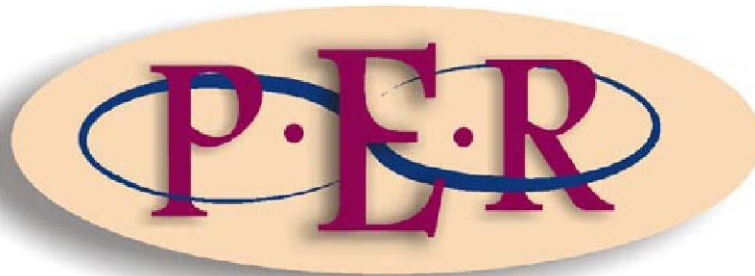


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LEGAL RESEARCH METHODOLOGY AND THE DREAM OF INTERDISCIPLINARITY

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1 Introduction

In law, as in other disciplines, there is an increased call for the advancement of interdisciplinary research. This call is informed by a general perception that academic disciplines tend to exist in "silos" and that this is in some way a bad thing. Therefore research across disciplinary boundaries will result in a more integrated scientific enterprise and this is regarded as a good thing. In particular, there are calls for researchers in academia to do research on education practices and pedagogy.¹ Law as a discipline has not escaped this general trend.² The rise (and mostly fall) of interdisciplinary attempts like law-and-economics, law-and-literature and law-and-sociology bear witness to this.³ In fact, at UNISA the advancement of multi-, inter- and transdisciplinary (MIT) research is regarded as a strategic objective in the College of Law.⁴ It is this direct factor, as well as the more general one already mentioned, that has provided the rationale for this article.

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¹ For example, Yale recently launched a PhD aimed specifically at legal pedagogy (see Yale 2012 <http://www.bit.ly/15J6m7Q>) and Thurgood Marshall School of Law has a Centre of Legal Pedagogy (see Thurgood Marshall School of Law 2011 <http://www.bit.ly/12MThHA>). Research into ODL (Open Distance Learning) is also a strategic objective in the College of Law at UNISA.

² See Balkin 1996 *Wash & Lee L Rev* 950: "Interdisciplinary scholarship is now an expected part of a serious scholar's work at most of the elite law schools in this country (the USA). Because these schools generally are looked up to as leaders of academic fashion and because they produce most of the new law professors, one would think that the future of interdisciplinary scholarship looks exceedingly bright. Indeed, I want to emphasize that at most elite schools today a bright young scholar who professed no interest whatsoever in interdisciplinary scholarship would find it very hard to get a job."

³ Some of these past attempts will be discussed in sections 5 and 6 below.

⁴ There are various references to UNISA in this article. These should be regarded as illustrations, but the assumption is that these kinds of programmes and objectives exist at most, if not all, universities.

Research methodology and the associated questions it raises are usually regarded as part of the philosophy of science. Most of the important and ground-breaking work in the philosophy of science has been undertaken by scholars in the natural sciences. Research methodology in the natural sciences has received a lot of attention from such luminaries as Bertrand Russell,⁵ Ludwig Wittgenstein,⁶ Karl Popper⁷ and Paul Feyerabend.⁸ (It is interesting to note that they were all mathematicians as well as philosophers of science.) Research methodology is also an enduring theme in the social sciences, beginning with Auguste Comte.⁹ The same cannot be said about the humanities. More specifically, the subject of legal research methodology is not one that is extensively covered in legal literature in South Africa.¹⁰ What there is, is either a debate about positivism in legal interpretation or is at best concerned with the nitty-gritty of research methods mostly focused on legal practice.¹¹ This is also the focus of research and skills modules in the LLB curriculum at most South African universities. These are therefore concerned with research *method* (which focuses on practical methods, sources and presentation) as opposed to research *methodology* which is part of the philosophy of science. Research methodology is the study of research methods and not an exposition of the methods themselves. It therefore examines the assumptions, hypotheses and meta-narratives that underlie research methods. It is with methodology rather than method that this article is concerned.

Methodology therefore asks the questions preceding the methods of science. It addresses questions such as what is the nature of science and what distinguishes science from other modes of knowledge? Is the nature of science fixed or is it different in the various kinds of sciences? This then leads to the interesting question of whether law is a science and, if so, what kind of science is it? And if we are to do interdisciplinary research, what do we mean by the term "discipline" and what kind of discipline is law? Once we have addressed all of these questions we can then try

⁵ See Russell *Human Knowledge*; Russell *Scientific Outlook*.

⁶ Wittgenstein *Remarks on the Foundations of Mathematics*.

⁷ Popper *Conjectures and Refutations*; Popper *Logic of Scientific Discovery*.

⁸ Feyerabend *Against Method*.

⁹ Andreski *Essential Comte*.

¹⁰ The exception to this generally true statement is Venter *et al Regsnavorsing*. Unfortunately this excellent book was never widely used because it wasn't available in English.

¹¹ See, for example, Marnewick "Preparation for Trial" 221-235.

to define what multi-, inter- and transdisciplinarity mean and decide whether it is possible to do this in law.

It must be reiterated that this is not about research methods. Methodology asks much more fundamental and difficult questions. To attempt to answer these questions, this paper is divided into five sections. The first part tries to determine what science is and whether law can be properly regarded as science. The second part looks at the division between the sciences to determine where law fits in. The focus then shifts to the nature of a discipline to determine what kind of discipline law is. The fourth section defines multi-, inter- and transdisciplinarity before moving to a conclusion about interdisciplinarity in law.

2 The Royal Society and the nature of science

The following story is included as part of the history of science and is intended to illustrate some of the abstract concepts throughout. On 13 April 1769 the young Joseph Banks arrived on the island of Haiti.¹² He was part of a group of well-to-do amateur scientists on an expedition led by the later famous Captain Cook to observe the transit of Venus. Banks himself was a self-taught astronomer with a keen interest in what was known at the time as naturalist studies, that is botany and zoology. With him went an extended group of astronomers, naturalists, artists and such. While in Haiti, Banks – in the fashion of his day – began collecting and recording specimens of plants and animals. In line with the meticulous methods of naturalist study, these were carefully observed, catalogued, preserved and reproduced. That is why it was necessary to take along artists. But Banks went further. He started to use the methods of naturalist studies to study the indigenous people and their culture. He found it considerably more difficult to remain as dispassionate as with the plants though and became embroiled in political and personal entanglements. But in the process he founded a new discipline – anthropology.

¹² The description of the Haiti expedition is based on Holmes *Age of Wonder* 1-59.

