CAN GAIUS REALLY BE COMPARED TO DARWIN?

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WHEN invited by counsel in the 1947 case of Read v. J. Lyons & Co1 to rationalise the law of tort, Lord Macmillan's response was to say that it was not the House of Lords' "task ... to rationalise the law of England" since arguments "based on legal consistency are apt to mislead for the common law is a practical code adapted to deal with the manifold diversities of human life, and as a great American judge [Holmes] has reminded us, 'the life of the law has not been logic; it has been experience' ".2 Professor Peter Birks has recently reacted to this attitude by declaring that what English law needs is perhaps a little more logic, or at least less "fallacy and contradiction". Indeed he has gone further. In an important published lecture he argues that the law of tort is in need of rationalisation. And, in his view, order in the law of tort will be achieved only "when we first separate out degrees of fault-strict liability, negligence, malice—and then ask, in relation to each degree, what interests are protected". The problem, says Birks, is the English lawyer's "alarming" lack of awareness of the importance of taxonomy. This in turn is linked to the decline in the study of Roman law which means that students are no longer exposed to the *Institutes* which "provided a map" of the law. This map, says Birks, is fundamental to the forming of legal minds. And to underline the point he declares that, in first formulating this map—this systematic overview—"Gaius was the Darwin of the law".5

What is one to make of this debate? To pose this question is to open the door to a range of possible responses. Not only may one ask whether the contribution of Gaius can really be compared to the contribution of Darwin. Can legal science, in other words, realistically and profitably be put side-by-side with the natural sciences or is it like trying to compare, say, astrology with astrophysics? But it also opens up the whole issue of

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^{1. [1947]} A.C. 156.

^{2.} Ibid., at 175.

^{3.} P. Birks, "Equity in the Modern Law: An Exercise in Taxonomy" (1996) 26 U.W.A.L. Rev. 1, at p.4.

^{4.} Professor Peter Birks QC, Harassment and Hubris: The Right to an Equality of Respect (1996) p.39.

^{5.} P. Birks, Definition and Division: A Meditation on Institutes 3.13, in P. Birks, The Classification of Obligations (1997), pp.1-2.

the roles of logic and taxonomy in law and their status as objects of knowledge in legal studies. Is taxonomy in law important? Ought logic to be given a central role in any examination of legal method and legal skills? In short, is Professor Birks opening up a profound debate or is the whole idea of law and its relationship with the natural sciences something that should be left to history? It is the purpose of this article to investigate the validity of trying to compare Gaius with Darwin. It will be argued that the structural—that is to say conceptual—model that underpins all notions of legal "logic" is of a different kind than the models which underpin the natural sciences. The legal model is incapable of being verified—if indeed it can be verified at all—in the same way that a zoological scheme of taxonomy can be verified. Legal intellectual schemes are, certainly, capable of internal contradiction, but often apparent contradictions are not the result of internal incoherence. Apparent contradictions often result from misunderstanding about the nature of legal concepts and about the relationship between these concepts and the objects they are attempting to model. Thus there are dangers in thinking that legal rationality is necessarily the same as zoological taxonomy.

I. INTRODUCTION

One might, by way of introduction, return to the general question. What is one to make of the debate between Professor Birks and the apparent schematic disorder of the common law? One immediate response is to consign this whole debate to a past age. Those who believe that meaningful legal reform can be achieved through classification risk being ridiculed. Such a view is understandable. The amount of intellectual energy spent on emancipating unjust enrichment from the categories of contract, tort and equity seems to bear little relation to the actual social benefits detectable in the restitution decisions themselves. And the experimentation with the public and private law dichotomy appears to have proved of little worth in the face of such social horrors as child abuse.

- 6. On which see P. Stein, Legal Evolution: The Story of an Idea (1980).
- 7. "However powerful Birk's arguments, it is perfectly laughable to think that someone sitting in his study can produce a workable revision of the whole of the law of obligations": D. Campbell, "Classification and the Crisis of the Common Law" (1999) 26 J.L.S. 369, at p.370.
- 8. One might legitimately ask if the decision of the majority in *Dimskal Shipping Co.* v. ITWF (The Evia Luck) [1992] 2 A.C. 152, which seems to hold that exploited and low paid workers who resort to industrial action are unjustly enriching themselves at the expense of their employers, bears much relation with social reality.
- 9. It seems bizarre that the financial interests of local businessmen are protected against invasion by incompetent local authorities (Blackpool & Fylde Aero Club Ltd v. Blackpool BC [1990) 1 W.L.R. 1195) while the psychological and physical health interests of young children are not (X (Minors) v. Bedfordshire County Council [1995] 2 A.C. 633).

Nevertheless taxonomy is, as Michel Foucault has shown in his work on the history of science, very much part of the Western scientific rationality.10 And given the increasing emphasis on legal skills within the English legal curriculum, it could equally be argued that the topic of classification ought not to be ignored since it underpins legal reasoning and legal knowledge. 11 Professor Birks ought not, therefore, to be criticised out-of-hand for suggesting that taxonomy is important to legal studies. For example, in the field of comparative law taxonomy remains of importance in that it can directly give rise to conceptual models capable of leading to solutions which might not be available in legal systems with different taxonomies and thus different models. Take for instance the facts of a case like Rigby v. Chief Constable of Northamptonshire. 12 In this case the police ended up in destroying the plaintiffs premises in the process of recapturing a dangerous criminal; the plaintiff did, admittedly, obtain damages but only because the police were held to have been negligent. If they had not been negligent they would not have been liable. In France, if similar facts had occurred, the police probably would have been held liable on the basis of a model of law fashioned within a taxonomy in which public law is rigidly distinguished from private. Such a rigid distinction has permitted the administrative courts to develop models of liability, based upon risk and the principle of equality of burdens, rather different from those in private law. 13 In short, taxonomy has provided a means by which the defence of necessity, so relevant in English law, has been bypassed in situations where French governmental bodies have caused damage in the public interest. Classification and its relationship with reasoning is, then, an aspect of legal knowledge that ought not to be neglected.

In addition taxonomy has a more general epistemological role in Western thinking and this role ought not, arguably, to be ignored by jurists. Foucault makes the point that one only has to look at subtle "irrational" schemes of classification to realise how they can make one smile but at the cost of a certain *malaise* which is not easy to overcome. The French philosopher took as his starting point a scheme of taxonomy mentioned by the Argentinean writer Jorge Luis Borges and said to be found in a certain Chinese encyclopedia. This scheme is perhaps well enough known not to need repeating in full here. ¹⁴ In brief the list to be

^{10.} M. Foucault, Les Mots et les Choses (Gallimard, 1966).

^{11.} See e.g. J.-L. Bergel, Théorie Générale du Droit (Dalloz, 3rd edn., 1999), pp.193-219.

^{12. [1985] 1} W.L.R. 1242.

^{13.} J. Bell, S. Boyron & S. Whittaker, Principles of French Law (1998), p.194; L. Neville Brown & J. Bell, French Administrative Law (5th edn., 1998), pp.193-202.

^{14.} An excellent translation into English of Foucault's description of Borges' scheme can be found in P. Legrand, Fragments on Law-as-Culture (W. E. J. Tjeenk Willink, 1999), p.63 together with the original Spanish. Professor Legrand also gives some background to the Borges story mentioned (but not referenced) by Foucault.

found in the Chinese encyclopedia, set out in alphabetical order, divides animals into for example: "a) belonging to the emperor...f) fabulous... h) included in the present classification, i) which act as if mad, i) countless, k) drawn with a fine brush of camel's hair" and so on. As a leading comparative lawyer has observed, Foucault addresses "this classification and observes that the exotic charm of a different way of thinking marks the limits of our own thought". 15 What is so impossible about this Chinese scheme, says Foucault, is not the juxtaposition of the various objects being categorised; it is the site itself where they are able to co-exist.16 Where can they actually exist, he asks, save in the non-lieu of language? Yet does not this non-lieu of language open up a site that is in truth unthinkable? For the scheme does not alter the res themselves (le corps réel) nor does it modify the intellectus in forcing one to think of some mythical monsters governed by strange powers. It is the juxtaposition that makes them unthinkable.¹⁷ Yet the alphabet does force one not just to relate "animals that act as if they are mad" with those "drawn with a fine brush of camel's hair" but, worse, to reflect upon those categories not actually mentioned including the paradoxical "included in the present classification" (another such category is "1) et cætera"). In forcing the intellectus to short-circuit, the scheme indicates just how vital taxonomy is to rational thought. Taxonomy, in other words, has an important epistemological role in as much as it helps us think about the relationship between words and things in a way that shows that one is included within the other. Our understanding of the world of fact is as much dependent upon taxonomy as is our understanding of language. And should one lose sight of this epistemological factor, one need only to return to Foucault's book to realise how categories have a fundamental role to play in the production of knowledge. Categories act, then, not just as a means of access from the empirical world to the world of science and vice versa; they act equally as objects of knowledge in themselves. Theories can thus attach to categories, while categories can insert themselves into reality to become an essential part of its description.¹⁸

Professor Birks does not, however, stop at taxonomy. He makes a plea for a little more "logic" and little less "fallacy". Another aspect of the debate is, accordingly, the role of logic in law. This, however, is a rather more difficult topic in as much as it is a term that is often used in an extremely loose way by lawyers. When they talk about logic they may not always mean logic in the strict sense of a formal method of *inferring* a solution from a given conceptual model. The debate that Professor Birks

^{15.} Legrand, Fragments, op. cit., supra n.14 p.64.

^{16.} Foucault, op. cit., supra n.10 p.8

^{17.} Foucault, op. cit., supra n.10 pp.7-8.

