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Economists or Lawyers? Who is better at designing
institutions?

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Abstract

Can economists produce useful knowledge for designing institutions? Can lawyers or members of other practical professions do better? How do economics and practical professions compare in this respect? I argue that they generate two different types of relevant knowledge – scientific and systematic practical knowledge – that can complement but not replace each other. I show in detail how and why these types of knowledge differ. Drawing on Michael Polanyi's concept of 'intellectual orders', I contend that economics as a social science and law as a primarily practical profession have their own complex institutions dedicated to generating knowledge of a different nature. The comparative analysis clarifies the potential and limits of using economics for designing institutions, the roles of law and other practical professions in generating knowledge for institutional design, and principles for intellectual collaboration.

1. Introduction

The designing of institutions is plagued by the knowledge problem. Economics is converging on the agreement that scientific research can detect general design principles but these need to be adapted by 'local actors' to their circumstances. Therefore, what is needed is a combination of *scientific* and *dispersed* social knowledge. I argue that this – essentially Hayekian – view misses a key type of knowledge between the two: *systematic practical* knowledge about the designing of institutions. This type of knowledge needs to be distinguished from scientific knowledge because it requires a different type of institutional environment in which it can develop. The most developed form of this environment is a practical profession. The institutional differences between economics as a social science and practical professions can be brought to light by identifying them as two different types of institutionalised 'intellectual orders', a concept introduced by Michael Polanyi.

I focus on the legal profession as the most developed profession dedicated to designing institutions. While law is certainly also an academic discipline (of much longer pedigree than economics), I focus on its original and primary aspect as a practical profession.¹ I show how its institutional rules enable law to generate *practical* knowledge for

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¹ By contrast, economics is originally and primarily an academic social science. I will offer defences for my focus on law as practice and economics as academic science in Chapter 4. I also address explicitly the question of scientific jurisprudence in Section 4.2 and the phenomenon of economists acting as practical experts in the concluding chapter.

institutional design and, by comparison, why the institutions of academic economics are not directly suited to this goal. By implication, economists' primary role may be injecting ideas into other intellectual orders that are suited to the practical crafting of institutions.

I proceed in four steps. As a starting point for my analysis, I review the state of the debate about how scientific knowledge can contribute to designing institutions. By institutions, I mean 'the rules of the game in society or, more formally, the humanly devised constraints that shape human interaction' (North 1990: 3). I focus on how four prominent scholars have reflected on their own involvement in institutional design: Dani Rodrik, Alvin Roth, Esther Duflo and Elinor Ostrom. Although they represent different schools of thought, there is a common thread in their thinking: *scientific* knowledge on its own is insufficient and needs to be combined with *dispersed* social knowledge for the successful designing of any institution. This view acknowledges an important limitation of economic analysis but still overestimates what economists can accomplish. The reason is that it obscures and neglects a third category of knowledge for institutional design: *systematic practical* knowledge that is generated, in its most developed form, by practical professions such as lawyers, accountants or managers.

As a second step, I show the importance of this type of knowledge by examining law, which is the profession most focused on social rules. Economics tends to underemphasise how much lawyers engage in institutional design. The 'economic analysis of law' usually views it as a set of rules and enforcement mechanisms. But it is also a process of rule articulation. A small strand in economic thought understands this aspect of law but stresses its spontaneous, non-deliberate nature. While this approach has merit, it downplays the conscious efforts of lawyers at designing legal rules. Drawing on theories of jurisprudence, I argue that law is best understood as a continuous process of marginal rule-designing. This is why lawyers – not just legislators – continuously use and generate knowledge for institutional design.

Third, I ask *how* law as a practical profession can produce a certain type of systematic knowledge, and *why* economics as an academic community cannot do the same. I focus on the institutions of knowledge production. If these are fundamentally different for economics and law, then one is unlikely to produce the other type of knowledge. But how can we compare a social science and a practical profession in this respect? We need a comparative institutional theory of knowledge production that is general enough to cover both fields. I turn to Michael Polanyi's concept of 'intellectual orders' for such a theory.

An intellectual order is made up of institutionalised processes of consultation, persuasion and competition, which together form a consistent disciplining tradition. In an academic community, these processes are centred on publications as forms of detached reflection. They lead to an *observational and non-practical* view of the institutions to be designed. In a practical profession, the processes are centred on actual cases of problem solving, the

paradigmatic case being a legal dispute. The cumulative result is a *participative and practical* view of institutions.

As a fourth step, I extend the analysis to practical professions beyond law. These also constitute intellectual orders and generate knowledge for institutions that concern their members. I illustrate this briefly by examples of managers, accountants and engineers.

The analysis presented clarifies the comparative advantages of academic economists and practical professionals in producing knowledge for institutional design and suggests principles for their collaboration. It also suggests that the *economic analysis of institutions* should be extended to the practical intellectual orders that support them.

2. The state of the debate: How can economists contribute to institutional design?

2.1. The challenge of ‘institutional calculation’

From time to time, economists must confront the limits of what their science can possibly accomplish. I do not mean the struggle for new scientific results but the limits inherent in the nature of their scientific enterprise. Such a major confrontation was the debate about the possibility of socialist calculation in the 20th century. As Mises, Hayek and M. Polanyi showed, the idea that scientific calculation could direct myriads of individual decisions about production, trade and consumption was wrong. The main explanation was that economic activities rely mostly on dispersed local knowledge that is largely time and space specific, subjective and often tacit. This realisation was one of the impetuses that eventually led many economists to focus on the institutions or ‘rules of the game’ of economic life rather than allocative decisions within existing rules (Brennan and Buchanan 1985; North 1990).