The expedition eventually returned to England, laden with information, specimens and drawings. This formed the basis for the establishment of both the Royal Society and Kew Gardens in London. The relevance of this story will hopefully become clearer later on, but for now the important aspect is the motto of the newly-formed Royal Society: *nullius in verba*. This can be roughly translated as "take nobody's word for it" or, if you prefer a more contemporary version: "where's your proof?" or "says who?"

This motto interestingly raises the first of many questions this article addresses, in this case: what is science?¹³ Why, for example, is astronomy a science, but astrology is not? The motto correctly identifies the core difference between science and non-science as the requirement of proof. Philosophers and scientists alike exhibit a remarkable degree of agreement on this question. The following three can be regarded as exemplary.

Kant's ideas on science are informed by both a rejection of metaphysics and an attempt to reconcile rationalism and empiricism. The second aspect will be dealt with later, but the first depends on his distinction between *phenomena* and *noumena*. *Phenomena* are things that can be observed and therefore known in a scientific way. These are the things we can know "the truth" about in some more-or-less absolute way. The *noumena*, on the other hand, are the things-in-themselves or the essences of things. These are things we cannot "know" in the scientific sense of the word since we cannot observe them.¹⁴ *Noumena* might be true and people might believe them to be true, but their truth cannot be established in a scientific manner. In this category Kant included God.

It is interesting that Lyotard echoes this division, albeit in the postmodern vernacular. For Lyotard all knowledge consists of discourse and he distinguishes

¹³ It should be readily apparent that it is not possible to deal with this question exhaustively in this paper due to space constraints. Readers who are interested in a more thorough discussion can start with two excellent introductions: Gorham *Philosophy of Science* and Okasha *Philosophy of Science*.

¹⁴ Kant *Prolegomena* 31.

between narrative and scientific discourse.¹⁵ Narrative discourse is where the truth of the statement is established by the mere telling of the story.¹⁶ It does not require external validation, because the narrative is self-validating. This corresponds to Kant's *noumenal* world and would include religious "stories". On the other hand, scientific discourse depends on a political narrative to legitimate it. Of course, Lyotard's point is that knowledge and truth are relative and dependent on outside (political) validation. In that he certainly does not support Kant's idea of absolute, objective truth. The link lies in the distinction between truth that needs no validation (*noumena/narrative* discourse) and truth that does need it (*phenomena/scientific* discourse).

Popper approaches the problem from a slightly different angle. He wants to know: when is a theory scientific and when not? Theories abound in society: the theory that we never landed on the moon; that freemasons run the world; that CO2 emissions cause global warming, and so forth. Which of these are worthy of scientific interest and enquiry? Obviously only scientifically valid theories can lead to scientific knowledge. Popper's view is that theories need not be proven to be *true* in order to be regarded as scientific. Instead they must be falsifiable.¹⁷ In other words only those theories that *can* be proved false are scientific.¹⁸ A belief that fairies live at the bottom of the garden or that unicorns have silver blood or that God exists are not scientific theories because they cannot be proved false. In this category also fall the theories which have already been proved wrong. They are regarded as contentless and therefore not scientific. In this regard pseudo-sciences like

¹⁵ Lyotard *Postmodern Condition* 31-37.

¹⁶ This is, for example, the case with most religious "stories," which do not require proof. The mere fact that the story is told is enough for believers.

¹⁷ This is the famous example of the theory that "all swans are white". It is impossible to observe all the swans in the world, therefore the theory cannot be proved true. However, the observation of one black swan would falsify the theory instantly.

¹⁸ Popper *Logic of Scientific Discovery* 57-73.

phrenology¹⁹ join the ranks of the belief in a flat earth²⁰ and man-made global warming.²¹

What all of these ideas have in common is the insight that for knowledge to be scientific it needs something more than other kinds of knowledge. That something more takes various forms, but it can generally be characterised as proof. Science demands that you have something to back up your claims about the truth or falseness of a statement. That is why Banks insisted on collecting specimens and documenting the natural phenomena with drawings and descriptions. Without that, the voyage would have been an adventure instead of a scientific expedition. It needed the external validation. This article therefore takes the idea of proof (in the Popperian sense of falsification) as its point of departure.²²

For law to be a science, it therefore needs at least for its theories and statements to be falsifiable. Legal research therefore can never be about reiterating known truths or merely summarising case law. It needs at least to attempt to falsify the oracles of legal truth, such as courts, legislatures and so forth. Law can only be a science to the extent that it meets these requirements. This basic point of departure is important for the later discussion on disciplines.

3 The many faces of science

The characteristic that distinguishes science from the rest is therefore the insistence on proof through the process of falsification. But what "counts" as proof differs considerably between the sciences. Traditionally, in the university context, a

¹⁹ On the other hand, Schlag argues that law is as much a pseudo-science as phrenology – see Schlag 1997 *Harvard LR* 877-921.

²⁰ Garwood *Flat Earth*.

²¹ See Lawson *Appeal to Reason*; Montford *Hockey Stick Illusion*; Ambler *Don't Sell Your Coat*; Sussman *Eco-tyranny*; Inhofe *Greatest Hoax*; Spencer *Great Global Warming Blunder*; Bell *Climate of Corruption*; Delingpole *Watermelons*.

²² The acceptance of the Popperian view is sometimes regarded as controversial in the humanities, but in the other sciences it is much less controversial. However, dealing with the debate surrounding this is beyond the scope of this article. Please see the introductions to philosophy of science in Gorham *Philosophy of Science* and Okasha *Philosophy of Science* for thorough discussions of this topic.

distinction is made between the natural sciences, the social sciences and the human sciences (or humanities). Various reasons have been offered for this division, from claiming it is merely traditional to distinctions based on the subject matter. These reasons are not convincing. The idea of dividing a university into faculties or schools is fairly recent and traditionally everything was regarded as "Arts",²³ so tradition cannot explain the division. The idea that the division is based on subject matter presupposes that natural sciences study nature, social sciences study society and humanities study humans. But that would make at least the distinction between social and human sciences problematic, as humans cannot be divorced from the society they live in. The differences are more fundamental and have to do with the methodologies of the various sciences. And those differences boil down to the difference between empiricism and rationalism.²⁴

Scientists have long been divided over the question of whether knowledge depends on empirical observation or on rational constructs. So it is worthwhile to spend some time examining these two methodologies. Empiricism rests on the assumption that objects of study must be observed empirically (that is by the senses) and from these observations we deduce general rules which provide the basis for predictions about future events.²⁵ Astronomers had observed the orbit of Venus for hundreds of years and could therefore comfortably predict that a transit would occur on 3rd June 1769 and would be observable from Haiti.²⁶

Rationalism, on the other hand, rests on the consideration of a problem (let's say what the basis of a society should be) and working out possible solutions rationally and logically. This might be necessary because, as Descartes would have it, our

²³ Collini *What Are Universities For?* 23-26.

