# INTER-DISCIPLINARITY IN LAW: ITS NECESSITY AND CHALLENGES

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## I. INTRODUCTION

"My gain from hearing or reading what other people thought was that it changed, as it were the colours of my own concepts. What I heard or read did not enable me to reproduce their thought but altered my thought. I would not retain their ideas or concepts but modify the relations among my own"

- F.A. Hayek

When I started law school, a professor of a certain age was in charge of the welcoming speech. I remember perfectly his words: "Law is a mathematics of language". An explanation followed on the virtues and the power of the famous legal syllogism, the myth of which persists among bachelor students and certain colleagues; I admit to being impressed by this "demonstration" which seemed to me of an impeccable logic. Law would be a perfectly autonomous discipline. The lawyer should be content to know the "mathematical" rules of law (including cases) while striving to apply them rigorously, penetrated by the wisdom of precedent and academic enlightenment. This vision would be reinforced by a supposed civil law tradition – I am French – making the judge the simple mouth of the law[1] (with his theory on economic development perhaps one of the most beautiful heresy of Montesquieu), the executor of Parliament's wills (supposed to represent the no less mythical general will). It does not matter that this representation is far removed from the inspirer of the Civil Code-Portalis[2]; it will be enough to read his speech on the civil code to be

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[1]CHARLES DE SECONDAT, BARON DE MONTESQUIEU, THE SPIRIT OF THE LAW, CAMBRIDGE 1989 (Cambridge Univ.Press 1748).

[2]Portalis was aware of some limitations of the civil code. He said: "*A code, however complete it may seem, is no sooner finished than thousands of unexpected questions present themselves to the magistrate. For these laws, once drafted, remain as written. Men, on the other hand, never rest. They are always moving; and this movement, which never ceases and whose effects are variously modified by circumstances, continually produces some new fact, some new outcome. Many things are therefore necessarily left to the authority of custom, to the discussion of learned men, to the*

convinced. It does not matter that the legal tradition does not name the thing - the syllogism - by its name, the modus ponens, and thus reveals that this mode of reasoning is above all one of the logical structures identified by Aristotle[3]. Myths are hard, and believers are faithful to dogmas.

However, the simple fact of giving a history to the notion supposed to have found the autonomy of legal reasoning and thus, of the legal "discipline", since the disciplines are defined today more by their methods than by their object[4], suggests that the law is merely, at least, borrowing from logic- one of its tools, thereby putting the idea of a seal between disciplines - or purity of the discipline - at the level of logical impossibility. To be content with an interdisciplinarity limited to logic would however still be far too charitable because, all things considered, legal disciplinesare defined more by their object than by their method. This approach allows both the autonomy of the discipline and interdisciplinarity to be saved. The latter would not in any way affect the autonomy of the discipline (defined as object). Better, it would broaden the scope of legal thinking to make jurists not mere performers but real actors in the evolution of legal norms.

Such an affirmation must, however, be "proven" (improper language if one understands by the proof the mathematical rigor) or at least prove convincing by using a quasi-logical structure and the tools of the traditional rhetoric. This article is itself interdisciplinary in its method, while being legal by its object.

To want autonomy of the discipline as a method does not resist long the analysis of the facts. If, as my former teacher said, law is a mathematics of language, the legal method (what can it be?) should be able to guide judges, lawyers, academics and more generally practitioners to identify, more or less easily but always with certainty, THE legal solution. Indeed, if this solution is not unique, the legal method would not be able to allow a strictly legal decision and it would then be necessary to appeal to an external element which is refused in principle. If we then consider that

*arbitration of judges*" (Jean-Etienne-MariePortalis, Preliminary Address on the First Draft of the Civil Code, 1801).

[3]ARISTOTLE, ORGANON.

[4]Gary Becker, *The Economic Way of Looking at Life*, NOBEL LECTURE 1992, http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1992/becker-lecture.pdf.

there are rules imposing the use of another discipline to "decide" between several solutions, these rules do not allow to remove the difficulty: they are indeed legal and if these rules cannot be pinpointed or can be challenged, the problem is only postponed one step further and the autonomy disappears again.

