

To See Patents As Devices of Uncertain (But Contingent) Quality: A Foucaultian Perspective

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**TO SEE PATENTS AS DEVICES OF UNCERTAIN (BUT CONTINGENT) QUALITY: A
FOUCAULTIAN PERSPECTIVE**

Chris Dent*

Abstract

Commentators argue that the patent system is uncertain and that the uncertainty should be reduced. The application of a Foucaultian perspective demonstrates that the interdisciplinary nature of the system means that it will necessarily be uncertain – where uncertainty is understood to be the result of a lack of understanding produced by differences in the training of the personnel involved. In the words of Foucault, the argument is that uncertainty is unavoidable because of the different discourses and different internalised discursive practices that constitute the patent system overall. The multiple groups of players that contribute to the system results in many actions being observed across discursive boundaries. The article differentiates between perceptions that are contingent (intra-discursive understandings) and uncertain (inter-discursive understandings). The discursive nature of the system also, however, produces its stability. The reproduction of the discourses through the repetition of discursive practices means that the system, overall, has significant inertia.

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Introduction

Commentators argue that the perceived uncertainty in the patent system is counter-productive. Bessen and Meurer, for example, claim that ‘most patent disputes arise because patent validity and infringement are uncertain’.¹ The central argument of this article is that the interdisciplinary nature of the system mandates that there be uncertainty. That is, there cannot be total knowledge and understanding, by all players, of all other players and their actions – an assessment based on a Foucaultian understanding of discourses and discursive practices as being fundamental in the use and reproduction of knowledge.

In brief, there are two forms of uncertainty evident in the system. Both relate to the understanding, by one player in the patent system, of the actions of another player. The first form, described here as “contingent”, results from the interaction of players constituted by the same discipline. One lawyer, for example, may not be able to predict the actions of another lawyer; however, there is a good chance that an action of the second lawyer would be understandable by the first lawyer after it has happened. The second form, described here as “uncertain”, results from the interaction of players constituted by different discourses – the actions of a legal player, for example, are uncertain in the eyes of one schooled in a more scientific discourse. The focus of this article, therefore, is on the capacity of one player to understand the actions of another within the system.

This discursive perspective also allows for the understanding that, despite this uncertainty, the patent system is stable. This stability is dynamic, rather than static, and has fluid nature – though one that has a high degree of inertia. This inherent

¹ J. Bessen and M. Meurer, “The Patent Litigation Explosion”, Boston University School of Law Working Paper 05-18 (2005), p. 1.

stability means that the assessment of the patent system as “uncertain” is potentially misleading. The use of the term, if not properly contextualised, may give rise to inappropriate policy responses that create problems that did not exist before.

The important aspects of the patent system, for this understanding of uncertainty and contingency, are not the legal rules of patentability but the nature of the personnel involved and the discourses in which they have been trained.² The relevant people are researchers, business people, patent attorneys and examiners, lawyers and judges. The central argument is that it is the variety of potential actions available to each that gives rise to the contingency of patents. Further, it is a function of the perspective from which the potential actions are seen that gives rise to the uncertainty inherent in the system. In other words, the uncertainty perceived is the result of incomplete understandings, on the part of one group of participants or commentators, of the choices and decisions made by members of other groups of participants in the patent system. The first Part of this Article will provide an introduction to the Foucaultian ideas and a more detailed description of the notions of contingency, uncertainty and inertia to be used in the balance of the article.

Theoretical Basis

Discourses, Discursive Practices and Discursive Change

Members of each of the groups highlighted above operate in accordance with the practices of the discipline or, in Foucaultian terms, “discourse” of which they are a part. Inventors, for example, act in accordance with their (scientific) training; business owners do as business owners do; and lawyers and judges practise law in the manner

² As a result, the detail of the law is not central to the argument. The specifics of the law described in this article is from Australia; the underlying concepts, however, are found in all patent systems.

of their legal training.³ It is the differences in training – in the discursive practices that constitute the discourses – that is fundamental to the distinction between contingency and uncertainty.

In a general sense, a discourse can be understood to refer to a body of statements. “Discourse” can also have a more specifically “powerful” meaning. As Foucault put it:

Discourse – the mere fact of speaking, of employing words, of using the words of others, words that the others understand and accept – this fact is in itself a force. Discourse is, with respect to the relation of forces, not merely a surface of inscription, but something that brings about effects.⁴

More simply, Foucault described discourses as ‘practices that systematically *form* the objects of which they speak’.⁵ For example, a textbook has a variety of functions as part of the wider discourse that is “the education system”. The book is used to bring about an effect in those who read it – with its purpose being to educate readers, to train them. A discourse, then, can be treated as a group of practices that describes, constructs and brings about effects in the world.

According to Foucault, these discursive practices are a ‘body of anonymous, historical rules, always determined in the time and space that have defined a given period’.⁶ These rules ‘delimit the sayable’,⁷ and can be understood to both enable and

³ For a discussion of the law, lawyers and judges from this discursive perspective, see C. Dent “Reflecting on Continuity and Discontinuity in ‘The Law’ – An Application of Foucault’s Archaeological Method in a Reading of Judicial Decisions in Negligence”, (2003) PhD Thesis, Murdoch University.

⁴ Quoted in A. Davidson, “Structures and Strategies of Discourse”, in *Foucault and his Interlocutors* (A. Davidson ed., University of Chicago Press, Chicago, 1997), pp. 4-5.