²⁴ I do not use "rationalism" here in its general meaning of "based on reason", but as a very specific methodology.

²⁵ This is known as "the" scientific method. See Gorham *Philosophy of Science* 54ff for a discussion of the difference between rationalism and empiricism.

²⁶ A transit occurs when Venus moves between the sun and the earth and can be seen from earth as a small black dot against the sun. It is one of the rarest predictable astronomical phenomena. The most recent transit occurred on 4th June 2012 and could be observed from South Africa. See NASA 2012 <http://www.1.usa.gov/K0q2wc>.

senses can be deceived,²⁷ or because the specific phenomenon is not observable.²⁸ In the case of empiricism the "proof" therefore consists of observable phenomena and predictable occurrences, but in the case of rationalism the "proof" depends on the logical consistency and rational justification of a position. Of course, Kant showed more than 200 years ago that neither empiricism nor rationalism is possible without the other. It is impossible to observe the world without having some preconceptions about how the world is ordered – Kant calls this the *a priori* categories.²⁹ Conversely, it is impossible to think about the world without that thinking being grounded in some sort of observable reality. Otherwise we would have had a School for Unicorn Studies where you can get a degree in paranormal "science".³⁰ But that, for now, is not important.

What is important is that there are sciences that, on a continuum, are more empirical than others.³¹ And *that* is the basis for the division of the sciences. The empirical (or natural) sciences include botany, zoology, geography, chemistry, physics,³² astronomy and the like. On the other hand, the rationalist (or human) sciences include disciplines like history, languages, philosophy, theology³³ and the like. The social sciences reside in an ambivalent position between the two– sciences that have both an empirical and a rationalist component to their methodology. In this category are included economics, education, information science and psychology.³⁴

²⁷ Descartes *Philosophical Writings* 12: "Whatever I have up till now accepted as most true I have acquired either from the senses or through the senses. But from time to time I have found that the senses deceive, and it is prudent never to trust completely those who have deceived us even once."

²⁸ See, for example, the social contract ideas of Hobbes and Locke, which work with an entirely unobservable "state of nature": Hobbes *Leviathan*; Locke *Two Treatises on Civil Government*.

²⁹ Kant *Prolegomena* 22: "(A)ll cognition assumed to be *a priori* is nothing but a long habit of accepting something as true, and hence of mistaking subjective necessity with objective."

³⁰ The idea for this example comes from Clarey *Worthless*.

³¹ Please note that, as Kant made clear, a completely empirical science is impossible. It will always have a rationalist element. But some are indeed more empirical than others.

³² Some aspects of contemporary physics deal with phenomena that are, as yet, unobservable. However, the basis remains empirical. See Smolin *Trouble with Physics* xviii.

³³ Theology is traditionally regarded as a science, even though it does not meet the criteria set out in section 2 above regarding falsification.

³⁴ On the basis of the falsification criteria set out in section 2 above, it is doubtful whether psychology would qualify

It is interesting to note that this division implies that mathematics (which is normally regarded as a natural science) should actually be regarded as part of the humanities. After all, numbers, equations and formulae are entirely man-made and essentially unobservable phenomena and therefore quintessentially rationalist.³⁵ It also implies that Computer Science (as the study of algorithms) is a humanities discipline, even though it is usually grouped in the Science Faculty in the university context. And perhaps this is why many of the most prominent philosophers of science were mathematicians and recently computer scientists.³⁶ But that is not the main conclusion to be drawn from this. The important thing is that the research methodology determines how we differentiate between the sciences.

The question now is where law fits into this scheme. In the course of its history there have been attempts to cast law as a natural science in the same mould as physics.³⁷ The Historical School,³⁸ the Sociological School, the Realists (both Scandinavian and American)³⁹ and more recently Law and Economics⁴⁰ have all tried to make law a science *modo geometrico*. Perhaps the best-known example is still Langdell⁴¹ who famously said:

It is indispensable to establish at least two things, first that law is a science; secondly that all the available materials of that science are contained in the printed books.

For Langdell law was a science and the library was the laboratory where experiments were conducted.⁴² But anyone who deals with legal research on a daily basis will see that this argument is forced. While legal researchers might as a matter of course use objectively real "data" (case law, legislation, common law) they do not

³⁵ Kant *Prolegomena* 13: "(M)athematical propositions are always judgements *a priori*, and not empirical, because they carry with them necessity, which cannot be obtained from experience."

³⁶ See eg Raymond *Cathedral and the Bazaar*.

³⁷ See eg Ross *On Law and Justice* 40. For an overview of this development in European legal systems, see Kop *Legisme en Privaatrechtswetenschap*.

³⁸ See eg Hugo *Lehrbuch Eines Civilistischen Cursus* 10§8: "Jurisprudenz und Mathematik grenzen auch näher an einander als mancher, der weder Jurist noch Mathematiker ist, weiss..."

³⁹ See Holmes 1897 *Harvard LR* 457-478.

⁴⁰ See Ross "Law and Economics" 186-213.

⁴¹ Langdell *Selection of Cases* i.

⁴² See Woxland 1989 *Law Library Journal* 451-464. See also Schlag 1997 *Harvard LR* 897 on the influence of Langdell.

use them in an empiricist manner. They are not regarded as exemplars that establish a natural law on the basis of which future predictions can be made. Law is too inherently unpredictable for that. Instead, they serve as starting points for interpretation and to illuminate differing perspectives on what the law is and might be. The world of graphs, data sets, questionnaires, laboratory experiments and computer models is as foreign to legal researchers as the surface of Venus was to Joseph Banks. Law is therefore very much a humanities discipline.

But what the humanities teach is actually hard to pin down. And, once again, opinions are divided. Nussbaum states that the humanities teach "the ability to think critically; the ability to transcend local loyalties and to approach problems as a 'citizen of the world; and, finally, the ability to imagine sympathetically the predicament of another person."⁴³ On the other hand, Collini⁴⁴ states as follows:

Perhaps the most important single thing to say in this context about the work in the humanities is that it is in many ways not so different from work in the natural and social sciences. The effort to understand and explain that is at the heart of all scholarly and scientific enquiry is governed by broadly similar canons of accuracy and precision, of rigour in argument and clarity in presentation, of respect for the evidence and openness to criticism, and so on.

