-stage test of *Anns.* Although the meaning of proximity is itself a source of ongoing debate.

Tracing these parallels between progress and science and in the common law does not mean that Kuhn was correct in all respects. Kuhn himself made material revisions to his account.[20] This paper is also not the first to pick up on this parallel Kuhn draws between science and law. The analogy Kuhn makes has been applied to debates both about positivism[21] and critical legal theory.[22] The scope of this paper is narrow. The focus here is only on the value of the analogy Kuhn draws between science and the common law for the philosophical foundations of precedent. Consider now three reasons why Kuhn's analogy is helpful for understanding progress and precedent in the common law.

4. Kuhn's Definition of Precedent

In drawing his analogy between precedent and paradigm Kuhn provides a serviceable – although non-exhaustive – definition of precedent. Kuhn's definition has three parts. He says that a precedent is (i) an object, (ii) for further articulation and specification, (iii) under new or more stringent conditions. Consider each part of this definition in turn.

A. Precedents as Objects for Further Articulation

A precedent is an object. That is not to say precedent is just an object, but it is an object insofar as it is an artifact. That a precedent is an object, or artifact, comes from the written nature of the common law. The common law is a textual type of reasoning. Accepted judicial statements necessarily take the form of written reasons. This form and publicity are essential for the efficacy of the common law, for precedents to be applied and applied again. This textual nature of precedents holds even for different kinds of precedents. Even if, for instance, a precedent is drawing on an academic account –for example Dicey's definition of parliamentary sovereignty – Dicey's definition too is an artifact. What matters here is that precedents can be different

[19] [1991] 1 AC 398.
[20] Particularly his 1969 postscript to *The Structure*.
[21] N Sidorova, A Zeldner and V Osipov, 'The Paradigm of Law (In Honor of Thomas Kuhn)' (2020) International Scientific Conference 626, 632
[22] John Henry Schlegel, 'Of Duncan, Peter, and Thomas Kuhn' (2000) 22 Cardozo Law Review 1061, 1062

types of objects but, given the textual nature of the common law, Kuhn's first insight is correct: they are objects.

The second part of Kuhn's first claim is that precedents are objects for 'further articulation.' This is helpful because the word 'further' draws out that the meaning of precedent is a dynamic process. Precedents have some meaning before they are applied, but this meaning is both backwards and forward looking. The dual directions of precedent are helpfully captured by Kuhn's use of the word 'further.' The meaning of the *Case of Proclamations*,[23] for example, both shapes and is shaped by its application in the cases of *Miller I*[24] and *Cherry/Miller II.*[25] Just as with scientific experimentation in normal science, every time a paradigmatic precedent is applied it achieves greater meaning in and through its application. A paradigm is not a paradigm if no one is using it. Kuhn is right to say that process of articulation, in both science and law, is both ongoing and iterative.

B. Precedent as Specification

Precedents are particular. This is the second part of Kuhn's definition of precedent: a precedent is an object for specification. This idea of specification, on the Kuhnian account, is analogous to experimentation. This idea of specification is helpful because it captures the particularity of precedents in the common law. The paradigm of the *Case of Proclamations* may be applied in a range of different circumstances, as seen above in the two *Miller* cases, but this application occurs in a way that is sensitive to sets of facts. Further, there is no single precedent governing constitutional interpretation, the tort of negligence, or the limits of prerogative powers. The question of application is one of specification: is this precedent applicable in these particular and specific circumstances? This process of specification is not identical to normal science, but it does have many of the same features. Most notably, specification is cumulative in that builds on what has come before. Case law is a series of precedents which are followed and refined over time. This leads to the final part of Kuhn's definition.