^{18.} Ibid., p.173.

is attempting to initiate arguably takes us, therefore, into areas that are in need of clarification before one can turn to the immediate question of Gaius and Darwin. What is actually meant by rationality and logic in law and in what ways might one legal system be said to be more "logical" than another? Do, for example, English precedents lack logic when compared with the sources of law-in particular the codes themselves-in civilian systems? And, if so, is it this lack of logic that gives rise to fallacy and contradiction? Would a more formal system of taxonomy rescue the common law from what Professor Birks thinks is the developing "intellectual disaster" of the common law? 19 Alternatively, is talk of rationality and logic in law profoundly misleading in as much as it is to draw a false analogy between legal knowledge and scientific knowledge? Is it to treat law as a "science" that is attempting to rationalise an object which exists independently of the "science"? And even if it is not rationalising facts themselves, is it nevertheless to dream of law as a calculating machine where judges arrive at solutions through inference rather than argument?

II. LOGIC AND LAW

LET us start, then, with a brief look at logic. The distinction between logic and experience seems at first sight a matter that goes to the heart of the distinction between civil law and common law. Thus, according to a leading work on comparative law, the civil lawyer has "a tendency to use abstract legal norms, to have a well-articulated system containing well-defined areas of law, and to think up and to think in juristic constructions". The Continental lawyer "approaches life with fixed ideas, and operates deductively". The English lawyer, in contrast, "is an empiricist" to whom "theorising has little appeal" and who "is not given to abstract rules of law". In England, "they think in pictures". All this may be true. Hut care must be taken since logic is a term that needs to be

^{19.} Exercise in Taxonomy, op. cit., supra n.3 p.4.

^{20.} K. Zweigert & H. Kötz, An Introduction to Comparative Law (3rd edn., 1998; trans. T. Weir), p.69.

^{21.} Ibid., p.70

^{22.} Ibid.

^{23.} Ibid., p.69.

^{24.} See e.g. P. Legrand, "European Legal Systems are not Converging" (1996) 45 I.C.L.Q. 52.

used with caution by lawyers.²⁵ Many jurists do not appear to have had a proper understanding of the term with the result that contemporary logicians "could no doubt make nonsense of many past jurisprudents' comments on formal logic and the law".²⁶ Even at a general level any attempt to give greater precision to the word "logic" is fraught with difficulties. For a start, terms such as "logic" and "deduction" need to be differentiated from other associated terms such as "rational", "reasoning" and "argumentation". These terms may overlap with, or embrace, logic and deduction, but they are by no means synonymous. The comparatist should thus make the point, at once, that just because English law might lack "logic" in the strict sense of the term, it does not follow that the legal system is irrational or that it lacks abstract systems of thought.

Furthermore logic needs to be distinguished from taxonomy in that the latter is conceptual rather than logical. Logic is a method whereas taxonomy is a conceptual scheme or system. And while the former is dependent on the latter, the reverse is not true; logic cannot of itself determine the taxonomical scheme.²⁷ Just because the process of classification is, historically at least, associated with the process of logical reasoning,²⁸ it again does not follow that jurists, when they reason, are thus indulging in logic. Certainly categories can act as the premises for solutions. For example, once a set of facts is classified as contractual it is possible to conclude that one of the parties is liable without proof of negligence.²⁹ But classification can serve other purposes such as cataloguing or, indeed, as Birks himself says, "mapping".

In truth a strict definition of logic is by no means easy.³⁰ Perhaps one might start, therefore, by emphasising two different kinds of method: the art of argumentation needs to be distinguished from reasoning by

^{25.} This paper does not set out to make a detailed enquiry into formal logic since commentators such as Zweigert, Kötz and Birks do not seem to be using terms like "deductive reasoning" and "logic" in the sense of formal calculus. In using these terms in such an unsophisticated way lawyers do, of course, leave themselves open to devastating criticism (see generally R. Susskind, Expert Systems in Law (1987), pp.164–169). Yet at the more general level of taxonomy, structuralism or even legal style (Zweigert & Kötz, op. cit., supra. n.20 pp.63–73), it may be that there is confusion about the distinction between so called abstract ("logical") reasoning and empirical thinking ("thinking in pictures"). One French epistemologist has made the point that "the concrete is the abstract rendered familiar through usage": R. Blanché, La Science Actuelle et le Rationalisme (2nd edn., 1973), p.54.

^{26.} Susskind, op. cit., supra n.25 p.168.

^{27.} H. L. A. Hart, Essays in Jurisprudence and Philosophy (1983), p.103.

^{28.} J. Largeault, La Logique (Presses Universitaires de France, 1993), p.5.

^{29.} See e.g. Lockett v. A. & M. Charles Ltd [1938] 4 All E.R. 170.

^{30.} Largeault, op. cit., supra n.28 pp.110-115.

inference.31 These two different methods might at this stage appear to be taking one away from the debate initiated by Birks. However, implicit in Birks' argument, is the idea that the common lawyer should move away from the present methodological approach exhibited in the cases he mentions towards a form of reasoning that is more logical. He is, in other words, advocating a move away from argumentation towards reasoning by inference. In fact, for the jurist, such a distinction is both useful and misleading. It is useful in as much as inference and argumentation are clearly two quite different methodologies, as indeed civilians recognise.³² Inference consists of the passage from one piece of information, or from one proposition, to another piece of information or to another proposition as a result of, and uniquely as a result of, the formal relations between the two.33 Argumentation, in contrast, is a "process by which one person—or a group of persons—undertakes to guide a listener to adopt a position through recourse to presentations or assertions—arguments which aim to show the validity or well-founded basis of the position".34 Thus, whereas logical inference is a formal process, argumentation is a social phenomenon; it always requires at least two people, since the objective is to influence.35 Of course logic may have a role in the argumentation process, but such a role is to influence and thus logic functions by way of justification for a position already stated.

The distinction between inference and argumentation can equally be misleading in as much as it suggests that legal method is a matter either of inference or of argumentation. Perhaps Professor Birks was not intending to make such a suggestion. Yet those who advocate more logic and less fallacy are leaving themselves open to the criticism that they are dreaming of a legal system whereby it is the conceptual system of inference rather than the dialectical process of argumentation that should determine solutions. Now, such a dichotomy between inference and argumentation has a certain historical value in that it helps explain the methods of the German natural lawyers in relation, say, to the Post-Glossators or to the modern common lawyers. But it must be borne in mind that in order to function in an inferential manner two fundamental requirements are normally necessary. First, the propositions and data acting as the premises from which solutions are to be inferred must have the unique

^{31.} The point needs to be made that logic is not a means of discovery as such but simply a procedure; thus the so-called new information obtained through the process of logic is not actually new at all since it is contained within the major premise. Logic is thus a means not of discovery but of verification: G.-G. Granger, La Raison (10th edn., 1993), p.49.

^{32.} See e.g. R. Robaye, Introduction à la Logique et à l'Argumentation (Erasme-Academia, 2nd edn., 1991).

^{33.} P. Oléron, Le Raisonnement (4th edn., 1995), p.58.

^{34.} P. Oléron, L'argumentation (4th edn., 1996), p.4.

^{35.} Ibid., pp.4-5.

^{36.} F. Wieacker, A History of Private Law in Europe (1995; trans. T. Weir), pp.239-275.

quality of being exclusively true or false.³⁷ If a premise fails this test, then no solution flowing from it can be guaranteed and the inference will be unsafe. The logic becomes at best a means of argumentation. Take the following example from a relatively recent English case. The lawyer for a party to a contract claimed that an arbitration clause was logically void because the contract within which the clause was contained was itself void. Such "logic" was soon disposed of by Hoffmann LJ:

Mr Longmore calls this logic. I call it over-simplification. The flaw in the logic, as it seems to me, lies in the ambiguity of the proposition that the arbitration clause "formed part" of the retrocession agreement. In one sense of course it did. It was clause 12 of a longer document which also dealt with the substantive rights and duties of the parties. But parties can include more than one agreement in a single document. They may say in express words that two separate agreements are intended. Or the question of whether the document amounts to one agreement or two may have to be answered by reference to the kind of provisions it contains. . . . There is no single concept of "forming part" which will provide the answer in every case. 30

The use of logic in this reasoning example failed because the premise was not, and could not be, founded upon an object that had the quality of being uniquely true.

Secondly, the propositions or data which act as the major premises must be capable of functioning as an abstract totality. That is to say, the elements and relations of the abstract model must be able to interact amongst themselves so as to produce the necessary transformations that will result in the inferred conclusion.³⁹ If the abstract model or structure has not yet reached a sufficient degree of systematised abstraction, then it will be incapable of performing as a deductive model. The most perfect structures in this respect are the ones used in traditional logic since they are based entirely on form rather than content. Thus one can deduce as a matter of form that Socrates is mortal because all men are mortal (major premise) and Socrates is a man (minor premise). This is a matter of pure form since the terms "Socrates" and "mortal" can be replaced by other names such as "William" and "mammal" respectively. " More usefully the doctor can deduce that antibiotics will be ineffective for his patient once he or she has diagnosed that the patient is suffering from a viral illness. Indeed the lawyer can surely deduce that his client will be guilty of a driving offence once it is shown that the amount of alcohol that was in the

^{37.} Granger, La Raison, op. cit., supra n.31 p.46. But cf. Susskind, op. cit., supra n.25 p.192.

^{38.} Harbour Assurance Lid v. Kansa General International Insurance Co. Ltd [1993] Q.B. 701, 722.

^{39.} J. Piaget, L'épistémologie Génétique (5th edn., 1996), p.103.

^{40.} Oléron, Le Raisonnement, op. cit., supra n.33 p.75.

driver's blood when arrested was more than the amount laid down in the statutory rule. These examples of inference are effective because the solutions are derived from abstract models whose elements relate to objects in a true or false fashion and whose abstract relations are entirely complete in themselves in terms of totality, ability to transform and auto-regulation. Perfect deduction has no need of recourse to experience or to any exterior source since it is a matter of systematisation that expresses itself only in formal symbols. In the case of the doctor example these formal symbols consist of categories of organisms (viruses, bacteria) and categories of drugs (antibiotics, steroids) together with the (abstracted) causal relations between the categories. In the lawyer example the formal symbols are essentially mathematical; the client is seemingly guilty because of the relationship between numbers (the amount of alcohol in the blood in relation to the amount stated in the legislative text).

