

## 2 *Scientia Iuris*

The brief survey of the history of legal 'science', undertaken in the last chapter, is evidently useful to the extent that it traces how the modern discourse of law has been developed over the centuries. One can follow the progress from a vision of law based on the *ius naturale* to a conception of law as nothing more than a *ius positum*. Equally, one can chart the evolution (or revolutions?) in legal methods from the dialectical and inductive approaches of the medieval jurists to the deductive logic of the *mos geometricus*. These historical progressions remain of importance to the extent that they inform the modern philosophical debates about the nature and definition of law. Thus natural law theory tends to be presented as a historical phenomenon inasmuch as its roots are in the writings of Roman and medieval jurists and philosophers. Positivism, in contrast, is seen as 'modern' inasmuch as it is associated with thinkers reacting against the older conceptions. But this is really a philosophical rather than a historical debate and thus history itself is contributing to the epistemological model only in an indirect way. History allows one to see, paradoxically, that positivism is as much a historical phenomenon as natural law. Yet, when one turns to epistemology in the natural sciences, history does have its own distinct contribution to make to modern scientific knowledge. Accordingly, in addition to the synchronic approach to epistemology, one must examine in more depth the diachronic.

Nevertheless, the relationship between 'legal science' and science itself – that is to say science in the natural sciences sense – is an ambiguous one. Much depends upon exactly what is meant by 'legal science'. When understood in terms of a history of codification in Europe, there is no escaping some relationship. The institutional system, as we shall see later, in Chapter 4, acted as the structural foundation for all the codes. However, *scientia iuris* can also be understood as a notion quite independent of the Roman classification scheme. Instead of deriving its force from what might be called the internal (Roman) law point of view, legal science can take the natural

sciences as its starting point. Accordingly, just as legal philosophy looks to the tradition of philosophy, so legal science can look to zoology, physics and mathematics for its central paradigms.

### Science

Over and above the problem of actually defining *scientia iuris*, when one asks what is meant by the term 'science' one comes up against, once again, ambiguity. The Latin word *scientia* did not have the same meaning as the modern term 'science'. It meant knowledge, and *scientia iuris* meant knowledge of law sufficient to permit a jurist to arrive at the right decision.<sup>1</sup> But such knowledge did go beyond a mere catalogue of precedents and legislative commands. The term *scientia* contained within it the idea of a certain rationality allowing relevant knowledge to be easily absorbed by the mind. Science was to be contrasted with chaos.<sup>2</sup> No doubt this idea of making rational sense out of chaos continues to have a relevance with regard to the modern understanding of the word 'science', but equally the modern word has rather a different connotation. As a result of its association with an ever-increasing material understanding of the world, together with technological and medical developments and discoveries, science has become an abstract, if not rather mystical, term for a material activity practised by scientists. The activity can be summed up as industrial and technological and the 'men-in-white-coats' form the popular image of the scientists who stand behind such objects. At an everyday level, science has become associated with technical objects and these objects, impregnated with scientific thinking, have become images for a material rationality.<sup>3</sup>

### Science and Technology

It is, however, important to distinguish science from technology. One might inform the other, but technology is rooted as much in technique as in any systematic and rational study of the natural world and beyond. Thus technology has been described as being half-way between technique and science.<sup>4</sup> Technique itself cannot be subordinated to science because 'the first aeroplanes flew before aerodynamics existed and the first plastic materials owed nothing to the theories of chemical synthesis'.<sup>5</sup> Technique, therefore, would appear to be rooted in the concrete world of activity; it is a matter of practice. Science, on the other hand, cannot be defined either as intellectual technique – which is a matter of methodological practice<sup>6</sup> – or as technology, which 'is a special kind of technique (scientific

technique').<sup>7</sup> As a matter of actual practice, science is about the formulation of 'universal and necessary relations between phenomena, that is to say laws'.<sup>8</sup> This is quite different from technique or technology, in that science is about, not concrete things, but 'reasoned abstractions'.<sup>9</sup>

When looked at from the position of science, rather than from that of technique and technology, this notion of 'reasoned abstraction' is both attractive and problematic. It is problematic inasmuch as the visible face of science has been one of practical discoveries and applications that have had an impact upon societies in a whole number of material ways. And viewed from this position, science begins to lend itself to the kind of definition that one might associate with technology, if not technique. Or, put another way, science can be seen as being associated with a body of researchers who indulge not just in an intellectual activity but also in practical and concrete acts. Yet, as Granger has observed, aqueducts, roads, ships and the like were not seen as 'science symbols' in the ancient world.<sup>10</sup> It was at the end of the 17th century that science became entangled with technique, and modern technical prowess reflects advances in scientific knowledge.<sup>11</sup> Thus the technological and technique face of science is a relatively recent development.

Where the 'reasoned abstraction' proves attractive is in respect of the intellectual foundation of science. One of the fundamental characteristics of the modern idea of science is its complete detachment from concrete reality. Such reality may appear to be the object of science; but science is an abstract scheme completely detached from the world of concrete objects and phenomena. It is only a *representation* of this reality.<sup>12</sup> Science has as its aim the description and explanation of the object that its scheme represents. Its objective is to use this description and explanation to predict and it is in this ability to predict that science has what might be called its dynamic role. Yet this requirement of prediction is also a fundamental control device inasmuch as it acts as a means of verification. If a scientific scheme proves unable to predict accurately, the scheme itself will come into question. Yet, as Granger warns, this requirement of prediction must never be taken too literally simply because science is not concerned with reality itself. Science deals with 'virtual reality', with 'virtual facts'. Accordingly, prediction has to be understood in terms of *virtual* and not *actual* facts.<sup>13</sup> 'The predictive power of a theory is then a true criterion of validity,' concludes Granger, 'but only in the limits that the partially indeterminate character of the virtual fact assigns to this prediction.'<sup>14</sup>

*Science and its Object*

Professor Granger's definition of science indicates that the old idea of a dichotomy between science and its object is no longer so clear-cut. Science goes far in constructing its own object, that is to say its own version of reality. But the object of a science cannot be so easily dismissed, since it is seemingly difficult to escape from reality's influence on science. Indeed, the whole question of the relationship between science and reality is still a matter of debate. Of course it would be idle to think that this debate can be resolved. Nevertheless, what one can do is to identify two types of object. There are objects of science which are capable of relating to a material or concrete thing which seemingly exists in reality. Equally, there are objects which are only conceptual and thus do not move, explode or metabolise. Mathematical structures, for example, do not get hungry and they do not fly.<sup>15</sup> Thus one can assert that, while a science like mathematics creates its own objects, the natural sciences 'describe, explain and predict the conduct of their objects, but they do not create them'.<sup>16</sup> The result has been expressed by Mario Bunge in the following way:

If a mathematician postulates the existence of a new conceptual object and does it without falling into contradiction, nobody will be able to refute it, even if his postulate ends up being ignored or considered wanting in interest. In contrast, if a physicist, a biologist or an historian postulates the existence of a concrete object which has not yet been discovered, they are thus acting in the hope of its discovery.<sup>17</sup>

Granger might reply of course that the objects of the empirical sciences are more complex. As he asserts:

Scientific knowledge arising out of experience always consists of *constructing abstract schemes or models of this experience*, and of exploiting, by means of logic and mathematics, the relations between the abstract elements of these models, so as to deduce from them properties corresponding with sufficient precision to the empirical properties directly observable.<sup>18</sup>

The objects of science are not, then, the actual objects themselves. The objects are contained in the models which are constructed to represent them. This point must be stressed because it indicates how important it is to be aware of the nature of the gap between empirical objects attracting the attention of science and the actual abstractions of science. Bachelard, for example, has claimed that some sciences in the past have encountered epistemological obstacles by being too close to the facts.<sup>19</sup> Other sciences might suffer from not being close

enough. What must be appreciated is that the scientific object cannot conserve the same richness as the actual physical object upon which it is based.<sup>20</sup> The question, therefore, is how much of this richness is to be maintained in the abstract model and how much is to be lost. And it is with respect to this question that the scientific scheme or theory itself becomes important. The more abstract the scheme, the less rich the objects. How much of this richness can a scientific theory or model afford to lose before it loses the facility to describe, explain and predict?

