

Logic and Law

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Repository Citation

Nicholas F. Lucas, *Logic and Law*, 3 Marq. L. Rev. 203 (1919).

Available at: <http://scholarship.law.marquette.edu/mulr/vol3/iss4/8>

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LOGIC AND LAW

There is, no doubt, an intimate relation between logic and law. This fact is apparent from expressions we frequently hear after the trial of a well-contested case where the best legal talent has been employed on both sides. We often hear expressions as this: "The lawyer for the defense gave a very logical argument to the jury." "The plaintiff's attorney introduced his evidence in a logical manner." The purpose of this article is to show that there is a relationship between Logic and Law, the influence of the one upon the other, and that the aforementioned expressions are not groundless. Before entering upon an article such as this, it is necessary first to give a short outline of the scope and basis of logic.

Logic may be defined as the science of the principles and conditions of correct thinking; or, in other words, the science which directs our mental operations in the discovery and proof of truth. Logic is a science in the sense that it is organized knowledge involving principles. The various sciences have different fields for investigation, but all of them agree in their purpose, which is the establishment of satisfactory information, bound together and illuminated by laws. Thus, physics studies the most general characteristics of the physical world and seeks to reduce to order and interpret the facts it discovers; botany examines the structures, functions and histories of plants, and psychology gives its attention to the behavior of creatures possessing consciousness. All these sciences seek to replace the loose and hazy notions of popular thought by exact and systematic knowledge. Logic has the same purpose, but its field is peculiar. It can not be classed among the physical sciences which depend upon perception and measurement, nor among the biological sciences, nor, finally, among the social sciences. In a very real sense modern logic presupposes all these sciences and is somehow *a science removed from things*. It is a science about the *mental aspect* of the sciences. The mediæval logicians pointed out that the mind first "intends" or directs itself upon the external world, and that only afterwards does it direct itself upon the mental processes and methods it has used. We may say that logic involves a thinking about thinking.

Because man is naturally outward-looking and desirous of practical results he is seldom clearly conscious of his methods and of

the mental processes involved in thinking. It requires an effort for him to take this new attitude and to think about thinking, about these mental operations which make knowledge possible. But when he does so, he finds that the mind does work in an orderly fashion. It is the nature of this orderliness that logic seeks to bring into clear consciousness.

Hence the utility and necessity of logic. It would be a mistake to imagine that, above and beyond what is called Natural Logic of sound common sense, the study of the *Science of Logic* is absolutely necessary for right reasoning. Men reasoned rightly before Aristotle ever formulated a canon of logic. It was, in fact, by an analysis of such reasonings that he discovered those canons; they could never have been discovered otherwise. Here as elsewhere the art came before the science; theory followed practice. A man may reason rightly without knowing a single rule of the syllogism; or conversely know all the details of logic and be an indifferent guide to truth — just as a first-rate geometrician may be a failure as an engineer. But still, just as his knowledge of geometry will enable the geometrician to detect the defects of a piece of engineering, so will an explicit knowledge of the canons of reasoning enable us to discover more readily where the fallacy of a misleading argument lies. Without professing to guard us infallibly from error, logic familiarizes us with the rules and canons to which right reasoning processes conform, and with the hidden fallacies and pitfalls to which such processes are commonly exposed. Hence, one obvious benefit derivable from a careful study of logic: a facility in detecting error in reasoning processes and a consequent likelihood of avoiding such errors, and of thinking and reasoning about difficult matters with clearness and consistency — a capacity much rarer, even among educated people, than is commonly suspected.

But there is another — and perhaps greater — utility in the study of logic: the advantage of the admirable mental discipline which the study of the science indirectly and unconsciously involves. It is by this mental training rather than by the explicit, positive knowledge of its technical rules, that logic gives us the power and habit of thinking clearly. Probably more than any other science, a careful study trains and develops the reasoning powers, not merely the power of thinking consistently, but the power of discovering the truth.

An eminent jurist of the Supreme Court of California, in his article on the influence of Logic on Law said, "The logic referred to is the Aristotelian logic and not the logic that is taught in our universities." In Aristotle's logic, Demonstration as the clearly perfect means of reaching *Science*, is his supreme concern. His view of logic is, therefore, not the narrower but the wider view. He paid more attention, however, to the application of the syllogisms to necessary matter of metaphysics and mathematics than to contingent matter of physical and concrete social life. His theory, therefore, has developed in the aftertime, especially by the scholastic philosophers of the middle ages, tended towards a predominantly deductive and formal treatment of our thought processes.