⁵ M. Foucault, *Archaeology of Knowledge* (Routledge, London, 1994), p. 49. Emphasis added.

⁶ *Ibid*, at p. 117.

⁷ G. Kendall and G. Wickham, *Using Foucault’s Methods* (Sage Publications, London, 1999), p. 43.

limit the “allowed” actions of members of the discourse. For it is the practices that are internalised (learnt) by subjects (members) of a discourse – the specifics, the production and the reproduction of the practices – that give form to a discourse. Discursive practices, then, can be understood to be techniques utilised by sections of the population to carry out, maintain and perpetuate their specific knowledges and procedures – their discourse; obvious examples of these include the law and disciplines such as chemical engineering.

Each subject is seen to be constructed to behave according to internalised forms of behaviour, the discursive practices. It is important to realise that, from a Foucaultian perspective, the process of subjectification is not one of the external control of individuals. Subjects are complicit in their own discursive constitution – “subjectification” is the ‘way a human being turns him- or herself into a subject’.⁸

That is, discourses

do not impose themselves on the subject from the outside ... Instead they open up a field of experience in which subject and object alike are constituted only under certain simultaneous conditions, but in which they go on changing in relation to one another, and thus go on modifying this field of experience itself.⁹

Subjects, therefore, are part of the process that gives them ‘the rules of law, the techniques of management, and ... the practices of self’.¹⁰

⁸ M. Foucault, “The Subject and Power”, in *Michel Foucault: Beyond Structuralism and Hermeneutics* (2nd edn., H. Dreyfus and P. Rabinow eds., University of Chicago Press, Chicago, 1983), p. 208.

⁹ ‘M. Florence’, “Foucault, Michel, 1926-”, in *Cambridge Companion to Foucault*, (G. Gutting ed., Cambridge University Press, Cambridge, 1994), pp. 317-8. Maurice Florence is often seen as a pseudonym of Foucault himself: G. Gutting, “Michel Foucault – A User’s Manual”, in *Cambridge Companion to Foucault* (G. Gutting ed., Cambridge University Press, Cambridge, 1994), p. viii.

¹⁰ M. Foucault, “The Ethic of Care for the Self as a Practice of Freedom”, in *Ethics: Subjectivity and Truth* (P. Rabinow ed., New Press, New York, 1997), p. 298.

These “practices of self” include behaviour with respect to the “experience of self” and of “self”-reflection. Self-reflection involves “thought”; and “thought” was, for Foucault, another example of a discursive practice.¹¹ Constituted subjects “think” about themselves, about what they do and about the relationships between themselves and others. This process of “thinking” allows engagement with new discursive practices to which a subject is exposed – the “acceptance or refusal of rules”.¹² This engagement could be an attempt at simply understanding, or perhaps learning, this other practice. If an observed practice is within the rules of a subject’s discourse then it may be internalised – either to be repeated or to be understood in terms of the other practices that have already been learnt.¹³

The distinction between uncertainty and contingency, to be described next, is based on the assumption that one person’s understanding of another’s actions is delimited by the discursive practices s/he has internalised. The understanding in this article assumes that the actions of players are not the product of chance, they represent specific decisions made by specific individuals in specific circumstances. That is, particular aspects of the patent system are the result of individuals acting according to their interests, expertise and experience. The interaction of disciplines, therefore, means that the understandings, and assessments, of actions in the patent

¹¹ M. Foucault, “Preface to The History of Sexuality: Volume 2”, in *Foucault Reader* (P. Rabinow ed., Penguin, London, 1991), pp. 334-5.

¹² It is through “thought” and through the combination of discursive practices that members of society adapt their behaviour over time. It is through the interplay, or disruption, of discursive practices that the apparent “individuality” of subjects is possible. That is, in circumstances where already internalised discursive practices allow for it, a person can “choose” to adopt a new practice.

¹³ The internalised discursive practices may allow for a partial adoption of a new discursive practice. This may result in a modification, or disruption, of an already existing practice. This role of already internalised practices is often discussed in terms of ‘resistances’. See, for example, M. Foucault, “Powers and Strategies”, in *Power/Knowledge: Selected Interviews and other Writings 1972 – 1977* (C. Gordon ed., Pantheon, New York, 1980), p. 142. The “inertia” of learnt practices can appear to “resist” the adoption of new, sometimes contradictory, practices (though, the inertia may not prevent the adoption of the new practice, that would depend on other internalised practices).

system are limited by the perspectives that result from the particular training of the different players in the system.¹⁴

Assessments of Change and Inertia

There are three terms that need to be explained, and distinguished, in this section. They are “contingency”, “uncertainty” and “inertia”. Other terms could be, or have been, applied to the patent system; these include “randomness”,¹⁵ “risk”¹⁶ and “probability”.¹⁷ Each of these do not add to this discursive approach to the patent system as they are less applicable to the understanding, by one player, of the actions of another.

¹⁴ Beyond this suggestion that there can be internalisation of practices across discursive boundaries, the literature in this area does not offer many clues as to the effect of the interaction of discourses. That multiple discourses co-exist is clear – people internalise practices from many discourses (most in Western cultures, for example, learn how to be school students and medical patients, in addition to the practices learnt as part of their profession). There is little analysis, however, of the impact of the different perspectives produced by different sets of internalised practices. That different perspectives are produced is evident in the approaches to treatment of doctors and acupuncturists, or, in the analyses used by economists and lawyers when assessing the patent system.