*Science and Textbooks*

This question of the relationship between a scientific theory or scheme and the concrete objects that it is attempting to model is relevant, not just to the practice of science, but also to the communication of scientific knowledge. The function of the teaching of science is to provide students with the means to allow them both to respond to scientific and technical questions in their everyday life and to develop the attitudes and methods of thought employed by scientists in the laboratory.<sup>21</sup> It would seem evident, therefore, that the models used by the practitioners of science should be the same as the ones that inform the teacher. However, things are not quite so simple. The development and perfection of scientific theories are often presented through the results of actual experiments carried out by many individuals over the centuries. This approach gives the impression of a gradual construction of a scientific scheme of thought through the accumulation of personal contributions.<sup>22</sup> The history of science, in other words, is about the gradual building up of a sophisticated methodology allowing humans access to an increasing knowledge of the world around them. Yet some philosophers of science have suggested that this view is largely false. Gaston Bachelard and, later, Thomas Kuhn argued that the history of science is anything but continuous; it is, instead, a history of discontinuity marked by epistemological obstacles (Bachelard) and revolutions (Kuhn).<sup>23</sup>

This historical debate is important in that it calls into question the epistemological validity of the means by which scientific knowledge is transmitted. In particular, it puts under the spotlight textbooks that present science in terms of abstract models of reality, since these models, as we have seen, do not correspond to reality. They correspond only to a certain abstract conception of reality and thus they both explain and do not explain.<sup>24</sup> Once these models are reduced to teaching manuals they assume an authority which goes beyond their original function. Their content becomes, so to speak, 'set in stone'. The result is that the model and its concepts assume a

'depersonalised' and 'de-historicised' status, becoming objects not of explanation and prediction but of teaching. Such a transformation has the effect, according to Jean-Pierre Astolfi and Michel Develay, of turning the model and its concepts into 'truths of nature'.<sup>25</sup> Knowledge is transformed through a process of 'dogmatisation'.<sup>26</sup> Science is no longer a matter of possibility through experimentation, but 'ready-made knowledge' presented as a propositional finality in itself.<sup>27</sup> Thus, far from being facilitative, textbooks on science are always in danger of being obstacles to knowledge.

Textbooks are in danger of being obstacles because they are capable of misstating the nature of scientific knowledge and of eclipsing the transient and relative aspects of its models and theories. Furthermore, it has to be remembered that textbooks have their own particular function, which is to teach rather than to aid the practice of science. The practitioner of science has need of models that continually reflect the fact that scientific knowledge is a matter of 'coming and going between concrete situations and a body of symbolic knowledge'.<sup>28</sup> Now, such models may be local and complex. That is to say, they might well be of a kind that operate at a relatively low level of abstraction where local and concrete objects correspond to their own localised concepts. Such a practitioner model has been described by Astolfi and Develay as a 'patchwork without unity'.<sup>29</sup> The teacher of science, in contrast, has need 'of a more general vision of the discipline to be taught, in terms of organising principles, notional fields and conceptual threads'. He or she needs a universal view of his or her science where every concept can be seen 'in liaison one with another'.<sup>30</sup> The teacher must, in addition, communicate with students and this means that the model by which knowledge is transmitted should be of a kind capable of communication as much as exploration.

#### *History of Science*

The history of science has, accordingly, an important status in epistemology since it allows the epistemologist to avoid rather than to perpetuate myths about the internal development of the disciplines. As Blanché has said:

History offers a good means of analysis in separating, by the date and by the circumstances of their appearance, the various elements which have contributed to form little by little the notions and principles of ... science ... In this way, epistemology is distinguished from the history of science in that this history, for epistemology, is a means and not an end. Supported by history, its research is essentially critical: its goal is to detect, thanks to the lessons that the study of the past brings to bear,

the elements which have contributed to the formation of the science and scientific ideal itself ... Now such a history, being a history of ideas, cannot be written in the same style as a history of events, for the links are not of the same nature in the two cases ... Whether it is a question of scientific, moral, aesthetic etc., ideas, their history cannot be written, only grasped, so to speak, from the inside ... This is why all history of the sciences other than the purely narrative is already, to some degree, philosophic.<sup>31</sup>

In particular, two philosophers of science, Gaston Bachelard and Thomas Kuhn, have, as we have seen, shown the importance of history in understanding modern science. According to Bachelard, the history of science is not to be understood as an unfolding process of developing knowledge and understanding of the world; rather it is a matter of overcoming obstacles. The history of science is really a question of ruptures rather than continuity. 'The historian of the sciences must take ideas as facts,' writes Bachelard. But 'epistemology must take facts as ideas in inserting them into a system of thought'. Now, a 'fact badly interpreted in an epoch remains a fact for the historian' which becomes 'in the hands of an epistemologist an *obstacle*, a regressive idea'.<sup>32</sup> Scientific knowledge accordingly needs to overcome these obstacles before it can evolve in any progressive way. For example, it was for centuries thought that women were in every way physically inferior to men, and this acted as an obstacle to the understanding, say, of the heart or kidney in human bodies because it was assumed that a woman's organs must be categorically different from those of men. Another example is the striking effect of explosions. This became an obstacle to the understanding of chemical reactions in general, since the striking effect led to explosions being put into a different category than other, more mundane, chemical reactions.

Kuhn views the history of science in a not dissimilar way. According to him, scientific inquiry is predicated on the assumption that the scientific community at any one time knows what the world is like; scientific practice is thus conducted within models which have sprung out of particular scientific world-views which in their time were regarded as the 'normal science'.<sup>33</sup> Kuhn assigned to these models, when viewed historically, the term 'paradigm' and thus the history of science is a history of dominant paradigms.<sup>34</sup> Each paradigm survives as long as it fulfils professional expectations. However, history shows that anomalies occur not only which cannot be explained by the paradigm but which ultimately force a major shift in professional outlook; this shift leads to a new set of professional commitments and a new basis for the practice of science. These 'extraordinary episodes in which that shift of

professional commitments occurs,' says Kuhn, 'are the ones known ... as scientific revolutions'.<sup>35</sup> The history of science for Kuhn, then, is a history of revolutions.