Nussbaum's view of what humanities teach is not one that is limited to the humanities. Instead it should be the purpose of all higher education. What the two viewpoints illustrate is exactly that all sciences and scientific teaching have the same purpose – it is the methodology that differs.

4 What is a discipline?

Having established that law is part of the human sciences and is inclined toward the rationalist methodology, the question that now needs to be addressed is what *kind* of human science it is. After all, linguistics and history and law are not the same kind of sciences. So the question arises, what constitutes the difference? The difference has to do with the fact that, within the humanities, there are different disciplines.

⁴³ See Nussbaum *Not for Profit* 7. See also Nussbaum *Citizens of the World*.

⁴⁴ Collini *What are Universities For?* 62.

Let us start with the idea of a discipline. The term comes from the Latin *discipulus* – literally a student or disciple, but the idea of military discipline is also present.⁴⁵ Disciplines are distinguished from one another exactly because the disciples (junior researchers) are taught (by senior researchers) what the acceptable problems, methods, hypotheses and language usage are. It is, in fact, closely related to Thomas Kuhn's ideas about normal science and scientific revolutions.⁴⁶ Kuhn argues that the majority of scientific work is done as part of "normal science". Normal science happens when the paradigm for that science is well established. A paradigm tells you what "counts" as research in a specific discipline: what methods you can use; what questions you can legitimately ask; what assumptions you can make; which hypotheses are acceptable; how you present your conclusions or findings and so forth.⁴⁷ This is typically what students are taught when they write a research proposal. If that does not happen, the acolyte does not become a disciple and isn't accepted into the discipline.

Research within normal science is a lot of drudgery – trying to disprove theories; working out the implications of existing theories – but it is the bulk of scientific work. This is what a discipline does: it teaches you the acceptable methodology for your field.⁴⁸ It disciplines you so that your work is acceptable to others in your discipline. It gives you the matrix to be able to produce legitimate research results.

⁴⁵ See Balkin 1996 *Balkin 1996 Wash & Lee L Rev* 955: "Academic disciplines, therefore, are about authority, and in particular, about authority within particular groups of persons who think alike through training and discipline....Disciplines involve not only shared subject matters and shared problems, but shared ways of thinking and talking."

⁴⁶ See Kuhn *Structure of Scientific Revolutions*. See also Balkin 1996 *Wash & Lee L Rev* 962.

⁴⁷ See Kuhn *Structure of Scientific Revolutions* 50-51 for an example of the difference between how a physicist and a chemist view the question of whether an atom of helium is or is not a molecule.

⁴⁸ Balkin 1996 *Wash & Lee L Rev* 954: "Thus, disciplinarity is not simply a matter of individual choice, the pursuit of individualized interests, or an individualized search for truth. Rather, it is the product of a set of social forces of normalization and education, of reward and punishment, through which the academic's head gets constructed, and the academic becomes the kind of academic that he or she is."

So what kind of discipline is law?⁴⁹ There is no consensus on this question and a vast number of possibilities have been offered.⁵⁰ These possibilities can broadly be grouped into three general approaches. The first group sees law as an empirical discipline, where case law, legislation and so forth are regarded as data to be studied.⁵¹ This sometimes takes the form of seeing law as an explanatory discipline. This means that legal research is regarded mainly as descriptive of legal rules and doctrines. Research is therefore limited to description in what Schlag⁵² calls the "grid aesthetic". In much the same vein law is sometimes seen as an axiomatic discipline which studies law as a taxonomy of concepts.⁵³ This means that legal research is concerned with organising law into increasingly complex sets of terms and concepts.⁵⁴ It also sees law as a logical discipline which studies how rules and concepts hang together systematically. This group of approaches can broadly be characterised as positivist since they take Comte's approach to sociology and apply it to law.⁵⁵

A second group sees law as a hermeneutic or argumentative discipline. The primary task of legal research is interpretation of texts as the basis for opinions and solutions.⁵⁶ This is linked to the view of legal research as being focused on the kinds of arguments that are acceptable within law. Legal research is therefore primarily about argumentation.⁵⁷

⁴⁹ It will be noted that most of the references to law, legal methodology and legal research come from either continental or American writers. The fact of the matter is that South African authors rarely, if ever, engage with the question of the disciplinary nature of law and legal research. But, given the universal nature of science, the insights from these writers are applicable to the South African context.

⁵⁰ Van Hoecke "Legal Doctrine" 1-18.

⁵¹ See Minda *Postmodern Legal Movements* 13 and Schlag 1997 *Harvard LR* 896-914 on the view of law as science and the role of Langdell in this development.

⁵² See Schlag *Enchantment of Reason*.

⁵³ Coing 1989 *Am J Comp L* 13; Van Caenegem *Historical Introduction to Private Law* 140; Zwolve *Hoofdstukken uit de Geschiedenis van het Europese Privaatrecht*.

⁵⁴ Kelsen 1941 *Harvard LR* 44-70.

⁵⁵ See Jori "Introduction" i-xl.

⁵⁶ Winter 1990 *Stanford LR* 639-693; Winter 1991 *Texas LR* 1595-1626; Hutchinson 1994 *Dalhousie LJ* 263-277; Singer 1984 *Yale LJ* 1-70.

⁵⁷ This is the main contention behind the Realists' insistence on looking at "what courts actually do" – see Hoctor "Legal Realism" 158-185.

The third group represents a rejection of the positivism inherent in the first group in particular by seeing law as a normative discipline.⁵⁸ In this case the emphasis of legal research is on constructing a normative framework for law in order that normative choices can be made.⁵⁹

In the South African context, most legal researchers will find one or more of these approaches convincing, based on where they studied – in effect, whose disciples they are/were. Traditionally Afrikaans universities use a descriptive, axiomatic and logical approach to the study of law, whilst the approach in English universities is focused on argumentation and normative approaches. Those who studied at the first set of universities will therefore be more inclined to view law as a very ordered and logical set of propositions and concepts, while those who studied at the second group will be more inclined toward seeing law as a set of normative disagreements. This, therefore, offers a striking illustration of the nature of research discipline and paradigms.