The myth of the unique solution is still widely taught ... however, it does not seem logical. After all, the mere fact of using lawyers at a trial to "convince" a judge sufficiently reflects the absurdity of what would be a radical autonomy of law. Do we need three mathematicians to solve a mathematical problem? If the law is a mathematical language, why should we appeal to three entities (two lawyers and one judge)? Isn't it possible to consider that the "mouth of the law" sufficient? It is indeed necessary here to be charitable, the error of inattention is certainly possible, but it is less frequent than the lawsuits. Lawyers can certainly be stupid and narrow-minded, but then you may wonder why they always find a few things to stay in the business. Would it not be possible to develop software to systematically determine "good" decisions?

Of course, the modus ponens is a structure of presentation that could give the illusion that the solution is "imposed" to the judge when he presents it - our Supreme Courts are experts in this art, which is not always subtle - but we should not confuse effective rhetorical structure with the autonomy of legal reasoning. After all, the field of law is that of the practical decision which is characterized by the fact that things can be other than what they are; mathematical rigor is not entitled to be mentioned in this order; the power of conviction replaces the proof and sometimes claims to be scientific when it is only the *ars juris*, which is not dishonorable, on the contrary.

Founding myths certainly have their virtues - and the autonomy of law is one - but they should not restrict our ability to think. The cycles and epicycles of Ptolemy were built on the dogma that the perfect movement can only be the circle[5]; the elliptical movement probably does not agree with dogma but has given reasoning an ability to surpass itself. Interdisciplinarity in law is nothing else.

[5]For example, Arthur Koestler.

The law wanted to think itself as scientific, mimicking mathematical reasoning and, by so doing, ignoring its own nature. It is indeed not interdisciplinarity which is a recent phenomenon, it is the interdisciplinary thought as interdisciplinarity (I). Is this to say, however, that interdisciplinarity must be adorned with all the virtues? As in physics everything depends on what you want to do. The geocentric model is enough to navigate; the model of Newton sufficient to explain many phenomena with some disturbing approximations (the perihelion movement of Mercury for example) but not always crippling; that of Einstein could certainly replace the previous while exceeding them… but remains more complex to handle; it remains the only one that allows the GPS to reach its accuracy. Choosing simplicity is sometimes more efficient for solving the problems of daily life. In other words, the complexity of the theories is not without generating costs (II) that must be taken into account to assess the relevance of a less confidential use of interdisciplinarity (or at least more standard) including, of course, law and economics.

## II. INTERDISCIPLINARITY, A RECENT PHENOMENON?

Contrary to what some would suggest, interdisciplinarity is inherent in law and it has always been so. It is not a new reality (A). Why then do we want to fight it and refuse, with so much relentlessness (at least in some part of France, Germany or India), the introduction of transdisciplinary courses likesociology of law, law and economics, even the psychology of the courtroom? Simply because, now, interdisciplinarity is rationally considered (B) and, as such, imposes a little more rigor in some traditional legal reasoning!Moreover, it challenges many dusty doctrines and it is also at this level that the rupture takes place, that the novelty exists: the disciplines having evolved, the law must follow their evolution to remain in adequacy with its very nature and to gain in both practical and logical power. If this intellectualization of interdisciplinarity also gives it its power, it is not without compromising the comfort of conservatism sometimes preferring legal mythologies to their disenchantment.

### A)HAS THE LAW NOT ALWAYS BEEN INTERDISCIPLINARY?

The question of interdisciplinarity in law could not be posed in modern terms without specific

disciplines having asserted their "autonomy" and being able to tell us something about the legal system (in the broad sense); there is no interdisciplinarity without disciplines. However, these disciplines have appeared only recently in the history of the law: economics is often associated with Adam Smith[6], sociology with Durkheim[7] and Weber[8], psychology with Freud[9], statistics with Quetelet[10] (even if the mathematical foundations of statistics have been largely developed by Pascal, Fermat, Bayes, Laplace or Condorcet[11]).