Thus, the analytical focus on institutions implicitly acknowledges the limits of what an economist can possibly know. However, as the study of institutions became a central tenet of economics, another knowledge problem arose. As both theories and empirical methods developed, economists became increasingly involved in designing or improving institutions themselves – from auctions and regulated markets in developed countries to fine-tuning policies in Africa. The results were predictably mixed. The many failures of institutional advice in European post-communist and ‘third-world’ countries as well as the apparent disregard of ‘good’ institutions in fast-growing East-Asian economies also led an increasing number of scholars to ponder what economists could possibly know about institutions.

The knowledge problem has resurfaced on the institutional level and necessitates an ‘institutional calculation debate’ (Boettke and Candela 2015). The central question now is ‘How do individuals rationally calculate the institutional context for rational economic calculation itself?’ (Ibid: 6) At its heart, this is of course not a new issue at all. Students of

law and politics clashed long ago about the possibility to design an institution by any one mind, in contrast with the spontaneous evolution of traditions.² After his critique of central planning, Hayek himself went on to resuscitate and expand the arguments of the Scottish enlightenment and Edmund Burke about the dominance of non-designed, spontaneously evolved rules in any well-functioning society (1960; 1982). What is new is the massive development of the scientific tools of institutional economic analysis in recent decades. This raises the possibility that economic scholars who specialise in institutional analysis are better equipped than before to design or improve institutions. They probably are – but to what extent? This is still a very open question.

2.2. How some prominent economists see their own role in institutional design

I review briefly how four leading economists of very different backgrounds addressed the potential of scientific analysis to contribute to institutional design. As we shall see, despite major differences, there are common elements in their reflections. They share the underlying view that institutions are best designed by combining scientific and dispersed, context-specific, knowledge. Economists who wish to contribute to crafting institutions must find ways to create the suitable combinations.

Dani Rodrik (2007) is interested in institutions that national governments can influence to support economic growth. He argues that economic science can identify the general institutional prerequisites of prosperous economies, but the actual institutions need always be ‘context-specific’. Finding them must utilise ‘local knowledge’ and experimentation rather than abstract blueprints (Rodrik 2007). Accordingly, an economic scholar has two roles, as suggested by the title of his book *One Economics, Many Recipes*, and explained more fully in Rodrik (2015). First, he engages in the ‘science’ of explaining general economic phenomena that include abstract institutions, such as property rights or contract enforcement. Second, he pursues the ‘craft’ of building models that are suitable to specific contexts. Rodrik retains his own role as a global expert but calls for modesty due to an economist’s inevitable lack of local and contextual knowledge. Institution-building should be left primarily to ‘participatory political systems’ that are better at processing and aggregating local knowledge than scientists (2007).

Alvin Roth’s interests are very different but his views on institutional design are surprisingly similar. He is one of the pioneers who applied game theory to the design of regulated markets such as the clearinghouse for entry level doctors in the US or the auctions of radio spectrums. He found that compared to the rules assumed by game-theoretic models, actual market institutions involve much more context-specific detail. Their improvement often relies on historical knowledge of the specific market and ‘tinkering with new designs, based on early experience’ (2002: 1345). This experience led

² For example, see the views of Hobbes and Bacon vs Coke and Hale as contrasted by Hayek (2013, especially Chapter 4).

him to make a distinction that is similar to Rodrik's. Roth distinguishes economic theory from what he calls design economics. While the former seeks to understand the general principles of economic interactions, the latter is 'to further the design and maintenance of markets and other social institutions' (2002: 1341). Design economics remains part of the science but calls for different methods (in his view, experiments and computation) and a different approach. While an economic theorist is likened to a physicist, a designer is more like an engineer, who has 'a responsibility for detail' and 'to deal with complications' (ibid.) To succeed, he must also listen to people who will actually use the institution, such as physicians or public officials.

Esther Duflo accepts Roth's distinction between the economist as a theoretical scientist and as an engineer but moves even further by suggesting a third role as a 'plumber' (2017). While a 'scientist' provides a general theoretical framework that guides institutional design, an 'engineer' applies these principles to a specific situation, paying attention to its specific features. A 'plumber installs the machine in the real world, carefully watches what happens, and then tinkers as needed... there are many gears and joints, and many parameters of the world that are difficult to anticipate and will only become known once the machine grinds into motion' (2017: 5). In other words, institutional details and complications are so numerous and idiosyncratic that even careful, context-specific design is insufficient to get them right. Success requires continuous, hands-on involvement. This is the lesson she learnt in field-experiments of poverty-alleviating programmes. Like Rodrik and Roth, she emphasises that 'every INSTITUTION... is realized, on the ground, through many specific local *institutions*', whose numerous details and marginal changes matter (2011: 243, emphases in original).

Elinor Ostrom did not subscribe to the metaphors of society as machinery and of economists as mechanistic fixers of its problems.³ Nonetheless, her views on institutions share some important features with those of the preceding scholars. Extensive work on the governance of common-pool resources led her to distinguish between underlying design principles that characterise robust common-property institutions and their manifestations in hugely diverse, specific rules (2005: 255-288). She argued that design principles, distilled by theorists, can be used as a practical guide to building or improving institutions (Wilson et al. 2013). However, they provide no blueprints but need to be adapted to local circumstances. The appropriate goal is 'a more effective blend of scientific information with local knowledge' (Ostrom 2005: 283).

Ostrom did not seem to think that economists should consciously differentiate between their roles as general theorists and designers. Instead, she forcefully argued that theory should explicitly account for the diversity and context-specific nature of institutions. Theory must acknowledge that (i) affected actors are capable of designing their own

³ Labrousse (2016) provides an insightful comparison of Duflo's and Ostrom's epistemic views and methodologies.

institutions, (ii) designing rules is rarely a simple analytical task, and (iii) organisation is often polycentric rather centrally directed (2005: 237-240). A social scientist can make herself useful by developing theories and models that account for these features of institutional design. This theoretical outlook also affects the way science should be done: a scientist ought to become a ‘tinkering craftsman patiently learning from trial and errors and extracting knowledge from local uses’ (Labrousse 2016: 298). As such, he will be able to give advice to local actors about how things may be done better through institutional change (Ostrom 2005: 30-31; see also Ostrom 2013).