C. More Stringent Conditions

As common law systems evolve, the conditions under which precedents are applied become more and more demanding. The range and types of considerations change, and the number of objects that may (or indeed must) be drawn on by judges in their reasoning become more and more diverse. In this way, the conditions under which judges are using precedents as objects for further articulation and specification become more complex. This is true in normal science as well. As the volume and scope of experiments within paradigms each increase, the conditions under which paradigms are tested become more and more demanding. Sometimes this process of normal science can continue indefinitely, but sometimes the progress that can be achieved within a paradigm reaches its limit. This is when paradigms must be overturned for progress to occur. Kuhn is right that sometimes this kind of disruption is necessary for progress in science, and the next section argues that this is true in law as well. Sometimes, the applications of precedent under increasingly stringent conditions lead to unacceptable outcomes. The law has

[23] [1610] EWHC KB J22: 'The King has no prerogative but that which the law of the land allows him.'

[24] [2017] 2 WLR 583- The Secretary of State did not have the power under the prerogative to give notice under Article 50 of the Treaty on European Union that the United Kingdom would withdraw from the European Union.

[25] [2019] 3 WLR 589. Prorogation was an unlawful use of the prerogative because it had the effect of frustrating, without reasonable justification, the ability of Parliament to carry out its dual constitutional roles of legislating and scrutinising the executive.

malfunctioned and there is a need to move backward and revisit the paradigm or method for solving the legal problem, to move forward.

5. Mistakes and Malfunctions

The question of when a precedent must be overturned is a challenge for the law. By definition, a precedent is an authoritative determination of the law by a court. How then can a decision be overturned on the basis that it is 'mistaken?' Kuhn's idea of paradigms can help to make sense of this kind of challenge. This is because, on Kuhn's account, precedents are not overturned because they are 'mistakes', but rather because they are 'malfunctions' of the current paradigm. Kuhn's idea of malfunction better captures the nature of progress in science and the common law than the idea of a mistake. Consider first an instance of a paradigm shift, the overturning of the test in *Anns v Merton* for establishing a duty of care in the tort of negligence, and then a potential paradigm shift in the move from *Wednesbury* to proportionality in determining whether a public authority has acted unlawfully. Both of these cases demonstrate why this idea of a malfunction is so helpful.

Returning to the table from section two, and to the overturning of the test *Anns v Merton* for establishing a duty of care in the tort of negligence. In *Murphy v Brentwood*, the House of Lords concluded that the *Anns* test was too broad to perform the necessary legal work, and so the House of Lords shifted from a two-stage test to a three-stage test.[26] The third stage of the new test added a requirement of 'proximity'. While there were clearly challenges in applying the *Anns* test before it was overturned, it is misleading to characterise the *Anns* test as 'mistaken'.[27] *Anns* was cited in '189 English cases in only 13 years (and until recently mostly with approval.)'[28] That is to say: the test in *Anns* was doing a great deal of legal work, it was being applied a great deal. The question was: was this legal work itself working? This was a paradigmatic change in the tort of negligence and an instance where 'something extraordinary happened'.[29] The House of Lord unanimously concluded that a new test was necessary. It is important too that the new paradigm, including the test of proximity, is also an imperfect and contested solution. It is possible, perhaps even likely, that this paradigm will be overturned in the future. Doubtless the replacement and modification of tests creates legal challenges, but it is neither surprising nor problematic that the law goes through paradigmatic upheaval to find better solutions to the sticky legal problem of establishing a duty of care in negligence.

A second example of competing paradigms that demonstrates the helpfulness of Kuhn's idea of malfunctions is the debate in UK administrative law about whether *Wednesbury* unreasonableness should be supplanted with the alternative doctrine of proportionality. There are numerous and longstanding challenges to *Wednesbury* unreasonableness. These challenges include, for instance, that it is tautological, unclear, or an inappropriate standard of review.[30]

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[26] 'In my opinions there can be no doubt that *Anns* has for long been widely recognised as an unsatisfactory decision. In relation to the scope of the duty owed by a local authority it proceeded upon what must, with due respect to its source, be regarded as a somewhat superficial examination of principle and there has been extreme difficulty…in ascertaining upon exactly what basis of principle it did proceed. I think it must now be recognized that it did not proceed on basis of principle at all, but constituted a remarkable example of judicial legislation. [1991] 1 AC 398. Lord Keith [15-16]

[27] Howarth uses the word 'unsound', for instance, in David Howarth, 'Negligence After Murphy: Time to Rethink' (1991) 50 Cambridge Law Journal 58. 58

[28] Id.

