Abstract and Keywords

This chapter discusses Leibniz’s contribution to legal theory and the significance of his legal engagements for his intellectual development. It opens by presenting Leibniz’s legal career, listing the sequence of legal offices he assumed and the series of often related writings addressing legal matters. It presents Leibniz’s early legal works, where a new approach to legal scholarship and decision-making is proposed that merges positive and natural law and enriches the law with methods and knowledge from logic, mathematics, physics, and philosophy. This new synthesis provides the basis of his proposed reform of legal education. Leibniz’s relation to Roman law is then considered, focusing on the role of Roman tradition in his approach to law and justice. The last two sections address Leibniz’s logic of deontic modalities and his view of legal reasoning as being both dialectical and presumptive.

Keywords: Leibniz, law, justice, natural law, positive law, Roman law, deontic logic

Leibniz’s Legal Career

Leibniz’s legal career has rarely attracted the attention of Leibniz scholars. To some, it could therefore come as a surprise that Leibniz enjoyed a brilliant career as a jurist, a career studded with a series of increasingly prestigious official positions: assessor (i.e., judge) to the High Court of Appeal of Mainz, in 1669, at the age of twenty-three; Hofrat (court counsellor) in Hanover in 1677; Geheimer Justizrat (privy counsellor of justice) in Hanover in 1696 and in Brandenburg in 1700; privy counselor of justice to the Russian tsar Peter the Great of Russia in 1712; and Reichshofrat (member of the Imperial Aulic Council, one of the two higher courts of appeal of the Empire) in 1713.
Although Leibniz’s studies were initially directed toward philosophy (he enrolled in the faculty of philosophy of the University of Leipzig in 1661), he decided that becoming a lawyer was the right career for him on account of his “preference for a career in the world rather than in the academy” (Mulvaney 1994, 413). Moreover, the law played a key role in his family, especially on the maternal side. His mother was the daughter of the renowned lawyer Wilhelm Schmuck. After her father’s death, she was placed under the guardianship of the distinguished law professor Quirinius Schacher. Leibniz’s maternal aunt was married to the eminent jurist Johann Strauch, who would exercise a considerable influence in strengthening Leibniz’s legal vocation.

In 1663, after receiving a bachelor’s degree in philosophy, Leibniz joined the law faculty of Leipzig, where he started his legal apprenticeship under the guidance of Quirinius Schacher and Bartholomaeus Schwendendörffer. In 1664, he graduated as a master of philosophy, and, by the end of that year, he defended and published his second academic dissertation, Specimen quaeestionum philosophicarum ex jure collectarum (Specimen of Philosophical Questions Collected from the Law, A VI i 69–95; hereafter Specimen quaestionum philosophicarum),1 which coupled his recent legal training with his philosophical interests. In September 1665, Leibniz earned a bachelor’s degree in law, for which he wrote the dissertation Disputatio juridica de conditionibus (Juridical Disputation on Conditions, A VI i 97–150; hereafter Disputatio de conditionibus) under the supervision of Schwendendörffer. Immediately upon earning his habilitation in philosophy (March 17, 1666), he turned to his legal studies, working on his dissertation for the degree of doctor of law. Astonishingly, the faculty of law refused him the title under the pretext that he was too young. As a result, in October 1666, Leibniz moved to the faculty of law of the University of Altdorf (near the imperial free city of Nuremberg), where he submitted his doctoral dissertation, Disputatio inauguralis de casibus perplexis in jure (Inaugural Disputation on Perplexing Cases in the Law, A VI i 231–256; hereafter Disputatio de casibus perplexis).2

In February 1667, at the age of twenty-one, Leibniz obtained the doctoral degree and, having declined the offer of an academic position, he left Nuremberg entertaining the idea of traveling to Holland (Antognazza 2009, 80). On his way to Frankfurt, he wrote his first (and only) jurisprudential treatise, the Nova methodus discendae docendaeque jurisprudentiae (A New Method for Learning and Teaching Jurisprudence, A VI i 259–364; hereafter Nova methodus),3 by which he planned to win the favor of the prince-elector of Mainz. The new work so impressed the elector that he took the young scholar into his service as assistant to his Hofrat Hermann Andreas Lasser, who was working to reform the electorate’s legal code. In 1669, Leibniz was appointed to the highest tribunal of the electorate, this despite his Lutheran persuasion (the Mainz electoral court was Roman Catholic). In the same year, he collected his first three legal dissertations into a single
volume under the title of *Specimina juris* (Specimens of Law), probably looking to organize them into a systematic treatise to be used as a companion to the *Nova methodus*. For the publication in the *Specimina juris*, the material in the *Disputatio de conditionibus* was rearranged in a more readable form under the title of *Specimen certitudinis seu demonstrationum in jure exhibitum in doctrina conditionum* (Specimen of Certainty or Demonstrations in Law Exhibited in the Doctrine of Conditions, A VI i 369–430; hereafter *Doctrina conditionum*).4

The plan for a rational ordering of the entire body of law lies at the heart of Leibniz’s work during the Mainz period. In his famous letter to Antoine Arnauld of November 1671, he described his project on the codification of Roman law as follows:

I am working on a Nucleus of Roman Laws, which presents – in the same words of such laws, concisely and in good order, as a new example of a new perpetual Edict —what is truly law in the entire Corpus, truly fresh (novum) and effective law, and can have force also now. In addition, I am thinking of recapitulating the Elements of Roman Law in a short table which presents, at a single glance, the few clear rules the combination of which can solve all cases, and furthermore, new measures for abridging lawsuits…. In addition to these, I am planning to collect in a short book the Elements of Natural Law, form which everything will be demonstrated from definitions alone.

(A II i 173)

As Leibniz himself wrote in his 1672 letter to Louis Ferrand (A I i 181), he was working on the *Nucleus of Roman Laws* (*Nucleum legum romanarum*) as assistant to Lasser,5 whereas the *Elements of Roman Law* (*Elementa romani juris*) and the *Elements of Natural Law* (*Elementa juris naturalis*) were his own contribution. As this letter reveals, along with other writings from this period, the codification project included a fourth part, the “Body of Roman Law,” for which Lasser was responsible. As is suggested by Leibniz’s 1670 letter to Thomas Hobbes, the *Elements of Roman Law* may have been the first contribution Leibniz planned to make to the project (see the later section “Roman Law and Natural Law” for the relevant quotation). The preserved drafts are from the years 1667–72 (*Elementa juris civilis*, A VI ii 35-93.; *Grua* 705-721). Indeed, many of those ideas were clearly anticipated in the *Nova methodus*.6

Codification projects were taken up again during Leibniz’s stay in Hanover. Leibniz’s revived interest in legal matters after his Paris period (1672–76) is documented by a number of writings from the late 1670s to the late 1690s. Most of these writings refer to a plan for a *Codex Leopoldinus* dating back to 1678. This project, too, was never realized.7 In 1693, as a by-product of his research on the history of the House of Hanover,
Leibniz published a *Codex juris gentium diplomaticus* (Diplomatic Code of the Law of Nations). Although this work is more historical and political than juridical—it is a collection of public documents and treatises chronologically ordered from the end of the eleventh century to the seventeenth century—the preface (PW 165–176) contains a refined statement of Leibniz’s doctrine of natural law first expounded in the *Nova methodus* (see the section “Roman Law and Natural Law”).