Despite significant differences in these authors’ approaches, *four common points emerge*. First, institutions that govern similar social phenomena are comprised of some common general elements or design principles as well as context-specific manifest forms and details. Second, scientific knowledge relates primarily to the first component, while dispersed, local knowledge to the second. Third, scientific knowledge can and should be extended to deal with the context-specific features of institutions. There is no agreement about how and to what degree this could be done. The authors appear to agree, however, that an economic scholar’s task is to help design specific institutions by blending scientific and context-bound knowledge and by collaborating with local actors who hold the latter. Fourth, by pursuing this task, a scholar, at least temporarily, becomes a practice-oriented ‘craftsman’ of institutions.⁴

2.3. The missing element between scientific and dispersed knowledge

The prevailing view about the knowledge requirements of institutional design retains the distinction between scientific and time-and-place knowledge that Hayek initially developed for allocative decisions and applies it to institutional choices (Boettke and Candela 2015). He argued that, on the one hand, ‘so far as scientific knowledge is concerned, a body of suitably chosen experts may be in the best position to command all the best knowledge available’ (Hayek 1945: 521). On the other hand, there is ‘a body of very important but unorganized knowledge which cannot possibly be called scientific in the sense of knowledge of general rules: the knowledge of particular circumstances of time and place’ (ibid.). If we pay close attention to Hayek’s words, we notice that he uses the term ‘scientific’ in a very general sense, extending well beyond academic scholarship. The first example he provides as an illustration of the contrast between ‘scientific’ and circumstantial knowledge is the following: ‘We need only to remember only how much we have to learn in any occupation after we have completed our theoretical training, how big part of our working life we spend learning particular jobs, and how valuable an asset in all walks of life is knowledge of people, of local conditions, and special circumstances’ (522). It is true that the knowledge imparted in vocational training concerns general rules

⁴ I will use the term ‘crafting’ to refer in general to the practice of creating or changing a social rule. I use the narrower term of ‘designing’ to refer specifically to the intellectual effort that goes into the articulation of a rule.

and is organised and best wielded by experts. However, it is very different from pure science that seeks knowledge for its own sake, unconstrained by directly practical considerations. It is practical rather than theoretical in its orientation if by the first term we mean propositions about what to do or how to do something and by the second term we mean propositions that are reflections detached from direct practical concerns (Fantl 2016). Putting all systematic and abstract knowledge under the rubric of 'scientific' conflates possibly very different types of knowledge, very different types of processes that generate it and very different types of people who can hold it.

When it comes to designing institutions, it is important to distinguish between *social scientific* knowledge produced by academic communities and *systematic practical* knowledge generated by practical professions, such as lawyers, accountants, managers, engineers etc. The first is primarily aimed at understanding what institutions are, how they function, evolve or are changed deliberately. The second provides guidance as to how institutions of certain kinds can be maintained, changed or created anew in real-life situations. There is nothing obvious about the relevance of the first body of knowledge for the second. As Roth remarks, 'it was not a foregone conclusion that bridge building would have a scientific component' (2002: 1343). Similarly, institutional economists may or may not be able to help effectively the practical design of social rules of the game.

The distinction between scientific and systematic practical knowledge is justified because the generation of each requires its own supporting institutional environment: an academic community and a practical profession. To appreciate the role of practical professions, we need to take seriously the notion that real-life institutions are 'crafted' (Ostrom 2005, 133). Craftsmen in the traditional sense of the word, such as jewellers, mechanics or even plumbers, are not lone combiners of dispersed knowledge but belong to crafts, guilds and trades. They partake in systematic, articulated bodies of knowledge. Similarly, there exist 'intellectual crafts' dedicated, mainly or partly, to designing institutions. The most developed such craft is the legal profession. Accountants, business managers and public administrators also come to mind. To some extent, every developed profession generates systematic knowledge that pertains to the design of the institutions used by its members. It is to state the obvious that non-academic professionals are often involved in institutional design. What is overlooked is how difficult it is for them to develop and maintain appropriate institutions that enable the generation and use of systematic practical knowledge; how sophisticated and tuned to the very special nature of such knowledge these institutions need to be. By ignoring this, we inadvertently downplay the importance of their knowledge and exaggerate the potential role for scientists.

3. The legal profession and institutional design

Among the practical professions, lawyers are most clearly and generally dedicated to working with social rules. Studying them can shed especially stark light on how a

profession can produce systematic practical knowledge for institutions. I will later consider if the lessons learnt about law also apply to other professions less focussed on crafting institutions. But law is, of course, very important in its own right.

As a first step, I clarify how lawyers are involved in designing legal rules. In most theoretical economic approaches to law, there is little or no room for such a function of lawyers. I confront these theories and argue that the deliberate and conscious designing of rules is a fundamental and irreducible aspect of the complex phenomenon of law.

As a second step, I address in more detail the many ways in which lawyers engage in designing rules. This requires a closer look at the nature of social rules, made possible by incorporating ideas from legal scholarship that go well beyond institutional economics. I argue that rule design is about far more than legislation or precedents. It occurs also when lawyers are thought to be merely 'interpreting' or 'applying' existing rules. Rule design is ubiquitous in law.

3.1. Three concepts of law in economics: rules, enforcement and rule articulation

Much of economic analysis identifies law as a body of rules (Shavell 2005: 397) and asks how certain given rules influence the behaviour of people who are subjected to them. The interest is in the *end result* of the legal process: what social rules are applied by courts or public authorities and how people respond to these rules as they predict them⁵. The process that leads to predictable legal rules remains a black box.