¹⁵ For the purposes of this article, randomness is not a feature of the patent system. Randomness may be seen to relate to circumstances where what happens next in a sequence of events does not depend on what has happened before. Events that include human interaction do not, from this perspective, qualify. The result of a coin toss, a classic example of a “random” event, is not random at all if details such as the weight and surface area of the coin and the level of force applied by, and the relative position of, the thumb that starts the spin.

¹⁶ Risk is a term that is used widely in contemporary debate. ‘In everyday parlance, the term “risk” is used as “a synonym for danger or peril, for some unhappy event which may happen to someone”’: G. Mythen, *Ulrich Beck: A Critical Introduction to the Risk Society* (Pluto Press, London, 2004), p. 13, quoting F. Ewald, ‘Insurance and Risk’. Risk is also used in a wider, yet more specific, sense in academic circles. Beck coined the term “risk society” to privilege the understanding that the production of risk accompanies the production of wealth in society: U. Beck, *Risk Society: Towards a New Modernity* (Sage, London, 1992), p. 19.

¹⁷ The idea of probability has already been imported into understandings of the patent system. Lemley and Shapiro’s “Probabilistic Patents” (2005) 19 *Journal of Economic Perspectives* 75 – highlights the potential for granted patents to be declared invalid by the courts. As probability is the statistical assessment of past events it is not useful as a descriptor of the nature of the patent system; because individual actors are interested in their individual patent application or grant – it is not important to them that, overall, a certain percentage of applications, or infringement actions, fail or succeed. Further, the use of the terms “probabilistic patents” and “quantum patent mechanics” (D. Burk and M. Lemley, “Quantum Patent Mechanics” (2005) 9 *Lewis & Clark Law Review* 29) is, at least for the purposes of this article, misleading. The use of these physics-based concepts to describe the operation of the patent system implies that there are unknowable aspects of the system. The argument in this article is that the understanding of patent system, and its constituent parts, is dependent, only, on the mechanisms of the system and the disciplined behaviour of the players.

Contingency is central to this perspective. Fundamentally, all actions of all players are contingent – in the sense that each player will act in accordance with their training. They are *seen* as contingent by other players because the observer may not necessarily know what the first player is going to do. In this sense, contingent is used in its standard dictionary form: ‘a relation between variable such that one determines or depends on another’.¹⁸ That is, the actions of a player are variables determined by the actions of others and by her or his internalised discursive practices. In other words, when the term is used to denote perspectives on the actions of the player it indicates that a person trained in the same discipline would recognise the contingency of the actions. The observer, having internalised substantially similar discursive practices, would understand the variables that gave rise to the first player’s actions.¹⁹

The actions of a player will, however, be seen as uncertain where the observer of the actions is trained in a different discipline. This could occur where an inventor, trained in applied photonics, for example, observes patent infringement litigation and, in particular, considers the judgment of an appeals court. This is not a criticism of any player, or group of players, in the patent system; but a recognition that most who participate in the system only do so after significant training. It, therefore, is an acknowledgement that complexity of the practices internalised by the players is such that it is difficult for those who have not received the same training to understand their actions in the same way – thereby producing uncertainty.

One of the effects of this form of uncertainty is that, where a player has to react to the actions of a player trained in a different discipline, the first player may not

¹⁸ W. P. Vogt, *Dictionary of Statistics and Methodology* (3rd edn., Sage, Thousand Oaks, 2005), s. v. “contingency”.

¹⁹ The manner, for example, in which a patent attorney filled out a patent application would be understood by another patent attorney because they have received similar training. In this case, the second patent attorney is perceived, in this analysis, to see the actions of the first as contingent.

fully understand the actions. In most instances, the level of understanding that does exist will be sufficient for the system to be maintained. This is, in most part, because players who participate in the system will internalise some aspects of the training of others – repeat players learn, in every sense of the word, how the system works. Those who observe the system from outside,²⁰ however, do not have the same opportunity to internalise the practices associated with the other relevant disciplines; and, may, as a result, be left with a greater sense of uncertainty than that experienced by those who participate in it on a daily basis.

The levels of contingency and uncertainty evident in the patent system do not mean that the system is unstable. On the contrary, given that the contingency is a result of the players acting in accordance with their training, the system has a great deal of stability. Once trained, subjects re-express the practices they learned during their education. This means that there is minimal opportunity of radical change throughout the discourse's subjects. Further, this continual reproduction means that it is more precise to consider the system to have significant inertia. Inertia, in this sense,²¹ means that it moves at a constant velocity and will take a very large force to change its direction. In other words, as the players continually act in a manner that is consistent with good patent practice, despite their actions appearing uncertain to outsiders, the patent system as a whole undergoes constant repetition and, therefore, maintains stability.

²⁰ These observers could include, for example, commentators, policy makers and academics.

²¹ Inertia may be properly defined as the 'property of matter that causes it to resist any change in its motion. Thus, a body at rest remains at rest unless it is acted upon by an external force and a body in motion continues to move at constant speed in a straight line unless acted upon by an external force': *Oxford Dictionary of Physics* (5th edn., Oxford University Press, Oxford, 2005), s. v. "inertia".

Patent Practice, Change and Inertia

The balance of this article will apply the terms discussed above to patent practice to demonstrate how the system is contingent, uncertain and stable. In doing this, the system will be broken down into categories of action – rather than types of practice. This is to emphasise that it is the interaction of discourses that produces uncertainty and not the particular behaviour of specific groups of patent players.