Even though all of Leibniz’s codification projects remained only on paper, the enactment a “new body of law accurately disposed” (A VI i 307), continued to be a prominent concern of Leibniz as a legal reformer. From 1708 to the year of his death, Leibniz corresponded with Heinrich Ernst Kestner, who in his *De statu jurisprudentiae, necessariaque juris naturalis et civilis conjunctione* (1699) had mentioned Leibniz in support of his criticism of Roman law and his preference for natural law and traditional German law (Grua 682). Leibniz replied that although in Roman laws there is much that is “obscure, perplexing and redundant,” they must be considered as the basis of the law: going back to the ancient German laws, with their innumerable traces of barbarism, would be tantamount to eating acorns after having harvested corn (*inventa fruge glandibus vesci*). At the same time, the body of Roman law could be reduced to a few general rules “in which both equity and meaning would appear in a clear light” and “all the variety of cases” would be “encompassed as if it were encircled with a net” (Leibniz to Kestner, September 5, 1708, Dutens IV iii 253). This is what Leibniz had dreamed of from the time he “first set [his] feet in the paths of jurisprudence” (Leibniz to Hobbes, July 13/23, 1670, A II i 57; L 106) and what comes up again in his last letter to Kestner as the need for a “brief, clear, sufficient new code” (Leibniz to Kestner, July 1, 1716, Dutens IV iii 269), almost exactly the words he had used in the *Nova methodus* to convey his early idea of a new legal corpus to be “written ... in a complete, brief, ordered manner” (A VI i 307).

**Leibniz’s Early Legal Works**

As already noted, Leibniz’s early legal works include the following main texts, collected in the *Specimina juris* of 1669: the *Specimen quaestionum philosophicarum* of 1664, the *Disputatio de casibus perplexis* of 1666, and the new *Doctrina conditionum* (based on the *Disputatio de conditionibus* of 1666).

Three basic ideas seem to underlie Leibniz’s approach to the law since these very early works, published when he was just eighteen to twenty-five years old.
The first idea is that legal research and problem-solving, especially adjudication, require an **interdisciplinary dialogue**; namely, a dialogue between the law and many other disciplines, ranging from philosophy to logic, theology, mathematics, and physics.

The second idea is that the law also requires **intradisciplinary dialogue**; namely, a dialogue between different strands of legal thinking: on the one hand, the different theories of natural law—scholastic and contractarian approaches in particular—and on the other hand, the different sources and doctrines of positive laws, in particular, Roman law and the laws of the German states.

The third idea is that the law requires a **large toolbox of reasoning methods and cognitive tools** (see Dascal 2004, 40–41) to be selected on a **pragmatic** basis; that is, by looking at how effectively the different tools and methods can aid legal inquiry. The traditional and ambitious purpose of constructing a “universal jurisprudence” as a “science of the just and the unjust”—a science described in Ulpian (D. 1.1.10.2., De justitia et jure) as based on an “awareness of human and divine affairs”—requires highly innovative tools, including, but not limited to, those afforded by contemporary developments in logic and mathematics.

The first idea is boldly stated in the very first pages of *Specimen quaestionum philosophicarum*, where Leibniz mounts an attack against those jurists who assume that law should be independent from philosophy (broadly understood to include science and mathematics). He argues not only that many philosophical considerations can be found in legal sources, but also that philosophy is needed to address legal issues, for “many places in [the] law would be an inextricable labyrinth without the guidance of philosophy.” Having established this point, he re-examines a variety of legal issues in an encyclopedic progression from logic to metaphysics, going through mathematics, physics, physiology, and zoology—an examination in which he canvasses such diverse questions as the nature of indefinite proposition, the allocation of the burden of proof, the location of bodies in space and the final points of movement, the parts of the human body, the pertinence of law to animals, the classification of animals as wild or tame, the existence of mythical beings, whether humans share a common nature, logical and legal paradoxes, identity and consciousness, the relation between the whole and the part, and the ontological status of moral entities and relations.

Leibniz shows that there is nowhere an unsolvable conflict between law and philosophy. In some cases—as with regard to the different ways of understanding universals either as philosophical kinds or as legal collectives (*universitates*)—the apparent conflict is shown to be merely terminological (Question I). In other cases, the differences are found to have a pragmatic foundation. For instance, the fact that the burden of proof in legal proceedings is managed differently than in the philosophical game of *Obligationes*...
depends on the fact that the law is aimed at achieving a fair outcome within a reasonable amount of time; for which reason the burden of legal proof has to be allocated to the party who can more easily discharge it (Question II).

Evidence of the consilience between law and science can indeed be found in the tradition of Roman law, which provides solutions that are sound and equitable in the context of the working of nature. For instance, a physical-geometrical justification supports the Digest rule that, in order to avoid damaging a neighbor’s property, the distance of a ditch from the border around the property should be noninferior to the depth of the ditch (Question III). The justification of this rule pertains to physics: the water along the sides of the ditch will seep into the ground at an angle at no less than 45 degrees from the surface until it reaches the depth of the ditch, after which point it will run down perpendicularly. Thus, a distance at least equal to the depth of the ditch ensures that the water will never reach the neighbor’s land and thus prevents unjust damage. This example shows how, according to Leibniz, a just rule of law can be identified by combining abstract legal axioms, such as the fundamental principle that no harm should be done to others (neminem laedere), with scientific knowledge of the laws of nature.

Finally, there are cases in which, by merging legal and philosophical insights, a solution can be found to apparently unsolvable dilemmas, such as the paradoxes of Protagoras and of lex Falcidia (which would also be taken up in the Disputatio de casibus perplexis).

The Protagoras case concerns a dispute between the philosopher and one of his students, who had agreed to pay the philosopher a fee if and only if he, the student, will win his first legal case. Because the student refuses to take part in any case, the philosopher brings suit to recover payment, which puts the judge in a paradoxical situation. Assume that the judge finds for the philosopher (i.e., grants the request for payment); then, he should rather find for the student (i.e., reject the request) according to the contract because the student does not win his first case. On the other hand, assume that the judge finds for the student and rejects the request for payment; then he should rather find for the philosopher (i.e., grant the request) because the student wins his first case. So the student should win if he loses and should lose if he wins. Leibniz’s solution to the paradox consists in setting up a temporal frame in which the judicial decision acts as the turning point, in combination with the legal burden of proof. Before the decision, the philosopher cannot prove the ground of his request; namely, that the student will win his first case. Thus, the philosopher’s request for payment should be rejected (i.e., the student should win). However, after this decision, the philosopher can sue the student a second time and should win this second case, given the student’s victory in the previous (first) one. In this way, the just outcome—the payment of the philosopher for his services—would be achieved.
The *lex Falcidia* case concerns a testator who, having already bequeathed three quarters of his estate, bequeaths the remaining quarter under the necessary and sufficient condition that *lex Falcidia* does not apply (*lex Falcidia* limited valid bequests to three quarters of an estate, the remaining quarter being reserved to the testator’s heirs). Now, let us assume that the last bequest is *valid*. In this case, *lex Falcidia* applies because the three-quarters threshold has been crossed; the bequest is consequently *invalid*, since the necessary condition for its validity (the nonapplication of *lex Falcidia*) fails to be satisfied. Assume, on the contrary, that the bequest is *invalid*. In that case, *lex Falcidia* does not apply because the threshold is not crossed; the bequest is therefore *valid* since the sufficient condition for its validity (the nonapplication of *lex Falcidia*) is satisfied. Thus it seems that the bequest is valid if invalid and vice versa. Leibniz’s solution to the apparent paradox is twofold. According to strict law, he argues, the exceeding bequest is to be considered invalid on the basis of the contradiction between the consequence of its validity (the application of *lex Falcidia*) and the necessary precondition for its validity (the nonapplication of *lex Falcidia*). However, the bequest may be considered to be valid according to an equitable interpretation of the will (i.e., by assuming that the testator intended to prevent the application of *lex Falcidia* by having all bequests, including the last one, proportionally reduced so that their sum remains below the allowed three-quarters).