The box is opened when questions of enforcement are raised. Many take for granted that legal rules are 'determined and enforced by the state' (Shavell 2005.) but realise that courts, administrative agencies, organisations of prosecution and policing can play diverse roles more or less efficiently 'within the state' in the enforcement of legal rules (Shavell and Polinsky 2000; Pistor and Xu 2002). Still others point to the role of non-state actors in enforcing the law, such as market actors, communities and formal private associations (Brousseau 2006). In this perspective, the law is not seen simply as a body of enforced rules but a special type of enforcement mechanism for social rules. For the 'law as rules' approach, the main question is: What are the rules, and what should they be? By contrast, the 'law as enforcement' approach asks: How are rules enforced, and how should they be?

However, viewing the law as a mechanism of enforcement hardly grasps the whole or perhaps even the greater part of its social reality. It is based on the implicit assumption that *finding and articulating* the appropriate rules for governing people's behaviour is

⁵ In legal theory, this corresponds to the approach propounded by Holmes (1997 [1897]) that the 'object of our study, then, is prediction, the prediction of the incidence of the public force through the instrumentality of the courts' (991).

relatively easy, and the real difficulty lies in their enforcement. In fact, the application of a sanction may be easier than figuring out what the sanction ought to be. The articulation of rules is in itself a fundamental social function of law. Juridical decisions would play a role in clarifying social rules even if they were unenforced by a special public apparatus. They provide disputing parties with common knowledge about clear classifications of right and wrong conduct (Hadfield and Weingast 2012). At least since the *iurisperiti* and *praetors* of Roman law, a great deal of social effort has been put into the improvement of legal rules (Brundage 2008). The development of a legal system is as much or perhaps even more about an improved articulation of a system of social rules as it is about the improved enforcement of that system.

Even if one takes the view of 'law as an articulation of rules' (Hayek 1982; Hadfield and Weingast 2012), as I do here, one need not accept that it involves the deliberate designing of rules. A strong current in economics argues that efficient law arises from spontaneous evolution rather than conscious design. The knowledge problem in law is usually discussed in terms of the relative ability of common law versus civil law or that of judge-made law versus codification to produce more efficient legal rules (e.g. Rubin 1977; Hayek 1982; Posner 1986; Friedman 2001). The most extreme form of argument in favour of judge-made law assumes that judges simply respond to the incentives of legal process without making any conscious effort to improve their decisions. Litigants' differential efforts push courts to change precedents marginally in efficient directions, as if by an invisible hand (Friedman 2001). In a somewhat more realistic version, judges are assumed to labour on establishing or improving rules but accomplish little with deliberate efforts. The law as a system of rules develops in an evolutionary way, as the product of myriad marginal decisions. Neither judges, nor anyone else can contribute much to the actual design of rules by their individual intellectual efforts. If they try, they are likely to fail. 'A system of legal rules is not entirely, perhaps not chiefly, the product of deliberate human design; to a considerable extent it represents the unplanned outcome of a large number of separate decisions, by legislators... or judges' (Friedman 2001: 4).⁶

Unplanned evolution is certainly a key feature of law and helps us put the conscious designing of legal rules in perspective. However, the presence of evolution does not imply that conscious design is unimportant. Hayek (1982) also stresses the evolutionary nature of law but clarifies that the 'gradual perfection [of rules of just conduct] will require the deliberate efforts of judges (or others learned in the law) who will improve the existing system by laying down new rules' (96). Although it is true that a complex system of rules cannot be designed from scratch, *conscious* marginal contributions to the designing process are still important. A closer reading of jurisprudential literature reveals a very broad range of lawyers' actions that pertain to the designing of legal rules.

⁶ In legal theory, this corresponds to evolutionary accounts of law. See Savigny (1840) and Maine (1906).

3.2. The nature of rules and the ubiquity of rule designing in law

The main roles of lawyers are judge, advocate and counsellor (Llewelyn 1940). Consider adjudication first. Do judges design legal rules? It seems useful to examine judges where they have the least opportunity to design rules, e.g. in civil law jurisdictions that restrict their function to ‘interpreting’ and ‘applying’ rather than ‘making’ law. To comprehend what judges do, we must have a clear understanding of the nature of social rules.

Social rules in the broadest sense can be thought as ‘instructions’ or ‘prescriptions’ for human behaviour that structure interactions (Ostrom 2005: 3-19). Any social rule matters (or, we can even say, exists) only if it influences people’s behaviour. If it is a rule-in-use on which actors in a situation rely to identify potential courses of actions and their outcomes. Using a rule, an actor must be able to reason with some confidence that ‘if I do X, Y will happen’. However, rules rarely prescribe actions and their consequences unambiguously. In fact, the very idea of a rule is that actors replace case-by-case decisions that define precisely what to do in a situation by appeal to more general principles to which behaviour must conform. This is true not only of norms that do not specify sanctions (e.g. “Do not walk on the lawn!”) but also of seemingly quite specific regulative rules (e.g. ‘You must pay 10 dollars if you walk on the lawn’). (Consider the following ambiguities: What counts as ‘the lawn’: can one trample on the flower beds? Who is ‘you’: are children included? What if someone is running to save a life? Etc.) Unless a rule applies to very few nearly identical situations, it remains ‘indeterminate’ (Hart 2012) or ‘incomplete’ (Pistor and Xu 2002) in the sense that it will not unambiguously predict the outcomes of actions in a particular case. We may not know which rules are relevant to it and how (Cardozo 1928; Wilburg 1950).