It should be fairly clear that law is not an empirical discipline in the sense that chemistry is, for example.⁶⁰ Describing law as an axiomatic, explanatory or logical discipline is too limited. Whilst description, systematisation and conceptualisation are certainly part of the picture, it is not enough to describe something as a scientific discipline. If we accept that falsification is the basic requirement for something to be regarded as scientific, then the first group of approaches fails at the first hurdle as they do not attempt to falsify, but merely to describe.

The third group of approaches does not meet this requirement either. In Kantian terms the values, norms and other considerations belong to the realm of the

⁵⁸ Dworkin *Law's Empire*; Finnis *Natural Law*.

⁵⁹ For a critique of this idea, see Schlag 1991 *U Pa LR* 801-932; Schlag 1990 *Stanford LR* 167-191; Hutchinson 1987 *Yale LJ* 637-665.

⁶⁰ Balkin 1996 *Wash & Lee L Rev* 969: "The point is not that legal education fails to teach lawyers how to engage in empirical research. The point is that it teaches lawyers how *not* to think empirically."

noumena.⁶¹ They are therefore inherently not falsifiable and therefore not scientific. As Schlag⁶² says:

Values are like little divinities. Like God, they serve as grounds or unquestioned origins. Like God, their invocation demands worship, reverence and self-abnegation. Like God, they provide comfort and compensation for an otherwise degraded reality. Like God, they enable the widespread belief in a hopeful, eschatological trajectory for law, politics, and human existence. In short, 'values' are the secular equivalent of God – they are the continuation of theology by other means.

The second group offers the most promising approach. The paradigmatic methodology in legal research is the finding, interpretation, application and critique of law and legal rules. That implies that normal legal research (in the Kuhnian sense) will always consider the history, philosophy, comparative perspective and socio-political circumstances of any specific problem. Most importantly, the essence of this methodology is the implicit acceptance of the principle of falsification. Any theory about any legal problem starts with the assumption: the court/legislator/old authority/state got it wrong! It therefore meets the falsification requirement. But that is not the full picture.

What is missing is the fact that law is also very much a professional discipline. In fact Balkin⁶³ argues that law is not an academic discipline at all, exactly because of its professional nature. Most law professors were trained in professional law schools and continue to teach their students how to "think like lawyers". As Balkin⁶⁴ states: "(Law) is a skills-oriented profession, and legal education is a form of professional education. Because law is a professional discipline, it lacks a robust academic methodology...." The discussion above indicates that this is overstating the case. Ironically, "thinking like a lawyer" strengthens the falsification thesis. After all, the job of a criminal lawyer, for example, is not to prove his client's innocence, but to falsify the state's case.

⁶¹ Gorham *Philosophy of Science* and Okasha *Philosophy of Science*.

⁶² Schlag "Values" 50. See also Kroeze 2005 *SA Public Law* 320-334.

⁶³ Balkin 1996 *Wash & Lee L Rev* 952.

⁶⁴ Balkin 1996 *Wash & Lee L Rev* 964.

The conclusion is therefore that law is a hermeneutic and professional discipline. That is what determines the methodology, research questions, assumptions and hypotheses. It might not sound glamorous or exciting, but that's what makes it a discipline!

5 So what is MIT?

Given the methodological differences between the sciences and the disciplinary distinctiveness, one wonders what MIT could possibly mean or entail. And determining the meaning here is far from simple. In fact, there seem to be as many opinions as there are authors.⁶⁵ The explanation offered below is informed in the first place by the principle of statutory interpretation that, if different words are used, they must mean different things. In the second place it is informed by insights from other disciplines – something that definitely does NOT make it MIT. Given these points of departure, the following distinctions can be drawn.⁶⁶

Multidisciplinary research means that scientists from a multiplicity of disciplines look at the same phenomenon/problem.⁶⁷ It is always a group effort. In the case of Banks's voyage, you have zoologists, botanists, astronomers, etcetera looking at Haiti from different disciplinary stances.⁶⁸ In a sense this is the easiest kind of MIT research: every scientist works within and from his/her own discipline and the different perspectives come together in the end.⁶⁹ It might or might not result in co-publication.

⁶⁵ See McNeill, García-Godos and Gjerdaker *Interdisciplinary Research* 8 for one such example.

⁶⁶ This is also the distinction used in Vashist, McKay and Marchall 2011 <http://aise1.aisnet.org/acis2011/54>.

⁶⁷ See Carayol and Thi 2005 *Research Evaluation* 71 and Janssen and Goldsworthy 1996 *Agricultural Systems* 260-261.

⁶⁸ An excellent example of this is the animal rights conference hosted by the Department of Jurisprudence at UNISA last year. All of the papers of that conference were published in the first edition of *SA Public law* for 2012.

⁶⁹ As Fish says: "One is always within whatever discipline one is in, and one simply assimilates and feeds information from and about other disciplines into one's pre-existing disciplinary matrix" – see Fish *There's No Such Thing as Free Speech* 231-242.

Interdisciplinary research is unusual and very, very hard to do. This happens when a single researcher is a disciplinary expert in more than one discipline and he/she uses the methodology of both to address a problem.⁷⁰ It is interesting to note that many of the most brilliant and innovative scientists were trained in more than one discipline.⁷¹ For example the astronomer William Herschel started life as a professional musician and composer, and taught himself mathematics and the craft of polishing large mirrors. This enabled him to build very powerful telescopes which he used to discover Uranus, amongst other discoveries. In fact, historians speculate that it was his skill in reading music that enabled him to search the stars more systematically than his contemporaries.⁷²

In the legal world interdisciplinary research would, for example, be undertaken by someone qualified in both medicine and law; or versed in both law and literary theory and criticism. Unfortunately law researchers think that if they can read novels, they can do law and literature, but that is not the case.⁷³ True interdisciplinary research requires a thorough grounding in more than one discipline. Having a postgraduate qualification in both law and economics; both medicine and law; both computer science and law; or both sociology and law qualifies one to do interdisciplinary work. The rest do not. And the fact of the matter is that law's professional nature militates very strongly against this.

Transdisciplinary research is even rarer. This is where interdisciplinary research results in the establishment of a new discipline.⁷⁴ This is the case where, for example, Banks established anthropology by using the disciplines of zoology and botany and applying it to human beings and culture. But this implies that the methodologies of two distinct disciplines get merged into a completely new and

⁷⁰ This is also the definition that is used in UNISA's various research policies.

⁷¹ Of course, in the contemporary world this is becoming increasingly unlikely. When science became a professional enterprise rather than something "gentlemen of leisure" engaged in, specialisation became inevitable.

⁷² Holmes *Age of Wonder* 92.