The 1666 doctoral dissertation *Disputatio de casibus perplexis* is meant to provide an overall approach for dealing with “perplexing” (i.e., hard) cases. In these cases, a conflict between two legal solutions is generated by the application of rules that are only contingently contradictory, meaning that they lead to contradictory conclusions only when applied to particular factual circumstances. In comparison with the *Specimen quaestionum philosophicarum*, the *Disputatio* has a stronger legal and academic flavor because Leibniz engages with numerous legal authorities in providing support for his arguments while also applying conceptual tools that were unusual in legal arguments, such as propositional logic and the logical features of ordering relations.

Having introduced the notion of perplexity, Leibniz surveys various traditional ways of dealing with legal uncertainties, rejecting all of them. For example, the *non-liquet* approach, where the judge abstains from taking any decision in unclear cases, is rejected as incompatible with the judge’s obligation to decide every case.

Having disposed of these approaches, Leibniz argues that there is a single legally correct answer to every legal case. This Leibnitian one-right-answer thesis results from the combination of two sets of assumptions pertaining to natural law and to the burden of proof. With regard to natural law, Leibniz assumes that (1) it is directly applicable to legal issues; (2) while being limited by positive law, it is in principle complete (it can
provide an answer to any legal issue not being regulated by positive law); and (3) it integrates positive law by offering solutions to all interpretive doubts. With regard to the burden of proof, Leibniz assumes that (1) the burden of proof for the grounds adduced in support of a claim falls on the claimant, and (2) this also applies to the positive laws in which the claimant grounds a claim. These two sets of assumptions enable Leibniz to argue that “everything can in effect always be decided on the basis of the mere law of nature and of nations, under which nothing is uncertain” (Artosi, Pieri, and Sartor 2013, 83). This is so for three reasons. First, even where a case is not regulated by any positive laws, there is no uncertainty because natural law applies directly. Second, where it is uncertain whether any positive laws apply, the case can be decided by relying on the burden of proof: the party grounding a claim on a positive law whose existence cannot be proved will lose, having failed to discharge his burden. And third, where a positive law does apply but there is uncertainty about its interpretation, natural law supplements positive law, pointing to the correct interpretation.

So it seems that Leibniz as a young lawyer was endorsing what can be described as a legal version of his famous principle of sufficient reason, reflecting his trust in rationality and his aversion to arbitrariness: in every legal case, the applicable law provides sufficient reasons in support of a legal solution; namely, reasons making that solution legally preferable to all available alternatives.

Having set out his perspective on legal reasoning and its sources, Leibniz takes up his examination of perplexities, distinguishing them into two main kinds: perplexing dispositions and perplexing concourse. Dispositions are clauses in acts of will (contracts, promises, testaments, etc.) having a conditional form “if $A$ then $B$,” so that the realization of the antecedent condition $A$ generates the legal effect $B$. Different cases of perplexing dispositions are distinguished.

**(a)** An antecedent condition extends into the future and contradicts the effect it should generate. This may happen directly, the condition being logically inconsistent with the effect it should generate (e.g., If you will not be my heir, be my heir!), or indirectly, the inconsistency resulting from further facts entailed by the effect (e.g., the nonapplication of *lex Falcidia* generates the validity of the exceeding bequest and, consequently, the crossing of the threshold, which determines the application of *lex Falcidia*).

**(b)** The fulfilment of the antecedent condition presupposes the prior realization of the conditioned effect, which can only be generated by that condition (e.g., “If you have freed the slave you inherited from me, be my heir!”).

**(c)** A disposition provides a basis for incompatible claims by different persons.
(d) Two dispositions are circular because the fulfilment of the condition of one disposition determines, as its effect, the realization or the nonrealization of the condition of the other (e.g., “If Titius will inherit, Sejus shall inherit; if Sejus will inherit, Titius shall inherit”).

Leibniz’s approach to perplexing dispositions consists in viewing them as invalid and, in any event, as ineffective. This also follows from the burden of proof. As the party who grounds a claim only in a perplexing disposition necessarily fails to discharge his burden of proof, the claim must be rejected.

Perplexing concourse concerns situations where several people assert a right to which they are each prima facie entitled, but the priorities between their claims are inconsistent. In the typical case, the inconsistency results from circular preferences, where claim A is preferred to claim B, which in turn is preferred to claim C, which in turn is preferred to A ($A > B > C > A$), as shown in Figure 1 (extracted from the picture on the cover of the *Disputatio*).

For instance, in Roman law, a tacit hypothec $A$ prevailed over a subsequent express hypothec $B$, which prevailed over the posterior dowry $C$, which prevailed over the tacit hypothec $A$.

Leibniz observes that lawyers often address indeterminacy in rankings on the basis of transitivity: if $A > B$ and $B > C$, it must be that $A > C$. However, he argues that not all relations are transitive (e.g., fatherhood and nearness are not). Moreover, transitivity fails to solve circularities; it instead makes circular rankings (such as $A > B > C > A$) inconsistent (because it allows us to conclude, for instance, that $A > C$, which is incompatible with $C > A$). Nor can we assume that one ranking (e.g., the one favoring the
dowry) prevails in a case of uncertainty because this is a matter of law, where there cannot be uncertainty. The Leibnitian solution to circular rankings has two prongs. The first prong consists in appealing, whenever possible, to a metalevel ranking: if one ranking (say, $A > B$) is to be preferred to the others—for example, by virtue of its higher source (e.g., having been established by the prince)—then this ranking prevails and indirectly adjudicates conflicting priorities (the sequence $A > B > C$, where $A > B$ is stronger than $C > A$, overrides $C > A$).

When none of the circular transitive rankings prevails, there is parity among the conflicting claims, and this matter is to be addressed in different ways depending on whether the object of the claim is indivisible or divisible. If the object is indivisible and insusceptible of joint ownership, as is the case with benefices (livings) or guardianship, none of the competing claimants will obtain it, and so all of them will lose. If the object is divisible or susceptible of joint ownership, each claimant will be entitled to a portion of it or to its ownership pro rata. By applying these criteria—while allowing for derogations based on further legal principles, such as the preference for liberty (favor libertatis), under which a slave is deemed free even when there is an unresolved ranking of claims for and against his liberty—all cases can find a single legally justified solution.