The question of interdisciplinarity has not been raised for several centuries. It should not be forgotten that the social sciences have often developed precisely to influence legislation, in other words, to change the law. Did Adam Smith not criticize the mercantilists and their conception of economic regulation? Did he not consider that the economy was part of the science of the legislator[12]? Did Bentham not develop utilitarianism to better legislate[13]? Did Ricardo not construct the theory of comparative advantages to criticize Corn Law[14]? And the list could go on and on. These evolutions concern more the art of legislating than the art of judging. It goes without saying that the art of legislating is interdisciplinary in nature: how to legislate without understanding the system that one wishes to govern? And how not to consider that this system is multidimensional in essence? In other words, how can one legislate without appealing to the diversity of knowledge offered by different disciplines? It is unlikely that interdisciplinarity at this level is really problematic, even for fierce partisans of some kind of "purity" of law. It would certainly be

6 ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS, 1776. [Hereinafter "Adam Smith]

7 EMILE DURKHEIM, LES REGLES DE LA METHODE SOCIOLOGIQUE (Flammarion 2010).

8 MAX WEBER, BASIC CONCEPTS OF SOCIOLOGY, SECAUCUS (Citadel 1962).

9 SIGMUND FREUD, THE PSYCHOPATHOLOGY OF EVERYDAY LIFE, (W. W. Norton & Company 1971).

10 ADOLPHE QUETELET, DU SYSTEMESOCIAL: ET DES LOIS QUI LE REGISSENT (Forgotten Books 2015).

11 STEPHEN STIGLER, THE HISTORY OF STATISTICS: THE MEASUREMENT OF UNCERTAINTY BEFORE 1900(Belknap Press 1990).

12 Adam Smith, *supra* note 6.

13 JEREMY BENTHAM, THE PRINCIPLES OF MORALS AND LEGISLATION (Prometheus Books 1988).

14 DAVID RICARDO, THE PRINCIPLES OF POLITICAL ECONOMY AND TAXATION (J.M. Dent & Sons Ltd. 1911). See also THOMAS MALTHUS, THE GROUNDS OF AN OPINION ON THE POLICY OF RESTRICTING THE IMPORTATION OF FOREIGN CORN: Intended as an Appendix to "OBSERVATIONS ON THE CORN LAWS" 1815, In 7 EDWARD A. WRIGLEY AND DAVID SOUDEN, THE WORKS OF THOMAS ROBERT MALTHUS 151 – 174 (Pickering 1986).

possible to consider that the law is above all natural and imminent, but this approach is far from common today and would pose formidable difficulties as to the relevance of the institutional structures adopted in most developed and developing countries: how to justify democracy or collective decision if the law is "natural"?

It is obviously possible, to reject interdisciplinarity in law, to distinguish between the art of legislating and the art of judging. The first would be "political" and not strictly legal; the second, on the contrary, would be "legal". Is *ars juris* interdisciplinary in nature? If we put rhetoric back at the heart of the art, there is no doubt that it is: to convince is not to be limited to a category of argument, it is to mobilize symbolic values, to adorn the reasoning with the prestige of science, to use psychology; it's not just being "legal". And by saying that, a first abuse of language occurs: what is this "legal"?

Being legal is the fact of using legal references in other words to speak of the object, not to be limited to a predefined method. From a practical point of view, the lawyers or the judges will all confirm the importance of the experience for the practice of their profession. This experience means that the law (in the sense of a set of normative propositions considered valid by a community) is not enough. While experience can give reflexes to go faster in the resolution of cases, it is not just that. The experiment also aims at knowing how to express oneself in the face of a judge, how to formulate his arguments and it is a safe bet that the knowledge of the disciplines outside the law should allow lawyers, as well as judges, to be more efficient.

More concretely, how to judge a case in competition law without understanding the economic issues? The opinions of competition authorities (whatever their nationality) constantly demonstrate a porous border between law and economics ... and this example can be extended to all regulatory authorities and even judges. Even when the reasoning may seem legal at first, economic dimensions appear quickly. In the case of Ville de Dreux[15], this double dimension is revealed by

15 Council of State, 13 May 1994, n°116549: "Considering that, by a deliberation of December 18, 1984, the municipal council of Dreux decided that from 1 January 1985, the school of music could only accommodate children whose parents have their effective home in Dreux, as well as adults living in this city, and that only derogations could be granted to non-resident pupils in

the reading of the conclusions of the public rapporteur: less than an application of the "principle of equal access to public service", it is the economic and fiscal consequences which led to the solution; in other words, dimensions considered by some as "extra-legal". In the Poussin case[16], the fact that the expert was not held responsible can easily be explained by the so-called "judgment-proof" problem and the idea of error cannot be understood without a minimal understanding. the functioning of the art market. Certainly, the tendency is to retain only the solution forgetting the facts, but these are the only ones to allow a real intelligibility (within the framework of a system built to think the law in its coherence) of the rendered solutions.