III. STRUCTURALISM AND LAW

FROM a structural point of view, then, a logical system entails a closed totality. This idea of a closed totality is, once again, possibly to take the debate beyond the strict boundaries intended by Birks. However those who call for more rationality and logic are implying that lawyers should harden-up, so to speak, their reasoning models. On the continent this hardening-up process has a long historical tradition stimulated in particular by the Enlightenment belief that Roman law and mathematics could be amalgamated to produce a law that was both impartial and universal.⁴³ Gaius (or more precisely Justinian's Institutes) was, in other words, to be compared to works on mathematical axioms. As a result, there is a whole historical tradition against which one can view serious attempts to make law logical in the sense of providing a closed conceptual system capable of yielding through deduction reliable legal solutions. The experience has proved, for those who were keen to reduce law to a deductive process, disappointing for several reasons. As a matter of epistemology, as Piaget observed, the idea of structural (conceptual) closure is only relative in as much as the system remains open in respect of the axioms that it does not demonstrate and the notions that are always implicit.4 Translated into law, civilian systems may well be organised into codes of legal axioms—that indeed was, as we have said, the project of the Age of Reason. 45 But such structures must in turn have been induced out

^{41.} J. Piaget, Le Structuralisme (11th edn., 1996), pp.5-16.

^{42.} Oléron, Le Raisonnement, op. cit., supra n.33 pp.73-74.

^{43.} For a general outline see Stein, Roman Law in European History (1999), pp.107-110.

^{44.} Oléron, Le Raisonnement, op. cit., supra, n.33 p.27.

^{45.} Wieacker, op. cit., supra. n.36.

of social fact; for an axiomatic stage of scientific thought is empty if not constructed out of a pre-existing deductive theory itself only valuable if the propositions have been obtained inductively. 46 However the problem with the conceptualisation of social fact is that it is, scientifically speaking, conceptually weak and subject to a multiplicity of schemes of intelligibility.⁴⁷ Validation in the epistemological sense is thus rendered difficult and is often little more than ideological or philosophical interpretation.⁴⁸ And interpretation must, of course, be sharply distinguished from validation (in the sense of validation in the natural sciences). 49 Sometimes of course the social problem that the law is attempting to regulate might be transformed into mathematical symbols; the question, say, of whether a person is a "consumer" might be determined entirely by the amount of the credit transaction, or whatever, that is in issue. 50 But often the openness of a "logical" system can exceed that of mathematics. As one French jurist has written: "Mathematical logic implies not only an axiomatic approach and a deductive presentation, but also the symbolisation substituting calculus based on signs for reasoning based on ideas, so that this kind of mathematical deduction is of indefinite inventiveness." This method, as he points out, is irreconcilable with legal method in that 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".51 The codes, then, may well be structured and these structures may well fulfil the definition of a system. 52 But it does not follow that such structures are perfect deductive systems acting as models from which solutions can be inferred simply as a matter of form.

This is a point that is clearly of relevance both to the whole matter of logic in law and to the idea of rationalising legal taxonomy. Yet it is only one aspect of the matter. Another perspective that might usefully be adopted is to accept as given that any notion of logic is bound to be weak for the structural models used by lawyers and legal systems are incapable of ever being closed totalities similar, or analogous, to the structures and symbols used in mathematics, or even say in medicine and biology. Legal

^{46.} R. Blanché, L'axiomatique (6th edn., 1980), p.84.

^{47.} These schemes are classified, analysed and discussed in J.-M. Berthelot, L'intelligence du Social (1990), pp.62-82. A translated summary, together with their relevance for legal reasoning, can be found in G. Samuel, Sourcebook on Obligations and Legal Remedies (2nd edn., 1999), pp.169-177.

^{48.} G.-G. Granger, La science et les Sciences (2nd edn., 1995), pp.87-92, 98-99.

^{49.} G.-G. Granger, Essai d'une Philosophie du Style (Éditions Odile Jacob, 2nd edn., 1988), pp.276-277.

^{50.} See e.g. Consumer Credit Act 1974, s.75(3)(b).

^{51.} Bergel, op. cit., supra n.11 p.273.

^{52.} G. Samuel, Foundations of Legal Reasoning (Maklu, 1994), pp.123-124, 175-178.

structures, it might be said, come with much historical baggage. And this baggage contains within it traces of the myth that law is "reducible to strictly logical reasoning thanks to a rigorous terminology, to a hierarchy of rules enshrined in the positive law and to the possibility of extracting particular solutions from a certain number of incontestable axioms". 53 If this myth is discarded it might then be possible to view the "logical" structures of law from a different point of view. For example it might be possible to view law as a model whose transformational functions do not operate in a world (intellectus) divorced from its social reality object (res). It is a model that works within the res. That is to say it actually helps construct the res in such a way as to make it amenable to manipulation by the "science" of law.

If one were to adopt this point of view, it could impact on the common law in a number of ways. In particular, one might reflect on the possibility that if structures similar to those of the codes can be found deep within English legal analysis, then the common law might be just as logical as any other system. This is a point that has been pursued elsewhere. For the present, however, the point that needs to be stressed is that the personae, res and actiones structure which acts as the institutional framework for the codes, is not without meaning at the level of legal reasoning in the common law. And thus the difference between the "logic" of the civil law and the empiricism of the common law might be a matter of the permissible dimensions in which the institutional model is allowed to function. 55

More controversially one might view logical structures themselves in terms other than that of a static model. Perhaps the elements, relations and dimensions of the logical structures are always subject to a dialectical struggle between the confirmation and negation of the structure. Once a structure has been established, the next step is to deny its essential characteristic leading to the construction "of complementary or different systems that one will then be able to reunite within a total complex structure". Take for example the strict distinction between rights in rem and in personam or between public law and private law. To transgress such dichotomies would in one sense amount to thinking which is "illogical" provided that there is a meta-premise dictating that such categories are alternative ones and are not to be transgressed. However such transgression could equally be seen, on occasions at least, as being creative; indeed some argue that if serious advance is to be made in

^{53.} Bergel, op. cit., supra n.11 p.273.

^{54.} Samuel, Foundations, op. cit., supra n.52 pp.191-240.

^{55.} See G. Samuel, "Epistemology and Legal Institutions" [1991] International Journal for the Semiotics of Law 309; "Property Notions in the Law of Obligations" [1994] C.L.J. 524

^{56.} Piaget, Le Structuralisme, op. cit., supra n.41 p.104.

European Union law theory such transgression is a pre-requisite.⁵⁷ Being illogical can, in other words, stimulate developments within the conceptual scheme which in turn will, subsequently, transform the illogical into the logical. One could go even further if, as suggested, such a model was seen to function within a multi-dimensional space rather than just within the flat two-dimensional world of codes of linguistic propositions.⁵⁸ In fact it is arguable that the complexities of modern property law simply cannot be modelled within the kind of simplistic structures of traditional Romanist legal science with the result that English cases that appear to transgress the frontier between, say, possession and contract are anticipating a new "logic".⁵⁹ This may sound exotic and to some extent it is. But advances in logic have often been made through challenges to the existing architecture of established logical models.

That said, when one turns to the symmetry of the codes themselves, it has to be admitted that one of the advantages of a civil code is that it structures private law in such a way that the structure itself can act as a means of expressing legal policy. Accordingly in the Code civil the right of privacy and of dignity are distinguished from delictual (tortious) rights by their position in the code. Privacy (article 9) and dignity (article 16) are to be found in Book I (on the law of persons) whereas the invasion of contractual and delictual (tort) interests is governed by Book III (on the law of things). Privacy and dignity are not, in other words, to be seen as patrimonial interests—they are rights attaching to the person him or herself—and this point is given expression simply by the symmetry of the legislative code.⁶⁰

It is with respect to this conceptual symmetry, rather than logic, that the civil law tradition has an important contribution to make to legal epistemology in general. Professor Birks is right, then, to be concerned that students are no longer being introduced to the works of Gaius and Justinian. What Gaius produced was more than a taxonomy of law and more than a mere map—although his plan remains important for both of these aspects of legal knowledge. Gaius developed a scheme that, seemingly, worked within the facts since persona and res—together with, to some extent, actiones—are conceptual institutions that are recognised

^{57.} C. Joerges, "European Challenges to Private Law: On False Dichotomies, True Conflicts and the Need for a Constitutional Perspective" (1998) 18 L.S. 146.

^{58.} See Samuel, Epistemology and Legal Institutions, op. cit., supra n.55. See also G. Samuel, "Are Property Rights So Simple in Europe?" in Paul Jackson & David Wilde (eds.), Property Law: Contemporary Issues and Debates pp.161-186.

^{59.} See e.g. Manchester Airport Plc v. Dutton [1999] 3 W.L.R. 524.