Contingent

Every aspect of the patent system is contingent because every player in the system acts in accordance with their training. Therefore, patents are contingent on the actions of the inventor, applicant, patent examiner, lawyer, any competitor of the applicant and any judge that participates in an action. Five sets of practices associated with the patent system are discussed:

- Intention;
- Classification;
- Translation;
- Adjudication; and
- Creation.

The inclusion of all these is to demonstrate that there are significant variations in behaviour of those associated with the patent system. Not all of these give rise to accusations of uncertainty. Each, however, reflect players acting in accordance with their internalised practices.

Intention is a discursive practice that is common to most, if not all, discourses. As intent is pervasive, there are examples of it with respect to the actions of all six

groups of patent actors. Inventors, in most instances, intend to “invent” – to use their skill and ingenuity, in other words, their creativity, to overcome a problem or improve a pre-existing invention.²² Further, patent examiners intend to examine patent applications and judges intend to sit in judgment of the cases that come before them.

A more important example of intent that needs to be acknowledged rests with the business owners that participate in the system. Not all inventions are the subject of patent applications. Not all patent applications are submitted for the same purpose.²³ The literature suggests that there a number of benefits that may prompt a patent applicant to pursue the monopoly protection. These include a desire to protect technology; create ‘retaliatory power against competitors; create ‘better possibilities of selling licences’; provide ‘motivation for employees to invent’; provide a ‘measure of R & D productivity’; and improve the ‘corporate image’.²⁴ Each of these illustrate a different *intent* on the part of the prospective patentee. Further, each of these motivations may also be benefits that may prompt a competitor to either challenge the grant of a patent or to operate in such a way as to prompt a patentee to start an infringement action.

The contingent purpose of the patent applicant/patentee or competitor may impact on the scope of the patent applied for – the breadth of the claims, for example; the vigour of any legal defence to, or challenge of, the patent – the willingness to

²² From an economics perspective at least, a patent should not be granted where there was no conscious investment of time, energy or funds in the “invention”. That is, the ‘conventional rationale ... is the difficulty that a producer may encounter in trying to recover his fixed costs of research and development’: W. Landes and R. Posner, *The Economic Structure of Intellectual Property Law*, (Belknap Press, Cambridge Mass., 2003), p. 294. No costs, therefore, implies there should be no protection. Economists consider that if there are no costs than the invention would have occurred in the absence of a patent system. I thank Dr Paul Jensen for this expression of the idea.

²³ It follows that not all patents are challenged by a competitor for the same reason.

²⁴ O. Granstrand, *The Economics and Management of Intellectual Property: Towards Intellectual Capitalism* (Edward Elgar, Cheltenham, 1999) p. 78. Other reasons that have been cited include ‘to obtain financing and boost market valuation’; to use ‘as signalling mechanisms’; and ‘to deter others from suing’: Lemley and Shapiro, fn 17 above, at p. 81.

settle any dispute, for example; and on any desire to continue research in the field. These are all business decisions, actions directly related to the discourse of commerce. Whereas the decisions may not make perfect sense to someone not versed in the ways of the business world, corporate patent applicants/patent holders tend to act in accordance with the internalised practices of corporate players, and therefore, the decisions make sense to them.

The next set of practices that contribute to the contingent nature of the patent system is that of classification. Every discourse has its own set of practices associated with classification,²⁵ and therefore, actions of each of the sets of actors discussed here could be used as examples. The training of lawyers and judges, however, provides the most accessible practices to demonstrate the impact of processes of classification on the patent system.²⁶ The practice to be focussed on is the characterisation of certain aspects of a granted patent as integers.²⁷

A granted patent contains a set of specifications and claims (this distinction is another form of categorisation). The relationship between the specification and the claims is that the ‘complete specification must describe the invention and end with

²⁵ Foucault argued that internal processes classification were central to the self-regulation of discourses: “Order of Discourse” in *Untying the Text: A Post-Structuralist Reader* (R. Young ed., Routledge & Kegan Paul, Boston, 1981), p. 56.

²⁶ For a more detailed discussion of legal practices of classification, see C. Dent, “The Privileged Few and the Classification of *Henwood v Harrison*: Foucault, Comment and Qualified Privilege” (2005) 14 *Griffith Law Review* 34.

²⁷ A second example relates to law more generally. The doctrine of precedent, otherwise known as *stare decisis*, is a form of categorisation that focuses on the differentiation of past cases on the bases of who made the decision and the subject matter of the decision. In short, past judgments are not treated equally. Reported judgments are, for example, treated differently from unreported judgments and official from unofficial reports. Judgments from appellate courts are treated differently from judgments of courts of first instance. The decision as to whether a statement in a precedent is binding is to some extent a function of the specific decision event. A judge’s apparent “agency”, from the discursive understanding adopted here, will be constrained by the categories of the courts (their relative positions), the categories of evidence and facts (relative fact situations) and on the particular characteristics of the judge’s training. For a more detailed discussion of the doctrine of precedent as a form of categorisation, in a Foucaultian setting, see Dent, fn 3 above.