The last work of the young Leibniz’s legal triptych is the 1669 *Doctrina conditionum*, which results from his rewriting of the 1665 *Disputatio de conditionibus*. In the *Doctrina*, Leibniz provides the first work ever to consistently and extensively apply the logical-axiomatic methods to the law, developing an architecture of eighty definitions and seventy theorems.

The *Doctrina* starts with a range of definitions aimed at characterizing the general logical structure of conditionals (conditional propositions); namely, the connection between a conditioning proposition (*conditio*) and a conditioned one (*conditionatum*). Two kinds of conditionals are distinguished: the logical conditional (e.g., “If he is a man, then he is an animal”) and the moral conditional (e.g., “If the ship arrives, Titius shall have 100 sesterces”). The moral conditional establishes a legal effect; that is, it establishes a conditional right (*jus conditionale*). Two inferential relations may be grounded in a conditional, illatio and suspensio. According to illatio, “If the *conditio* is true ... the *conditionatum* is also true”; according to suspensio, the falsity of the *conditio* entails the falsity of the *conditionatum*. If we model the Leibnitian conditional as a material or strict conditional

$$A \Rightarrow B$$

, then illatio appears to be a valid inference of propositional logic: that is, *modus ponens* (from $A$ and

$$A \Rightarrow B$$
, we derive \( B \), whereas \textit{suspensio} corresponds to a deductively invalid inference, the so-called \textit{fallacy of negating the antecedent} (from \( \neg A \) and \( A \Rightarrow B \), we derive \( \neg B \)). According to Leibniz, whereas merely logical conditionals only support \textit{illatio}, moral conditionals also enable \textit{suspensio}: “The moral \textit{conditio} suspends the \textit{conditionatum}” (Theorem 5). For instance, the moral conditional just presented allows us to infer from the nonarrival of the ship the conclusion that Titius is not entitled to 100 sesterces. To justify this specifically “moral” inference, Leibniz observes that any legal effect can only exist on the basis of a specific legal ground. This justifies arguing \textit{a contrario}. In particular, “another person can have a right only according to the will of the person to whom the right belongs originally (as nobody can be deprived of its right against his will).” Now, the person making the disposition “If \( A \) then \( B \)” has not declared that the right \( B \) should exist when condition \( A \) fails to exist. Therefore, the conditioned right only exists when the condition exists (for some considerations on the logical structure of conditional dispositions in Leibniz, see Armgardt 2014), so that the nonfulfilment of condition \( A \) entitles us to deny the existence of the conditioned right \( B \).

Reasoning with legal conditions requires more than propositional logic because possibility and time need also to be taken into consideration. In particular, Leibniz observes that the existence of a conditional right presupposes the uncertainty of the condition (“An uncertain condition produces a conditional right”), which is removed when the condition has either taken place or become impossible. If the condition obtains, it becomes historically necessary (as “What is done cannot become undone,” \textit{Factum infectum fieri non potest}, §49), so that the disposition becomes pure (unconditioned). If the condition fails (i.e., its verification becomes impossible, §50), the disposition becomes ineffective (\textit{vitiatur}). A full logical analysis of the patterns of reasoning identified by Leibniz in the \textit{Doctrina conditionum} still has to be developed (see Armgardt 2015a, Magnier 2015, Rahman 2015); it would require a combination of multiple logical tools, from predicate to modal and temporal logic (Armgardt 2001), possibly extended with methods for defeasible reasoning and argumentation.

Leibniz’s construction is developed mainly through definitions and theorems derived by substitution of definitional equivalents. He does admit, however, that at some points the definitions are insufficient to derive a true legal proposition, although he still calls such conclusions “theorems.” For example, Theorem 27—the equal entitlement of parties having equally strong claims—is not inferred from the definitions but rather receives “some kind of demonstration that at the same time illustrates and proves \textit{(simul illustrante et probante, A VI i 392)}” through an analogy between laws of nature (of
physics) and rules of law. The equal division corresponds to the physical phenomenon in which a body at rest simultaneously impacted by two bodies incoming with the same force and from different directions will proceed in a direction that is intermediate between—and thus equally divergent from—the directions of the two impacting bodies. With regard to Theorem 49, prohibiting certain collusive agreements between an heir and a legatee working out to the disadvantage of the party being the beneficiary of the legate, Leibniz accepts that he cannot find an adequate support in strict law and thus only an appeal to equity can provide a justification.

Leibniz’s acknowledgment that certain true legal propositions cannot be derived geometrically may appear to be a failure of his axiomatic-definitional approach to the law, but we could instead see it as an honest recognition of the limits of the geometrical method and of the need to complement it with further, weaker forms of reasoning, such as the appeal to analogy or to the reasoned balancing of competing claims (an aspect of his approach to the law that we address in the section “Legal Reasoning”).

In 1666, one year after receiving the bachelor’s degree in law, Leibniz published the *Dissertatio de arte combinatoria* (Dissertation on Combinatorial Art, A VI i 163–230), his first main contribution to logic and mathematics, where he applied his newly discovered combinatorial method to the law as well in order to construct all possible cases and thus identify gaps (possible cases that are still unregulated). For example, he argued that in Roman law a mandate can be in favor of the principal (1) and/or the agent (2) and/or a third party (3), yielding seven possible cases, each involving a different set of beneficiaries to be taken into account (1, 2, 3, 12, 13, 23, 123). One of these cases was not addressed by the Roman jurisconsults.

The Nova Methodus

Written while traveling “from a guesthouse to the other, without books” (A VI i 292), the *Nova methodus* represents Leibniz’s comprehensive attempt at basing the law on a firm rational footing and providing jurisprudence with a “solid method” by which legal propositions could be derived from a basic set of definitions and precepts concisely expressed and rationally ordered. But it would be wrong to see in that work an essentially foundational endeavor. As a plan for legal education, Leibniz’s “new method” was primarily aimed at training the ideal or “perfect” lawyer by equipping him with a vast array of theoretical and practical skills. According to the proposed plan, the basic legal training pertains to didactic or positive jurisprudence, in analogy with the organization of theological studies since theology and jurisprudence share an “amazing similarity” (A VI i
294). Didactic jurisprudence should be based on the geometric method, starting from definitions and precepts “in imitation of Euclid’s *Elements*” (A VI i 295). In addition to didactic jurisprudence, the education of the “perfect” lawyer requires training in historical and exegetic jurisprudence, the latter involving the legal application of various disciplines: grammar, rhetoric, ethics, politics, logic, metaphysics, and physics (in which regard Leibniz refers to his *Specimen quaestionum philosophicarum* and to a future treatise on *Legal Philology and Philosophy*). Leibniz recognizes in particular the need for a legal geometry and a legal arithmetic, examples of which are, respectively, Question III of the *Specimen* (see the section “Leibniz’s Early Legal Works”) and the determination of the degrees of consanguinity in Problem III of *Dissertatio de arte combinatoria* (A VI i 327). Finally, the practice of law requires (still in analogy with theology) a polemic jurisprudence meant to help the lawyer steer his course in the perilous waters of legal cases, a task to be accomplished by equipping him with the “compass” of natural law (see the section “Roman Law and Natural Law”).