^{60.} However this does not exclude the application of art. 1382 to invasions of personality rights: for a brief historical view see A. Lefebvre-Teillard, Introduction Historique au Droit des Personnes et de la Famille (1996), pp.48-50.

by sociologists, economists and others working outside of law. 61 They act as the bridges between the world of fact (social reality, environment or whatever) and the world of legal taxonomy and legal rules themselves. When viewed from the position of logic, what must be borne in mind is that the minor premise cannot relate directly to the normative proposition since facts are never evident in themselves. "They never directly thrust themselves upon one," as Astolfi and Develay put it, "and it can be said that they exist neither a priori nor separately."62 They "have sense only in relation to a system of thought, through a pre-existing theory"63 and this theory, for lawyers, is to be found in the process of categorisation and pre-categorisation.64 In turn this categorisation relates to the normative proposition and to the facts through the medium of institutional and normative concepts (persons, things, rights). Gaius' great contribution is to have produced a model of law capable of working within other environments. And the great contribution of the Glossators and the Post-Glossators was to adapt this model-often through the most extraordinary efforts—to the social reality of feudal Europe. 65

When one talks of the civil law being more "logical" one is not really talking about logic but about the structure of the conceptual system. Logic is being used in the sense of giving expression to the idea of a structurally rigid, but rationally connected in the systems sense, conceptual set of categories of generic rights. If this structure is viewed from the position of logic—that is to say, from the viewpoint of a major and minor premise—the logic appears to be associated primarily with the normative model of the major premise. But in truth it is as much a part of the construction of the factual situation acting as minor premise. Whether a person has a right to some res may often depend upon whether that res itself is deemed to have an existence. Or whether a person has a "right" to certain damages may be determined by a judicial decision as to whether there is, in the first place, a protected "interest" to be found within the facts themselves. This factual construction owes just as much to Gaius.

However if one leaves aside for a moment this factual constructivism aspect of the Gaian institutional scheme, one can see what attracts those jurists who dream of an impartial law. Here, then, is an apparently closed totality of normative propositions founded upon a model that can be

^{61.} See further on this point: G. Samuel, "Classification of Obligations and the Impact of Constructivist Epistemologies" (1997) 17 L.S. 448.

^{62.} J.-P.Astolfi & M. Develay, La Didactique des Sciences (4th edn., 1996), p.25.

^{63.} Ibid.

^{64.} C. Atias, Épistémologie Juridique (1985), p.129.

^{65.} With respect to the law of property and the Gaian scheme, see generally A.-M. Patault, Introduction Historique au Droit des Biens (1989).

^{66.} See e.g. In re Campbell (A Bankrupt) [1997] Ch. 14.

^{67.} See e.g. Spartan Steel & Alloys Ltd v. Martin & Co [1973] 1 Q.B. 27.

expressed as an abstract structure of elements and relations that act as the foundation of rights. Personality, property and obligation rights are, to the civilian mind at least, "logically" (that is to say, conceptually) different in that some rights attach to the persona (rights of personality), others to the relationship between persona and res (property rights). Further rights arise out of the iuris vinculum between person and person (obligational rights). These rights in turn appear to reflect an order in the world. People do seem to relate to things and to each other and as a result facts appear to relate to normative propositions. However these rights, if they are to be truly logical, must relate to each other in the same formal way as numbers and other mathematical symbols interrelate. That is to say they must function empty of any empirical substance. Propositional logic appears to be one means by which this is achieved: if p is adjudged owner of q (wrongfully detained by d) then the judge must order d to deliver q to p.69 The claimant p has the right to q because he is the owner which can be expressed as a structural relationship between p and q. Any weaknesses in the definition of p or q will of course weaken the relevance of logic as a method. For it will no longer be possible to infer a reliable solution from the concept of "ownership". However the legislative definition of ownership within a symmetrical code seemingly gives both the structure and the normative force to the logic even if the true method is not logic at all, but interpretation.

IV. TAXONOMY IN LAW AND IN SCIENCE

When one turns to the common law, the absence of an internal legislative structure is not without its advantages. The emphasis on remedies and on the categories of causes of action allows the law to operate close to the facts since a cause of action "is simply a factual situation the existence of which entitles one person to obtain from the court a remedy against another person". The categories, in other words, relate to facts rather than to systematic and abstracted relations between institutions. New interests can emerge from facts and can be reacted to by an institutional structure of remedies which is not constrained by a rigid formal hierarchy imposed by the legislator. If a court wishes to support, for example, an in rem remedy on an in personam right, it can do so without fear of transgressing the symétrie légale. There is, however, a price to be paid for this flexibility. According to Professor Birks "the modern law of tort is still a tangle of criss-crossing categories" where negligence "is a category

^{68.} Susskind, op. cit., supra n.25 p.183.

^{69.} Cf. D.6.1.9, 13.

^{70.} Diplock LJ in Letang v. Cooper [1965] 1 Q.B. 232, 242.

^{71.} See e.g. Manchester Airport Pic v. Dutton [1999] 3 W.L.R. 524. For an example of the reverse situation (in personam remedy based on a ius in re) see: Lipkin Gorman v. Karpnale Ltd [1991] 2 A.C. 548.

based on a degree of fault" and defamation "is a category based on an interest infringed, as is interference with contractual relations, or interference with chattels"; as for conspiracy, this "is a category based upon the description of an act". 72 Professor Birks illustrates this apparent disorder by reference to the case of Spring v. Guardian Assurance.73 In this case the House of Lords held that an employer was liable for economic loss in the tort of negligence to an ex-employee about whom they had written a carelessly inaccurate reference. The problem with this case, according to Birks, is that two legal categories intersect. Defamation, which is an infringement of the reputation interest, intersects with negligence, which is a wrong based on a species of fault. This leads to a situation where a careless invasion of the reputation interest could give rise to two wrongs, namely defamation and negligence, when a rational system ought to see only one wrong.⁷⁴ In order to give intellectual support for claimed rationality, Birks draws an analogy with the zoological sciences:

My canary is yellow and eats seeds. If all birds are seed-eaters, yellow, or others, my canary counts twice. Are there two birds or one? If there come to be two birds, the double-vision is due to the bent classification. There is only one bird.⁷⁵

Just as there is only one bird, so the "law cannot tolerate, or should not be able to tolerate, torts named so as to intersect".

Professor Birks goes on to consolidate this canary analogy by making the point that there is no branch of human knowledge which can manage without taxonomy. Whales must not be confused with fish, just as the gender of seahorses must not be confused with mammals. Indeed Darwin, according to Birks, would have despaired at the muddled taxonomy of English law. The point that he wishes to make with this reference to Darwin is spelt out in a later essay:

To say that every obligation arises from contract, wrong, restitution, or some other event is much like saying that animals are mammals, reptiles, birds, yellow, or of some other kind. The classification is bent. At yellow it turns a corner.78

However there is a problem with making an analogy between legal classification and taxonomy in the natural sciences. With a subject like zoology, classification relates to specifically identifiable objects which can

- 72. Birks, Harassment and Hubris, op. cit., supra n.4 p.39.
- 73. [1995] 2 A.C. 296.
- 74. Exercise in Taxonomy, op. cit., supra n.3 pp.5-6.
- 75. Ibid., p.6.
- 76. Ibid.
- 77. Harassment and Hubris, op. cit., supra n.4 p.39.
- 78. Birks, Definition and Division, op. cit., supra n.5 p.21.

be said to exist independently of the science. No doubt one has moved on from the older view in the natural sciences of a sharp distinction between the science and the object of science; but whales and fish, in the language of Gaius, are res corporales. They can be seen and touched. The objects of the empirical sciences, while being abstractions in terms of the scientific scheme itself, never actually lose their link with the senses and this link goes far in regulating the rigour of the science itself. ⁷⁹ Law as a "science" is different. It is the discourse of law that, to a large extent, creates its own objects such as "persona", "res", "contract", "tort", "defamation", "interest", "fault", "damage" and so on. 100 Legal science, as Villa has observed, is characterised by "atypical objects" which escape the observability criteria established for all empirical phenomena and thus the objects of legal science cannot be seen without the aid of concepts and theoretical categories. 81 These concepts and theoretical categories are of course part and parcel of the science of law itself and the objects of science thus merge with the science. Law is the object of its own science.82 The result is that the taxonomy scheme in law is subject to much less rigour emanating from the object of the science; the science can simply construct or deconstruct its own objects to achieve a desired solution. For example, people belonging to minority groups can be declared by a malevolent legislator as "non persons" and while this may be politically distasteful, to say the least, no historian can deny the past effectiveness of such treatment. Less extreme, but no less effective examples, can be found in the everyday case law. Claims can be denied simply because the legal science fails to see the existence of some "damage"83 or some "property".84

Now, when Birks adds "yellow" to the zoological scheme, what he is doing is to leave the science of zoology and to insert into the system an element that does not belong to the science. Yellow does not relate in any way to the scientific system that contains the categories of mammals and reptiles. He is thus right to say that such taxonomy is "bent". But where he encounters difficulties is in drawing an analogy with legal categories such as "contract", "wrong" and "restitution" since these categories are not

^{79.} Granger, La Science et les Sciences, op. cit., supra n.48 p.70.

^{80.} As indeed do the natural sciences since it can be said that all conceptual schemes create their own categories and thus objects. But the issue is really one of balance between intellectus and res; and so while a butterfly can never be a bird, a will could be classed as a contract even if lawyers would probably never do this since it would start to destabilise the conceptual scheme. People have been classed as things (slaves) and things (a temple or idol) have been classed as persons. This might appear ridiculous or politically distasteful, but it does not destabilise the conceptual scheme.

^{81.} V. Villa, La Science du Droit (Story/LGDJ, 1990; trans. O. Nerhot & P. Nerhot), p.84.

^{82.} Atias, Épistémologie Juridique, op. cit., supra n.64 pp.31-36. 83. See e.g. Lazenby Garages Ltd v. Wright [1976] 1 W.L.R. 459.