Taken together, these two epistemologists suggest that the history of science is one of discontinuity. It is a history of conflicts and not a history of the harmonious discovery of new facts. Nevertheless, these revolutions are not born out of a void and thus they must be understood in terms of the paradigms and obstacles that preceded them. It is in respect of this understanding that the epistemologist is led to reflect upon the issue of continuity and discontinuity. New theories often explain previous doctrines and to this extent the history of science can be seen, equally, as the 'envelopment' of old ideas by the new.<sup>36</sup> Perhaps it is more a question of levels of abstraction; scientific thought moves from one level of rationality to another and, in doing so, produces new categories and concepts.<sup>37</sup> Accordingly, the history of science, 'far from being a chronology of landmark discoveries of facts, or even of a list of inventions of things, is above all a *genealogy* of "categories" which have successively made up the objects of a science'.<sup>38</sup> To paraphrase Granger, this successive development of basic concepts is not in essence dependent upon circumstances extrinsic to science itself. And this is true even if the date and the conditions of their coming to light result to a large extent from the economic, political and ideological circumstances of the society where they are to be found, together with the history and personal psychology of the original scientists. The point to be stressed is that the 'linking together itself of their discoveries is dependent in the final analysis on an *internal movement* of concepts'.<sup>39</sup>

### Legal Science

The question for the jurist is, of course, the extent to which the history of the sciences is of any relevance to an understanding of law as a body of knowledge. In particular, to what extent is a historical approach valid in terms of the production of an epistemological model of law? Certainly, the history of law is unlike the natural sciences, in that law is not a discourse which has as its supposed object the facts of the world; it is entirely a history of a 'genealogy of categories' whose function has been to provide a normative system of social regulation. One legal epistemologist has described legal science as being characterised, from a methodological point of view, as having 'atypical objects': that is to say, legal norms or prescriptive propositions which escape the criterion of observability, a criterion which is typical of all empirical phenomena. The legal norm 'is not in fact something of which one can have an *immediate and direct*

*perception* ... without the aid of concepts and theoretical categories'.<sup>40</sup> The history of legal knowledge seems less amenable, then, to an ontological (what exists) basis in some 'objective' world of fact.

However, philosophers of science, as we have seen, no longer conceive the world in terms of objective facts acting as the object of a science which reveals their hidden truths. Facts are scientifically constructed by the model of science itself and it is the history of science that has revealed these differing models.<sup>41</sup> Each science, to the extent that it progresses, tends to modify its own object in order to adapt it to the scientific model in issue.<sup>42</sup> In other words, science and the object of science are by no means so clear-cut as one might have thought. This does not of itself make the history of science relevant to legal knowledge, but it certainly breaks down a number of misconceptions with regard to apparent distinctions between scientific and legal discourse.

### Historical Jurisprudence

The history of law has not been ignored by jurisprudence. Indeed, there is a specific school of Historical Jurisprudence associated primarily with the German jurist Savigny, and this school acted as one of the foundations for modern sociological jurisprudence.<sup>43</sup> In developing a thesis that law emerged out of the spirit of the people (*Volksgeist*), Savigny created a 'revolution in legal thinking' by insisting that law is the product of a people and its history.<sup>44</sup> He laid the foundations, in other words, for a cultural approach to law, an approach that is now central to comparative law theory.<sup>45</sup> More directly, however, the Historical School saw law itself as a historical phenomenon.<sup>46</sup> In England, writers such as Sir Henry Maine used legal history to make some important general observations about law,<sup>47</sup> and, while some of these might now be regarded as 'rather wild and largely discredited',<sup>48</sup> it would be a mistake to say that Maine and the viewpoint from which he was writing did not make important contributions to jurisprudence.<sup>49</sup>

Nevertheless, there are two problems associated with historical jurisprudence. First, it is logically impossible to derive from (historical) fact an 'ought' and thus history cannot, in the end, provide much of a philosophical basis to jurisprudence. All it can provide is an explanation of the building blocks of legal thought. This, of course, does not undermine its epistemological value, but it does help explain why historical jurisprudence itself is not alive and well in common law faculties.<sup>50</sup> Secondly, the Historical School itself was motivated primarily by the idea of progress and evolution in law. Historical jurisprudence was a group of theories claiming 'to explain legal change not merely in historical terms but as proceeding

according to certain determinate stages, or in a certain pre-determined manner'. And in 'their fully developed form, such theories were essentially a nineteenth century phenomenon and did not long survive the end of the century'.<sup>51</sup> In addition, the belief in science, which motivated the legal evolutionists, is not what it was: the 'distrust of the methods of traditional science has been accompanied by a rejection of general schemes designed to provide explanations of institutional change on a universal basis'.<sup>52</sup>

### *Scientific Revolutions in Law*

However, as Stein points out, 'there can be historical jurisprudence which is independent of social and economic data, and which concentrates on more strictly legal phenomena'.<sup>53</sup> Accordingly, a second relevant question concerns scientific revolutions in the history of legal discourse. Is the history of legal science one of developing continuity or one of obstacles, ruptures and revolutions? This question has received specific consideration from a French jurist. According to Christian Atias, there have been theoretical innovations in law which have overturned legal thinking to such an extent that 'nothing was the same as before'. The appearance and success of concepts such as the legal right, the legal subject, the state and even the consumer 'have had repercussions on many rules, solutions and legal notions'.<sup>54</sup> Equally, the birth of a secular natural law, rational and voluntarist, has been felt in many areas of the law. And, in a similar fashion, the transformation of contract from an empirically based economic operation to an agreement based on the meeting of two abstract wills has modified the fundamental equilibrium of the regime in terms of both formation and execution of this act.<sup>55</sup> However, whether these can actually be seen as revolutions in the Kuhn sense is, according to Atias, questionable. Atias makes the point that there have always been critics of these fundamental legal notions and thus it becomes difficult to talk of 'normal science'; more interesting is the question why some criticisms succeed while others have little effect. At all events, the term 'paradigm' is unsuitable in this context. Instead, it is better to talk of 'anchor points' which are so central to legal knowledge that jurists cannot contemplate the possibility of abandoning them.<sup>56</sup>

Atias does not end the argument with this observation. 'If there is an example of a revolution in legal knowledge,' he writes, 'it ought to be located in the years 1870–1900'.<sup>57</sup> During this period a number of jurists in France inaugurated a new era with the definite tone of a rupture. The immediate cause of this revolution was the German Civil Code which, with its new vision, was calling both the *Code civil* and the 'school of exegesis' (positivistic) interpretative methods

which had been applied to it into question. Henceforth the systematisation of legal knowledge along the lines of the German Pandectists and the BGB (German Civil Code) would, according to Atias, revolutionise legal thinking in France to such an extent that one can talk of a 'Copernican revolution'.<sup>58</sup> New methods, new doctrines and new disciplines were to accompany the new century, with the result that the 'way was opened for a positive social science definitively liberated from the experience of jurists and their knowledge'. This was the era of science which was to reduce human nature to nothing more than an object of the 'science of law', a science deprived of its traditional values.<sup>59</sup> 'Legal reality is not what is,' observes Atias, 'but what is scientifically knowable'.<sup>60</sup> François Gény and Hans Kelsen may have had different projects, but between them they produced a rupture in legal thinking inasmuch as, outside the hard sciences, there was little by way of epistemological salvation.<sup>61</sup>