However, the lawyer has to take into account not only natural law, which is based on reason, but also civil law, whose existence is rather based on fact—being a matter of history whether a certain custom was introduced or whether a certain law was issued by a person having the corresponding power according to fact or convention (A VI i 341). Therefore, the lawyer has to use two different “decision principles” to in order to adapt the law to new cases: reason for natural law and analogy (*similitudo*) with existing laws or customs for civil law. Since the assessment of similarity of a new case with a particular positive law requires determining the reason of that law—namely, the political purpose it is meant to serve—the lawyer must also engage with “the part of politics that is called nomothetic” (i.e., legislative), from which it follows that: “the jurist sitting in the courtroom has two eyes: the science of natural law and the nomothetic science” (A VI i 342). Therefore, the jurist, while being guided by the highest norms of natural justice, has also to take into account the actual sociopolitical conditions of society, a thought that Leibniz would entertain for the rest of his life and that goes hand in hand with his insistence on the relativity of positive law as opposed to the perpetuity of natural law.

The lawyer should have access a systematic collection of legal decisions or controversies, arranged *more mathematично* (A VI i 346), i.e., according to the mathematical order of basic legal elements (definitions and precepts). Leibniz offers no example of this. Instead, he suggests a straightforward way to apply a crude symbolic notation to various kinds of legal arguments in analogy to Isaac Barrow’s symbolic treatment of Euclid’s *Elements*.9 Finally, having illustrated his plan for restructuring the study of law (a two-year program instead of the usual five-year program), Leibniz closes his book with a portrait of the graduate student who sums up all the characteristics of his ideal lawyer:
He will settle controversies by his judgment, and, free of tutors at last, in the turf of the sunlit campus,\(^{10}\) he will fly across the law’s wide expanse, perusing the authentic law books, at first the titles and the laws most necessary, then he will gradually add other laws [...]. He will extract from there the laws that provide decision to various controversies, and he will craft new rules and new universal principles that others have overlooked; he will use commentaries and will penetrate into the reasons behind the laws and will gradually acquire the prudence of a legislator, if not the role. Then, having advanced through the wide sea of controversies, he will observe the customs of the courts and the judgments handed down by the forebears. He will notice those conflicts, disagreements, and dissimilarities between legal systems that are dependent on national character and on the differences among states. And he will learn to deduce, with unbroken connection, firm demonstrations from the unchanging principles of natural law and from public interest, and to cut, with the sword of unvanquished science, the empty subtleties and laughable allegations of the practitioners of law, and the tangled knots deriving from the doctors’ purported authority and inappropriate use of brocards. This I will call a true philosopher of law, a priest of justice, and an expert in the law of nations and in what depends on it, and in both civil and divine law.

(A VI i 362)

**Roman Law and Natural Law**

The most important reason behind Leibniz’s strong inclination for Roman law was his belief in it as the realization of the rational principles of natural law.\(^{11}\) This view is clearly expressed in Leibniz’s 1670 letter to Hobbes. In mentioning “a work on rational jurisprudence on which I am collaborating with a friend” (i.e., Andreas Lasser: see the first section), he writes

I observed the unbelievable subtlety and soundness of expression with which the Roman jurisconsults gathered their answers which are preserved in the Pandects.... I realized that a large part of them were arrived at almost entirely by demonstration from the law of nature alone... When I first set my feet in the paths of jurisprudence, therefore, I began four years ago to work out a plan for compiling in the fewest words possible the elements of the law contained in the Roman Corpus (in the manner of the old Perpetual Edict), so that one could, so to
speak, finally demonstrate from them its universal laws. There are many laws which will prove refractory to this method, especially in the Imperial Rescripts, because they do not belong to natural law. However, these are clearly discernible among the rest and will be counterbalanced by the multitude of the others—especially since I venture to assert that half of the Roman law is mere natural law.

(A II i 56-57; L 106)

Indeed, at that time, Leibniz had already effected the assimilation of Roman law to natural law with the doctrine of natural law expounded in the *Nova methodus*. The novelty of this doctrine is that it links natural law with the three highest principles of Roman jurisprudence (A VI i 343–345). There are three degrees of natural law, Leibniz says, corresponding to the three basic principles of Roman law. The first degree, strict or pure law (*jus strictum seu merum*), “is nothing other than the law of war and peace” and has as its precept the principle *neminem laedere* (“to injure no one”). Strict law pertains to the lowest form of justice; that is, to the kind of justice which Aristotle called commutative justice. The second degree of natural law, equity “or equality, that is the ratio or proportion between two or more, consists in harmony or congruence” and has as its key precept the principle *suum cuique tribuere* (“to give everyone his due”), corresponding to Aristotle’s distributive justice. Finally, the third degree of natural law, piety, has as its precept the principle *honeste vivere* (“to live honorably”). These three degrees are ordered in a hierarchy of perfection in which each degree in the hierarchy is more perfect than the previous one, confirms it, and overrides it in case of conflict. As the highest degree of natural law, piety “gives the others perfection and execution.” This is to be understood in the light of two attributes of God, namely, wisdom and power:

For God, in that he is omniscient and wise, confirms pure right and equity; in that he is omnipotent, he puts them into execution. Thus the utility of mankind, and indeed the beauty and the harmony of the world, coincide with God’s will.

(A VI i 344)

This, however, does not imply any voluntarism, for God’s will necessarily conforms to the rational dictates of his wisdom (see also Johns 2013, 5, 18–19, 166 n.). Still, a problem does arise because, as Leibniz acknowledges, “strict right and equity lack a physical bond,” with the consequence that humans may lack sufficient motivation to comply. Leibniz’s solution appeals to God’s intervention in a way that clearly foreshadows his later doctrine of a divinely established harmony between the two kingdoms of nature and grace:
God by his intervention brings it about so that anything of public utility, i.e., useful for mankind and for the world, is also useful for each individually; accordingly, everything honest is useful, and everything base is harmful. Since it is evident from his wisdom that God assigned a reward to the just and a punishment to the unjust, and the reason of his omnipotence demonstrates that he will accomplish what he has assigned. Therefore, the existence of a wisest and most powerful Being, that is God, is the ultimate grounds of natural law.