Hence, a rule needs to be ‘completed’ by interpreting it for the specific situation. If we adopt the above distinction between a norm and a regulative rule (Ostrom 2005: 137-140), actors in a situation usually need to put more effort into completing the former than the latter. To put it differently, others outside of the situation have already put significant effort into articulating a well-specified rule, while this task largely awaits the actors in the case of a vague norm. For either type of rule, we see its completion as a process, during which a rule takes shape up to the point when it can be applied meaningfully to a given situation. The difference is in the way the tasks of completion are allocated.⁷

For informal social norms, the process of articulation takes place continuously and individual contributions may be impossible to detect. For law, the process is consciously organised at least to some extent. Specialised actors engage in the deliberate crafting of rules. The formal process may begin with legislative codification, administrative decreeing or judicial judgements serving as precedents. However, these are never really the first

⁷ Pistor and Xu (2002) discuss how the inherent incompleteness of law leads to varying allocations of law-making and law-enforcement powers. Here, I generalise their argument to all kinds of social rules and actors.

steps in the articulation process because they inevitably rely on a broad range of existing rules as articulated more or less clearly before. The usual endpoint in the legal part of the rule-articulation process is a judicial or an administrative decision. As Pistor and Xu put it, judicial or regulatory ‘interpretation, even if narrowly construed, involves an element of law-making’ (2002: 947). It always involves deciding if a rule applies to a given situation, which clarifies (or sometimes obscures) the content of a rule. It often involves making a general rule more concrete or detailed, too. One could even argue that a trial will rarely take place unless the legal rules for a given situation are unclear and need elaboration.⁸ As a great jurist put it, a judge must accomplish ‘the reconciliation of the irreconcilable, the merger of antitheses, the synthesis of opposites’ (Cardozo 1928). The experience of civil law jurisdictions proves that even if judicial decisions are not accepted as sources of law, the judicial interpretation can transform the legal system of legislated codes (Gény 1915; Wilburg 1950). The actions of legislators, courts and regulators can all be (possibly marginal but still real) instances of designing in a long and never-ending process of rule-articulation.

The advocate’s role is to try to influence the decision of the judge. Hence, he directly contributes to the rule-designing that is involved. A good advocate will place himself imaginatively in the place of the judge and think with his head, as it were (Kronman 1987: 870). Indirectly, a legal counsellor may do the same when advising his client about a contract or some other affair. He will need to consider how a judge would decide the rules applicable to the given case. However, a counsellor’s role is often much more than preparing for a potential suit. It involves designing working rules for various cooperative efforts, such as contracts, partnerships or corporations. While this may be a purely technical administrative exercise, it is often an imaginative invention of a set of rules that accommodate diverse interests and support common endeavours. In the grand words of a legal scholar: ‘Every lawyer who has ever drafted a contract, or created a partnership, has participated in the foundation of a small commonwealth, and the excellences he requires in his work might be described as the excellences, in miniature, of a founding statesman’ (Kronman 1987: 867).

Other social roles that lawyers fulfil involve rule design, too. They act as codifiers in all fields of legislation. Throughout history, they have also been involved in designing and handling rules for government organisations and the implementation of public policies (Brundage 2008). It seems that wherever there is a need for a general knowledge and skills of designing rules, the demand for professional lawyers emerges. This is unsurprising once we accept that legislation, interpretation and application are closely connected steps in the articulation process of rules that involves instances of design all along.

⁸ Another reason may be that parties are uncertain or have diverging expectations about the expected judgement. However, these problems are also related to the lack of articulation.

What kind of knowledge do lawyers use when they engage in rule crafting? Judges, advocates and counsellors must become knowledgeable of the specific circumstances of the conflictual or cooperative situations with which they deal. Codifiers must also obtain knowledge of many aspects of the practical situation in which legislation takes place. That is, lawyers rely on the dispersed, time-and-place knowledge of social actors. Indeed, a crucial professional skill that is expected of lawyers is the ability to deal with facts and evidence and quickly grasp the full context of an event or a dispute (Schauer 2009). In addition, they rely on systematic practical knowledge that abstracts from any given case. They need to know how to interpret, apply and design rules in diverse situations. This requires much more than factual knowledge of a set of legal principles and rules: the know-how of *legal reasoning* (Schauer 2009). A lawyer must be able to formulate and put forward arguments about rules and be able to defend them against (potential) objections. A lawyer does not simply use an existing body of systematic knowledge but, by formulating his own arguments in concrete situations, he also contributes (if only marginally) to it. In effect, he participates in an ongoing intellectual debate that links past, present and future cases. By doing so, he moves within and makes advances to an existing system of thought (cf. Hayek 1982: 112-3).

4. An institutional theory of systematic knowledge generation: intellectual orders

4.1. The concept of ‘intellectual order’

How does the systematic knowledge of the legal profession differ from the social scientific knowledge generated in an academic community? Phrasing our question in this way assumes implicitly that the type of knowledge is highly influenced by the institutionalised social environment in which it is generated. There is no developed law without a legal profession. There is no developed science without an academic community. We need not be deterministic: outsiders may have good ideas; anyone might have a good idea about anything. But when we observe two distinct institutional environments dedicated to generating two different types of knowledge, we have good reason to believe that one environment is not really conducive to producing the other type of knowledge.

To make comparisons between a practical profession (e.g. law viewed as such) and a social science (e.g. economics), we need a general institutional theory that covers both as special institutional forms of systematic knowledge generation. The ‘economics of science’ (Stephan 1996; McQuade and Butos 2003; Tarko 2015) has reflected amply on the institutional requisites of a scientific discipline but has not compared them with those of practical professions. The latter usually appear in economics as institutions of collective action but hardly ever as those of knowledge generation (for a few exceptions, see Mike 2017). Knowledge generation in law is discussed, as I noted above, but it is not compared to science. For a general comparative theory, I turn to Michael Polanyi’s concept of ‘intellectual orders’ (1998 [1951]; Polanyi and Prosch [1976]). Like Hayek, Polanyi was a theorist of spontaneous social order but, unlike Hayek, he was especially interested in

differences between types of spontaneous orders within society (Jacobs 1999). Most important, he distinguished the spontaneous order of an exchange-based economy from spontaneous ‘intellectual orders’, science being his primary example. Building on his work, differences between markets and science have been explored by economists of science in the Austrian tradition (McQuade and Butos 2003) but his more general category of an ‘intellectual order’ has not been used. The advantage of the concept is that it applies to all kinds of organised intellectual life and enables their comparison.