[29] Id. Extraordinary, as Howarth says too, in that the decision was 7-0

[30] 'The general criticisms of unreasonableness as a basis of review are well-known and often repeated: it is a circular definition; it is an uncertain guide as to the extent of the "margin of discretion" to be permitted to a public

Despite these serious challenges to the helpfulness of the doctrine, the challenges are not that *Wednesbury* must be overturned because it is *mistaken.* The debate is instead about, for instance, whether it is the most effective means available of solving a legal problem. Perhaps because it treats certain kinds of public wrongs differently without sufficient justification.[31] A legal test can cease to be the right test without being a test that is straightforwardly wrong. So it is not that *Wednesbury* should be displaced by proportionality because the doctrine itself is incorrect, but rather because the tool is not doing the legal work required. The test in *Anns* was not wrong, it was just overinclusive and so the House of Lords (attempted) to rein it in through adding a requirement of proximity to the test for establishing a duty of care in negligence. Again, in this way, paradigmatic change in the law broadly reflects paradigmatic change in science. At a certain point, the limits of a hypothesis are reached. The results a paradigm yields are unacceptable and so it is necessary to modify the fundamental approach to solving problems.

Similarly, it is not that Newtonian Gravity is 'wrong' or that astronomers had incorrectly calculated its predictions in the case of the orbit of Mercury, it is simply that it wasn't appreciated that Newtonian Gravity becomes inaccurate for higher gravitational fields, and was not appropriate for the orbit of Mercury (for the degree of precision to which it had been measured). Newtonian Gravity is now understood as an approximation of General Relativity, that holds to an extraordinary degree of accuracy under a well understood specific range of conditions (namely weak and slowly changing gravitational field strengths, and low velocities). However Newtonian Gravity is still extremely widely used, in circumstances for which it is likely to be the most effective tool for the problem at hand (if it will be computationally easier, which would usually be the case, and the aforementioned physical conditions are met).

Comparing *Anns*, *Wednesbury*, and the relationship between special and general relativity are helpful too because malfunctions should not be disregarded altogether. Even when paradigms are replaced, they still have value. The limits of the test remain instructive in understanding why the law is the way it is. Even if *Wednesbury* is replaced, the evolution of the law will itself be instructive for evaluating the lawfulness of actions by public authorities. In this way, a paradigm that has been replaced still has epistemic value. Similarly, even though General Relativity is generally understood theoretically to encompass and replace Newtonian Gravity, as mentioned before Newtonian gravity remains in wide use where appropriate (which is in fact most situations). Newtonian Gravity also illustrates some aspects of gravity more intuitively perhaps than General Relativity (which is typically extremely hard to visualise), and is important pedagogically for a number of reasons (e.g. illustration of inverse square law). The point is this: in both science and in law, students are not only taught the current paradigm but previous paradigms too. This is for good reason. The common law, as argued above, is a textual mode of reasoning. In textual reasoning, the progress is part of the point. The progress helps to explain the current paradigm. The value of Kuhn's account is in showing why legal paradigms sometimes need to be overturned. Kuhn usefully shifts the debate about the question of whether a legal doctrine, test, or method is mistaken, to asking instead whether the law is malfunctioning. The idea of malfunctions speaks to the larger value of Kuhn's theory:

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authority in any given situation or (the flip side of the coin) the intensity of review to be conducted by the court; it is a cloak which may tempt lawyers and courts to deal with the merits of grievances rather than questions of legality. These conceptual weaknesses have led to proposals for the common law to recognise a number of *substantive* principles in place of unreasonableness (e.g., equality) or for the replacement of the reasonableness test with one of proportionality.' Andrew Le Sueur, 'The Rise and Ruin of Unreasonableness' (2005) 10 Judicial Review 32. 32

[31] Paul Craig, 'Proportionality, Rationality and Review' (2010) NZ L Rev 265, 276

demonstrating that sometimes it is necessary for both science and law to move backward to move forward.