^{84.} See e.g. In re Campbell (A Bankrupt) [1997] Ch. 14.

subject to the same empirical control as the categories used in zoology. Of course one might argue that the object of legal science is the facts of cases. Thus "damage" can be related to a broken arm and "interest" can be related to some lost profit. Equally "defamation" can be seen as a scientific rationalisation of words and reputation. However the science and object of science dichotomy undermines this kind of rationalisation in two major ways. First, if legal science is the discourse that rationalises "fact", then what of the discourse that rationalises "rights" and "duties"? If the law of tort, contract and property is the science itself, this same science cannot of itself distinguish between the categories it uses. One has need of a meta-science to distinguish contract from tort, real rights from personal rights, property from obligations, public law from private law and so on. This adds a new level of confusion when it comes to the avoidance of intersection of categories since the meta-science can always be used as a means of avoiding the lower level science. A good example of this process is to be found in the Court of Appeal decision of Beswick v. Beswick. 85 Here the category of "contract", with its inconvenient rule of privity of contract, was simply avoided through the application of the meta-category of "real right" whereby the debt was reclassified as a res capable of being "owned". One can try hard to avoid these ambiguities created by separate layers of legal sciences. Thus some civil law systems refuse to attach real rights to res incorporales.86 Yet the notion of a res remains at one and the same time both a concept within the science and an object of the same science. This means in effect that the legal system is never threatened as a scientific discourse if it is decided that a res incorporalis is capable of supporting a real right.⁸⁷ As two jurists have observed, even "if the notion of a thing is for dogmatic and systematic reasons restricted to corporeals it must be kept in mind that legal development is influenced more by policy considerations than by logic".88 In other words it is the science which largely decides what can be owned and possessed and not the object of the science.89 No doubt it might appear that reality has an input: for example it might be difficult to deny as a matter of reality that a car cannot be owned, just as it would be difficult to say, today, that a person could be subject to ownership. Yet if the law does say that black is white or vice versa (as indeed it often has done

^{85. [1966]} Ch. 538.

^{86.} C. G. van der Merwe & M. J. de Waal, The Law of Things & Servitudes (Butterworths, Durban, 1993), no. 14.

^{87.} See e.g. R. Libcharber, "L'usufruit des créances existe-t-il?" [1997] RTD civ. 615.

^{88.} Van de Merwe & de Waal, op. cit., supra n.86 no. 14.

^{89.} The various levels of legal science cause endless confusion when it comes to the history and theory of say property law. What is the object of a right of ownership or a right of possession: the physical object or the ius itself? This becomes completely meaningless once one talks of owning or possessing as a res incorporalis, for the object of the right is the right itself: see F. Zenati & T. Revet, Les Biens (2nd edn., 1997), pp.58-63, 245-249, 273-275

through the use of fictions), any problems that might arise are, arguably, not so much problems arising out of the real objects. They are problems about internal stability within the legal system—for example if one tried to classify a car as a "contract" this would simply "bend" the system to use Birks' expression—or political ideology or morality. It is not legal taxonomy that prevents some human being defined as property; it is morality and ideology.

This point can be developed by comparing legal schemes with those of zoology and mathematics. Part of the rigour of a natural science like zoology is the use of exclusive categories that can be arranged hierarchically without contradiction. Concrete objects and materials. whether they are alive or not, natural or artificial, share certain basic properties. The categorisation scheme is able to conceptualise these properties in an exclusive, or near exclusive way: an animal either has a backbone or it does not. In other words the taxonomical scheme expresses states that are concretely possible and it "does not create these things or their properties by decree". A conceptual scheme like law does not and cannot function in this way since it creates its own objects. The things that it recognises are created by decree and as a result the abstract scheme "has conceptual properties that concrete objects do not possess". To this extent law is similar to mathematics:

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.⁹³

Where law differs from mathematics is in the kind of concepts that it uses. One can long for the precision that would come from a legal system whereby solutions in law could be demonstrated out of definitions, axioms and a chain of theorems. But concepts such as bona fides, ordre public and bonnes mœurs simply belong to another conceptual world because, unlike mathematics, the law does have to take some notice of concrete social reality. This is not to say that it actually schematises this social reality. It cannot do this since it needs to create a normative rather than a descriptive world. What it does is to create its own abstract model of society which operates quite independently of the real world. As Jacques Ellul observed of Roman law, it "becomes a kind of reality

^{90.} M. Bunge, Épistémologie (Maloine, 1983; trans. H. Donadieu), p.57.

^{91.} Ibid., p.58.

^{92.} Ibid.

^{93.} Ibid., p.60.

^{94.} Bergel, op. cit., supra n.11 p.273.

imposed upon the social situation, putting it into order, and ending up by becoming more 'true' than the facts". 95

This "reality" of the legal world is incapable of being consistently rigorous simply because it has need of concepts that themselves are not rigorous. What is more, it uses cumulative categories that are often not exclusive; a piece of property can be both corporeal and a moveable or corporeal and immovable. Now in order to be rigorous a category must reflect with respect to its object various particular characteristics and if the category is to be exclusive these characteristics must not be found in objects belonging to another category. The category of "defamation", if it is to be an exclusive and alternative category to "negligence", must reflect an object which will not exhibit the characteristics to be found in objects classed under "negligence". Peter Birks focuses upon the "interest" as object. The reputation interest, according to him, is quite different in character from the interests which form the object of the category of negligence.

However it is with regard to such objects and their categorisation that one comes up against the second major difficulty caused by law in effect being the object of its own science. The abstract scheme not only has the capacity to categorise objects that seemingly exist in social reality but also the ability to alter both the concept and category within the abstract scheme and the nature of these empirical objects themselves. If the jurist chooses to postulate the existence of a new conceptual object such as some new "interest" then this cannot be logically refuted provided it does not radically undermine the internal coherence of law. If it chooses to invest a live musical performance with the character of "property" then this can be criticised but not logically refuted. 97 Equally if the law chooses not to categorise some asset as "property" then this cannot be attacked on the ground of an absence of scientific logic.98 Indeed legal science can even treat a town or a building as a "person". 99 This flexibility at the level of the legal concept and legal category is reflected in the "object" of the legal science by an equivalent flexibility of "factual" characteristics. The same damage can sometimes be seen as physical and sometimes as purely financial. 100 A pollution incident at sea can be categorised as a negligence case, a nuisance problem or, perhaps, damage caused by a thing under the

^{95.} J. Ellul, Histoire des institutions: 3—Le Moyen Age (Presses Universitaires de France, 9th edn., 1982), p.27.

^{96.} Bergel, op. cit., supra n.11 p.211.

^{97.} Ex parte Island Records [1978] Ch. 122. Although this is not to claim that one cannot make a conceptual error in the sense that classifying some things as "property" might simply destabilise, or bend, the system.

^{98.} Re Campbell (a bankrupt) [1997] Ch. 14.

^{99.} D.50.16.16; Bumper Development Corporation v. Metropolitan Police Commissioner [1991] 1 W.L.R. 1362.

^{100.} Anns v. Merton LBC [1978] A.C. 728; cf. Murphy v. Brentwood DC [1991] 1 A.C. 398.

control of another. 101 The placing of an object in a supermarket trolley can be evidence of agreement or of an invitation to treat.102 Intersection of categories might appear irrational to any observer applying the logic of a natural science like zoology; but it is the observer who is in error in misunderstanding the fundamental differences between the nature of different taxonomy schemes. In fact were there not to be intersection of categories the law would become utterly stultified. Take the famous case of Donoghue v. Stevenson¹⁰³ whose facts are too well known to need repeating. If only one legal category were to be applicable this would have to be "contract" together with its very restrictive privity rule. The plaintiff would have no action since she had no contract. Happily for the consumer the facts disclosed other characteristics that permitted categorisation under a different set of relations which, in turn, gave rise to the possibility of someone in the plaintiff's position being able to recover. The same can be said of Hedley Byrne & Co. v. Heller & Partners Ltd¹⁰⁴ whose facts, under Birks' thesis, would have to be governed strictly by rules from the law of contract. The absence of consideration would mean no action. Once again the law was able to develop because categories intersected as a result of flexible characteristics not only at the level of the abstract legal scheme, but also within the apparent object of the scheme. Special relationships and proximity, seemingly empirical and thus descriptive, are in truth just as much part of the legal science scheme as persona, res, implied term, interest, right, contract or duty of care. Such concepts are the objects of the science that creates them and thus cannot be attacked on the ground that they do not "exist". In addition, legal development depends upon cumulative categories whereas as an empirical science like zoology depends much more upon exclusive categories.

All this may be distressing for those who yearn for the "identification of legal reasoning with formal logic [that] would confer upon it the rigour and the certainty which it often lacks". 105 But, as Guest pointed out many years ago, when one talks about the meaning of logic it too often centres around "the rather barren controversy whether legal reasoning is deductive or inductive in form". 106 And as Guest went on to observe, one "must expect the position to be far more complicated". ¹⁰⁷ In fairness to

^{101.} Esso Petroleum Co. Ltd v. Southport Corporation [1953] 3 W.L.R. 773; [1954] 2 Q.B. 182; [1956] A.C. 218. Cf. Code civil art.1384.

^{102.} Paris 14.12.1961; JCP.1962.II.12547; Cass.civ. 20.10.1964; DS.1965.62. Cf. Pharmaceutical Society of GB v. Boots [1953] 1 Q.B. 401.

^{103. [1932]} A.C. 562.

^{104. [1964]} A.C. 465.

^{105.} Quoting Bergel, op. cit., supra n.11 p.273. Professor Bergel goes on to point out, of course, that the reduction of law to equations is a myth.

^{106.} A. G. Guest, "Logic in the Law", in A. G. Guest (Ed.), Oxford Essays in Jurisprudence (1961), p.181.

^{107.} Ibid., p.182.