⁷³ See Silbey 2007 http://Isr.nellco.org/suffolk_fp/45 on law and literature.

⁷⁴ There is a different opinion that states that transdisciplinarity refers to research with a strong practical component – see eg Rosenfield 1992 *Soc Sci Med* 1343-1357. But this is what is usually called "action research" and does not necessarily include more than one discipline.

separate discipline and that, from there, it will have its own disciplinary rules, conventions and methodology. Transdisciplinary research is therefore the route of merging two disciplines, which then leads to a new set of disciplinary rules and conventions.

It turns out that calls for interdisciplinary (or MIT) research might rest on a limited understanding of the nature of science and of disciplinary research in law. Legal research almost always incorporates information from other disciplines. In this respect, as in many others, it consciously or unconsciously mirrors court decisions. It is not unusual for an article on, for example, property law to also include historical, comparative and sociological research.⁷⁵ And this is neither unusual nor interdisciplinary. For law, this is normal science or, if you prefer, "business as usual".

The call for interdisciplinary (or MIT) research is used to indicate (rather vaguely) research that is somehow hip, new, different and that it will be somehow "more" than ordinary disciplinary research. The background assumptions are that the differences between the terms multi-, inter- and transdisciplinary research are of degree rather than kind and that they will always imply group research and/or co-publication. But using them like this is both facile and misleading.

Multidisciplinary research might result in co-publication, but it probably won't. Given that multidisciplinary requires disciplinary specialists to continue to work within their disciplines, it really is neither new nor particularly different. Interdisciplinarity by definition is an individual enterprise, but it is the only case where innovative work and results can be expected. Transdisciplinarity presupposes the establishment of a new discipline, one that will then take on all the characteristics of ordinary disciplinary research.

And all of this does not even begin to address the question lurking in the background – like the proverbial elephant in the room: what is wrong with disciplinary research anyway? This is not to suggest that there might not be

⁷⁵ See, for example, Van der Walt 1995 *SAJHR* 169-206; Van der Walt 1998 *Acta Juridica* 235-281.

something wrong, just that this has not been demonstrated. To return to the Royal Society: where's your proof?

6 Conclusion: is interdisciplinarity possible in law?

Balkin⁷⁶ argues that interdisciplinary "colonisation" of law has been unsuccessful for a very simple reason:

The study of law is part of a professional practice, a set of professional skills that are taught to new professionals in professional schools. Law is, moreover, a deceptively strong professional practice, and its modes of reproduction are amazingly resilient. Thus, even though law professors continually absorb ever new and exotic forms of theory from without, they continue to teach their students the same basic skills using the same basic methods.

Whether or not interdisciplinarity is possible in law therefore depends on your understanding of law as a hermeneutic and professional discipline. To explain this, it is necessary to return to the terms multi-, inter- and transdisciplinarity.

Multidisciplinarity is not only possible in law, it is something legal researchers regularly do, have done and will continue to do. Because law is a social artefact, the consideration of legal issues and problems will always and necessarily require looking at socio-political and economic factors, for example. This is a conscious or unconscious mirroring of what courts do. A judicial decision that looks at legal rules and legal rules only is basically impossible. That is one of the reasons why regarding law as an axiomatic or logical discipline only is impossible.

There is virtually no legal researcher in South Africa today that does not accept that law and legal research makes sense only within a socio-economic-political context.⁷⁷ Therefore normal science in law will also include insights from various disciplines. Once again, this is normal and does not constitute interdisciplinary research. So the fact of the matter is that law academics have always undertaken multidisciplinary

⁷⁶ Balkin 1996 *Wash & Lee L Rev* 966.

⁷⁷ This is a falsifiable theory and therefore worthy of scientific investigation.

research. It seldom results in co-publication with other disciplines though, precisely because of the nature of law as a discipline.

Transdisciplinary research is actually a misnomer. Once interdisciplinary research has become successful, it results in the establishment of a new discipline. This new discipline will then exhibit all the characteristics of a discipline – policing the methodologies, assumptions, hypotheses and research questions that are regarded as legitimate. In law we have two examples of transdisciplinarity – legal history and legal philosophy. Established by researchers who were experts in both law and historical research or law and philosophy, the new disciplines no longer require the practitioners to be experts in both disciplines. The new disciplines have their own rules and initiates are coached in these disciplinary rules.

Interdisciplinary research, on the other hand, is a different kettle of fish altogether. Interdisciplinarity is basically impossible in law exactly because of the nature of law as a professional discipline. Law researchers are mostly also law teachers and they are in the business of teaching students how to think like lawyers. You cannot very well do that if you yourself are not thinking like a lawyer. Law resists the colonisation by other disciplines because of the need to maintain its professional credentials. In addition, much of what is fondly imagined to be interdisciplinary research is, in fact, multidisciplinary work. Working with medical specialists on issues of stem cell research is multidisciplinary research. It becomes interdisciplinary only if the researcher also holds a medical degree. Law researchers are, for good or bad, still "writing for judges".⁷⁸

It is in this context that the call for interdisciplinary research on legal education and pedagogy provides a good example.⁷⁹ Despite the fact that law researchers are constantly asked to do this kind of research, it is something they are particularly unequipped for. Education, as was pointed out above, is a social science with a particular penchant for empirical research. It is something law academics cannot and

⁷⁸ Schlag 1992 *U Colo L Rev* 419-423.

⁷⁹ In the UNISA context this is called ODL (Open Distance Learning) research, but at other universities referred to as self-reflective research.

probably should not be engaged with. Law researchers have neither the training nor the aptitude nor the need for it. Teaching lawyers is such a big part of law as a professional discipline that general theories of education simply do not apply. Expecting law academics to do this kind of research is futile and counter-productive.

The conclusion is that interdisciplinarity is a dream in legal research. Because of the nature of the disciplinary training that lawyers undergo, they are not equipped to do the kind of research that is undertaken in the natural and social sciences. As Balkin⁸⁰ says:

The point is not that legal education fails to teach lawyers how to engage in empirical research. The point is that it teaches lawyers how *not* to think empirically. Law school teaches lawyers to be quick on their feet and to look for the sort of things that can be cited in the footnotes of briefs.

So, there is both bad news and good news. The bad news is that the vast majority of MIT research is something legal researchers already do (multidisciplinary research) or never will (interdisciplinary and transdisciplinary research). That is also the good news. Disciplinary research is hard enough. There is no need to complicate it unnecessarily.

⁸⁰ Balkin 1996 *Wash & Lee L Rev* 969.