claims defining the invention’.²⁸ If a patent ends up being adjudicated by a court its claims and specification are considered, at least in Australia, in terms of “integers”. There is no precise definition of an integer, in part, because the term is not referred to in, for example, the Australian *Patents Act (1990)* or Regulations. The term has been developed within the case law and has been linked to a patent’s specification in the following way: ‘it is sufficient that the invention itself is described in such a way as to enable a skilled and experienced person to “discern” the integers of the invention’.²⁹ In that case, the ‘relevant integer’ of the patent was equated to a ‘characteristic feature’ of the invention.³⁰ Most patents would have a number of “characteristic features” and, therefore, integers.³¹

The identification of integers, however, ‘remains a question of construction and no general principles can be laid down’.³² This process of classification of features is important because, in the case of infringement actions, a ‘defendant will not escape infringement by adopting what are immaterial variations, for example, by omitting an inessential part or step and substituting another part or step as its equivalent’.³³ That is, judges will categorise features of a patented invention, and an allegedly infringing product, in order to assess whether an infringement has occurred.

A significant, but less studied, aspect of the patent system is its need for multiple “translations”. Translation, at least for the purposes of this article, is

²⁸ *Kimberley-Clark Australia v Arico Trading International* (2001) 207 CLR 1, 12, *per curiam*.

²⁹ *Arico Trading International v Kimberley-Clark Australia* (1999) 46 IPR 1, 15, Tamberlin J.

³⁰ *Arico Trading International v Kimberley-Clark Australia* (1999) 46 IPR 1, 15, Tamberlin J. An integer has also been described as an ‘element’ of an invention: *Populin v HB Nominees* (1982) 41 ALR 471, 475, *per curiam*.

³¹ While the case law in other countries does not speak of integers, equivalent processes of classification do occur. In the UK, for example, judges have to classify differences in two products (one covered by a patent and the other allegedly infringing the patent) as either having a ‘material effect’ or not: *Improver Corporation v Remington Consumer Products* [1990] FSR 181.

³² *Rodi & Wienberger v Henry Showell Ltd* [1969] RPC 367, 391, Lord Upjohn; quoted with approval in *Azuko Pty Ltd v Old Digger Pty Ltd* (2001) 52 IPR 75, 100, Heerey J.

³³ *Populin v HB Nominees* (1982) 41 ALR 471, 475, *per curiam*. This is known as the “pith and marrow” doctrine.

considered to mean the re-expression of an idea from the form adopted by one discourse to a form adopted by another. In other words, translation occurs when information in one format, or language, is reformulated into another format or language. This re-expression is understood as translation when the translator has been trained in both discourses.³⁴ The ideal example of this, in terms of patents, is the work carried out on a daily basis by patent attorneys.

An inventor, or patent applicant, in most cases, will approach a patent attorney in order to apply for a patent to protect an invention. The invention is not likely to be in a form ready to submit to the local patent office. The role of the attorney is to “translate” the invention produced by the inventor into a form recognised by the patent office. This translation will include the delineation of specification and claims outlined above.³⁵

This practice of translation adds to the contingent nature of the patent system because there will always be an inexact match between the two discourses involved in a particular patent application.³⁶ That is, any translation takes skill on the part of the translator but most translations are not perfect. The inventive step required for patent protection may not be something that is easily expressed in words. A diagram may reflect the physical dimensions of the invention, however, the claims of patent

³⁴ This is in opposition to the practice of interpretation, discussed below, where a particular actor, a lawyer for example, interprets an artefact of a discourse in which she or he has not been trained.

³⁵ This practice falls into the category of translation as patent attorneys, either through education prior to starting as attorneys or as a result of experience as an attorney, have built up specific knowledge of a particular area of technology. That is, an attorney may focus on patents in the area of pharmaceuticals or mechanical engineering. They learn (or have learnt through previous study) the discourse of organic chemistry or engineering. They also have learnt the discourse of practical patent law through their training and experience as a patent attorney. Both sets of knowledge, therefore, have been internalised and they are comfortable understanding and repeating practices associated with the relevant discourses.

³⁶ This, again, is not a criticism of the work of patent attorneys but a recognition of the difficulties associated with operating with two distinct discourses.

applications tend to be expressed in words, the primary form of communication of the law.³⁷

The next site of contingency in patents lies in the practices associated with adjudication. Adjudication is evident, most significantly, in the work of patent examiners and judges. Both groups have to assess evidence presented to them (in a form acceptable to their discourse) against a set of criteria (established by the discourse in which they have been trained). The focus here is on the work of examiners, in part, because the contingency of the findings of the courts is widely recognised in the academic commentary on patent practice.³⁸

More specifically, contingency in this area is best illustrated through the example of the assessment of the “prior art” that supports a patent application. One of the key tasks of patent examiners is to consider the relevant prior art to see if the invention demonstrates a sufficient inventive step and the requisite degree of novelty.³⁹ That is, both the claims for novelty and inventiveness have to be measured against the “prior art base”.⁴⁰ The capacity to conduct this “measuring” arises from the experience and expertise of the examiners; further, this “measuring” reflects the contingent nature of the examination of patent applications.

³⁷ It has been held that there is ‘no doubt that drawings can be taken into account and indeed relied on solely to ascertain the essential integers of the invention’ (*Arico Trading International v Kimberley-Clark Australia* (1999) 46 IPR 1, 14, Tamberlin J., citing *Société des Usines Chimiques Rhône-Poulenc v Commissioner of Patents* (1968) 100 CLR 5), though it is much more common to express the claims of a patent in words.