Yet even this revolution is, according to Atias, ambiguous when viewed from Kuhn's theory. The symptoms of crisis are, for sure, to be found in the history of legal knowledge and, once the crisis has passed, the new 'paradigm' seems to produce the results predicted. Positivism and the changed conception of the legal subject might thus be viewed as a scientific revolution.<sup>62</sup> Yet the science of law is of a different nature than the natural sciences, particularly in its susceptibility to ideological influences. It is impossible to make the distinction between periods of normal science and periods of paradigm change, since legal science is permanently open to outside influences. In addition, no legal theory is ever sufficiently and satisfactorily protected against anomalies. Thus the 'science of law must remain open and fragile; it cannot abandon itself to the auto-satisfaction of normal science'.<sup>63</sup> Moreover, it is extremely difficult to show that the everyday reasoning of lawyers has been affected by changes in theory and so it might be better to talk of a permanent revolution in law, at least at the level of theory, which has little in common with Kuhn's thesis.<sup>64</sup>

### *Stages of Scientific Development*

If the history of legal thought seems less amenable to an analysis in terms of internal discontinuity – that is to say, in terms of ruptures and distinct revolutions – it does not follow that the history of the sciences remains irrelevant to legal epistemology. One epistemologist has talked of a history of *mentalités* in Europe.<sup>65</sup> Rather than revolutions, it might be better to see the history of legal knowledge as one of changing mentalities themselves determined by the economic, social and political contexts of the periods in question.

A mentality is a state of mind, a way of seeing the world;<sup>66</sup> and this state of mind is what changes through a process metaphorically described as *unfreezing* and *freezing*.<sup>67</sup> The history of legal thought might, then, be seen as a history of different ways of seeing. For example, the difference between Newton's and Einstein's conception of time is not just a matter of differing theories of the universe; time is envisaged in quite a different way and through differing dimensional structures.<sup>68</sup> It is a matter of the one-dimensional being replaced by a more complex dimensional model.

The idea of dimension and ways of seeing offers another compromise. Piaget has suggested that knowledge is a matter of a continuous and mediating structural development resulting from an interplay between a developing *intellectus et res*. Knowledge is the interrelationship of a subject with an object through a mediating structure.<sup>69</sup> Thus 'knowledge cannot be conceived as predetermined, neither in the internal structures of the subject since they are the result of a real and continuous construction, nor in the pre-existing characteristics of the object since they are known only thanks to the required mediation of these structures and that these enrich and encapsulate them (if only in putting them in the realm of the possible)'.<sup>70</sup> The function of 'genetic epistemology is thus to try to disengage the roots of the various varieties of knowledge right from their most elementary form and following their development to higher levels up to and including scientific thought'.<sup>71</sup> This thesis is not without its critics.<sup>72</sup> However, for the legal epistemologist the idea of knowledge being a matter of evolving structural models is useful in explaining the transformation (revolution?) from the empirical, that is to say a law growing out of fact, to the rational, whereby fact is rejected from legal science. This is what Villey called the rationalisation and systematisation of law.<sup>73</sup> It was a matter of moving from one kind of model rooted seemingly in objects (*res*) to another located purely in the mind (*intellectus*).

Piaget's approach is, then, more subtle than a mere division of scientific stages into the concrete and the abstract. To quote Blanché again:

Rather than a binary division [between concrete and abstract science] it is necessary to deal here with a continuous development. One should speak more of the distinction between deductive science and inductive science. Mathematics started out by being inductive, and the sciences said to be inductive often take, and always aspire to take, the deductive form. Deduction and induction mark two stages in the development of science, the stages themselves being framed within an initial stage and a final stage. In fact it appears that all the sciences follow, in distinguishing themselves only by their degree of

advancement, a similar course, passing or being called to pass, successively through the descriptive, inductive, deductive and axiomatic stages.<sup>74</sup>

This analysis of the history of sciences into four stages is particularly useful when one turns to the history of legal science, since it is possible that the history of legal thought can be analysed in terms of Blanché's categories. Accordingly, rather than talk in terms of scientific revolutions, the legal epistemologist might start by examining whether there has been in law a movement towards axiomatisation.

#### *Descriptive and Inductive Stages*

Admittedly little epistemological analysis has been undertaken of the methods of the Roman jurists, but the early codes such as the Twelve Tables can be described as 'descriptive' inasmuch as there is little systematic order or abstraction.<sup>75</sup> As to the methods of the classical jurists, these have been characterised in a number of ways – case-oriented, casuistic, dialectical, rhetorical – but the point to be noted is that it was during this period that legal science moved from the descriptive to the 'inductive'. Solutions were discussed and arrived at on the basis of factual examples; but out of these concrete cases the jurists were able to disengage some common denominators. The notion of *culpa* (fault) and foreseeability with regard to wrongful damage is one obvious example,<sup>76</sup> and *conventio* (agreement) in respect of contracts is almost a perfect illustration of induction.<sup>77</sup> Nevertheless, the Romans did not advance beyond the inductive stage, for their distrust of rules as the basis of legal knowledge is evident from a famous observation to be found in the *Digest*: *non ex regula ius sumatur, sed ex iure quod est regula fiat* (the law is not taken from a rule, but a rule is made by the law).<sup>78</sup> The case law itself is often concerned with quasi-normative concepts such as blame, cause and risk (*in causa ius esse positum*, the law is posited in the cause)<sup>79</sup> and this prompted a medieval commentator to observe that 'law arises out of fact' (*ex facto ius oritur*).<sup>80</sup>

The epistemologist might observe that the move from the 'descriptive' to the 'inductive' stage was a key development in that it was providing a conceptual basis upon which one could move to a higher level of rationalisation. Thus one should 'not emphasise too much the separation between the concrete intuition and the abstract conception' since the concrete 'is the abstract rendered familiar through usage'.<sup>81</sup> Interpretation of texts was certainly of importance and often a starting point for the consideration of concrete problems;<sup>82</sup> equally, the Romans were keen to reduce legal knowledge to general propositions for teaching purposes. The *Institutes* are thus works that

come close to stating law in terms of rules and principles and this is true also of the final title of the *Digest*, 'rules of law' (*regulae iuris*).<sup>83</sup> Legislation was clearly another area of law that expressed itself in terms of propositions.<sup>84</sup> Yet it would be wrong to locate Roman methodology in the *ars hermeneutica*. The approach was, as we shall see subsequently, in Chapter 4, beyond the descriptive since they had reached a stage of analysing facts via schematic structures which were not only self-referencing and relatively mobile in the way they could escape from the particularities of social fact,<sup>85</sup> but capable of being used as a means of 'constructing' and 'explaining' factual situations.<sup>86</sup> Legal development, as we shall see, was a matter of pushing outwards from the facts.<sup>87</sup> Nevertheless, the failure of the Roman jurists 'to articulate the assumptions and deeper reasons on which the analogies were founded – indeed, their failure even to define the most important legal terms – led to a narrowness, or woodenness, in case analysis'.<sup>88</sup> From the practitioner's viewpoint, Roman law was 'not presented as an intellectual system but rather as an elaborate mosaic of practical solutions to specific legal questions'.<sup>89</sup> Nevertheless, the Roman lawyers, in their desire to simplify for educational reasons,<sup>90</sup> did provide the foundation for what was to become a deductive system based no longer on facts, but on 'rights'.<sup>91</sup>