This multiplication of disciplines has not left the law indifferent. Two attitudes can be identified in its evolution itself.

The first, which is well known in France or Germany, is an attempt at radical autonomation of the discipline by constituting a science of law. Kelsen's name comes immediately to mind. Let us note, however, that this approach makes law the object of science and not a science in itself; better still, all science is necessarily external to its object. The science of law, even if it claims to be strictly legal, nevertheless remains a discourse on an object. Therefore, nothing prevents us from observing this object from different angles offered by the different disciplines of the social sciences; to separate the law from the science of law is to open the possibility of interdisciplinarity.

Dreux for whom additional external financing would be provided;
Considering that, in the case of a non-compulsory public service created by a municipality, whose object does not exclude that its access may be reserved for certain categories of users, the principle of equality of public service users does not prevent the municipal council from restricting access to this service by reserving it to students with a particular link with the municipality and thus being in a situation different from all other potential users of the service ; that, however, the municipal council of Dreux could not legally limit, as it did, the access of the school of music to the persons domiciled or living in Dreux, by refusing to accommodate pupils who, because they have at Dreux the place of their work, or because they are schooled in the commune, have with it a sufficient link".

16 Cassation, civ 1ère, 13 December 1983. A painting that the family tradition gave for a Poussin (a famous painter) was sold at an auction, with the mention "attributed to the school of Carrache" to be in accordance with the opinion of the expert consulted by the auctioneer of the sale. The painting was acquired by the Meeting of National Museums following the exercise of his pre-emptive right in the matter. This institution decides to present it, later, as an authentic Nicolas Poussin. The seller then acts on the basis of the error, despite the reservation on the authenticity of the painting expressed by the mention of "attributed to" in the catalog.

Moreover, Kelsen's positivism[17], far from being a closure, promotes it by concentrating only on one aspect of the law; aspect which, by itself, is not sufficient for decision-making since it focuses on the formal relations between norms[18]. This tightening of "law" (as a scientific discipline) leads to a void: the practitioner of the object does not have the tools to decide (at most he will be able to identify options available to him), he has then to look elsewhere ... and especially towards other disciplines.

The second attitude is the realistic attitude (Kelsen is obviously realistic in terms of interpretation[19]), especially in its American version[20]. The caricatured ideology of a mechanical jurisprudence does not stand up to facts; the law is indeterminate both logically and causally[21] and cannot therefore be autonomous; the life of the law is guided by the facts of the case less than by precedents or normative propositions which can always be interpreted. It is therefore necessary, in order to grasp the mechanics or more precisely the biology of this dynamic, to rely on the other social sciences likely to offer relevant insights. This approach is firmly anchored in practice: if the law is indeed a tool for social engineering, if it seeks to modify the behavior of individuals, it cannot neglect either the social sciences or literature. Learned Hand J. expresses this idea in a remarkable way: "I venture to believe that it is as important to a judge called upon to pass on a question of constitutional law to have a bowing acquaintance with Acton and Maitland, with Thucydides, Gibbon and Carlyle, with Homer, Dante, Shakespeare and Milton, with Machiavelli, Montaigne and Rabelais, with Plato, Bacon, Hume and Kant, and with books that have been specifically written on the subject… The words he must construe are empty vessels into which he can pour nearly everything he will"[22]. For Learned Hand, statutes and case law form only a

17 HANS KELSEN, THE PURE THEORY OF LAW (University of California Press 1967).

18 See for more example, RÉGISLANNEAU, TO WHAT EXTENT DID EUROPEAN LEGAL THEORY PAVE THE WAY FOR AN ECONOMIC ANALYSIS OF LAW? Insights from 23 KELSEN, HART and DEL VECCHIO, HISTORY OF ECONOMIC IDEAS 195-224 (2015).

19See for exampleMICHEL TROPER, LA THEORIE DU DROIT, LE DROIT, L'ETAT (PUF 2001).