³⁸ See, for example, Bessen and Meurer, fn 1 above, though they do not consider the operation of the courts in the same form as is done in this article.

³⁹ The legal requirements of the *Patents Act 1990*, for example, include that the ‘invention, so far as claimed in any claim ... when compared with the prior art base as it existed before the priority date of that claim ... is novel; and involves an inventive step’: s 18(1). This test relates to applications for standard patents. Section 7 of the Act sets out the test of novelty and inventive step.

⁴⁰ “Prior art” is usually defined in statute; see, for example, Australia’s *Patents Act 1990* Schedule 1.

This assessment may be understood as a two stage process. The first is the ascertainment of the relevant prior art.⁴¹ The second stage is the assessment itself. An examiner will utilise her or his skills and practices to “judge” whether the patent application in question demonstrates that the invention qualifies for patent protection. This is an action that can only be effectively carried out by those who have been trained in these skills. It is an action the outcome of which cannot be guaranteed before it happens. The granting of a patent is, therefore, contingent on the expertise of examiners.

The final aspect of contingency may be seen to underlie all the others, and to a large extent, the entire patent system. Acts of creation, however, may also be seen to sit uncomfortably beside the four other aspects of the system described above. This is because the others have been described as functions of the discourses, the training, that the actors have participated in; whereas creativity is often seen as something innate, a part of the self that springs from being human. The discursive understanding used in this article suggests, however, that can also be understood as a function of discourses and training. This section will use the example of the inventor to illustrate the discursive nature of creativity and to emphasise the added layer of contingency this imposes on the patent system.⁴²

⁴¹ Most applications for patent examinations include a prior art search carried out by the applicant. The examiner then may carry out an additional prior art search if the examiner considers that the supplied search results are insufficient. A search may also be carried out by a competing firm if it is considering the use of the invention (that is, if the firm is assessing whether it has “freedom to operate” around the proposed patent – the result of this search may prompt the competitor to oppose the patent application). Each of these searches may produce different results. It may be noted that, reasons of efficiency and the sheer volume of potentially relevant material, the search strategies of the attorneys and examiners cannot be fully comprehensive. This means that different prior art searches will provide different bases from claims of novelty and inventiveness, a further example of contingency in the patent system.

⁴² As with the other examples of contingent behaviours, the focus on the actions of one particular group of patent players is not meant to suggest that it is the only group to demonstrate that type of behaviour. Patent attorneys and lawyers, for example, may be seen to approach the writing and challenging of patent applications and grants in very creative ways.

Inventors, particularly in the modern context, tend to have received significant training and education in their chosen discipline.⁴³ That is, inventors tend to be experts operating within a particular discourse – expert both in the practices that define their discipline and in practices of problem-solving. Further, as noted above, thought itself may be seen as a discursive practice; reasoning, the application of logic to a given set of data is a particularly relevant mental practice for the process of invention. Inventors, from this perspective, have the demonstrated capacity to draw together, through thought and reasoning, previously learnt techniques and aspects of knowledge in order to find a solution to a given problem.

This drawing of past approaches and understandings is, in some circumstances, going to be sufficient for the product of the problem-solving to be patentable.⁴⁴ Most inventions, at least as demonstrated by those gaining patent protection, may be seen as modest improvements on past inventions. The Patents Act only requires that, for patent protection, the invention must demonstrate an “inventive step”; that is, the invention must not have ‘been obvious to a person skilled in the relevant art’.⁴⁵ The required step is not large. According to commentators, it is ‘significant that courts have stressed that there need only be a “scintilla of invention” for a particular not to be obvious’.⁴⁶

Creativity, therefore, may simply be seen as the drawing together of previously unconnected practices and knowledge. It is a product of the training and

⁴³ The list of US patent recipients who received the most patents in 2005 includes IBM (number one with 2,941 patents), Canon, Hewlett-Packard, Samsung, Intel and Toshiba. The tenth on the list, Fujitsu, was granted 1,154 patents (*The Economist*, January 14, 2006, 63.) This suggests that many modern inventors are highly trained engineers working within specific industries and disciplines rather than being closer to the romantic ideal of a solitary genius.

⁴⁴ It has been noted that ‘invention may ... lie in providing the practical solution to a problem which no one has yet been able to overcome’: J. McKeough, A. Stewart and P. Griffith, *Intellectual Property in Australia* (3rd edn., LexisNexis Butterworths, Sydney, 2004), p. 359.

⁴⁵ *Patents Act 1990* s 7(2).

⁴⁶ McKeough, Stewart and Griffith, fn 44 above, at p. 360 quoting *Samuel Parks v Cocker Bros* (1929) 46 RPC 241, 248.

experience of those who work in the area. The act of invention, while explainable discursively, is still an act of contingency within the patent system – the act of invention is an act that is a result of the behaviour of an individual, or a number of individuals. Acts of invention, however, may be *perceived* as being uncertain by others, both within and outside the patent world. This notion of uncertainty is discussed next.

Uncertainty

The description of the detail of the patent system has, so far, focussed on its contingent aspects – that is, those behaviours that are the result of a particular player operating within the discursive boundaries of her or his training and/or experience. All of these practices may be seen as uncertain by people who have not internalised similar practices. The uncertainty may be seen to arise as a result of processes of interpretation and perception. These aspects are not, exclusively, particular groups of behaviours, as was the case in the discussion of contingency, but are inter-discursive mechanisms through which the system may be seen as uncertain. These two aspects will be considered in more detail here.