Bibliography

Ambler *Don't Sell Your Coat*

Ambler H *Don't Sell Your Coat: Surprising Truths about Climate Change* (Lansing Greenwich 2011)

Andreski *Essential Comte*

Andreski S (ed) *The Essential Comte: Selected from Course de Philosophie Positive* (translated from the original French by M Clarke) (Croom Helm London 1974)

Balkin 1996 *Wash & Lee L Rev*

Balkin JM "Interdisciplinarity as colonisation" 1996 *Wash & Lee L Rev* 949-970

Bell *Climate of Corruption*

Bell L *Climate of Corruption: Politics and Power behind the Global Warming Hoax* (Greenleaf Press Austin 2011)

Carayol and Thi 2005 *Research Evaluation*

Carayol N and Thi TUN "Why do academic scientists engage in interdisciplinary research?" 2005 *Research Evaluation* 70-79

Clarey *Worthless*

Clarey A *Worthless: The Young Person's Indispensable Guide to Choosing the Right Major* (Paric Excelsior 2011)

Coing 1989 *Am J Comp L*

Coing H "German 'Pandektistik' in its relationship to the former 'ius commune'" 1989 *Am J Comp L* 9-15

Collini *What are Universities For?*

Collini S *What are Universities For?* (Penguin London 2012)

Delingpole *Watermelons*

Delingpole J *Watermelons: The Green Movement's True Colours* (Publius Books New York 2011)

Descartes *Philosophical Writings*

Descartes R *The Philosophical Writings of Descartes Vol II* (translated from the original French by J Cottingham *et al*) (Cambridge University Press Cambridge 1984)

Dworkin *Law's Empire*

Dworkin R *Law's Empire* (Belknap Press Cambridge Mass 1986)

Feyerabend *Against Method*

Feyerabend P *Against Method* (Verso London 1988)

Finnis *Natural Law*

Finnis J *Natural Law and Natural Rights* (Oxford University Press Oxford 1980)

Fish *There's No Such Thing as Free Speech*

Fish S *There's No Such Thing as Free Speech (and It's a Good Thing Too)* (Oxford University Press New York 1994)

Garwood *Flat Earth*

Garwood C *Flat Earth: The History of an Infamous Idea* (Pan Macmillan London 2007)

Gorham *Philosophy of Science*

Gorham G *Philosophy of Science* (Oneworld Oxford 2009)

Hobbes *Leviathan*

Hobbes T *Leviathan* (Oxford University Press Oxford 1946)

Hoctor "Legal Realism"

Hoctor S "Legal Realism" in Roederer C and Moellendorf D (eds)
Jurisprudence (Juta Cape Town 2004) 158-185

Holmes 1897 *Harvard LR*

Holmes OW "The path of the law" 1897 *Harvard LR* 457-478

Holmes *Age of Wonder*

Holmes R *The Age of Wonder: How the Romantic Generation Discovered the Beauty and Terror of Science* (Harper London 2011)

Hugo *Lehrbuch Eines Civilistischen Cursus*

Hugo G *Lehrbuch Eines Civilistischen Cursus, Philosophische Encyclopedie für Juristen* (Berlin 1799) vol 5

Hutchinson 1987 *Yale LJ*

Hutchinson AC "Indiana Dworkin and the Law's Empire" 1987 *Yale LJ* 637-665

Hutchinson 1994 *Dalhousie LJ*

Hutchinson AC "Playing the game" 1994 *Dalhousie LJ* 263-277

Inhofe *Greatest Hoax*

Inhofe J *The Greatest Hoax: How the Global Warming Conspiracy Threatens Your Future* (WND Books Washington 2012)

Janssen and Goldsworthy 1996 *Agricultural Systems*

Janssen W and Goldsworthy P "Multidisciplinary research for natural resource management: conceptual and practical implications" 1996 *Agricultural Systems* 259-279

Jori "Introduction"

Jori M "Introduction" in *Legal Positivism* (New York University Press New York 1992)

Kant *Prolegomena*

Kant I *Prolegomena to Any Future Metaphysics That Will be Able to Come Forward as Science* (translated from the original German by P Carus) (Hackett Indianapolis 1977)

Kelsen 1941 *Harvard LR*

Kelsen H "The pure theory of law and analytical jurisprudence" 1941 *Harvard LR* 44-70

Kop *Legisme en Privaatrechtswetenschap*

Kop PC *Legisme en Privaatrechtswetenschap* (Kluwer Deventer 1992)

Kroeze 2006 *SA Public Law*

Kroeze IJ "*Matrix iuris: travels in the hyperreality of the law*" 2005 *SA Public Law* 320-334

Kuhn *Structure of Scientific Revolutions*

Kuhn TS *The Structure of Scientific Revolutions* (University of Chicago Press Chicago 1962)

Langdell *Selection of Cases*

Langdell CC *A Selection of Cases on the Law of Contract* (Little & Brown Boston 1871)

Lawson *Appeal to Reason*

Lawson N *An Appeal to Reason: A Cool Look at Global Warming* (Overlook London 2009)

Locke *Two Treatises on Civil Government*

Locke J *Two Treatises on Civil Government* (Routledge London 1884)

Lyotard *Postmodern Condition*

Lyotard J-F *The Postmodern Condition: A Report on Knowledge* (translated from the original French by G Bennington and B Massumi) (Manchester University Press Manchester 1984)

Marnewick "Preparation for Trial"

Marnewick CG "Preparation for Trial: Legal Research" in *Litigation Skills for South African Lawyers* (LexisNexis Butterworth Durban 2007) 221-235

McNeil, Garcia-Godos and Gjerdaker *Interdisciplinary Research*

McNeill D, García-Godos J and Gjerdaker A (eds) *Interdisciplinary Research on Development and the Environment* (University of Oslo Oslo 2001)

Minda *Postmodern Legal Movements*

Minda G *Postmodern Legal Movements: Law and Jurisprudence at Century's End* (New York University Press New York 1995)

Montford *Hockey Stick Illusion*

Montford AW *The Hockey Stick Illusion: Climategate and the Corruption of Science* (Stacey Intl London 2010)

Nussbaum *Citizens of the World*

Nussbaum M *Citizens of the World: A Classical Defense of Reform in Liberal Education* (Harvard University Press Cambridge 1997)

Nussbaum *Not for Profit*

Nussbaum MC *Not for Profit: Why Democracy Needs the Humanities* (Princeton University Press Princeton 2010)

Okasha *Philosophy of Science*

Okasha S *Philosophy of Science: A Very Short Introduction* (Oxford University Press Oxford 2002)