As for 'the methods of reasoning adopted by the Glossators, it would seem to be clear that 12th and 13th century lawyers did not establish, and did not attempt to establish, complete "systems"; the 'glossators represent an intermediary stage between the scientific – "geometric" or "axiomatic" – methodology of later legal reasoning, and the older tradition based on the ancient art of rhetoric'.<sup>92</sup> The methodology of the medieval scholars is often referred to as scholasticism, but this hides a developing set of techniques that start out from *glosae*, pass through *expositio per modum quaestionis*, *disputatio* and *dialectica*, to arrive at the *logica nova*.<sup>93</sup> Much of the work of the medieval doctors was built upon Greek and Roman sources and methods, yet what gave scholasticism its particular characteristics is that it 'presupposes the absolute authority of certain books ... , but paradoxically, it also presupposes that there may be both gaps and contradictions within the text; and it sets as its main task the summation of the text, the closing of gaps within it, and the resolution of contradictions'.<sup>94</sup> The most striking feature of scholasticism was the use of the dialectical method which, according to Berman and Wieacker, was the foundation of the modern scientific method.<sup>95</sup>

It is tempting to think that the medieval jurists were taking up where the classical Roman jurists left off, and in one sense this is true. Villey thus talks of the Glossators having respect for the texts and conserving the method of the Roman jurists.<sup>96</sup> However, the

medieval jurists were faced with an epistemological problem that was rather different from the one facing the Roman jurists. The medieval lawyers 'took it for granted that the different texts could be reconciled, for they accepted without question Justinian's assurance that the *Digest* contained no contradictions which could not be resolved *subtili animo* (*Const. Tanta*, 15)'.<sup>97</sup> And so the object of their science was no longer social facts as such but legal texts. They were not analysing the world; they were interpreting the writings of others with the result that there was a subtle shift from an exercise in rationalising the chaos of fact<sup>98</sup> to one that involved the analysis of words and concepts. Their technique, although similar to some of those to be found in the *Digest* (for example the use of genus and species), was, as a result, more developed in a formal sense. For scholasticism placed much greater emphasis on the techniques of categorisation and Aristotelian logic; it was much richer and more complex than anything the Romans had produced.<sup>99</sup> More importantly, however, it shifted the emphasis off the facts as the basis of legal knowledge towards the idea that law was a matter of rules (*regulae*). A *regula*, as Peter Stein has shown, was seen by the Glossators as a means of transmission of legal knowledge and of extending its scope where the same *ratio* was to be found (*ubi eadem ratio, ibi et eadem iura*).<sup>100</sup> In addition, this emphasis on the interpretation of texts gave rise to a much greater definition of notions used by the Romans such as *interesse*.<sup>101</sup> These moved from being tools of social description to notions that were more normative, in that they became part of the textual knowledge. They became 'scientific' and thus more assertive in an 'ought' sense.

It was the Post-glossators who shifted some of the attention back onto social facts. Not that Bartolus and Baldus denied the power of rules, but they 'recognised that a study of the last titles of the *Digest* and *Sext* was no substitute for the detailed analysis of the titles dealing with particular topics'.<sup>102</sup> They therefore set about analysing the actual social and political problems of their day, using Roman law and the scholastic methodology which had become associated with the way one thought about law (not just Roman law but also the *ius speciale*). It was the Post-glossators who transformed the feudal property ideas of northern France, based essentially on seisin (possession), into the Roman conception of absolute titles founded on *dominium*.<sup>103</sup> This kind of exercise is of particular relevance to the epistemologist, in that it shows how the Post-glossators were moving away from 'mere interpretation' towards the development of structural models in the sense that Piaget describes the development of the scientific mind. These structures were not, as such, deductive, in that they were founded on propositions divorced from the empirical. They functioned within the facts in

order to take them to a stage where they began to function creatively in a slightly more rarefied manner than the level at which the Romans had operated, thus endowing these facts with a more defined and structured institutional flavour. In Roman law, for example, the notion of *persona* did not as such have a clear institutional role in any definitional sense. What endowed towns with 'legal personality' was the law of actions rather than the law of persons.<sup>104</sup> In the hands of the Post-glossators, the group who could act within the institutional plan had become the *persona ficta*,<sup>105</sup> and the *utilitas publica* had 'gained a new lease of life' as the public interest.<sup>106</sup> *Persona* and *utilitas* were coming together in a structural sense, not just as focal points for rules, but as a means of actually constructing social fact.

#### Deductive Stage

The end of the medieval world is, for legal thinking, marked by two 'revolutions'. First was the nominalist revolution associated with William of Ockham,<sup>107</sup> whereby all universal terms (men, forests and the like) were merely names and had no real (ontological) existence; only individual humans and individual trees existed.<sup>108</sup> This nominalism had profound effects upon thinking at all levels. In the natural (and later the social) sciences it laid the foundations for the increasing exclusion of metaphysics from analytical thinking and this was to give rise to a methodology which can be described as analytical reductionism.<sup>109</sup> Things were to be reduced to their individual parts. One might note that this kind of problem was not unknown to the Roman jurists and thus the germ of the nominalist debate could be said to be in the Roman legal sources.<sup>110</sup> But, according to Villey, Ockham and the other nominalist thinkers changed radically the conception of law. After Ockham, only individuals exist, and nothing but individuals, and thus law was not something that attached to society – *ubi societas ibi ius* – but to individuals.<sup>111</sup> It is the individual and not society that is the source of law, and society, according to the later modernist thinkers such as Hobbes,<sup>112</sup> was simply the result of a contract freely made by individuals.<sup>113</sup> This 'nominalist education ... has the consequence of restricting our catalogue of values only to those values of interest to individuals – or to groups fictionally conceived as individuals'.<sup>114</sup>

The second revolution was the arrival of Humanism, which had the effect of giving rise to a new kind of legal science. The emphasis on the individual went hand-in-hand with an emphasis on human reason (*ratio*). Not that the Post-glossators were against reason as such; but the medieval world primarily thought in terms of authority

(*nemo jurista nisi Bartolista*) and what mattered was the authority of the glosses and commentaries.<sup>115</sup> And these glosses and commentaries were for the main part attached to the passages in the Roman texts. 'As commentary was piled upon commentary,' writes Walter Jones, 'all pretence of interpreting the texts was thrown aside.'<sup>116</sup> What was needed was a new methodology to clear the ground, so to speak.<sup>117</sup> One way to cut through the accretions was to appeal to the original (Roman) texts themselves on the basis of *ratio iuris*; accordingly, it was with the Humanists of the 16th century that an interest in law as *regulae iuris* revived.<sup>118</sup> The textual emphasis shifted from the *Digest* to the *Institutes* of Justinian and the methodological concerns moved from dialectics to law as an art (*ius civile in artem redigere*).<sup>119</sup> The Humanists wanted to transform the law – 'to wrench it away from the law faculty pedants, the Bartolist technicians, the specialist lawyers'<sup>120</sup> – so as to make it accessible to ordinary citizens. The new learning which developed law into an *ars* was no longer one of piecemeal interpretation and commentary on isolated texts nor the analysis of individual cases with their single points of law; it was a matter of building a logical structure of rules.<sup>121</sup> As Jones comments:

The need for a more intelligible statement of the principles of the law, and the growing dissatisfaction with the arrangement or lack of arrangement found in the Digest, resulted in the publication of one work after another professing to supply the true *ars iuris* which all were seeking. No law book was complete which did not bear the word *methodus* or *methodice* on its title-page.<sup>122</sup>

The epistemological importance of this new method was striking but simple. It took law from the inductive to the deductive stage of legal science. In terms of cognitive structures, deduction 'becomes explicable only at the moment when it takes a constructive form, that is to say when it tends to set up a "structure" whose transformations would accordingly allow the rediscovery of general laws as much as particular ones, but by virtue of *necessary* consequences of the structure and no longer by virtue of the generality of diverse but only enclosed propositions'.<sup>123</sup> The direct foundations for this structure were, as Villey observed, laid by the school of jurists who heralded the end of the medieval world. Legal science had become a science located in the mind (*ratio*) and no longer a matter of induction from social reality and from nature. It could now be systematised. Indeed, 'it could even take the form (as Grotius at least tended towards) of an axiomatised system, deduced from principles of reason'.<sup>124</sup> Henceforth the law resided in rules and in the systematised doctrinal works.