20 See for example WILLIAM FISHER, MORTON HORWITZ & THOMAS REED (EDS), AMERICAN LEGAL REALISM, (Oxford University Press 1993).

21BRIAN LEITER, NATURALIZING JURISPRUDENCE (Oxford University Press 2007).

22LEARNED HAND ET IRVING DILLARD (EDS), THE SPIRIT OF LIBERTY: PAPERS AND ADDRESSES OF LEARNED HAND, especially "*Sources of Tolerances*" 66-83 (Knopf 1952).

grammar for the formulation of legal statements that may be considered relevant. This grammar does not "dictate" a solution and is only a relative constraint in the argumentation.

*Ars juris*, whether restricted to the simple dimension of judgment or broaden to include legislative choice, is by nature multidisciplinary, if only for its effectiveness or practical effectiveness. It seems difficult to deny this reality or to consider that interdisciplinarity is a recent phenomenon. The fact that it is now thought is the only thing that is truly recent.

B)THE NOVELTIES OF A CONSCIENT INTERDISCIPLINARITY

From now on, interdisciplinarity is rationally considered of and this is the only novelty for law. This novelty is disturbing since the tendency will then be to examine the nature of the arguments put forward: are they legal? extra-legal? Focusing on the classification, however, is losing the objective: to convince for the lawyer, to decide for the judge, or to structure and to participate in the evolution of the thought for the academic ... or more widely to judge and thus to alter, at least potentially, the social order or at least certain behaviors. However, through some thinking regarding the concept of multidisciplinarity, the lawyer gains in precision and analysis, which allows him to question doctrines that seemed consistent under the influence of an unconscious interdisciplinarity; by grasping the totality - or at least a greater number - of the underlying issues, it should be able to "better" judge. By shaking up certainties, interdisciplinarity is therefore logically opposed since knowledge is to be re-founded: from the virtues of democracy[23] to the separation of powers[24], the concept of the general interest[25], the will of the legislator[26], international customs[27], the efficient breach of the contract[28] or the *pater familias*, few are the notions that emerge unscathed

23JAMES BUCHANAN ET GORDON TULLOCK, THE CALCULUS OF CONSENT (Michigan University Press 1962).
24ROBERT COOTER, THE STRATEGIC CONSTITUTION (Princeton University Press 2000).
25KENNETH ARROW, SOCIAL CHOICES AND INDIVIDUAL VALUES (Yale University Press 1963).[Hereinafter "Arrow"].
26 Kenneth Shepsle, *Congress is a "they", not an "it",* 12 Int'l Rev. L. & Econ., 239-256 (1992).
27JACK GOLDSMITH AND ERIC POSNER, THE LIMITS OF INTERNATIONAL LAW (Oxford University Press 2007).
28ERIC POSNER, CONTRACT LAW AND THEORY (Aspen Publishers 2011).

from the confrontation of points of view.

It is useless to multiply the examples here. The concept of general interest, often mentioned in administrative law or constitutional law, will suffice to illustrate the point. It is clear that despite its apparent importance, its meaning often escapes when trying to grasp the concept. The legal word is only a "tûtû"[29]: it allows to anticipate the consequences that should take place in the legal world but its meaning remains to be built. The grammar of the law is therefore a point of arrival and not the starting point of reflection. There is no doubt that the meaning of the "legal" concept of general interest can be enriched - or even constructed - by the other social sciences, which will then facilitate the acceptability of the interpretation that we wish to give it. Whether it is sociology with the idea of conventional norms, economics with the distinction between the rule and the legal standard, or the psychological approach insisting on the symbolic burden, these different points of view on the notion can be mobilized by the jurist to enrich his reflection but also gain in power of conviction. To those who might still think - but we can hope that their number is reducing - that the general interest is something objective, we can only mention the famous impossibility theorem of Arrow[30]: there is no procedure for aggregating individual preferences at the collective level which could be considered as satisfactory; the general interest then depends on a decision procedure and cannot therefore be a characteristic of the resulting solution.