The power of Kuhn's theory of paradigms is not only in offering a serviceable definition of precedent, and the helpful idea of malfunctions, but in demarcating the two kinds of change that are necessary for both progress in science and law: cumulative change and paradigmatic change. Progress in law and science both happen gradually, all at once, and sometimes require revisiting fundamentals. This dual method of progression is not straightforward, but the resilience of both the scientific method and the common law demonstrates its advantages. Cumulative change is necessary for progress both in science and in the common law. This is the process of further articulation and specification under more stringent conditions. This kind of progress is necessary for both practical and theoretical reasons. It is necessary practically as a matter of application. Statutes cannot anticipate all possible eventualities, there is a need for responsiveness to circumstances, which the common law allows in increments. It is also philosophically necessary to consider different kinds of questions on their own terms. There is, however, also a need for paradigmatic change too when fundamental approaches must be revisited. This process is risky. Paradigmatic change, and the overturning of precedents, is more difficult to justify, because the consequences – as the next section shows– can be severe. Normal science from previous paradigms may be superfluous or create conceptional confusion. A change in legal paradigms, on the other hand, may result in arbitrariness or retrospectivity. None of this is to trivialize that disruption. Nevertheless, as cases like *Anns* demonstrate, sometimes legal conclusions are untenable. Sometimes cases can be distinguished away, but sometimes it is necessary to revisit the foundations of an approach. Kuhn's theory is valuable is in helping to explain why and when this kind of paradigmatic change is necessary.

6. The Risks and Rewards of Upheaval

Much is at stake in overturning legal precedents that are paradigms. There is the potential for unfairness in the form of arbitrariness and retrospectivity. The rule of law, of course, requires that the law must be clear, intelligible, and constant. The overturning of precedent can of course throw this all into doubt. Nevertheless, not overturning precedents can raise challenges too. The law may be overinclusive, creating floodgates problems, as in *Anns.* The role of the state may have evolved as is arguably the case with *Wednesbury.* Third and finally, the law may be morally or socially out of step with society. So, on the one hand is the need for evolution on the other is the certainty that citizens place on law that is essential to its legitimacy. When does the case for evolution outweigh the need for reliance? That is not a question that can be answered in general, but Kuhn's theory of paradigms is nevertheless helpful. When weighing up these possibilities, Kuhn helps clarify what is at stake in three ways. This clarification helps to lead to better legal outcomes, and a stronger legal system overall. The first way that Kuhn's theory helps balance evolution and certainty is this: the idea of paradigm shifts moves the debate about overturning a precedent away from the *content* of the law towards the *form* of the law. The debate then becomes less about whether the law in question is just or unjust, which is particularly difficult under circumstances of reasonable disagreement, and moves the debate instead towards the legal work that a paradigm is doing. This entails less consideration about the content of the paradigm and more about whether it is succeeding in achieving its intended effect. So, in the case of *Wednesbury*, for instance, it means less debate about whether the test itself is circular or tautological, and instead asking whether the *results* are circular or tautological.

The second way in which Kuhn's theory is helpful is in stressing the necessity of agreement in both science and the common law. Kuhn's theory is, at root, a theory of agreement, and again this emphasis on agreement helps shift debates about the content of law towards the form of the law. The question at stake in cases of deep disagreement is: what legal test or tool can be agreed on and applied? This softens the edges of overturning well-established precedents if the focus is on where judges do agree. If the foundation of new legal tests is alternative areas of agreement, then the foundation on which future precedents agree will be stronger.

These two benefits of Kuhn's theory –the move from form to content and placing emphasis on the importance of agreement– may be seen in the pending US Supreme Court case of *Dobbs v Jackson Women's Health Organization*. This section will briefly introduce the arguments in the case which concern the nature of precedent, before arguing the two ways in which Kuhn's theory is helpful for making sense of those arguments.