Interpretation, in the sense used here, relates to an actor within the patent system interpreting material that is substantially outside the discursive boundaries of her or his training and/or experience. As highlighted above, interpretation is understood differently to translation – with translation applying to actions where the actor is acting within her or his areas of training and experience. The obvious example of interpretation within the patent system is where the legally trained use and understand the product of the scientifically trained – the interpretation of patent specifications and claims.

Patent specifications and claims, and in particular, any prior art that is used to support or challenge the claims, are produced by patent attorneys and others who are scientifically trained. The scientific information contained in the specification and claims may be translated into a form recognised by law but that does not mean it is readily understood by the legally trained.⁴⁷ Further, it has been judicially recognised that the use of technical language in specifications and claims is problematic. It has been held that, ‘although expert evidence may be given as to the meaning of technical and scientific terms, construction of patent claims is a task for the court, not for the expert witness’.⁴⁸ That is, the words of scientifically trained *must* be interpreted by the legally trained for them to have legal effect.

That the adjudication of patent disputes, involving the interpretation of documents of different discourses, produces uncertainty is evident in the appeals process. For example, in a case involving the manufacture of shotgun shells, the High Court judge who first heard the case found that the ‘successive steps involved in compressive deformation in the appellant’s process were not present in the first respondent’s process’.⁴⁹ That is, all the integers in the first patent were not found in the allegedly infringing process. The four High Court judges who heard the appeal thought the opposite. This was not a case of ambiguous claims and specifications but of understandings of the manufacturing process – understandings that were developed with the assistance of expert evidence from the witness box at the hearing.⁵⁰ The

⁴⁷ That the process involves interpretation has been judicially recognised: it is ‘established that there are no special rules for the interpretation of patent specifications, which are to be interpreted in the same way as any other written document upon ordinary principles of interpretation’ (*Décor Corporation v Dart Industries* (1988) 13 IPR 385, 391, Lockhart J.). The judge’s use of “interpretation” here may not necessarily match the use of the term in this article.

⁴⁸ D. Bucknell, K. Beattie, A. Goatcher and H. Rofe, *Australian Patent Law* (LexisNexis Butterworths, Sydney, 2004), p. xvi, citing *Flexible Steel Lacing Co v Beltreco Ltd* (2000) 49 IPR 331.

⁴⁹ *Olin Corporation v Super Cartridge Co* (1977) 180 CLR 236, 252, Stephen and Mason JJ.

⁵⁰ Gibbs J discussed the expert evidence heard by Jacobs J at *Olin Corporation v Super Cartridge Co* (1977) 180 CLR 236, 249.

different judges understood the “language” of the experts differently – their different processes of interpretation producing different results.

Perception is the other aspect of uncertainty to be discussed here. The distinction between perception and interpretation, for the purposes of this article, is that interpretation occurs when a player within the system observes the practice of another and interprets it in order to play her or his role in the system. A lawyer needs to interpret the practices of a chemical engineer to conduct litigation over a patent concerning an invention arising from the field of chemical engineering. Perception, on the other hand, relates to the observation of the practice of a patent player by the subject of another discourse that does not have a direct role in patent system.

Economists, for example, operate within their own discipline and do not have a direct role in patent practice. They do, however, perceive aspects of the system as uncertain.⁵¹ In particular, the uncertainty is perceived with respect to legal decisions on the validity of patents. This is unsurprising given that the training and expertise of economists is different to that of judges. That is, economists perceive the outcomes of patent disputes as uncertain because they have not internalised legal processes and reasoning to the same extent as lawyers and judges – they, unsurprisingly, do not understand the practices of law to the same depth. In other words, from the perspective of the understandings in this article, many aspects of the patent system are uncertain to economists, as, in most cases, the internalised discursive practices of the actors involved are not shared by those from the economics discipline.⁵²

⁵¹ See, for example, J. Levin and R. Levin, “Patent Oppositions”, Stanford Institute for Economic Policy Research Discussion Paper 01-29 (2002); and J. Anton, H. Greene and D. Yao, “Policy Implications of Weak Patent Rights”, in *Innovation Policy and the Economy*, Vol. 6 (A. Jaffe, J. Lerner and S. Stern eds., MIT Press, Cambridge Mass., 2005).

⁵² It is acknowledged that the legally trained also refer to aspects of the patent system as uncertain. See, for example, the quote by Bessen and Meurer in the opening paragraph of this article. In the discursive understanding adopted here, it makes less sense to suggest that legal academics have not internalised

It is likely that business owners are likely to also view the operation of the law in this area with some trepidation. Whether this concern is best seen as a matter of interpretation or perception would depend on how active a role the owner plays in the patent system. Either way, as with the economists, business owners tend not to have in-depth legal training. They also may have access to writings of business and economics commentators that highlight the general uncertainty of the patent system. Owners, however, would have access to legal advice from lawyers and patent attorneys, specific to their needs, to counter their personal inexperience. Uncertainty arising from the perspective of patentees, therefore, is ameliorated by interacting with members of the legal profession who have the capacity to clarify some of the perceptions of uncertainty.