Interdisciplinary is now based on constituted disciplines and thus on identified methods. Economics, for example, is generally based on a methodological individualism coupled with the two concepts of rationality and efficiency. Variations between schools refer[31], very often, only to variations in the meanings of these last two concepts. Neoclassical economics will approach rationality in a formalized version stressing maximization under constraint[32]; behavioral economics

29 Alf Ross, *Tû-Tû*, 70 (5) Harv. L. Rev., 812-825 (1957).

30 Arrow *Supra* note 25.

31 See for example NICHOLAS MERCURO& STEVEN MEDEMA, ECONOMICS AND THE LAW, FROM POSNER TO POST-MODERNISM (Princeton University Press 1997).

32Any microeconomics book would be sufficient to understand that.

will emphasize cognitive biases and the limits of neoclassical rationality[33]; the Austrian school will introduce the possibility of learning and the radical subjectivity of preferences[34]. All these schools will only be able to paint a perspective on an object - but does not the perspective really constitute the object? - without being able to comprehend it in its totality. By offering then a more complete systematization of "external" knowledge - but are they? - it is possible to appreciate their limits and therefore their value; this assessment is not only a question of the discipline which merely verifies that the statements are well formed; it is strictly speaking a "judgment" to the extent that the idea of "truth" in social science does not respond to the logic of demonstration but of conviction (in other words, the space of the social sciences is not Popperian[35] ... and the epistemology of Feyerabend[36] is certainly more relevant). Above all, by their systematization, these disciplines offer ways to start thinking where the law provides only a grammar to close reasoning. In economics for example, the analysis starts from three rather simple questions: who are the agents? what are their preferences? what are their constraints? To these questions is added a general idea: to understand social phenomena, it must be understood that these phenomena are the product of the incentive system in which the agents evolve; in other words, in order to change social equilibrium, to transform incentives is the key. The transposition of these principles into law leads to perceiving it as a tool of social engineering[37] whose object is precisely to alter the equilibrium considered unsatisfactory. To accept this logic is not necessarily to recognize that only economics is relevant to complete the ambitions of the law ... but to make law, it is necessary to know the Man ... and the "legal sciences" do not offer any theory to understand this peculiar object.

This systematization increases the value of interdisciplinarity for the lawyer. Indeed, it offers him a point of reflection. Since the premises are known, the conclusions can be appreciated; the

33 CASS SUNSTEIN, BEHAVIORAL LAW AND ECONOMICS (Cambridge University Press, 2008).

34 See for EXAMPLE LUDWIG VON MISES, HUMAN ACTION: A TREATISE ON ECONOMICS (Liberty Fund 1996).

35 JEAN CLAUDE PASSERON, LE RAISONNEMENT SOCIOLOGIQUE : UN ESPACE NON POPPERIEN DE L'ARGUMENTATION, (Albin Michel 2006).

36 PAUL FEYERABEND, AGAINST METHOD (1975).

37 BRIAN TAMANAHA, LAW AS A MEANS TO AN END: THREAT TO THE RULE OF LAW (Cambridge University Press 2006).

deformations of the mirror being identified, the reflections of law - or the shimmers mentioned by Dean Carbonnier[38] - can be grasped to their proper measure.

In a recent book[39], Acemoglu and Robinson make institutions the key to societal development: alongside inclusive institutions are extractive institutions. It would be damaging if the French or Indian "legal sciences", by a conservative withdrawal, do not explore the potentialities of a reflection enriched by interdisciplinarity and the benefits of diversity. It must be noted, however, that the incentive system in place leaves very little room for optimism.

## III. THE LIMITS OF INTERDISCIPLINARITY

Although interdisciplinarity obviously enriches reflection, it does not mean that we must abandon the "monodisciplinarity" as it is true that the interdisciplinary is built from monodisciplinarities. This necessary tradeoff (B), which will not be solved in the same way between the disciplines and within them, is obvious when the costs of interdisciplinarity are brought to light (A).

### A)THE COSTS OF INTERDISCIPLINARITY

Interdisciplinarity has not yet found its full place in teaching or research. This situation is easily explained from a theoretical point of view: individuals are not encouraged to practice or introduce it; its benefits are not yet greater than its costs because of the structure of the social systems involved (university, constraints formed by employers and scientific reviews and journals). This explanation remains purely theoretical but opens avenues for reflection to understand the dynamics in the teaching of law, which the law is not able to do.