It must be owned that the subject of Induction received far less attention than it deserved, but it is a mistake to assert, as so many English textbooks on logic do, that Aristotle and the schoolmen knew nought of inductive process save mere enumeration which they called "Perfect and Imperfect Induction." This error seems to have arisen from the fact that the most famous scholastics, Albertus Magnus (Albert the Great), St. Thomas, Scotus and Roger Bacon, following the terminology of Aristotle, term our scientific induction the argument from Experience. Induction for them had a wider meaning. It remained for the later generation to restrict this term to its present signification, when the physical sciences almost forced the logicians to treat this topic more fully and thus brought about the chief, if not the only advancement of the science of logic to the modern times. Although the logic of induction has its place in all investigation of fact and evidence, yet its principal application in Law concern the judge and the professor of law rather than the lawyer and hence does not concern us here.

The influence of logic upon law arises from one fundamental fact, that laws are not self-applicable — and a rule of law isolated from a world of fact is no more than a speculative ghost. Principles "live, move and have their being" as indicators of controlling facts.

Law, accurately speaking, is organized principle, and from a political point of view, is the chart by which human action, in terms of fact is regulated. Manifestly, the inertia of such a non-automatic machine calls for a force to give it vitality and action as well as a supplementary art of manipulation. Such energy

must be supplied by human life. Briefly, then, the function of logical reasoning and the connection with the law is to secure the efficient application of legal principles. Dr. Johnson's definition of lawyers, as reported by Boswell, contains much of the meat of the matter. "Lawyers," he says, "are a class of the community who by study and experience have acquired the art and power of arranging evidence, and applying to the points at issue what the law has settled." From what follows we will see how accurate Dr. Johnson's definition is, and the art and power of arranging evidence, and of applying to the points at issue what the law has settled, is the ability to do this in a logical manner. In other words, it is the efficient application of legal principles.

It is sometimes said that law is applied logic. Obviously this epigrammatic statement has a foundation of truth, for the practice of law is fundamentally argumentative. It deals with subjects in controversy, and its primary aim is the settlement of disputes — sometimes by persuasive methods out of court and sometimes in fiercely contested legal battles — in either instance the instrument of reasoning playing a dominant part. And first of all, the initial *sine qua non* to the process of correct reasoning and argumentation is the proposal of a proposition. Argumentation is a process to determine the truth or falsity of some relation. To do this successfully requires that the particular relation be set out carefully for that purpose — it must be clear, single and alone. The only known method of securing such a result is to embody the relation in that formula of thought and language, that is to affirm a given thing to belong to a given subject. This is known as a proposition, or the outline of a mental operation. The Proposition is peculiarly essential to law, since the very earliest attempts at judicial procedure in England recognized the necessity of reducing a dispute to an issue which was defined to be a Proposition affirmed on one side and denied on the other.

Now, the results sought by the process of argumentation are either to prove the truth or falsity of a given proposition, or with less absoluteness to induce the mind to believe at least in its truth or falsity, or still less, merely to accept the same on general principles. The first degree of impression constitutes the effect of absolute certainty, the second moral certainty, while the third amounts to some degree of probability only.

The forms of argument are, therefore, methods of adducing evidence, and are valuable not only in giving system and order

to the compilation process, but also because they become a means of discovering and disclosure of evidence otherwise overlooked.

One of the most important forms is argument by deduction. Deductive logic is a mental operation the lawyer must employ many times a day. Deduction is a movement of the mind from an object as a whole to some point therein; a movement from the general to the particular; an inference from the *all to anyone included within the all*. We are familiar with the axiom or law of thought, that two things that are equal to the same thing are equal to each other.

For example, if we know the relation of A to X, and B to X, we can discover the relation of A to B. Here, then, are the preliminary relations — A to X and B to X — and thereupon the conclusion follows of the relation of A to B. Obviously, therefore, in making this inference we will have three things to be related, three relations resulting, and three propositions. The total arrangement of these things, relations and propositions, in order to show how the inference is thereby developed, is called a syllogism. The language structure, whether it be composed of a single word, or words, a phrase, clause, or a whole paragraph, in short, whatever taken together is necessary to express the complete idea of the thing related, when used in a syllogism, is called a "term". The first proposition, because it contains the larger term, is named the Major Premise, or literally the larger principle laid down; the second, because it contains a smaller term, is named the Minor Premise, or the lesser statement laid down; while the third proposition, because it follows from the Major and the Minor Premise, is named the Conclusion. The following typical syllogism will illustrate this simple idea:

All men are mortal;
Socrates is a man;
Therefore, Socrates is mortal.

The three terms are Socrates, mortal and man. It is evident that Socrates and mortal, the two terms brought in the conclusion, are established in their relation by means of a third term to which both are related. This is the mechanism of the syllogism — a process which plays a large role in every argument before the court and jury, but which still fills a more conspicuous function in its relation to the system of pleadings.