Professor Birks, however, it is not enough simply to say that things are more complex. Nor perhaps is it sufficient any longer simply to rest with Guest's view that "logic acts as a kind of geography, explaining the directive force of propositions and their relationship one with the other". 108 Birks has, rightly, identified a taxonomy problem in situations where one inserts into a scientific scheme a category that does not belong to the scheme. When viewed from the position of logic, it is analogous to the problems identified by medieval logicians: a mouse eats cheese; a mouse is a word of one syllable; therefore words of one syllable eat cheese. 109 A systems theorist might talk of "system shifting": that is to say in moving from "reptile" to "yellow" or "mouse" to "words of one syllable" one is shifting from one independent system to another. Where arguably Birks goes astray is in treating law as an analogous science. It is not. It is a science (assuming that it is a science) whose schemes of taxonomy are incapable of being reduced to a single system. For, the whole essence of law is that it makes use of a variety of differing concepts and notions which act as elements within differing, although interconnecting, systems. Spring v. Guardian Assurance involves, accordingly, not just a set of causes of action, governed by one type of taxonomy. It equally involves "interests", "damage", "rights" and "duty" that bring into play, in turn, different conceptual schemes in as much as interest and damage are descriptive concepts whereas right and duty are normative. One can of course dream of a single scheme of taxonomy governing the whole of social fact, but it must always remain only a dream. For legal reasoning draws its very strength from its ability to switch systems within a single set of facts. Indeed, as this article has tried to show, it goes much further than this. Law uses its systems to go some way in constructing those very facts themselves. Thus while one can argue that the reputation interest ought not to be confused with damage arising from wrongs, one cannot conceptually and (or) logically defeat the counter-argument that the facts of Spring involved the invasion of an economic interest caused by the negligent reference. And one cannot logically defeat the counterargument because it is a perfectly acceptable argument to advance in a court. One can convincingly argue, however, that yellow has no role within a scheme and its objects that think in terms of mammals, reptiles and birds. Yellow is not, as such, a scientific concept; it is not a legitimate part of the discourse. A scheme based on colour has no role in the scheme

^{108.} Ibid., p.197.

^{109.} R. Blanché, Le Raisonnement (1973), pp.250-251.

founded upon characteristics other than colour. 110 This kind of argument cannot be used with respect to "interest", "reputation", "damage" and "wrong" because they are all legal concepts. They may be notions functioning within differing sub-systems within law, but they remain legitimate legal categories capable of underpinning acceptable legal arguments. 111

V. GAIUS AND DARWIN

By way of a résumé, then, one can assert that science is not just about creating abstract models of propositions. It is also about constructing abstract models of facts. The objects of a taxonomy scheme in zoology are not, therefore, the animals themselves but a differentiated set of animals. The objects of the scheme are always abstract objects to a greater or lesser extent connected indirectly to the phenomenon itself. What matters is the relational structure between the categories. To test this, one need only to return to Foucault's reflections on Borges' Chinese taxonomy. Here a

110. Although much depends upon the place in the category hierarchy. Thus at the level of a genetic category like reptiles, mammals and birds colour has no place as an element. But this is not to say that it can have no role in distinguishing between different species. In Professor Birks' example, the adding of yellow alongside the generic categories would make the system "bent" in as much as one would be making the fundamental category mistake of confusing genus with species. Such confusion does of course lead to logical fallacy: (1) cats eat meat; (2) cats are animals; (3) therefore animals eat meat.

111. Legal concepts cannot be definitively arranged hierarchically via genus and species since different concepts belong to different sub-systems. Thus "interest", "damage", "fault" and "proximity" are descriptive notions whereas "right" and "duty" are fully normative. One can try to construct chains of concepts: for example "interest" + "damage" + "fault" + "cause" might be said to give rise to a "right" to damages and a "duty" to pay compensation. Equally a contractual "right" and "duty" can be factored down to "interest" + "cause" + "promise (term)". However to reduce the whole of public and private law to a single hierarchy of genus and species categories and concepts which never "intersect" would be an impossible task. Even the codes which separate personality "rights" (law of persons) from patrimonial rights (law of things) find that they get intermixed when it comes to damages claims for the invasion of a personality right. Such claims are often founded on the ordinary fault liability articles (for example Code civil, art.1382). Indeed even trying to keep separate real and personal rights is impossible according to some civilians (see e.g. S. Ginossar, Droit Réel, Propriété et Créance, LGDJ, 1960). In a system like English law where the thrust of claims is based on argumentation rather than "inference" from code "axioms" (a view itself now outdated even in most civilian jurisdictions thanks to the work of Chaim Perelman), the idea that all legal arguments would conform to a rigid hierarchical structure of concepts and categories is ludicrous. Argumentation itself is often based on the construction and deconstruction of the systems supporting categories and concepts. Take for example a notion such as the "public interest": this can be used to support the strict liability of public bodies whose activities do damage (as in France via the egality principle) or to exclude the strict liability of such bodies (as in England: see Dunne v. N.W. Gas Board [1964] 2 Q.B. 806). "Public interest" is thus a concept that can alter its quasi-normative potential depending upon the system within which it is operating. For the problems that a concept such as "good faith" might cause, see: G. Teubner, "Legal Irritants: Good Faith in British Law or How Unifying Law Ends Up in New Divergences" (1998) 61 M.L.R. 11.

112. Granger, La science et les Sciences, op. cit., supra n.48 p.72.

relational structure exists, to the Western eye at least, only through the alphabet. Legal "logic" (that is to say legal conceptualisation) is, equally, about the construction and schematisation of legal objects and the insertion of this schematisation in a system of concepts and categories. However what an analysis of the common law cases can show is that this schematisation is very different from the schematisation that takes place in a science like zoology. It is not a matter of moving from empirical object to conceptual scheme since such a dichotomy does not exist in legal science. The scheme itself, through the institutional model, plays an active role in creating both the major premise and the minor premise in legal logic. To accuse a legal system of lacking a certain kind of internal symmetry and structure may, then, be a relevant criticism, provided one is clear about the level at which the structure and symmetry should be operating. To accuse it of lacking logic is to risk displaying a misunderstanding of the term logic. Logic and rationality are contingent terms whose fragility is well brought out by Foucault's reflections on the relationship between les mots et les choses. And Darwin would not have despaired about legal taxonomy because he would not have made the mistake of thinking that legal science is analogous to a natural science like biology. One must never forget that it is in the nature of systems that theory becomes important;113 and the nature of systems used by lawyers does not allow itself to be compared with the nature of systems used in the natural sciences. One can verify if animal X is a mammal, bird or reptile by examining X as an empirical object and testing its characteristics in relation to the characteristics that determine each category within the taxonomy system. One cannot so easily verify if legal object X is or is not a thing capable of being owned simply by examining X as an object.

Can, therefore, one really compare Gaius to Darwin? There are, as we have seen, dangers in doing this. The fundamental danger is to fail to appreciate that taxonomy is about the construction of systems and systems have their own function. Gaius may have believed that he was trying to "map", in a descriptive way, social reality, "14" just as Darwin could be said to have been trying to "map" the natural world of plants and animals. Yet the functions of the two systems are different. Gaius' system was going well beyond mere description; he was producing a map that was capable of creating its own reference points. That is to say, he was mapping things that had no actual "existence" in society. For example, his law of persons had the effect of turning towns into "people" and his law of things could be used to conjure up different types of "objects" to be owned or possessed. Thus debts were as much a creation of his system as

^{113.} Granger, op. cit., supra n.48 p.75.

^{114.} P. Stein, Legal Institutions: The Development of Dispute Settlement (1984), p.127.

^{115.} D.50.16.16.

physically existing things waiting to be mapped. 116 In truth his system could, and often did, produce internal contradictions: if debts were things, then they could logically be owned, yet the system itself made a sharp distinction between owning and owing. 117 An actio in rem could not be used to enforce a debt, just as an actio in personam could not be employed to recover one's own property in the hands of another. 118 Slaves were things, yet evidently they were, on occasions, also persons. 119 The position becomes even worse with Justinian when the ius publicum is distinguished from the ius privatum; 120 for the law of persons no longer makes sense as a coherent private law category since it deals with issues—slavery and citizenship for example—that patently are public law matters. These internal contradictions have only partly been solved (slavery has been abolished in form) by modern systems builders; but the point to stress, of course, is that these contradictions are not so fatal. The system functions perfectly adequately and this of itself should go some way in distinguishing Gaius' scheme from Darwin's.

When one returns to English law after studying Gaius, Justinian and the modern codes it has to be admitted that it is tempting to see the civil law system as more "rational". Taxonomy in the civil law is not based on lists—there are not causes of action linked only by the alphabet 121—but upon a hierarchy of categories founded upon legal relations (different types of iura) arranged in terms of genus and species. 122 Indeed so seemingly precise is this thinking that it has been argued that Roman law itself played a role in the development of the Western scientific mind. 123 Yet, as Jolowicz pointed out many years ago, the Gaian scheme "hangs upon a very slender logical thread"124 and the internal contradictions, which have already been mentioned, mean that one must be careful not to be misled by appearance over reality. This is not to say that Gaius did not make a major contribution to legal science. Yet his contribution is very different from the kind of contribution made by Darwin to natural science. Gaius' strength lies in his development of a model that functions at one and the same time, via the institutions of persona, res and actiones, in the world of law and of social fact. Gaius was not mapping a country; he

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116. G.2.14.
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^{117.} Well brought out in D.44.7.3pr.

^{118.} G.4.4.

^{119.} Stein, Legal Institutions, op. cit., supra n.114 p.130.

^{120.} J.1.2.4.

^{121.} B. Rudden, "Torticles" (1991-92) 6/7 Tulane Civil Law Forum 105.

^{122.} Stein, Legal Institutions, op. cit., p.126.

^{123.} P. Acot, L'histoire des Sciences (1999), pp.55-56.