That interdisciplinarity generates costs is obvious. Mastering two or more disciplines implies an investment far more important than the mastery of a single discipline: the hours of classes are

[38]JEAN CARBONNIER, SOCIOLOGIE JURIDIQUE (PUF 2004).
[39]DARON ACEMOGLU ET JAMES ROBINSON, WHY NATIONS FAIL (Profile Books 2013).

more numerous, the time spent revising, the purchase of books also generate costs, the intellectual gymnastics sometimes complex, especially when knowledgesare far apart. Synergies are obviously possible and certainly make it possible to reduce the costs of interdisciplinarity through increased brain plasticity and a wider culture, but the costs remain.

Some even go as far as to say that one cannot master two disciplines perfectly in order to better weave into a comfortable status quo, thereby confusing knowledge and skills. To follow the example of the economic analysis of law, most of its practitioners in American law schools have been trained and obtained doctorates in both disciplines, often in prestigious universities. To consider that at the level of the same degree, they would be less "good" because they also obtained a doctorate in another discipline seems simply absurd. This situation also raises a question, what does this "good" mean? "Good" in terms of technical know-how, research, intellectual innovation? This qualifier is far too subjective to try to seriously objectify it. It is obvious that if the number of publications counts, the interdisciplinarity does not give rise to any handicap, in fact, on the contrary (is serendipity not reinforced by what might seem to be externalities?); in terms of teaching, it is also difficult to see how interdisciplinarity would be penalizing; in terms of practical mastery, at most it will be noted that Romieu[40]was a polytechnician, that P.N Bhagwati was also trained in mathematics, that all the best universities and business schools offer their students courses in different disciplines[41] (in the absence of courses strictly interdisciplinary) and that the learning does not stop with the university; human capital is less pure knowledge than skills and adaptability to new situations ... The former director of my department at the *Ecole NormaleSupérieure* said to me one day: "You know, a lawyer, does not know much, but he knows how to find and use what he has found". It must be admitted, however, that if this representation does not become standard, interdisciplinarity is unlikely to develop fully.

[40]A famous French Judge at the Conseil d'Etat (Council of State). We could also have mentioned, in another domain, Lewis Carrol who was also a mathematician.

[41] The ESSEC is France is also offering courses in the History of Art!

The costs of interdisciplinarity are today reinforced by the low incentives to invest this type of research or teaching. Interdisciplinarity is sometimes misunderstood by recruiters or colleagues (few are those who have been trained in at least two disciplines), famous law journal and reviews in France, Germany or India remain very conservative and rarely take the risk of publishing outside their tagged field and well codified approach. The separation of disciplines within universities is not without favoring a certain conservatism. The thing may also appear quite paradoxical in law since law schools were the first in France to understand the benefits of having courses in other disciplines, including political economy!

Although these costs have long been prohibitive, the proliferation of training - based on the mastery of several disciplines - offers hope for some changes in the years to come. Nevertheless, this multiplication concerns rather the undergrad courses and rarely the masters program. Indeed, these first years respond more to a request from parents or even students who often wish not to close doors than a request from the professional world. If it turns out that the latter favor expertise in one discipline and specialized training, the incentives to develop interdisciplinarity at master's level will remain low. However, while it is certain that the benefits of an interdisciplinary training will not result directly in an increase in hiring at the end of the master's degree, this strategy may be relevant in the long term. In France, it is not that surprising that law firms are eager to hire lawyers who also obtained a business degree because such a knowledge is considered as an asset within the firm.

Interdisciplinarity when it is practised at the decision-making level also entails costs. It is certain that taking into account the multidimensionality of problems and approaches can lead to longer delays in decision making, which will not always be optimal. The fact that the law has introduced exemption regulations for certain categories of anticompetitive practices reflects precisely that. The cost of taking into account all the parameters to assess the relevance of a practice is prohibitive compared to the expected benefits of this consideration. Some solutions may therefore appear suboptimal without the system itself being suboptimal if we take into account the costs of decision-making. However, it should not be inferred that the costs of interdisciplinarity are still

prohibitive in decision-making. The "more economic" approach to competition law[42] has certainly led to the strengthening of the competitiveness of some companies. Must we recall in this respect that the economic analysis of law is precisely born from a critique of traditional "legal" reasoning from the point of view of the creation of well-being?