### Axiomatic Stage

In Germany this rationalism was taken to an even higher degree of formal systematisation:

The science of the expository approach [*l'exégèse*] and of the commentary on the texts which had dominated up to [the Enlightenment] gave way to doctrinal syntheses aiming to regulate and to reconstruct the legal order into a global and autonomous system. The works of Christian Wolff and his pupil Daniel Nettelbladt merit particular mention in this respect. Starting from superior principles founded on reason and human nature, these two authors constructed with wholly mathematical logic a body of rules even more exact, interrelated one to another, and forming a pyramidal whole as coherent as rational. This transposition, in the legal domain, to a mode of reasoning which was essentially deductive, applied in a rigorous manner and independently of all consideration drawn from experience or from social life could be labelled *mos geometricus*; it had important consequences for legal method. It orientated German legal science towards a kind of 'conceptual hardening' (Holleaux) which foreshadowed the work of the Pandectic school and which still characterises today, at least in some respects, the German legal spirit.<sup>125</sup>

In terms of epistemology there had been a shift from consensus amongst the doctors to coherence at the level of the legal model. What mattered was the rigour of the intellectual structure and thus *scientia iuris* (in the civil law) was a matter no longer of *ars iudicandi* but of inference. Solutions were to be deduced from hardened and systematised models given their ultimate expression in legislative codes:

The courts are entrusted with the duty of establishing the facts from which flow the legal consequences to apply having regard to the legal system in force. Once the facts are established, a legal syllogism is enough, whereby the rule of law constitutes the major premise, the established facts as envisaged by the conditions of the rule the minor premise and the court decision the conclusion ... This implies that for each situation submitted to the judge there would be a legal rule applicable, that there would be only one and that this rule would be devoid of any ambiguity ... The legal system is, at the end of the day, assimilated to a deductive system constructed on the model of axiomatic systems existing in geometry or arithmetic.<sup>126</sup>

And if axiomatisation 'is the perfection of deductive theory',<sup>127</sup> then it is possible to see that what the Humanists started the German professors finished. The German Civil Code (BGB) has been described as a 'legal calculating machine par excellence'.<sup>128</sup> This

axiomatisation of law, as we saw in the last chapter, proved to be a myth, in that law cannot be reduced to mathematical logic because of the open-ended nature of many of its concepts. There are too many gaps in the intellectual system, with the result that the coherence can never be rigorous enough to allow solutions to be deduced from the model without the intervention of human interpretation. Conceptual coherence gives way to hermeneutics. However, given the retreat from positivism and the renaissance of dialectics and argumentation theories, the question for the epistemologist is this: what, if anything, comes after Blanché's final, axiomatic stage: a new, fifth stage, or a retreat into some previous stage?

### The Retreat from Science

The historical survey of legal method and reasoning, in focusing largely on the civil law tradition, has of course left open the question of methodology in the common law. Furthermore, in adopting what could be seen as a 'progressive' epistemological framework (descriptive, inductive, deductive, axiomatic), the suggestion is that the history of legal method is, from the position of a scientific ideal, a matter of increasing rationalisation, comprehension and precision. Yet the inference (coherence) thesis is more complicated, inasmuch as it is part of an ideology about the political role of the judges. Is not their job only to apply rather than to make the law? Does not judicial discretion undermine the certainty, if not the rule, of law? The interpretation thesis of legal method helps overcome these questions in effecting a compromise between rules and their application. The role of the judge is not to make law but to interpret it. And while the positivists are prepared to accept that the ambiguity of language leaves a margin of discretion, the new hermeneutical theorists take a more severe view.<sup>129</sup> The concept of an axiomatic legal science might be on the wane, but only to the extent that it is being replaced by an art of interpretation founded, it would seem, upon an 'axiomatic' structure of rights and duties.

### Dialectics and the Common Law

The thesis that legal solutions can be deduced entirely from codes of axiomatic propositions is no longer a dominant one in civilian legal thought. As Bergel has written, 'the reduction of law to equations is a myth', since it 'comes up against insurmountable difficulties of method and against the objectives of every legal system'. The idea that law can be expressed in terms of the symbols of calculus 'is irreconcilable with legal method' because the 'law is full of departures

from logical solutions deduced from an axiom' and these 'exceptions result from other preoccupations, other principles and other axioms of which the sheer number, the complication and the differing intensity make impossible an expression of positive law in mathematical form'.<sup>130</sup> Moreover, the 'reduction of law to a formal logic would ... be contrary to the essential purpose of any legal system' which is 'to regulate social life' and the 'dynamic force of facts is out of sequence with the rhythm and direction of deductions from formal logic'.<sup>131</sup> One is, it would seem, forced back into history inasmuch as it 'has been shown that the ancient jurists and those of the Middle Ages – from the Talmudists to the Greeks and Romans then the Italian Glossators – proceeded not by rigid deduction from pre-established rules, but by debate leading, thanks to rhetoric and dialectical argument in the Aristotelian sense, to conclusions that were only probable ones founded upon argumentation'.<sup>132</sup> Scholasticism rather than axiomatics lies at the heart of legal reasoning,<sup>133</sup> and such methodology 'explains just as much the legal processes in the "common law" as in the Romano-Germanic legal systems'.<sup>134</sup>

Perelman, Bergel and others seem to be suggesting that it is the common law, rather than the *mos geometricus*, which holds the epistemological key to methodology. Villey makes a similar point in saying that the common law was spared the Humanist revolution, which he saw as the intellectual event which led to the *mos geometricus* and the codes; as a result, the common lawyers preserved the (inductive?) methods of the Roman and medieval jurists.<sup>135</sup> However, while there may be something of an 'inner relationship' between Roman and English methods, the rationality of the later civil lawyers has not been without influence. The idea that legal method is grounded in the rule model is, it seems, the starting point for the English judiciary, although pragmatism and experience, rather than logic, is said, as we shall see, to be the main guide. Accordingly, the expectation of some academic commentators is that the English judiciary should be conducting the search for principle not with less, but with greater, vigour. According to Professor Birks:

The realists and post-realists have done a good job of debunking legal science. In the United States where Jerome Frank and his intellectual successors did their most serious damage, it has never recovered and now lets in floods of law and economics in the hope of filling the broken vessel.<sup>136</sup>

And he is of the following view:

A sound taxonomy, together with a keen sense of its importance, constant suspicion of its possible inaccuracy and vigorous debate on its improvement, is an essential precondition of rationality. All these

are wanting in the common law systems. Until that is put right, the realists and the fundamentalists of the school of critical legal studies will continue to play from a winning hand.<sup>137</sup>

The influence of deductive, if not axiomatic, thinking is, therefore, not necessarily either a thing of the past or a unique characteristic of civilian legal science, since there is, as we have just seen, pressure from some quarters for English law to become more 'rational' and 'logical'. Yet the difficulty with this view of legal technique is that it is making a fundamental assumption about the nature of legal knowledge as a discourse that is at one and the same time isolated from and yet interpretative of facts.