A. *Dobbs v Jackson Women's Health Organization*

Dobbs v Jackson Women's Health Organization asks whether the paradigmatic case of *Roe v Wade* should be overturned. In his opening remarks in the case, the Solicitor General of the State of Mississippi argued that *Roe v Wade* was straightforwardly incorrect. Abortion, he argued, was a political issue which was best left to democratic lawmakers rather than unelected judges. The case should be overturned, he says, because it was mistaken and has undermined the law and the constitution.[32] The Solicitor General never questioned that *Roe* and *Casey* were good law in the sense of being precedents, he argued instead that they were bad law altogether. By contrast, the Solicitor General of the Government of the United States argued for the importance of upholding precedent. She said that the reliance interests of women would be undermined by overturning 50 years of precedent, particularly a precedent of such significance.[33] At the root of the debate in Dobbs is a disagreement about the justness of abortion. Oral arguments from the state of Mississippi argued that sometimes precedents must be overturned because the law was straightforwardly unjust, as in *Brown, Griswold, Lawrence, Obergefell,*[34] and that *Roe* and *Casey* are such cases as well. In response to questioning from Justice Kavangh, Jackson Women's Health argued that *Roe* did not belong in this category, and further that *Brown, Griswold, Lawrence, Obergefell* did not overturn precedents to extinguish, but rather to expand, constitutional rights.[35] Kuhn's theory of course offers no help on the substance of the justness questions at stake in *Dobbs*. What it does do, however, is helpfully frame the question of what legal paradigms can and cannot accomplish.

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[32] '*Roe v Wade* and *Planned Parenthood v Casey* haunt our country. They have no basis in our constitution. They have no home in our history or traditions. They have damaged the democratic process. They have poisoned the law. They have choked off compromise. For 50 years they have kept this court at the center of a political battle that it can never resolve. And, 50 years on, they stand alone. Nowhere else does this Court recognize the right to end human life.' *Dobbs v Jackson Women's Health Organisation* Supreme Court of the United States 19-1392. 4, 11-21

[33] '…There has been profound reliance. And it's certainly not the case that every woman in the United States has needed to exercise this right or wanted to, but…the right secured by *Roe* and *Casey* has been critical in ensuring they can control their bodies and control their lives. And then I think there's a second dimension to it that *Casey* properly recognised. That's the – understanding of our society, even though it's been a controversial decision, that this is the liberty interest of women.' Ibid, 96-97

[34] Ibid, 25, 27, 36.

[35] 'The Court has never revoked a right that is so fundamental to so many Americans and so central to their ability to participate fully and equally in society. The Court should not overrule this component of women's liberty,' Ibid, 85

A. The Form and the Content of the Law

On Kuhn's view, the proof of legal paradigms is in the pudding. The success of legal paradigms is determined by the work they are doing. Paradigms can be more or less successful in solving legal paradigms. These paradigms have skin in the game. If they are not working, solving the problems they need to solve in a defensible way then they need to be overturned. The better questions in *Dobbs* focused on the test at stake itself and the defensibility of the viability test for human life. Of course, larger questions about justice which concerned the petitioners, and the respondents as well, shape questions about legal tests. Further, a salient question for a legal test, law or paradigm is also whether its outcomes align with prevailing social views. Nevertheless, to frame a question as the state of Mississippi did as a straightforward question of justness is less helpful. Under conditions of reasonable pluralism there will be deep disagreement about justice. Adopting Kuhn's theory of precedent helpfully moves the debate about overturning a precedent away from the question of whether it is straightforwardly a good or bad law to the question of whether it is doing the work that law and society need it to do. The question of whether a legal paradigm is producing good results is a question that judges are far-better equipped to answer than the question of whether a law is substantively just or unjust.