According to Polanyi (1998 [1951]), science, law, literature, the various arts and professions and ‘many other branches of human culture’ are organised as spontaneous orders in a similar sense as the catallactic (i.e. exchange-based) order of the market economy is one: ‘order is achieved among human beings by allowing them to interact with each other on their initiative – subject only to laws which uniformly apply to all of them’ (195). However, spontaneous orders differ according to the central type of interaction they support. In a market order, the main form of interaction is voluntary exchange, whose purpose is the mutual satisfaction of subjective wants. It is based on the premise that each party acts upon his own subjective and largely private ideas. In an intellectual order, the central interaction is intellectual debate or discussion, whose purpose is sharing and confronting ideas in a common sphere (Mike 2017). A debate presumes that ideas are not (merely) subjective but can be held to shared standards of evaluation and improvement.

The two types of interaction – exchange and discussion – call for different coordinating processes. While the coordinating process of an exchange-based order is competition, intellectual discussion is supported by three processes: *consultation, competition and persuasion* (Polanyi 1998 [1951]). First, debaters must be able to consult an intellectual heritage, which provides them with a means of mutual understanding, an already existing body of knowledge as well as methods for moving beyond it. For example, ‘a scientist, wrestling with a problem, accepts as his premise a great mass of previously established knowledge and submits to the guidance of scientific standards’; or a judge refers ‘to precedent and statute and interpret[s] them in the light of contemporary thought’, while he sticks to standards of legal reasoning (1998 [1951]: 201). Second, debaters must be able to compete in the sense that they must be free to pursue their conjectures and lines of reasoning and should be rewarded for their contributions. Third, those who advance competing arguments must persuade the participants of a debate. Their lines of reasoning must be pitted against one another in a sincere and fair controversy, which compels participants to adjust their ‘arguments to what has been said before and thus all divergent and mutually exclusive aspects of a case are in turn revealed’ (1998 [1951]: 202).

The processes of consultation, competition and persuasion are institutionalised in ‘associations of free, self-governing persons’ committed to the pursuit of certain intellectual ends (Polanyi and Prosch 1976: 211). These associations build up ‘disciplining traditions’ that provide standards for acceptable arguments. They may develop formal

collective bodies, such as in modern science, jurisprudence and some professions, or remain informal communities as we often see in the arts and among public intellectuals. While economists tend to view professions as organisations providing self-regulation to mitigate contracting problems or provide collective goods (Matthews 1981; Shaked and Sutton 1981; Ogus 2000), these are arguably secondary to their more fundamental role of providing an intellectual order which makes such collective actions meaningful in the first place (Mike 2017).

The rules of an association must support all three processes of the intellectual order. The three sets of rules are interrelated and must be consistent. They reflect *shared intellectual convictions* about the subject matter of the debate and the nature of knowledge to be discovered. The institutional differences between intellectual orders reflect differences in these underlying convictions. To understand how the intellectual order of law differs from the order of academic social science, we need to identify their respective convictions and how they manifest themselves in their rules. Polanyi (1998 [1951]) made a foray into the analysis of common law but more as an illustration of his general concept than an exhaustive examination. Here, I draw on legal scholarship to provide a more general and thorough analysis. While there are many similarities between law and social science, my emphasis is on their differences.

4.2. A comparison of the intellectual orders of law and economics

As a first step of comparative analysis, the basic intellectual convictions of social science and law must be distinguished. A preliminary objection may be that law is also an academic discipline: jurisprudence (i.e. the knowledge of law) can be considered as a branch of science (as in German *Rechtswissenschaft*). One response is that 'legal science' is of two distinct types. Jurisprudence in a narrower sense, as a taught subject, looks at law 'from inside', i.e. from the practical perspective of lawyers and provides concepts and theories that help the lawyer in carrying out his tasks (Dworkin 1986, 102, 410). This corresponds to what the legal philosopher H.L.A. Hart called an 'internal view' of the law adopted by members of a social 'group which accepts and uses them as guides to conduct' (Hart 2012, 89) This is a discipline that grew out of and directly serves legal practice. Legal scholars are often practitioners and play advisory roles in legal practice. It is also telling that the word 'jurisprudence' means both 'the science of law' and 'skill in law'.⁹ Therefore, I consider academic jurisprudence as an integral part of the intellectual order of law.

By contrast, disciplines like legal philosophy, sociology, legal history or the economic analysis of law look at law 'from outside'. They adopt an 'external view' of law that is characteristic of an 'observer who does not himself accept them' (Hart 2012, 89). Their goal is to understand general patterns of social, historical or economic phenomena and consider law as an element of these. Their origin is academic research rather than legal

⁹ According to The Concise Oxford Dictionary of Current English, 9th edition, 1995.

practice. I include these approaches to law under the category of ‘social science’ rather than law. Such a disciplinary separation is of course neater than reality: interdisciplinary research that combines jurisprudence and social science exists. However, it *is* a combination of two disciplinary traditions, one of practical, the other of academic origin.

These disciplinary considerations already point to fundamental differences in the nature of knowledge sought by law and social science. Law (and jurisprudence) seeks *practical* knowledge with a goal to aid better decision-making in concrete situations (Mastronardi 2001). Social science is *non-practical* in this sense and aims at a better understanding of social phenomena. As a corollary, the former’s truth-statements are *participative* in the sense that they are made from the position of one of the actors involved (e.g. legislator, judge or advocate). It is even considered a basic error of legal reasoning to confuse from which position an argument is made (Twining and Miers 2010). By contrast, a social scientist formulates truth-statements from the *observational* position of an outside spectator. The rules of consultation, competition and persuasion reflect these fundamental epistemic differences.