#### *Axiomatics and the Common Law*

Professor Birks provides an example. He criticises the House of Lords decision in *Spring v. Guardian Assurance*,<sup>138</sup> where an employer was held liable for economic loss caused to a former employee by an inaccurate reference, on the basis that the liability was framed in negligence rather than defamation. Professor Birks makes the point that the effect of the decision is to change the law of defamation by reducing the behavioural requirement of the defendant from malice to carelessness. 'This is a conundrum of disorderly categories,' he claims, since the two categories of negligence and defamation intersect; defamation is based on the invasion of the interest to reputation while negligence is founded upon behaviour. 'The law,' he says, 'cannot tolerate, or should not be able to tolerate, torts named so as to intersect.'<sup>139</sup> Now this may seem logical enough at one level. The difficulty, however, is that it assumes that the facts are neutral, in that they will simply display particular kinds of 'interest' and 'behaviour'. What a post-axiomatic epistemologist might say is that this is far too simplistic. For a start, 'interest' itself is being constructed by Birks in a particular way; it is being used in relation to reputation, whereas it could equally be applied to the actual damage suffered by the plaintiff, namely the economic loss caused through a failure to secure a job.<sup>140</sup> In other words, *Spring v. Guardian Assurance* is not a case about the reputation interest at all. There is no reason why the tort of negligence for misstatement cannot be extended to cover the loss of an expectation (the failure to secure a job). And such an extension is no more illogical *vis-à-vis* the tort of defamation than the attaching of liability to any other 'thing' that does damage.

Furthermore, the idea that invasion of a protected interest on the one hand and the display of fault on the other should constitute two independent 'wrongs' is to create a system that is bound to intersect.

however, it indicates the limits of the hermeneutical approach to legal knowledge. The world beyond the rules and principles can be grasped only by a concept – attitude – and this is a concept that is fundamentally weak in an epistemological sense (although not necessarily in the philosophical sense). It cannot act as a model for legal reasoning since, as Dworkin himself asserts, it cannot act as the basis for an AI programme. And it cannot act as an AI programme because, arguably, it has nothing to say about facts.

### Legal Science and Codification

Law as interpretation – the hermeneutical scheme (cf. Chapter 8) – would certainly appear to have destroyed the Enlightenment idea of *scientia iuris*. Yet can the codes be dismissed so easily? When one turns from the natural and mathematical sciences to the discipline of law, or more precisely when one turns from scientific models to the codes, one finds that the codes have seemingly been designed for several functions. They are abstract models for the solving of concrete problems; they are directives to the citizens at large; and they are the means by which legal knowledge is transmitted from one generation to another. In short, they are designed as unique ‘scientific’ models for use in the law office, in the living room and in the lecture theatre. They are eclectic models that bridge the gap between the teaching and practice of law. This has prompted the observation that the distinction between law and the science of law disappears once one has reached the stage of codification, since the purpose of a code is to reduce law to an inference model.<sup>183</sup> Put another way, legal science, *jurisprudentia rationalis*, seemingly obliterates all epistemological distinctions between legal practice, legal theory and legal teaching.

#### *Epistemology and Social Science*

Yet are the codes genuine scientific models? Whatever one’s view of the relationship between the natural sciences and the human sciences, this question is by no means a simple one. Certainly, one can dismiss the social sciences as ‘pseudo-science’, or even as an abuse of language, on the basis that they have no solid conceptual foundation. The social sciences, it could be said, consist of a multitude of schemes of intelligibility (cf. Chapter 8), all of which are characterised by a rather weak power of validation.<sup>184</sup> It is often impossible to separate such schemes from ideological and philosophical interpretation, with the result that conceptual structures soon give way to myth and prescription.<sup>185</sup> Equally,

however, it can be argued that the codes are really rather different structures from the schemes of intelligibility that are used by the social sciences in general. The codes are constructions that are not designed to describe, explain and predict a social phenomenon as empirical object. They are models developed to create an artificial social 'reality' that exists independently from the social phenomenon that is of interest to, say, the sociologist. In other words, when lawyers and sociologists each construct their own models of social reality they are not involved in the same exercise. Lawyers use a code, consciously or unconsciously, as an object in itself; the code is an alternative 'reality' consisting of normative relationships. Sociologists, in contrast, might end up, like natural scientists, in producing an abstract model of society, but the model is not designed to be an alternative society as such. It is an attempt to elicit information about the society itself.

What is true of the code is also true of the *Institutes* of Gaius. This work, which will be considered in more depth later, in Chapter 4, represented a 'great leap forward in the systematic presentation of private law'.<sup>186</sup> This Roman jurist published a student textbook whose scheme of arrangement was to become the foundation for the modern civil codes. Now, Gaius may have thought that he was producing a descriptive scheme of Roman society,<sup>187</sup> but the success of his scheme of arrangement is due mainly to the fact that it was a self-referencing model that created its own elements and relationships which were normative in effect. When describing, say, the contract of sale, it is easy to think that Gaius was simply describing a commercial aspect of Roman society. Yet what he was doing was recreating a world of *personae* and *res* and establishing between these mediating elements normative abstract relationships such as contract. Today the normative element is inherent in the relationship itself; contract creates 'rights' and 'duties' between the parties. In Gaius, the normative aspect is more indirect; it is provided by the third mediating element of the *actio* which has the effect of turning a seemingly descriptive bond (*iuris vinculum* according to Justinian) into a normative relationship. Civil codes are, then, more developed, in the axiomatic sense, versions of Gaius. They are more like mathematical models except that the elements and relationships are very different. In the place of symbols which have no direct connection with the real world, there are mediating elements (institutions) which relate to the social world as non-symbolic mental states. Mental states are not, according to Jean Delacour, limited to arbitrary symbolic representations constrained only by their own syntax; there are also 'images' and abstract 'schemes' which are non-symbolic.<sup>188</sup>

### Symbolic and Non-symbolic Models

The codes are abstract schemes of institutional elements and normative relationships which appear, then, to function like mathematical models but which actually operate rather differently. Where a legal code differs from a mathematical model is in the way the conceptual elements and the relationships between them can only operate through the intervention of a human 'interpreter'. The idea of interpretation must be used carefully here because it is not just a question of interpreting the language of the code provisions. It is also a matter of 'interpreting', in effect constructing, 'facts'. The point to be made is that the code, being a non-symbolic model, is incapable of inferring predictions and solutions simply as a result of any internal syntax inherent in the model itself. There must always be human intervention, save perhaps where the code provision is essentially mathematical in its construction.