Popper *Conjectures and Refutations*

Popper KR *Conjectures and Refutations: The Growth of Scientific Knowledge* (Routledge London 1989)

Popper *Logic of Scientific Discovery*

Popper KR *The Logic of Scientific Discovery* (Routledge London 2002)

Raymond *Cathedral and the Bazaar*

Raymond ES *The Cathedral and the Bazaar: Musings on Linux and Open Source by an Accidental Revolutionary* (O'Reilly Cambridge 2001)

Rosenfield 1992 *Soc Sci Med*

Rosenfield PL "The potential of transdisciplinary research for sustaining and extending linkages between the health and social sciences" 1992 *Soc Sci Med* 1343-1357

Ross *On Law and Justice*

Ross A *On Law and Justice* (Stevens & Sons London 1958)

Ross "Law and Economics"

Ross D "Law and Economics" in Roederer C and Moellendorf D (eds) *Jurisprudence* (Juta Cape Town 2004) 186-213

Russell *Human Knowledge*

Russell B *Human Knowledge: Its Scope and Limits* (Allen and Unwin London 1948)

Russell *Scientific Outlook*

Russell B *The Scientific Outlook* (Allen and Unwin London 1949)

Schlag 1990 *Stanford LR*

Schlag P "Normative and nowhere to go" 1990 *Stanford LR* 167-191

Schlag 1991 *U Pa LR*

Schlag P "Normativity and the politics of form" 1991 *U Pa LR* 801-932

Schlag 1992 *U Colo L Rev*

Schlag P "Writing for judges" 1992 *U Colo L Rev* 419-423

Schlag "Values"

Schlag P "Values" in *Laying Down the Law: Mysticism, Fetishism, and the American Legal Mind* (New York University Press London 1996) 42-59

Schlag 1997 *Harvard LR*

Schlag P "Law and phrenology" 1997 *Harvard LR* 877-921

Schlag *Enchantment of Reason*

Schlag P *The Enchantment of Reason* (Duke University Press Durham 1998)

Singer 1984 *Yale LJ*

Singer JW "The player and the cards: nihilism and legal theory" 1984 *Yale LJ* 1-70

Smolin *Trouble with Physics*

Smolin L *The Trouble with Physics: The Rise of String Theory, the Fall of a Science and What Comes Next* (Penguin London 2006)

Spencer *Great Global Warming Blunder*

Spencer RW *The Great Global Warming Blunder: How Mother Nature Fooled the World's Top Climate Scientists* (Encounter Books New York undated)

Sussman *Eco-tyranny*

Sussman B *Eco-tyranny* (WND Books Washington 2012)

Van Caenegem *Historical Introduction to Private Law*

Van Caenegem RC *An Historical Introduction to Private Law* (Cambridge University Press Cambridge 1988)

Van der Walt 1995 *SAJHR*

Van der Walt AJ "Tradition on trial: a critical analysis of the civil-law tradition in South African property law" 1995 *SAJHR* 169-206

Van der Walt 1998 *Acta Juridica*

Van der Walt AJ "Un-doing things with words: the colonisation of the public sphere by private-property discourse" 1998 *Acta Juridica* 235-281

Van Hoecke "Legal Doctrine"

Van Hoecke M "Legal Doctrine: Which Method(s) for What Kind of Discipline?" in *Methodologies of Legal Research* (Hart Oxford 2011) 1-18

Venter *et al Regsnavorsing*

Venter F *et al Regsnavorsing: Metode en Publikasie* (Juta Cape Town 1990)

Winter 1990 *Stanford LR*

Winter SL "*Bull Durham* and the uses of theory" 1990 *Stanford LR* 639-693

Winter 1991 *Texas LR*

Winter SL "Foreword: On building houses" 1991 *Texas LR* 1595-1626

Wittgenstein *Remarks on the Foundation of Mathematics*

Wittgenstein L *Remarks on the Foundations of Mathematics* (Blackwell Oxford 1978)

Woxland 1989 *Law Library Journal*

Woxland TA "Why can't Johnny research? or it all started with Christopher Columbus Langdell" 1989 *Law Library Journal* 451-464

Zwalve *Hoofdstukken uit de Geschiedenis van het Europese Privaatrecht*

Zwalve WJ *Hoofdstukken uit de Geschiedenis van het Europese Privaatrecht Deel 1: Inleiding en Zakenrecht* (Wolters-Noordhof Groningen 1993)

Register of internet sources

NASA 2012 <http://www.1.usa.gov/K0q2wc>

NASA 2012 The 2012 Transit of Venus <http://www.1.usa.gov/K0q2wc> [date of use 22 Oct 2012]

Silbey 2007 http://Isr.nellco.org/suffolk_fp/45

Silbey J 2007 Truth Tales and Trial Films - Suffolk University Law School Faculty Publications Paper 45 http://Isr.nellco.org/suffolk_fp/45 [date of use 11 Aug 2012)

Thurgood Marshall School of Law 2011 <http://www.bit.ly/12MThHA>

Thurgood Marshall School of Law 2011 The Center for Legal Pedagogy <http://www.bit.ly/12MThHA> [date of use 22 Oct 2010]

Vashist, McKay and Marchall 2011 <http://aise1.aisnet.org/acis2011/54>

Vashist R, McKay J and Marchall P 2011 Revealing a Research Agenda: An Inter-disciplinary Perspective to Strengthen IS Research on Boundary Spanning - ACIS 2011 Proceedings Paper 54 <http://aise1.aisnet.org/acis2011/54> [date of use 11 Aug 2012)

Yale 2012 <http://www.bit.ly/15J6m7Q>

Yale 2012 Yale launches Ph.D. in Law to train aspiring professors
<http://www.bit.ly/15J6m7Q> [date of use 22 Oct 2012]

List of abbreviations

Am J Comp L	American Journal of Comparative Law
Dalhousie LJ	Dalhousie Law Journal
Harvard LR	Harvard Law Review
MIT	Multi-, inter- and transdisciplinary
ODL	Open Distance Learning
SA Public Law	South African Public Law Journal
SAJHR	South African Journal on Human Rights
Soc Sci Med	Social Science and Medicine Journal
Stanford LR	Stanford Law Review
Texas LR	Texas Law Review
U Colo L Rev	University of Colorado Law Review
U Pa LR	University of Pennsylvania Law Review
Wash & Lee L Rev	Washington & Lee Law Review
Yale LJ	Yale Law Journal