The central forum of persuasion in law is a legal dispute, i.e. an instance of practical decision-making where the goal is to arrive at a decisive judgement about what to do. In social science, the central forum takes the form of publications in which detached reflection aims to provide interim judgements subject to corrections about what is true as a general pattern. In law, social actors affected by rule design are involved in the debate and provide feedback about arguments. By contrast, social scientists use affected actors as sources of information, at most. A third difference is in the focus of inquiry. While lawyers must typically consider the full context and all details of a concrete situation and weigh them according to salience for affected parties, social scientists usually select just one or a few aspects of similar situations and weigh them according to the salience of theoretical interest rather than significance for actors.

The primary process of consultation bridges sequences of disputes in law and sequences of publications in social science, respectively. In the first case, consultation communicates knowledge about prudential judgements guiding action and fits new pieces of knowledge into an internal view of a system of rules. The outcome is one (largely) consistent set of sophisticated concepts and doctrines that express practical wisdom. In social science, the communicated knowledge takes the form of hypotheses and proofs. It must be fitted into external views about systems of rules or developed into new such perspectives. The outcome is an articulation of theories and methods as expressions of truth according to (purportedly) objective standards of validity.

Competition is supported by professional autonomy in both orders. However, lawyers must deal with problems as they come by and have relatively little freedom in selecting which to pursue. In social science, the basic rule is that of freedom of inquiry, i.e. problems can be selected according to their capacity to contribute to advancing theoretical

knowledge as the scientist sees fit. What drives competition? In science, the dominant mechanism is reputation among peers (McQuade and Butos 2003). This appears in law, too – especially among jurisprudential scholars. However, the more direct mechanism is market reputation among social actors whose problems they ought to solve, as with advocates and counsellors, and careers related to success in solving such problems, as with judges and attorneys.

Table 1 summarises the differences between the two intellectual orders, both in terms of the nature of knowledge sought and the institutional details. As we see, these differences are manifold and significant. Both orders are institutionalised in highly sophisticated ways that reflect the type of knowledge sought (practical and participative versus non-practical and observational). While there is no direct way of proving it, it seems unlikely that one order can be successful in producing the type of knowledge to which the other order is dedicated.

Table 1. Institutional comparison of law and economics

	Law (jurisprudence)	Economics as a social science
Nature of knowledge	<ul style="list-style-type: none"> – practical (aimed at better decision-making in concrete situations) – participative (perspective of decision-maker) 	<ul style="list-style-type: none"> – non-practical (aimed at better understanding of social phenomena) – observational (perspective of spectator)
Rules of persuasion	<ul style="list-style-type: none"> – central forum: dispute (practical decision-making) – goal: arrive at a final judgement about what to do – involvement of affected social actors: yes, actively involved in debate and feedback – focus of inquiry: full context, all details of situation, weighing what is important for actors 	<ul style="list-style-type: none"> – central forum: publications (detached reflection) – goal: arrive at an interim judgement about what is true as a general pattern – involvement of affected social actors: no, as source of information at most – focus of inquiry: one aspect singled out in similar situations, weighing not necessarily related to salience for actors
Rules of consultation	<ul style="list-style-type: none"> – sequence of disputes: judgements guiding action (what to do?) 	<ul style="list-style-type: none"> – sequence of publications: hypotheses and proofs (what is?) – fitting new knowledge into external views or creating

	<ul style="list-style-type: none"> – fitting new knowledge into a consistent internal view of a system of rules – leading to articulation of sophisticated concepts and doctrines as expressions of practical wisdom 	<ul style="list-style-type: none"> new views about systems of rules – leading to articulation of theories and methods as expressions of objective truth according to standards of validity
Rules of competition	<ul style="list-style-type: none"> – restricted freedom in selecting problems (cases assigned or paid by parties) – feedback through references to precedents, arguments, concepts – reward according to reputation among social actors (or, for scholars, indirectly: according to ability to help them) 	<ul style="list-style-type: none"> – freedom of inquiry – feedback through citations – reward according to reputation among peer scientists

5. Other professions producing systematic practical knowledge

Lawyers are generalists of rule design and rule handling. As an introductory textbook to legal thinking says in its title, it will teach students ‘how to do things with rules’ (Twining and Miers 2010). Many social rules are specific to certain economic sectors, fields of activities, smaller groups or organisations. Other professions are also involved in designing such rules. Specialisation and innovation in an exchange economy call for sustained intellectual reflection to support similar lines of activities (Mike 2017). Discussions are institutionalised in the intellectual orders of various professional communities, such as accountants, corporate managers, engineers and their ever-proliferating subgroups. Each provides an institutional framework to debate both technology and specialised rules – contracts, governance structures, and market regulations – that support exchange relationships. A few examples can illuminate.

Chandler (1977) documented the ‘managerial revolution’ in American business from the 1850s until the 1920s, during which emerging communities of managers proposed and debated their professional norms and rules of conduct. Dezalay and Sugarman (1995) show how lawyers and accountants engage in the ‘social construction’ of new markets for themselves with attending norms and rules, such as the global markets for advising multinational firms in the 1980s and 90s. Madhavan (2015) explains in what ways engineers think differently than scientists and occupy ‘a separate realm of knowledge and

practice' (28), i.e. an intellectual order of their own. As we saw, some academic economists liken their engagement in institution-building to practical engineering or even plumbing. They should consider that engineering is not just applied science and 'relying on nothing but scientific knowledge to produce an engineering solution is to invite frustration at best and failure at worst' (29, quoting engineering historian H. Petroski). While natural science is characterised by 'a more philosophical, argumentative or blue-sky approach', engineering creates a 'rigorous, systematic problem-solving capability' (12). While science 'pursues truth' and 'traces mechanisms', engineering 'produces utility under constraints' and 'provides practical solutions' (26; 29).