Take, for example, the following provision to be found in article 1134 of the *Code civil*: 'Contracts must be performed in good faith.' Can this provision be used to infer a solution to the situation to be found in a well-known English case? The facts of the case were stated by Dillon LJ:

The plaintiffs run a library of photographic transparencies. The defendants are engaged in advertising. On 5 March 1984 Mr Beeching, a director of the defendants, wanting photographs for a presentation for a client, telephoned the plaintiffs, whom the defendants had never dealt with before. He spoke to a Miss Fraser of the plaintiffs and asked her whether the plaintiffs had any photographs of the 1950s which might be suitable for the defendants' presentation. Miss Fraser said that she would research his request, and a little later on the same day she sent round by hand to the defendants 47 transparencies packed in a jiffy bag. Also packed in the bag, among the transparencies, was a delivery note which she had typed out ...<sup>189</sup>

Dillon LJ explained that, having received the photographs the defendants put them to one side where they were temporarily forgotten. The result of this oversight was that the photographs were not returned to the plaintiffs until 2 April. Dillon LJ continued:

The plaintiffs thereupon sent an invoice to the defendants for £3,783.50 as a holding charge for the transparencies. The invoice was rejected by the defendants, and accordingly in May 1984 the plaintiffs started this action claiming £3,783.50, the amount of the invoice. That is the sum for which the judge awarded the plaintiffs judgment by his order now under appeal.<sup>190</sup>

The appeal judge then explained as follows:

The sum of £3,783.50 is calculated by the plaintiffs in strict accordance with condition 2 as the fee for the retention of 47 transparencies from 19 March to 2 April 1984. It is of course important to the plaintiffs to get their transparencies back reasonably quickly, if they are not wanted, since if a transparency is out with one customer it cannot be offered to another customer, should occasion arise. It has to be said, however, that the holding fee charged by the plaintiffs by condition 2 is extremely high, and in my view exorbitant. The [trial] judge held that on a quantum meruit a reasonable charge would have been £3.50 per transparency per week, and not £5 per day ...<sup>191</sup>

Now, the first point that needs to be made is that there is nothing in the facts themselves that dictates that a solution to the problem is to be determined by reference to a provision about good faith (even assuming that article 1134 represented English law). Nevertheless, one of the appeal judges thought that the provision was relevant:

In many civil law systems, and perhaps in most legal systems outside the common law world, the law of obligations recognises and enforces an overriding principle that in making and carrying out contracts parties should act in good faith. This does not simply mean that they should not deceive each other, a principle which any legal system must recognise; its effect is perhaps most aptly conveyed by such metaphorical colloquialisms as 'playing fair', 'coming clean' or 'putting one's cards face upwards on the table'. It is in essence a principle of fair and open dealing. In such a forum it might, I think, be held on the facts of this case that the plaintiffs were under a duty in all fairness to draw the defendants' attention specifically to the high price payable if the transparencies were not returned in time and, when the 14 days had expired, to point out to the defendants the high cost of continued failure to return them.<sup>192</sup>

What the appeal judge was doing here was to construct a model of facts so as to produce an image – a pattern – that conformed in structure to the kind of pattern contained in article 1134. The pattern of this article did not force itself onto the facts. The judges could have easily inferred that the behaviour of the defendants was such that they had only themselves to blame. This was a commercial relationship and so, if the defendants failed both to read the small print of the contract and to return the photographs, it was no business of the courts to intervene. As article 1134 also states: 'Agreements legally made take the place of legislation for those who make them.' Indeed, as an earlier English appeal judge observed: 'If there is one thing more than another which public policy requires, it is that men of full age and competent understanding shall have the

utmost liberty of contracting and that their contracts, when entered into freely and voluntarily, shall be held sacred and shall be enforced by courts of justice.'<sup>193</sup> The trial judge in the photographs case did not, then, make the wrong inference. He simply applied a different image.

A second point that emerges out of this photographs case is that other quite different solutions were possible. The court could simply conclude that the onerous term was not incorporated into the contract. Thus Dillon LJ was of the view that the 'question is therefore whether condition 2 was sufficiently brought to the defendants' attention to make it a term of the contract which was only concluded after the defendants had received, and must have known that they had received the transparencies and the delivery note'. And he concluded:

At the time of the ticket cases in the last century it was notorious that people hardly ever troubled to read printed conditions on a ticket or delivery note or similar document. That remains the case now. In the intervening years the printed conditions have tended to become more and more complicated and more and more one-sided in favour of the party who is imposing them, but the other parties, if they notice that there are printed conditions at all, generally still tend to assume that such conditions are only concerned with ancillary matters of form and are not of importance. In the ticket cases the courts held that the common law required that reasonable steps be taken to draw the other parties' attention to the printed conditions or they would not be part of the contract. It is, in my judgment, a logical development of the common law into modern conditions that it should be held, as it was in *Thornton v. Shoe Lane Parking Ltd* [1971] 2 QB 163, that, if one condition in a set of printed conditions is particularly onerous or unusual, the party seeking to enforce it must show that that particular condition was fairly brought to the attention of the other party.<sup>194</sup>

Another possibility is mentioned by Bingham LJ:

In reaching the conclusion I have expressed I would not wish to be taken as deciding that condition 2 was not challengeable as a disguised penalty clause. This point was not argued before the judge nor raised in the notice of appeal. It was accordingly not argued before us. I have accordingly felt bound to assume, somewhat reluctantly, that condition 2 would be enforceable if fully and fairly brought to the defendants' attention.<sup>195</sup>

These possibilities can of course be seen as species of the generic term 'good faith'. That indeed is the reason why Bingham LJ refers to the codified systems. Equally, however, they can be seen as solutions flowing from different institutional patterns. Thus, for example, the

inclusion of a term within a contractual relationship is one that is largely determined by the form of the contractual document and (or) the time that the term is brought to the other party's attention. This is a much more formal pattern than simply saying the plaintiff was lacking in good faith. The penalty clause point can equally be viewed as having its basis in a different pattern. For example, it could be viewed as the attempt by one party to use contract as a means of punishment or as a method of securing an unjustified enrichment. Assuming for the moment that all these different ways of analysing the case could be reduced to a code,<sup>196</sup> it is evident that there is nothing in the code itself that determines which actual provision is to be used to settle the case. Is it to be a matter of good faith (article 1134) or a question of a penalty (article 1152)? The human 'interpreter' must make the choice. And this choice is not just a choice between two or more articles in a code. The way the facts are 'constructed' is equally important, since these facts must produce an image which matches the images to be found in the code.

#### *The Scientific Inadequacy of the Codes*

The codes, therefore, are scientific models only in a rather limited way. They are schemes of thought riddled with 'imperfections' and 'impressions', and this renders them uncertain as intelligent systems. Or, put another way, codes as intelligent systems do not contain enough information for them to be able to arrive at unquestionably correct conclusions.<sup>197</sup> Such uncertainty probably renders them incapable of being seen as scientific models in any hard sense of the term 'science'. What codes do have, however, is a legal science dimension inasmuch as they can, seemingly, describe, explain and, to a certain extent, predict. Of course this description, explanation and prediction is effective only within the artificial boundaries of legal knowledge. And such legal knowledge is constructed out of the very institutions that act as the pillars of the code. Yet there is a scientific aspect to such epistemological constructions and this is what makes the notion of codification so ambiguous. What the codes offer, then, is a synchronic model of legal knowledge that, although not fully reliable in any logical sense, at least attempts to coalesce legal history, legal practice and legal education. What it cannot do is to include within itself its own case law. And it cannot do this because the construction of normative patterns within facts arguably involves a cognitive and epistemological process that is not a matter of syllogistic logic. In other words, the codes fail as scientific models in the full sense because they fail at the level of methodology. The cognitive and epistemological assumptions upon which they were originally based were incorrect.