(A VI i 344–345)

In addition to anticipating a crucial development of Leibniz's mature metaphysics, the three-degrees doctrine of the Nova methodus would become central to Leibniz's later accounts of natural law. Versions of it occur in his notes on the elements of natural law from the years 1677–78 (Grua 606–612, 616–617, 618–621) and in sections XI–XIII of the Preface to the Codex juris gentium (PW 171–174; see Leibniz's explicit reference to his youthful work on p. 173). Leibniz once again went back to his three-degrees doctrine in the years 1695–97, when he set out to provide a systematic exposition of his lifelong work on natural law (Elementa juris perpetui, Grua 636, 639), also planning a second revised edition of the Nova methodus. More than an echo of this doctrine can also be detected in the late Meditation on the Common Concept of Justice, written around 1702–03 (PW 60). But it is especially in the 1695 note Initium institutionum juris perpetui (Beginning of the Institutions of Perpetual Law) that the identification of Roman law with natural law reached its fullest extent:

It is clearly apparent ... that the precepts of eternal law, which is also called "natural," are nothing other than the laws of the perfect state.... The precepts in question are three ... : neminem laedere, suum cuique tribuere, and pie vivere. The first is the precept of peace, the second is that of commodity, the third is that of salvation.

(Leibniz 1965, 195–196)

Here, as Riley (1996, 200–202) remarks, "[n]o longer are neminem laedere, suum cuique tribuere, and honeste vivere just historical residues of a concrete legal and jurisprudential system; they have become the principles of ‘natural’ (indeed ‘eternal’) justice.... Roman jurisprudence is now also natural, eternal, and divine.... The jurisprudence of the Eternal City has become eternal stricto sensu.”

Leibniz’s approach to natural law also explains his criticisms of leading contemporary philosophers, in particular, Hobbes and Pufendorf (Riley 1996, ch. 3; Armgardt 2015b). Leibniz’s attitude to Hobbes is twofold. On the one hand, Leibniz has a deep admiration
for Hobbes’s method and style (“nothing is more elegant and suitable to the public use than [your] definitions,” he writes in his letter to Hobbes of 1670; A II i 56; L 105). On the other hand, he rejects two key aspects of Hobbes’s approach to law and politics: the reduction of justice to the arbitrary will of the sovereign (i.e., the idea that “just is whatever pleases the most powerful” [Meditation on the Common Concept of Justice, PW 47]) and the view that all power must be concentrated in a single person or body, that the government, “cannot be anything but unitary” (Caesarinus Fürstenerius, PW 118).

Leibniz’s opposition to Pufendorf, on the contrary, is both methodological and substantive. According to Leibniz, Pufendorf fails on both accounts: he is unable to provide a logical derivation of his conclusion from his defective principles (The Principles of Pufendorf, PW 65), and he makes “all juridical obligations derivative from the command of a superior” (PW 73). For Leibniz, on the contrary, “justice follows certain rules of equality and of proportion [which are] no less founded in the immutable nature of things and in the divine ideas, than are the principles of arithmetic and of geometry” (PW 71). However, the discovery of the precepts of natural law does not proceed only through logical derivations from first principles (although a derivation would be necessary for the demonstration of such precepts): aspects of natural law can also be extracted or inferred inductively from the legal sources and in particular from Roman law (Armgardt 2015b, 23).

Deontic Logic and the Elements of Natural Law

Leibniz’s project of demonstrating the elements of natural law “from definitions alone” was not brought to completion. However, a number of drafts and fragments of the project remain from the years 1669–71 (Elementa juris naturalis, A VI i 431–485). The main idea is introduced as follows in the 1671 letter to Arnauld (see the first section of this chapter):

For I define a good or just man (vir bonus seu justus) as one who loves everyone; love as pleasure taken in the happiness of others, and pain in the unhappiness of others; happiness as pleasure without pain; pleasure as the sense of harmony; pain as the sense of disharmony; sense as thought with will or with a conatus to act; harmony as diversity compensated by identity.... From these I deduce all the theorems of right and equity (juris et aequi). That is permissible (licitum) which is possible for a good man. That is duty (debitum) which is necessary for a good man. Hence it is clear that the just man, the man who loves all, necessarily strives to please all, even when he cannot do so, much as a stone strives to fall even when is suspended.
The definition of the good or just man found in the letter just quoted clearly expresses the definition of justice in terms of love, which foreshadows his final and most famous definition of justice as the “charity of the wise.” Leibniz’s suggestion is that this definition, together with a few other definitions (of love, happiness, pleasure, pain, sense, and harmony), can provide the basis for working out all propositions about natural law and equity. But he does not confine himself to this claim. He also sets out to show how it can be implemented, anticipating much of modern deontic logic, as can be seen in particular from a draft dating to the first half of 1671 (A VI i 465–480).

This text begins with Leibniz’s novel definition of justice as “the habit of loving everyone” (on the Leibnitian concept of love, see Brown 2011). The good man is correspondingly defined as being one who “loves everybody.” As the sphere of what is morally and legally permissible, jus is characterized as “the capacity of the good man” (potentia viri boni), namely, as the range of possibilities that are available to the good man. Accordingly, whatever a good man could possibly do, consistently with his goodness, is thereby legitimate or permissible (justum). This, Leibniz observes, corresponds to the idea of Roman jurists that “what is not defined by the law should be referred to the choice of the good man.”

On the basis of the definition of permissibility (jus) as the possibility open to the good man, Leibniz can affirm that “what Grotius calls moral qualities are nothing else that the qualities of the good man.” Such moral-legal modalities (juris modalia) parallel alethic modalities and are likewise interdefinable, as illustrated in Table 1, appearing on the first page of the draft:

<table>
<thead>
<tr>
<th>Table 1. Moral-legal and alethic modalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible</td>
</tr>
<tr>
<td>Justum</td>
</tr>
</tbody>
</table>

(A II i 173-174; L 150)
Using the notation of modern deontic logic, Leibniz’s permissibility (*justum*) can indeed be expressed through a permission operator \( P \), relativized to a person \( x \) and a proposition \( \varphi \). In other words, that an act or proposition \( \varphi \) is *justum* for a person \( x \) means that \( \varphi \) is permitted for

\[
x: \text{justum}(\varphi) = \text{df} P_x \varphi
\]

The definition of the permissible as what is possible for a good man can therefore be expressed through the propositional schema

\[
P_x \varphi = \text{df} (G_x \land \varphi)
\]

According to the schema, that \( \varphi \) is permissible for \( x \) means that it is possible

\[
(\varphi)
\]

that, at the same time, \( x \) is good and \( \varphi \) is the case.

The impermissible (*injustum*) or prohibited can similarly be expressed through the negation (\( \neg \)) of permissibility:

\[
\text{injustum}(\varphi) = \text{df} \neg P_x(\varphi)
\]

Going back to the definition of permissibility, we can also say that what is impermissible or forbidden is impossible for the good man (i.e., it cannot possibly coexist with his goodness), or equivalently, its negation is necessarily

\[
(\neg \varphi)
\]

entailed by goodness:

\[
\neg P_x \varphi = \neg (G_x \land \varphi) = \Box (G_x \rightarrow \neg \varphi)
\]

The obligatory (*debitum*) is what one is not permitted not to do, such that

\[
\text{debitum}(\varphi) = \text{df} \neg P_x \neg \varphi
\]

which, using the usual symbol for obligation, can also be expressed as

\[
O_x \varphi
\]

Going back to the original definition of permissibility as applied to \( \neg \varphi \), we get that what is obligatory for \( x \) cannot fail to coexist with \( x \)'s goodness, or, equivalently, it is necessarily entailed by \( x \)'s goodness, i.e.,

\[
O_x \varphi = \neg P_x \neg \varphi = \neg (G_x \land \neg \varphi) = \Box (G_x \rightarrow \varphi)
\]