^{124.} H. F. Jolowicz, Roman Foundations of Modern Law (1957), p.61.

was creating one which could then be imposed on a range of different "territories". 125

No doubt English legal categories look bizarre compared with the neatness of Gaius, but there is a useful lesson here to be gleaned from Foucault and Borges. Professor Birks is right to identify as "bent" the insertion of "yellow" into a zoological scheme. This is exactly the point that the Borges scheme is making, although, as Foucault notes, he takes the whole thing to a logical paradox not just in juxtaposing the most exotic categories with others that are, seemingly, descriptively simplistic but in providing a category which includes the scheme itself. Yet the Borges' categories are not necessarily unworkable as a system of thinking; they are unworkable only when viewed from the mentalité of a particular kind of rationality. 126 They may well have functioned perfectly adequately within a society whose "zoological" priorities were very different. And the fact that there may have been internal logical paradoxes and contradictions would not necessarily be problematic given that the institutional system of Gaius and Justinian equally contain internal contradictions (they are just not so immediately evident). What makes Borges' scheme so unthinkable is that it cannot (seemingly), because it intermixes so many category elements themselves answering to different systems, function inductively so as to produce a hierarchy capable of generating axioms from which reasoning can begin to operate deductively.¹²⁷ But that does not mean that it does not usefully categorise creatures; it is simply that one does not have a "key" to the "code". With respect to English law, we do have a key to the code. We know that the various categories used in civil liability have never been arranged so as to act as a model from which one can move from the descriptive, to the inductive and then from there to the deductive and axiomatic. Nuisance, trespass, conversion, defamation, assumpsit, debt, account, money had and received and so on are too descriptive to allow for this. This is why alternative causes of action like negligence, breach of contract and unjust enrichment were and are being developed. 128 Now it may or it may not be that these new causes of action are more desirable than the old forms of action. But it would be fruitless to think that they can be arranged in such a way that they function like Darwin's scheme.

Two particular problems will always haunt legal taxonomy. First, even if one were to adopt civilian categories and rigorous definitions of concepts, one would first have to overcome a long historical tradition

^{125.} On which see A. Watson, "The Importance of 'Nutshells'" (1994) 42 American Journal of Comparative Law 1.

^{126.} Legrand, Fragments, op. cit., supra n.14 p.64.

^{127.} R. Blanché, L'induction Scientifique et les Lois Naturelles (1975), p.152.

^{128.} One might note on this point Lord Simon's vision of a mature and immature system of law: Knuller Ltd v. DPP [1973] A.C. 435, 492.

whereby law for the common lawyer is a matter of argumentation rather than deduction from some impartial model. Argumentation allows common lawyers to switch from one scheme and (or) definition to another without much thought to the neatness and symmetry of the overall structure. Put another way, the common lawyer uses different sets of systems operating in different dimensions. A case such as Spring v. Guardian Assurance can, one minute, be a right to reputation problem; a few minute later it can be an example of an invasion of an economic interest. Donoghue v. Stevenson can be a case concerning personal injury, nervous shock, consumer protection, culpa liability, dangerous products or even contract (particularly if the privity rule were to be modified). Each of these different categories and interests is capable of acting as a focal point for a quite different set of rules and concepts. Can judges, following Birks, really re-organise the common law from within so as to impose a conceptual symmetry that would restrict the way a case like Spring v. Guardian Assurance is to be perceived conceptually? No doubt the judges could have refused to recognise that the tort of negligence was to have a role claiming that the facts were to be governed only by the tort of defamation. Yet what if they genuinely, and not unreasonably, felt that an ex-employee, whose job prospects had been ruined by a carelessly indifferent (but not malicious) employer, ought to have a remedy? The idea that reputation on the one hand and economic interest on the other can be disciplined by principle is to misunderstand the relationship between reputation and interest. They function in different dimensions in as much as they are capable of existing at one and the same time in a single set of facts. And the moment one tries to formulate a principle which excludes one but not the other, the inadequacies of seeing law as a set of two-dimensional principles becomes evident. Interest and reputation are incapable of being subjected to the same conceptual scheme or "map" to use Birks' metaphor. One can test this by comparing two mental distress cases: one dealing with a wife's mental distress arising out of the emasculation of her husband¹²⁹ and another dealing with the mental distress arising out of a not-too-successful holiday.¹³⁰ Which interest should be better protected in a situation where the moral misbehaviour of each defendant who has wrongfully caused the mental distress is more or less the same? The fact that the law seems to prefer to protect the disappointed holiday-maker might seem rational enough when viewed from concepts such as "contract" and "duty of care". When viewed from the position of interests, which operate within a different conceptual scheme or in a different dimension from legal rights and duties, the result might well be seen as ludicrous.

^{129.} Best v. Samuel Fox & Co. Ltd [1952] A.C. 716. 130. Jarvis v. Swan's Tours [1973] Q.B. 233.

The second problem that haunts legal taxonomy concerns verification. How is a taxonomy scheme to be scientifically judged if not by some form of empirical verification? If one develops a model to predict the return of a certain comet, what will endow the model, in the end, with its credibility is the return of the comet at the precisely predicted time. The difficulty with Birks' plea for a more rational taxonomy is that he offers little in the way of verification. "The law," he says, "cannot tolerate, or should not be able to tolerate, torts named so as to intersect."131 If we fail in this, he claims, then "the realists and the fundamentalists of the school of critical legal studies will continue to play from a winning hand". 132 This is not really adequate as a means of verification. For a start, it is by no means clear that a rigid intellectual taxonomy, even if it were to be adopted by the judiciary, would turn the winning hand into a losing one for those who are advocating theories that Birks seemingly finds offensive. The impressively conceptual taxonomy of the various civil codes in Europe did little to ward off the influence and power of political theorists with scant regard for the rule of law or for basic human rights. Indeed one only had to listen to the witnesses at the Truth and Reconciliation Commission to know that the impressive conceptual foundation of the South African legal system—a system not unlike the one to be found in Scotland, which Birks uses as a model¹³³—did little to provide much of a winning hand to so many unfortunate victims. To suggest that "a sound taxonomy" is an antidote to political and jurisprudential theory is simply an unfounded and unproven assertion. The structure of legal systems cannot be verified by reference to terms such as "logic" and "rationality" since no legal scheme is probably capable of being verified except in terms of the factors that are extrinsic to law (economic efficiency, social policy, morality, educational efficiency and so on). And these factors, being social science factors, are always debatable and always menaced by ideology. They are not like models predicting the return of a comet. Or, to use the methodology proposed by Karl Popper, legal schemes, like Borges' scheme, cannot be falsified.¹³⁴ The idea that, in moving from the old quasi-contractual forms of action to a system based upon the axiom of unjust enrichment, we will have somehow reformed the law-and warded off the Critical Legal Studies scholars—is simply to recall Maine's dictum. Reform of the law meant reform of the law books. 135

^{131.} Birks, Exercise in Taxonomy, op. cit., supra n.3 p.6.

^{132.} Ibid., p.4.

^{133.} Ibid., p.15.

^{134.} See generally K. Popper, Objective Knowledge (1973).

^{135.} Sir Henry Maine, Dissertations on Early Law and Custom (John Murray, New edn., 1890), p.363. For a criticism of this kind of approach to law reform, see Campbell, Classification and the Crisis of the Common Law, op. cit.

Birks, admittedly, goes some way in recognising this. 136 However he fears "that one topic will cease to be able to speak to another, each one having developed its own technical language and its own view of the world". There is no "compatible software". 137 This is why one needs a map. The problem, of course, is that Birks is becoming a victim of his own metaphors. To justify taxonomy on the basis of "logic" (for he calls for more logic), "symmetry" (or at least the avoidance of "irrational asymmetry") "software" and "maps" and then to relate all of this to Darwin is not just to confuse a great many schemes and systems. It is equally to misunderstand the relationship between a science and its object. No doubt if one had a criminal law system "organised around imprisonment, fines, probation, and other responses, the putative book on probation would have to work back to many of the same offences as would be discussed in the book on imprisonment and, again, in the book on fines". 138 But why should one want a system based upon such elements? What would be its function? If one knew what its function would be—the key to the code so to speak—then it may be that a book on imprisonment would be subtly different from a book on fines. Such books might reflect subtle but important distinctions to be constructed at the level of fact. Is it so efficient, for example, that a woman convicted of shaking a baby in a moment's anger should be treated as murderer and imprisoned for twenty five years? It might be "efficient" from a mapping point of view and, even, from a logical position (was she not a "murderer"?). But who knows what a taxonomy founded on punishment might say about such treatment. References to Darwin, computer software, symmetry and logic are not always unhelpful in understanding the importance of Gaius' system as a constructivist epistemology. 139 But they are insufficient in themselves as factors for law reform and that is what makes law functionally different from zoology. 140 Indeed one might test this by reversing the issue. Has Darwin's biological scheme proved so useful as a foundation to social science theory and to legal reform? Some might well argue—and admittedly this is an ideological debate—that the intermixing of Darwin with social theory has been one of the great disasters of the twentieth century.

VI. THE MODERN VALUE OF GAIUS

NOTHING that has been said in this paper should be taken as casting doubt on Birks' implicit assertion that Gaius and Justinian remain central to

^{136.} See e.g. Definition and Division, op. cit., supra n.5 pp.33-34.

^{137.} Ibid., p.34.

^{138.} Ibid., p.30.

^{139.} G. Samuel, "Classification of Obligations and the Impact of Constructivist Epistemologies" (1997) 17 L.S. 448.

^{140.} Campbell, Classification and the Crisis of the Common Law, op. cit.

legal knowledge. Indeed there is one sense in which Professor Birks' comparison of Gaius with Darwin does have some value. Gaius has produced a model of law from which escape, even in the next century, is likely to continue to prove extremely difficult. In constructing a model of legal categories and relations (iura) around persona, res and actiones, Gaius came up with a taxonomy that is more than a classification scheme. It is a model that bridges the gap between law as a conceptual scheme and social reality (for want of a better term). Persons and things, and to an extent actions, function at one and the same time within the facts and within the conceptual model. The object of legal science is thus not social reality as such but the Gaian model of persons, things and actions and the various quasi-normative concepts such as fault, damage and interest that accompanies them. This kind of model can be compared to approaches taken in the natural sciences where the object of scientific knowledge is never reality itself but the construction of abstractions schemes or models of this reality.¹⁴¹ Knowledge comes not from reality itself, but from the exploitation of these models.