To emphasise again: none of this is to suggest that the justness of a contested social issue cannot, and should not, ever be at issue in a case like *Dobbs.* The point is instead this: when the matter of overturning a precedent is at stake, questions of *form* should motivate questions of *content.* The question for judges is whether a legal paradigm is working and performing the role it needs to. Whether the cumulative process of legal evolution can continue within the existing paradigm. The question is not whether the paradigm is good or bad. In science, for instance, the question is not whether a paradigm is a good or bad idea. The question is whether it is breaking down through the process of normal science and experimentation. It is leading to unacceptable, contradictory, or arbitrary results. Similarly, the justness of the law is a question which is better cast in terms of the work the law needs to do. In the case of *Dobbs*, this would have been accomplished, for instance, by focusing instead on the tenability of the viability test for life at 21 weeks established by *Roe* and upheld in *Casey* and particularly its application in the law over the past 50 years. Arguing that a precedent should be overturned because the petitioners disagreed with it is incredibly unhelpful. The focus should be instead on areas of agreement about the functions of law, as Kuhn's theory also demonstrates.

B. Agreement, Precedent and Paradigm

Kuhn's theory of science is he says, at root, a theory of agreement. While there need not be deep rationalisable agreement on the theory behind the science, there must be agreement on the paradigm itself.[36] Without this agreement, the normal science of experimentation cannot get off the ground. As in science, the law is composed of all kinds of agreement. Without these agreements, there would be no possibility of responding to different facts and solving problems. When that agreement breaks down, severe problems of legitimacy can arise in a scientific endeavor. The parallels between the importance of agreement in law and science are clear. A paradigm in law, as in science, cannot operate without agreement that is indeed the paradigm to be applied. Further, the common law cannot operate without agreement through precedent. Without the agreement that precedent provides, the common law could not fulfil its functions. If it were necessary for judges to reason from first principles in every case, it would be

[36] Kuhn (n 1) 48-49

impossible to apply the law to the facts. That precedents evolve and are even occasionally overturned is a clear demonstration of why they are necessary in the first place.

It is particularly important that Kuhn emphasizes that deep, rationalisable agreement is not required either in science or in law. What is required is the following: (i) agreement about what kind of exercise is being engaged in, and then (ii) agreement to participate in that exercise. With this kind of agreement in place, it is possible and defensible to overturn legal paradigms when they are failing to do the necessary legal work. That is because there is larger agreement in place – such as *stare decisis* – which hold despite occasional turbulence in overturning precedent. Further, Kuhn's emphasis on agreement rightly makes the case for incremental change, even when paradigmatic shifts in the law are occurring. Focusing on areas and the importance of agreement helps maintain the viability of the doctrine of precedent. Focus on where there is agreement creates the stability for precedents to occasionally be overturned in limited ways. Finally, emphasizing areas of agreement and application, rather than disagreement, supports the overall project and progress of the law.

7. Conclusion

In *The Structure,* Kuhn offers a theory of scientific progress. He offers a theory both the cumulative progress which occurs through normal science and the disruption that periodically occurs through paradigm shifts as well. Kuhn's insight about scientific paradigms, for which he is rightly famous, captures that a framework for solving a problem can be both accepted as workable at one point, but open to necessary revisions in the future. This paper has argued that Kuhn's analogy helps clarify the conceptual foundations of precedent for three reasons. Firstly, Kuhn offers a serviceable definition of precedent as 'an object for further articulation and specification under new or more stringent conditions.' Second, his account helps to explain when and why precedents must be overturned. As in science, paradigms must be revised because of 'malfunctions' in the process of solving legal problems. This process of paradigm revision shows the two types of change which are necessary for the common law to progress: cumulative and paradigmatic. Third and finally, Kuhn's account helps make sense of when the upheaval of a paradigm is justified. While neither process in science nor law are linear, this is to the advantage of both disciplines. While the parallel Kuhn draws between science and the common law may perhaps be *prima facie* surprising, this surprise is perhaps unwarranted. Science and the law are two of the most enduring and important vehicles of human progress. This is because of, not despite, periodic paradigmatic upheaval.