Finally, the omissible (*indebitum*) for a person \( x \) is what is not obligatory for \( x \) (i.e., what he is permitted not to do), so that

\[
\text{indebitum}(\varphi) = \text{df} \neg O_x \varphi = P_x \neg \varphi
\]

The connection between alethic and deontic modalities enables Leibniz to derive the basic principles of standard deontic logic relativized to particular individuals, as well as the principles connecting deontic and alethic modalities, without assuming any
specifically deontic axiom. All the work is performed by his definition of justum and of the cognate terms, and by their linkage to a basic modal logic, under the assumption that human goodness is possible,

\[ \diamond G_x \]

. Thus, he can affirm that “Nothing permissible is impermissible” (Nullum justum est injustum), which simply appears to be the tautology

\[ P_x(\varphi) \rightarrow \neg(\neg P_x(\varphi)) \]

, if we define injustum as

\[ \neg P_x \]

. He can also affirm that “Everything obligatory is possible” (Omne debitum possibile est):

\[ O_x \varphi \rightarrow \diamond \varphi \]

A further development consists in combining the legal modalities with judgments of “easiness” (facilitas) Easiness is defined as “intelligibility in itself (per se)”; that is, as pertaining to the conceivability of a thing regardless of its connections with other things (such connection, on the contrary, would be relevant to judgments of probability). Leibniz observes that in order to conceive the possibility of a thing, we only need to consider the requirements for the existence of that thing, whereas in order to conceive the impossibility of a thing, we need to consider the requirements of both the thing at issue and of something else incompatible with it. Therefore, possibilities are “easier” (facilior) than impossibilities, and, in particular, permissibilities (understood as possibilities for the good man) are easier than impossibilities (impossibilities for the good man).

Accordingly, it is easier for an act to be permissible than for it to be impermissible (Actus facilius est justus quam injustus). Moreover, acts are presumed to be permissible (Actus praesumitur justus) rather than prohibited. This also applies to the permissibility of an omission (i.e., to omissibility): acts are also presumed to be omissible rather than obligatory.

Finally, by combining legal and alethic modalities with the definition of the good man as he who loves everybody, Leibniz obtains further theorems, such as “Everything permissible is possible for one who loves all” (Omne justum possibile est amanti omnes); “Everything obligatory is necessary for one who loves all” (Omne debitum necessarium est amanti omnes), and “Everything impermissible is impossible for one who loves all” (Omne injustum impossibile est amanti omnes).

From the vantage point of modern deontic logic, we can say that what Leibniz has developed in this extraordinary text is a reduction of deontic logic to alethic modal logic, anticipating by almost three centuries the analogous proposals by Kanger (1957/1971) and Anderson (1958). From Leibniz’s point of view, this analysis of deontic notions represents a major development in his lifelong search for rationality in law and ethics,
from his initial “art of forming cases” to a legal-ethical science grounded in the highest form of justice, a science that he presents as follows:

Jurisprudence is the science of the just, i.e. the science of freedom and duties, or the science of the law, given some case or fact. I call it a science, albeit practical, since all of its propositions can be demonstrated from the mere definition of the good man, and do not depend on induction and examples…. I call it a science of the just, i.e. of what is possible for a good man, because at the same time it shows what is impossible for him to do and what is possible for him not to omit. I call it a science of duties, i.e. of what is impossible for a good man and necessary to him, that is, impossible to omit, since the remaining actions that are not excluded, are considered just and indifferent, namely, possible and contingent.

(A VI i 467)

The importance of this new approach to law is borne out by Leibniz’s writings from the years 1677–78, and in particular by his second series of notes on the elements of natural law, where he seeks to combine his three-degrees theory of natural law with his good man–based system of legal modalities under his mature definition of justice as the charity of the wise (see, e.g., Grua 603–612).

Legal Reasoning: The Balance of Reasons

For Leibniz, the law is not a self-sufficient and closed discipline. On the one hand, it needs knowledge and methods from other domains of science and philosophy (see the preceding section “Leibniz’s Early Legal Works”); on the other hand, it can contribute to the progress of other domains since it best exemplifies certain aspects of rationality (see Boucher 2008). As Leibniz states in the draft Ad stateram juris de gradibus probationum and probabilitatum (Towards a Balance of Law Concerning the Degrees of Proof and Probabilities, C 210–214; LH IV vi 17, 1–2), written around 1676, the law excels at governing the exercise of reason under conditions of uncertainty, disagreement, conflicts of interests, and time constraints (on legal paradigms within Leibniz’s theory of controversies, see Dascal 2006). Legal decision-making—although far from perfect—best exemplifies how we should proceed when addressing “the most serious deliberations on life and health, on the state, on war and peace, on the moderation of conscience, on care of eternity.” The law is most advanced in the development of the master instrument of rationality, namely, the “balance” of reasons, or “logometric scales,” which could determine and compare the weights of “arguments of discussants, opinions of authors, voices of advisors.” Two aspects of the law are most relevant to this purpose.
The first aspect is its ability to give form to disputes, setting out rule-governed procedures for dialectical exchange and impartial adjudication, as

ultimately, what else is a judicial process if not the form of disputing transferred from the Schools to life, purged of vacuousness and limited by public authority in such a way that it is not allowed with impunity to divagate or to evade, so that nothing is omitted that could be useful for the search of truth? (C 211)

The second aspect is the law’s ability to rationally address contingent matters, as in the interpretation of public and private decisions, the assessment of past facts, and argumentation:

As the Mathematicians have in necessary things, so the Jurists have exercised optimally logic, namely, the art of reason, in contingent things. From this exercise they have obtained many prescriptions on full and semi-full proves, on presumption, on conjecturing the meaning of laws, contracts and last wills, on indicia of crimes ... ; and moreover the legal commonplaces of arguments, which enrich the Topics with axioms of law, commonly called maxims. (C 213)

This 1676 draft is merely the preface to an envisaged work, but its ideal integration can be found in a text of 1678–79 entitled De legum interpretatione, rationibus, applicatione, systemate (On the Interpretation, Reasons, Application, and System of Laws, A VI iv C 2782–2791). Leibniz observes that interpreting a law involves not only making sense of the words stated (dictum) by the legislator but also determining the view (sententia) the legislator intended to express (i.e., what he thought or would have thought had he been asked). To establish the legislator’s intention, we have to consider his reasons rather than his affections, even though the legislator’s irrational affections may determine what reasons he selected and prioritized. Therefore, interpreters should adopt a pragmatic-contextual approach, sticking to those reasons that effectively moved the legislator, even when they do not have a universal significance, because they correspond to the particular affections of the legislator or to the specific needs of his state. The interpreter may disregard the principles endorsed by the legislator only when such principles are manifestly absurd or contrary to reason. This limitation of the interpretive space is inspired by both institutional and cognitive considerations: interpreters should not usurp the legislator’s place, and they are also subject to affections and mistakes.