This distinction between model on the one hand and actual reality on the other has been described by one philosopher of science as the distinction between virtual and actual facts. The former are "schematic facts completely determined in the network of concepts of the scientific theory itself, but incompletely determined as realisable here and now in an experiment". 142 Law of course is not this kind of science; it is neither a discourse for experimentation nor a medium for theories designed to explain and predict the physical world. Moreover epistemology is littered with failed attempts to transfer schemes from one knowledge domain to another. Yet such a transference, even if unsuitable for the sociologist, 143 might be helpful to the lawyer in as much as the idea of "virtual" facts emphasises that legal facts are never a description of social reality itself. Institutionally constructed facts can, themselves, be manipulated to conform to legal categorisation and conceptualisation as much as the legal categories and concepts can be manipulated to encompass the legal facts. The modern importance of Gaius is, then, to be found in the way that legal categories and concepts (particularly the apparently descriptive concepts) can seemingly insert themselves into social reality so as to organise it. The Institutes represent more than a mere map of the law; they are a way of thinking about the world, a way of constructing a reality that appears to transcend the chaotic. Law is a rational discipline that can be

^{141.} Granger, La Science et Les Sciences, op. cit., supra n.48 p.70.

^{142.} Ibid., p.49.

^{143.} J.-M. Berthelot, Les Vertus de l'Incertitude (1996), p.73.

grasped by the mind, whereas interpretatio facti can deceive even the wisest of people. 144

Examples of how this institutional model actually acts as, so to speak, the object of its own science have been given elsewhere. However perhaps a further example will suffice to illustrate the mediating role that the model plays in linking the legal facts not just with legal rules but with legal reasoning as well. Take the following facts. A house-owner contracts with a construction firm for the latter to build a swimming pool in the former's garden for a certain price. The contract stipulates that the pool is to be seven feet six inches in depth, but when it is completed the depth proves to be only six feet nine inches. The house-owner refuses to pay the price and when sued in debt by the construction firm he counter-claims in damages for the cost of a pool that would conform exactly with the contract specification. To make the pool conform to the required depth will in reality involve a complete reconstruction and thus the damages will amount virtually to the cost of a new pool. Now logic seems to dictate that the house-owner is entitled to such damages. For it is an established rule of English contract law that the victim of a breach of contract is entitled to recover damages that would put him in the position he would have been in had the contract been performed. But what if a judge feels that awarding such damages would be unreasonable and unjust given the small difference in depth and the huge cost of reconstruction? Can the logic of the damages rule be avoided? When a not dissimilar case came before the English courts the trial judge, ultimately supported by the House of Lords, simply "reconstructed" the facts. 145 The house-owner had, said the trial judge, received a reasonable swimming pool and thus his damage was not to be defined in relation to this res. The real damage attached to his persona; he had suffered mental distress in not receiving a swimming pool of seven feet six inches. This mental distress was damage amounting to, said the judge, around a couple of thousand pounds, clearly a very much more modest figure than the cost of rebuilding the pool. In the House of Lords this mental distress damage was made explicit by Lord Lloyd in his reference to the precedent that established it as a head of damages in the law of contract. 146 Indeed, Lord Lloyd turned the tables on the plaintiff. The house-owner "cannot", he asserted, "be allowed to create a loss, which does not exist, in order to punish the defendants for their breach of contract". 147 The logic of the damages rule was thus avoided through what seemed to be a reconstruction of the facts. In truth it was not the facts themselves that were reconstructed, but an institutional model of them in

^{144.} D.22.6.2.

^{145.} Ruxley Electronics Ltd v. Forsyth [1996] 1 A.C. 344.

^{146.} Ibid., p.374 referring to Jarvis v. Swan's Tours [1973] Q.B. 233.

^{147.} Ibid., p.373.

which the emphasis was taken off the res (swimming pool) and put onto the persona (house-owner). Damage no longer attached to the pool but to the mind.

This may seem a long way from Gaius' scheme of classification. But it is not. For, while Gaius was undoubtedly offering a map of the law he was equally constructing a conceptual—an institutional—model of social reality itself. This reality was of course a lawyer's reality; it was an object conceived to dovetail with the very taxonomy he was using to present the propositions of law. In fact some have argued, not unreasonably, that his scheme went further than this. Gaius was providing a conceptual model for social science itself: if the natural universe is written in the language of mathematics, then the social universe is written in the language of Gaius. Whether or not this is to exaggerate is not of immediate concern to the narrower question of the modern legal importance of the *Institutes*. The role in legal thought of the so-called descriptive terms like person, thing, damage, fault, interest and the like are in need of very careful analysis and thus Professor Birks is not wrong to insist that taxonomy is an important aspect of legal knowledge.

Yet taxonomy is more than classification. It is more than looking at categories and how these categories relate to each other in that it is equally about reality itself and how we think about the relationships between objects having a real existence in the world. With regard to the objects that interested Darwin these things can, as we have seen, be viewed through schemes that intersect: that is the point that Foucault makes in his reference to the Borges' taxonomy. Such schemes may well provide paradoxes that make them "impossible"—irrational—to the Western scientific mind. 149 But it would be a great error to believe that the "irrationality" that might be said to attach to the Borges scheme will equally attach to legal taxonomy. There is a genuine choice, for example in the swimming pool case, between whether to construct "damage" around the res or the persona. A majority in Court of Appeal chose to attach it to the pool and, whatever criticism this might attract, this cannot be faulted in terms of the Gaian classification of institutions. Were the Court of Appeal, in another case, 150 wrong to say that for some purposes a building could be a persona? Indeed, those who support animal rights are implying that animals (res) are personae (right-holders). These assertions can be criticised from positions outside legal conceptualisation; that is to say, they can be attacked on the ground say of morality, social utility or

^{148.} D. R. Kelley, The Human Measure: Social Thought in the Western Legal Tradition (1990), pp.12, 48-52.

^{149.} F. Bonardel, L'irrationnel (1996), p.5.

^{150.} Bumper Development Corporation v. Metropolitan Police Commissioner [1991] 1 W.L.R. 1362.

economic efficiency. Thus consumer groups might well attack the House of Lords' decision in the swimming pool case on the ground that the holding weakens consumer rights vis-à-vis building firms. Philosophers might attack animal rights theorists on the basis of a moral theory or a theory of rights. Yet the actual legal conceptualisation itself cannot be attacked on the ground that it is chaotic or contradictory. Is In short, it is of the utmost importance not to confuse the actual importance of Gaius' scheme with one's own views about how the law should be classified and the kind of solutions it actually formulates. Law is a successful "science" because its concepts and categories intercept and it is this interception that allows it to construct and reconstruct the world "out there". The modern importance of Gaius is in appreciating just how it does this. Moreover, for the comparatist, the importance of Gaius is to be found in the shape and patterns of the institutions and quasi-descriptive concepts utilised in any one legal system.

VII. CONCLUDING REMARK

THERE remains one final point. In offering a reply to Professor Birks' criticism of English law, this paper has remained within the relatively narrow epistemological boundaries set by Birks himself. That is to say, it has approached the question of the intellectual qualities of the legal reasoning only in terms of "logical" structures, systematisation and taxonomy. It has not ventured into the realms of legal philosophy and thus it has quite deliberately not engaged with those theorists who might be described as belonging to the modern school of hermeneutics. This reluctance to engage with theorists such as Dworkin and Alexy could be excused, of course, on the practical ground of space; yet it also has to be stressed that such theorists are actually outside of the scope of this particular debate. For even the civilians admit that there is a vital entre-deux between legal structures (codes) on the one hand and legal solutions on the other and thus an important distinction does need to be made between legal systematics and interpretation theory. Accordingly,

^{151.} Of course the point needs to be made again that certain classification assertions will contradict internal coherence of the scheme. For example if one classified as "contract" the following: sale of goods transactions, insurance transactions, hire-purchase transactions and cars. A car is obviously not a contract. But this is not because of factual reality itself; it is because the law of obligations classifies relations between people and the concept of a car cannot be used to construct a relationship. More interestingly would be the inclusion of wills rather than a car. Lawyers do not of course treat wills as contracts, but they could (just) conceivably do so. One of the points that Professor Atiyah makes is that contract is a very flexible notion capable of including all kinds of situations not currently seen as strictly contractual today: see generally Rise and Fall of Freedom of Contract (1979).

^{152.} This point is developed in G. Samuel, "Comparative Law and Jurisprudence" (1998) 47 I.C.L.Q. 817.

^{153.} Manuel Calvo García, Los Fundamentos del Método Juridico: Una Revisión Critica (Tecnos, 1994), pp.167-246.

even if "a little more logic" (as Birks has put it) could be introduced into English legal reasoning, it would arguably make no difference to the status and efficacy of say Ronald Dworkin's arguments. Equally this present article has not ventured into the area of social theory and epistemology. There is no doubt that the work of, for example, the French theorist J.-M. Berthelot on schemes of intelligibility in the social sciences has an important relevance for legal epistemology.¹⁵⁴ But again the parameter set by Professor Birks is a narrow one and the immediate object of this article has been to engage in debate just within this parameter. However if the present paper does have anything useful to contribute to the wider philosophical debate it is this. Legal reasoning is not just a matter of interpretation; it is also about the construction of facts from, so to speak, the inside so as to produce what might be called institutional patterns. These patterns, in turn, are as an important factor in the formulation of a legal solution as any recourse to interpretation of rules and principles. This present article has not really undertaken to justify this last assertion—although it has given some examples—and it is fully recognised that much more is needed if such an assertion is to be truly convincing.¹⁵⁵ What this article has focused on, instead, is the comparison of rationalities. It has tried to show that comparisons between legal and zoological taxonomy schemes are an epistemologically dangerous exercise.

^{154.} Berthelot, L'intelligence du social, op. cit., especially chap.2.

^{155.} But see generally Samuel, Foundations, op. cit., supra n.52 and "Comparative Law and Jurisprudence" (1998) 47 I.C.L.Q. 817.