Bliss, in his authoritative work on Code Pleading, gives several pages to a discussion of the importance of the syllogism in

the relation to pleading, in which he says, "Every statement of fact constituting a cause of action or a defense, is but part of a logical formula."

To illustrate how true the above statement is, the following will show how in succession the issues raised in legal controversies necessarily arrange themselves into the frame work of a deductive syllogism:

Thus, suppose, in an action for trespass upon real property, the plaintiff complains. Having looked up the general law governing trespass, we find the statute or common law to be in substance as follows:

COMPLAINT.

1. Major Premise: Anyone, who forcibly and against the owner's will enters upon the lands of another is guilty of trespass and is liable in damages.

Concluding that this general rule covers his case, he therefore makes out his pleading as follows:

2. Minor Premise and Complaint: The defendant did upon a certain day and at a certain place, forcibly and against the will of the owner, enter upon the plaintiff's land, etc.

3. Conclusion: Therefore, the plaintiff was injured and damaged in the sum of X dollars (another way of saying that the defendant committed a trespass to the damage of the plaintiff).

Now, in the above statements, there is exposed a complete syllogism of which the first proposition constitutes the Major Premise or the general rule of law; the second proposition constitutes the Minor Premise by alleging certain facts to come within the rule; the third proposition draws the conclusion which the judgment of the court may afterwards affirm or deny. The plaintiff's complaint thus expresses the Major Premise by implication and the Minor Premise by direct allegation and the conclusion by an indirect allegation of damages and a prayer for judgment. Suppose that the defendant, upon inspection of the above complaint, comes to the conclusion that the facts as alleged do not come under the general rule of law, he thereupon raises an issue of law, by demurring on the ground that the complaint does not state a cause of action. What is the course of reasoning:

ANSWER.

1. Major Premise: Any set of facts which does not come within the general rule of law governing such facts is not actionable.

2. Minor Premise and Answer: This set of facts does not come within the rule of law.

3. Conclusion: Therefore, this set of facts is not actionable. Or, suppose again, that the defendant finds that the alleged facts do come within the general rule of law, but that the so alleged facts are not true as alleged and consequently he decides to deny their truthfulness and thus raises an issue of fact. The reasoning will run as follows:

1. Major Premise: Alleged facts which are not true constitute no cause of action.

2. Minor Premise: The defendant denies each and every allegation in the plaintiff's complaint. Equivalent to — the facts are not true.

3. Conclusion: Therefore, there is no cause of action.

An action at law, as a whole, does not then merely constitute an analogy to a syllogism, but is one, and is subject to all its rules and fallacies. Deductive logic is the science of reasoning from a general rule to a particular instance and the practice of law is precisely that — the application of a general rule of law to a particular set of facts.

Correct pleading is, therefore, but little more than correct reasoning, and since it is compelled by the nature of the mind to follow certain immutable logical principles, a comprehensive knowledge of such principles is indispensable.

We have doubtless said enough to show the necessity of a knowledge of logic for the lawyer in his work where he must resort to argumentation. As regards the other topics treated in logic, their utility is no less clear.

The Concept — the need of clear, precise ideas and exact terms — must be evident to any reflecting mind.

Variations of language call for a knowledge of the various forms of the syllogism.

Though the day of the professed Sophist is past, yet even among lawyers there will not be wanting men, who for a consideration will endeavor to make the "Weaker cause appear the

better." Hence the advantage of the study of common fallacies — the hidden violation of logical rules or principles, which might deceive the unwary. The old fallacious Dilemma, "Litigiousus," may find its counterpart today. It is related that Protagoras, the Sophist, agreed to train one Euathlus in the art of rhetoric, the condition being that only half the fee should be paid at the time, the payment of the remainder was to depend on Euathlus's success in his first lawsuit. Should he fail, the fee was to be forfeited. Euathlus delayed in undertaking any suit, and eventually Protagoras himself summoned him before the court. He urged the following dilemma against him:

If this case is decided in my favor, you must pay me by order of the court; if it is decided in your favor, you must pay me under the terms of our agreement.

But it must be decided either in my favor or in your favor. Therefore, you are in any case bound to pay me.

This argument was met by Euathlus as follows:

If the case is decided in your favor, I am free by the terms of the agreement; if it is decided in my favor, I am free by order of the court.

But it must be either decided in your favor, or in my favor. Therefore, I am in any case discharged of my debt.

The old judges of Greece, we are told, left the case undecided; but to one who has studied logic to advantage, the fallacy of the arguments of both contestants is self-evident.

NICHOLAS F. LUCAS, '19.