B)THE NECESSARY TRADEOFF BETWEEN MONO AND INTERDISCIPLINARITY

How to find a balance between mono and interdisciplinarity? It is certain that the second is built on the first. The answer proposed here will probably be unsatisfactory for many: there is no way to establish, *a priori*, the "optimal" position of the cursor. The costs and benefits of these practices vary not only between disciplines but also within disciplines, not to say within each problem. Interdisciplinarity in mathematics or physics may, at first sight, seem less relevant than interdisciplinarity in the social sciences (we can however report the work of Von Neumann in mathematics, physics, computer science or economics). If the latter study the Man, it is indeed surprising that they are always content with a mere perspective from the side, without perspective on the boundaries of the disciplines being taught or practised. This is certainly the message conveyed by Hayek's work, which sweeps practically all fields of the social sciences with a constant concern for the methodological retreat: from psychology to economics, from epistemology to the sciences. policies or the systemic or complexity sciences. It would be absurd to consider that this work does not have its virtues despite sometimes, the ideological approach is what one lends to it.

Moreover, it is impossible to determine, *ex ante*, the value of the results that can derive from an interdisciplinary approach, or even a simply multidisciplinary teaching. Few people were able to anticipate the emergence of an economic analysis of law, the fertility of the application of game theory in biology, the dangers of the crossroads between theory of evolution and sociology (and more broadly the sociobiology) ... but all recognize, to limit themselves to the less "controversial"

[42]In the late 1990s, the European Commission embarked on a long process of introducing a 'more economic approach' to EU Antitrust law. One by one, it reviewed its approach to all three pillars of EU Antitrust Law.

interdisciplinary practices today that the philosophy of law or the history of law, even a basic understanding of economic phenomena, is today a necessity for lawyers. When I was a master, our professor of the theory of law (jurisprudence) recommended us to read Paul Veyne's book "How we write history"[43]. This choice might seem surprising (a work of history, or more precisely of epistemology applied to history) ... and yet the links that can be drawn between this book and the practice of law are numerous even if the substance even of these links is difficult to express.

Nevertheless, asserting that optimality is not at the extremes, is to recognize the relevance of the diversity of approaches, which seems sufficient to consider a greater integration of different disciplines in traditional university courses, in research and, in the future, in professional practices.

However, there remains one difficulty: is the law a "mono" disciplinary approach? Previous developments claim that it is not. However, if we take the discipline as a set of social conventions on how to practice it (Kuhnian version[44]), it is possible to reconcile the whole. Law is not monodisciplinary: it borrows far too much from almost all social sciences. Philosophy and history are not considered as constituting a problematic use; psychology could be incidentally relevant; sociology is often required to understand the evolution of societies; economics is also sometimes used in certain fields. Yet, what unites jurists to make them a community are the social norms shared on the heart of the practice; not that this heart can never evolve or be perfectly stable, but the learning of the law can make sense only if this heart exists. These social norms are often not clarified, making the introduction of what some perceive as external elements even more difficult. So, what is termed interdisciplinarity in law is only the extension of interdisciplinarity (not thought as such) and already contained in the social norms of the practice of this "discipline" ... Let's dare to call things by their name.

[43] PAUL VEYNE, COMMENT ON ECRIT L'HISTOIRE (Seuil 1971).

[44] THOMAS KUHN, THE STRUCTURE OF SCIENTIFIC REVOLUTIONS (University of Chicago Press 1962).

## IV. CONCLUSION: PUTTING THE ART OF JUDGING AT THE CENTER OF LEGAL THINKING

I have always been struck by the presence of three forms of principles of action in Aristotle. For the Greek philosopher, one does not reason in the same way when things cannot be other than they are and when they can be. Episteme, techné and praxis[45] then become three types of rationality to consider the problems of three distinct kinds of problems. Law is not the domain of episteme but of praxis. The right decision does not depend on its content but on the procedure that led to it; it results from an art of judging, that is to say from an ability to apprehend the problem in its many dimensions in order to be able to decide at best. This art is profoundly interdisciplinary by its very essence. It would be harmful, in the name of a scientific prestige whose meaning we do not always understand, to forget it.

45 TERENCE MARSHALL, À LA RECHERCHE DE L'HUMANITE (PUF (« Leviathan ») 2009).