As concerns argumentation in matters of law, Leibniz distinguishes two basic kinds of legal inference: the proof (probatio) of a law, where the interpretation of a law is a conclusion to be justified according to reasons, and the consequence (consequentia) of a law, where the (interpreted) law is a premise for a determination concerning a particular case. He also distinguishes two kinds of correct (recta) legal inference: deductive
inference, or *demonstration*, and presumptive inference, or *topic*. Both have faulty (*vittiosae*) counterparts; namely, paralogism and sophism, respectively. An inference that fails to meet the standard of *demonstration*—and would indeed be a paralogism if presented as a *demonstration*—may well meet the standard that applies to *topic*. Whereas demonstrative inference works out the exact implications of definitions, topical inference is based on presumptions and conjectures. In *presumptions*

the proposed statement necessarily follows from what is established as true, without any other requirements than negative ones, namely, that there should exist no impediment. Therefore, it is always to be decided in favor of the party who has the presumption unless the other party proves the contrary.

(A VI iv C 2789)

In *conjectures*, on the other hand, “some positive elements are required to prove exactly either of the opposites, but if it is not established that such elements are true it is pronounced for that opposite which is easier, having less requirements or inferior requirements of the same kind (A VI iv C 2789).

Presumptions and conjectures support defeasible or nonmonotonic reasoning because they lead to provisional conclusions that may have to be abandoned should a presumption be defeated by the proof of an impediment, or a conjecture by the exact proof of the opposite. Such nondemonstrative (nondeductive) patterns of reasoning are paramount in the law considering that, in “moral matters most inferences are indeed presumptive.” Leibniz’s considerations on defeasible legal reasoning clearly identify those nondeductive patterns of reasoning that only in recent decades have been studied in philosophy (Rescher 2006) and formalized in logic and artificial intelligence (Pollock 1989) and, in particular, in the logical analysis of legal argument (Prakken and Sartor 2015).

For systematization in law, a solution is provided that exploits the presumptive nature of legal reasoning in such a way as to reconcile the opposite requirements of coverage and conciseness in the representation of legal content, avoiding the combinatorial explosion that would result from an explicit specification of all possible cases. It consists in modeling legal systems as multilayered combinations of rules and exceptions. In this way, a few general rules combined with the exceptions limiting them under particular conditions “could cover countless cases.” In such a system

every law has a presumption, and applies in any given case, unless it is proved that some impediment or contradiction has emerged, which would generate an exception extracted from another law. But in that case the charge of proof is transferred to the person who adduces the exception.
This way of dealing with legal complexity illustrates Leibniz's approach to the law. His aim is not to impose a single “scientific” model on the law but rather to complement the law with whatever useful tools can be extracted from science (logic, mathematics, physics, etc.: see the section “Leibniz's Early Legal Works”), as well as to expand the forms of rationality embedded in legal practice, thus giving them a precise form. He is not afraid to depart from his preferred deductive-axiomatic approach when that is needed for the purposes of the law (on Leibniz’s approach to axiomatization, see Brewer 2013). This explains his pragmatic approach to legal interpretation (which, in conferring meaning on the legislator’s statements, also takes account of the social and psychological context of their utterance), as well as his presumptive approach to legal reasoning and his proposal to model the law as a system of rules and exceptions, rather than through axioms for deduction.

**Conclusion**

Leibniz’s involvement with the law is a key aspect of his intellectual development. He was educated as a lawyer and devoted most of his early works to the law. Although the focus of his inquiries shifted over time from law to mathematics, science, and metaphysics, he continued to study legal issues and to value the law not only as a necessary social practice but also as an intellectual endeavor. Indeed, he believed that both Roman law and traditional methods for the interpretation and application of law, for all their faults and limitations, embodied fundamental patterns of rationality that needed to be captured, developed, and integrated with those emerging from philosophy and science. Some of his considerations and results are amazingly ahead of their time and have yet to be fully understood and developed in mainstream legal theory: notably, his development of deontic logic; the connection he established between aretaic, axiological, and deontological notions; his combinatorial analysis of cases; and his rigorous characterization of the presumptive nature of legal reasoning.

We hope that the present work—while inevitably failing to do full justice to the extraordinary richness of Leibniz’s legal corpus—may illustrate his main achievements in law and legal theory as well as the significance of his legal interests for his professional and scholarly life.
References


**Abbreviations**

A

C

Dutens
Leibniz, G. W. *Opera omnia, nunc primum collecta, in classes distributa, praefationibus et indicibus exornata*. Edited by L. Dutens. 6 vols. Geneva: De Tournes, 1768. Cited by volume, part (if relevant), and page.

Grua

L

LH

Mollat

PW

Notes:


(5) Testifying to Leibniz’s collaboration with Lasser is the *Ratio corporis juris reconcinndandi* (A Method for Rearranging the Body of Law, A VI ii 93-113), a project for a systematic reformulation of Roman law published in June 1668.

(6) See Leibniz’s request for a new legal corpus in *Nova methodus*, II, 21 (A VI i 307), as well as the projects for the *Elementa juris* (Elements of Law) and *Juris naturalis elementa demonstrative tradita* (Elements of Natural Law Demonstratively Delivered) included in the list of desiderata that closes the *Nova methodus* (A VI i 364).

(7) Aside from a *Praefatio novi codicis* (Preface to a New Code), written between 1680 and 1685 (Grua 624–628), what remains of the planned code is a cluster of drafts and notes dating to the second half of the 1690s (see, in particular, Grua 791–797; 819–838).

(8) Leibniz uses two Latin terms for “law”: *jus* (droit in French) and *lex* (loi in French). *Jus* denotes usually the law as a whole, or a body of it (natural law, positive law, Roman law, etc.). *Lex* usually denotes a particular law—in the sense of a specific element of positive law, namely, a statute, regulation, rule, or fragment of the Digest—or also a set of such laws. Sometimes Leibniz also uses the term *jus* (or *droit*) to denote natural or just law as opposed to unjust positive laws, as when he says that: “The *droit* could not be unjust, it is a contradiction, but the *loi* can be so” (Mollat 47, PW 50; see Armgardt 2015b). Here, we use the term “law” in both senses, relying on the context to disambiguate.

(9) I. Barrows, *Euclidis Elementorum Libri xv breviter demonstrati*, first published in 1654. Barrow was Newton’s teacher and predecessor as holder of the Lucasian Chair of Mathematics at Cambridge University.
(10) Here, Leibniz is quoting Horace’s *Ars poetica* from memory. The actual verses (161–62) read: “*Inberbis iuvenis, tandem custode remoto / gaudet equis canibusque et aprici gramine campi*” (“The beardless youth, free of tutors at last, delights / In horse and hound, and the turf of the sunlit Campus”).

(11) This was perfectly in keeping with Leibniz’s view of Roman law as the law of the Empire and the legal foundation of Christendom. On the relationship between Roman law and Leibniz’s political ideal, see Riley 1996, 184–185.


(14) Idem 79–92.

**Alberto Artosi**
Alberto Artosi, Department of Legal Studies, Università di Bologna

**Giovanni Sartor**
Giovanni Sartor, European University Institute and University of Bologna, Italy