The institutional character of an intellectual order corresponds to the nature of knowledge it pursues. Therefore, we should expect similarities between law and other practical professions. An important difference is that the latter tend to be less focussed on formal dispute resolution and even social rules. Much of the attention is devoted to operating decisions (of management or technology) *within* rules. However, this is not exclusive. Even engineering includes a frequent preoccupation with social rules because it creates systems that are 'synthes[e]s of organization, technology, material, and tactics' (Madhavan 2015: 21). As in law, the generation of knowledge is tied to actual decision-making situations, if not disputes. The focal points in the process of consultation are the arguments put forward by participants of such situations and others that help the formation of judgements pertaining to their problems.

Although the forums of persuasion are more diverse and diffuse than in law, in all developed practical professions they include professional conferences, vocational journals as well as supporting teaching and research organisations that provide similar intellectual support as law schools and university faculties to jurisprudence. Consultation develops an internal view of social rules, too, and new knowledge must be fitted from within. Competition is, again, driven primarily by reputation among fellow participants in the practice that reflect success as judged by affected social actors.

Professions are highly sophisticated social achievements. We must also recognise sets of social rules that are developed by non-professionals. For example, many of Elinor Ostrom's examples of common-pool governance involve local groups without much education. Even such groups need to develop at least rudimentary intellectual orders about foresting, irrigation and the like. If they engage in any form of institutional experimentation or innovation, it presupposes some processes of consultation, competition and persuasion. In more rudimentary forms, we can expect them to follow the same institutional logic that follows from the practical and participative nature of knowledge they seek.

6. Implications for institutional economists... and practical professionals

What do our findings imply for institutional economists? Lawyers and other practical professionals generate and wield a type of knowledge for designing institutions that academic economists are relatively poorly equipped to produce: systematic practical knowledge. This implies a strong inherent limit on the direct practical use of their institutional analysis and advice. In 1960, Hayek wrote that 'economists have on the whole contributed little to the solution of [problems associated with particular rules], there are some good reasons for this. General speculation about the character of a social order cannot produce much more than equally general statements of the principles that the legal order must follow. The application in detail of these general principles must be left largely to experience and gradual evolution. It presupposes concern with concrete cases, which is more the province of the lawyer than of the economist' (1960: 229-230). Since then, economists have made great progress in the analysis of the details of the legal order. However, the nature of the knowledge they produce still differs from that of lawyers. As our analysis has clarified, 'concern with concrete cases' can be of two types: it can be that of a participating actor inside the institutional order or that of an outside observer. The first seeks practical knowledge, while the latter primarily pursues non-practical understanding. The same distinction applies to economics versus other practical professions, such as accounting, business management or engineering.

It is useful to think of economics and practical professions as having comparative advantages in producing different types of institutional knowledge. This points to the ways in which they can collaborate. Consider the example of law. On the one hand, economists can inject their ideas into the intellectual order of law and have an indirect influence on practical institutional design. If we consider the inclusion of philosophy, sociology and – increasingly – economics in legal education, jurisprudence is clearly interested in external views of the law. Arguably, such an interest is especially warranted in times of fast-paced social change when an interval view of a legal system may act as an intellectual impediment (Gurvitch 1947). Another occasion for considering external ideas is when the law is incomplete and confronts a new type of problem that has no clear legal interpretation yet. This is how, for example, Richard Posner justifies the application of economic analysis to judicial decision-making (Posner 2001; 2005).

On the other hand, economists can turn to law for practical and non-scientific ideas that can enrich their own non-practical work. Economists have borrowed freely key concepts from various practices, such as contract or property from law, interest or capital from accounting; and infrastructure from engineering. To give two concrete examples, Ronald Coase studied common law disputes to clarify the problem of social cost and externalities. In his analysis of governance structures, Oliver Williamson relied on the legal realist jurisprudence of Karl Llewellyn for the idea of contracts as frameworks as well as the relational contract theory of Ian Macneil (Williamson 1979; 1996).

The goal of understanding general patterns often leads economists to make borrowed concepts ever more abstract, shedding a large part of their meaning in their original institutional context (Hodgson 2015). This is perhaps inevitable to some extent but can also impoverish theory and detach it from differentiations that have great practical significance. Revisiting the systematic practical knowledge of lawyers, other professionals and even 'lay' communities who engage in institutional design may often be an important corrective to this tendency. A recent example may be the reconsideration of the meaning of 'property rights' in economic analysis initiated by Merrill and Smith (2001). A better understanding of the internal view of a system of rules is likely to help the economist as an outside observer of the system. After all, institutions only matter as long as they are rules-in-use adopted and interpreted in practice by groups of people. Their practical and participative view ultimately determines what an institution actually is.

What if academic economists go beyond injecting ideas into a practical profession? What if they become more ambitious (or are assumed by others to be more capable) and get directly involved in designing rules? In this case, they inevitably change the nature of knowledge sought from non-practical to practical. They take upon themselves a role akin to a counsellor, advocate or judge, depending on the precise character of their involvement. They find themselves within an existing set of rules, where they must adopt a participative rather than observational perspective. This is what happens when an academic transmutes into an 'expert', who is expected to give advice on what to do here and now. When Rodrik, Roth, Duflo or Ostrom provide advice to the design of specific institutions, they act as experts.

When experts employ concepts and arguments developed in academic science and apply it to practical problem-solving, they create a sort of hybrid intellectual order combining practical and scientific types of knowledge. If this is done regularly, the hybrid order develops its own institutions, as in the case of forensic sciences. While academics and experts overlap, most experts are not academics, which reflects the benefits of specialisation. Since actors of a hybrid order remain partly outsiders, we can expect that they cannot wholly replace practical professionals, such as lawyers, but need to work with them. One can only become a craftsman by fully engaging a craft rather than just observing and commenting on it. We are then back to the idea of injecting ideas to practical intellectual orders.

Finally, a better appreciation of practical professions can help economists improve their institutional analysis. They should explore the actual roles of practical professions and other looser communities in the generation of systematic practical knowledge for institutional design. What kind of practical intellectual order exists in a social situation? Does it generate relevant and effective knowledge? How does it influence institutional design? The institutionalised processes of consultation, persuasion and competition can be explored.

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