Inertia

The last two sections of this article have emphasised the contingent and uncertain aspects of the patent system. This may suggest that there are significant concerns over the its operation today. Whatever issues there are, however, they do not relate to the stability of the system. That the system is inherently stable may be inferred from the low level of litigation, in terms of the ratio of number of patents fought over compared to the number of patents granted, between patentees and their competitors. That is, the level of litigation may not be an indicator of the low value of the unlitigated patents,⁵³ but an indicator of the relative certainty inherent in the system. This section provides an explanation for this inertia – the system’s propensity to

the same discursive practices as lawyers and judges who practice in patent law (though there would be significant differences). The discursive model does, however, allow for the possibility that the use of the term “uncertain” varies between individuals. That is, some may use the term to describe situations where they do not fully understand the decision-making processes involved (uncertainty as used in this article); while others may use it to describe situations where they understand the processes but recognise that there are allowable variations in the outcome (contingency as used here).

⁵³ See, for example, J. Allison, M. Lemley, K. Moore and R. Trunkey, “Valuable Patents” (2004) 92 *Georgetown Law Journal* 435.

maintain its current practices – based on the above discursive understanding of society. There are two aspects to this explanation – practices of repetition and those of expectation/interaction.

The discursive understanding of the patent system adopted here is founded on the perception that actors repeat previously learnt discursive practices. That is, for example, lawyers repeat previously learnt legal practices such as filing statements of claim and cross-examining witnesses. Patent examiners repeat practices associated with examination of patent applications and patent attorneys repeat practices associated with the drafting of applications. Variation in actions comes through the application of practices in different circumstances and the combination of different internalised practices.

The patent system can, therefore, be seen to comprise a large number of actors who repeat previously learnt practices. Further, these actors may be seen to be divided into a relatively small number of professions, with each profession sharing a significant number of discursive practices. This level of repetition produces a system that is self-perpetuating – experienced patent attorneys share their knowledge with younger attorneys and lawyers internalise expressions of the law uttered by judges (in the form of precedents). This systemic perpetuation produces a significant level of inertia, a stability that allows sufficient certainty for invention and investment in that innovation to continue.

Tied to the notion of repetition are those of expectation and interaction. These twin concepts emphasise the relationships between players who operate within the patent system. There are a number of categories of relationships fundamental to the maintenance of the system. These include those between:

- Inventors and business owners;
- Competing business owners;
- Inventors and patent attorneys;
- Patent attorneys and patent examiners;
- Patent attorneys and patent lawyers; and
- Patent lawyers and judges.⁵⁴

Each party to these relationships, obviously, interact with the other party; each party also has expectations about how the other party should behave in the context of the relationship and the patent system generally. That a party has these expectations is the product of internalised discursive practices; the content of these expectations is a product of both the experiences of the first party and a knowledge of the practices of the other party to the relationship. These expectations are reinforced where the parties concerned are repeat players in the system – the greater the exposure to the system, the greater the knowledge of what is likely to happen next.

A key relationship is that between patent attorneys and patent examiners. Both parties are trained in the same disciplines, and therefore, share many of the same internalised discursive practices. The intentions of the two would, however, be different – the attorney intends to craft a patent application that best suits her or his client’s needs, the examiner intends to assess the application in terms of the law and the patent office’s procedures. Both parties have expectations about how the other will react and act accordingly. For example, patent attorneys may include a particular range of prior art references in an application in the knowledge that an examiner,

⁵⁴ It will be noted that some of these relationships are between members of the same discourse and others cross discursive boundaries.

given patent office restrictions, will not have the capacity to conduct a more in-depth search.

The patent system copes with its inherent perceptions of uncertainty because, for any members of a discipline that does not fully understand the practices and processes of another discourse, there are those who act as intermediaries. Two relationships where this is particularly relevant are those between the inventor and the patent attorney; and the patentee (the business owner) and her or his lawyers. There is an expectation, here, that the “expert” party to the interaction (the attorney or lawyer) has sufficient knowledge and expertise of the other discourse to provide effective advice. That is, despite the cross-disciplinary purpose of the inventor’s/business owner’s intention (the uncertainty of the system), the presence of actors who are trained in multiple discourses ensures the perpetuation of the patent system.

Conclusion

This article has brought together ideas arising from post-modern theory and specific understandings of terms relating to perceptions of potential outcomes to more fully explore concerns over the uncertainty of patents. From the perspective adopted here, the system, as a whole, can be seen to have both a contingent and uncertain nature. However, the overall effect of the contingent and uncertain practices is a system that has significant inertia, and therefore, stability. That is, the nature of the system accommodates the uncertainty because the “unpredictability” only results from a lack of understanding of specific details of the contingent actions of particular patent players.

Two conclusions may be drawn from this analysis. First, the discursive perspective indicates there will always be uncertainty – not all players can internalise the practices of all other players in the system, therefore, not all players will fully understand the behaviours of others. Second, the uncertainty is not limited to one or two groups of players. That is, the uncertainty is not only the result of the action of lawyers or patent examiners – though the impact of their work may have a higher profile than the uncertainty generated by other players in a particular situation.

It is acknowledged, however, that even for those who participate in the patent system, let alone those who do not, there is no way of knowing, precisely, the outcome of particular disputes. There is, nonetheless, certainty over the existence and nature of key relationships in the system and over the practices that bind them. The contingency and uncertainty that is evident may be seen to add flexibility to a system that would otherwise be too rigid to adapt to changing industries and legislative regimes. Reform proposals aimed, purely, at reducing uncertainty, therefore, may be counter-productive if a wide enough perspective on the system overall is not adopted.

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