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Corax and probability

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CORAX AND PROBABILITY

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ANALYSIS.

HISTORICAL SETTING.

CONTENT OF THE FIRST TEXT ON RHETORIC.

DEFINITION OF RHETORIC.

GENERAL OUTLINE OR DISPOSITIO.

PRINCIPLE OF PROBABILITY.

DISCUSSION OF PROBABILITY.

“TO ōōn kakon kakou Korakos” wrote a punning scholiast¹ centuries ago. “Mali corvi malum ovum” echoed a Latin commentator, as he handed on the story. Both were expressing an opinion that Tisias, a pupil of Corax of Syracuse, was a bad egg because laid by a bad crow (*korax*). The occasion which caused these humorous remarks was a lawsuit in a Greek court between the pupil and his master. Corax is said to have demanded pay for his lessons in rhetoric, arguing as follows: You must pay me if you win the case, because that proves the worth of my lessons. You must pay me also, if you lose the case, for the court will issue a decree against you. Either by our stipulation or by the judgment of the court you fail. What’s the use of going on with the case? To this Tisias replied: I will pay you nothing, because if I lose the case, your instruction has been worthless; whereas if I win, the court will absolve me from the claim. The judges, unable to solve the dilemma, probably postponed their decision in the usual way; while they cracked the bad egg joke already related, at the expense of both parties.²

Being now pleasantly introduced to the litigious authors of the

¹ Prolegomena to Hermogenes in Walz’s *Rhetores Graeci*.

² Suidas, quoted by Hamilton, *Logic*, Lecture XXIII. A similar story is related of Protagoras and his pupil Euathlus by Aulus Gellius, c. 10.

first text-books on art—in this case, rhetorical art—, we are about to become more intimately acquainted with them. Both happened to be Sicilian Greeks in those marvelous days when a real Marathon was run, when Xerxes lashed the Hellespont—days when

“A king sate on the rocky brow
Which looks o’er sea-born Salamis,
And ships, by thousands, lay below,
And men in nations;—all were his!
He counted them at break of day—
And when the sun set, where were they?”

Those were the days when the great despotism, symbolized by the huge cables that bound Europe to Asia, was broken; and with it innumerable small tyrannies in the Grecian world. Marathon and Salamis meant more than the defeat of Asiatic despots; they meant the establishment of democracy among the Hellenic peoples. This was true not only on the continent, but also on the island of Sicily. Hard by old Aetna great Gelo ruled with an iron hand—he who became so inflated with his own importance that he signified his willingness to aid Sparta, Athens, and Corinth in the struggle with Persia, provided that he be made generalissimo of all the forces.³ Theron was boss of Agrigentum; while Thrasydaeus held the reins in Himera.⁴ Hiero patronized Pindar, Simonides, and Aeschylus. Phalaris moulded a hollow brazen calf that he might gloat over the cries of victims as they roasted within.⁵ Panaetius took the seat of authority in Leontini. Cleander and Anaxilaus left their names as leaders in Gela and Rhegium. Thrasybulus had been advised by Periander “to cut off the tops of the tallest ears of corn, meaning that he must always put out of the way the citizens who overtop the rest.”⁶ Evidently he followed the advice of his fellow tyrant, for Diodorus tells us that during the eleven months of his tyranny he put to death many citizens, banished others by false accusations, and seized their property. By so doing he aroused such indignation that a revolution began which overthrew not only Thrasybulus, but also the other tyrants of the island.

³ Herodotus, VII, 161, 162.

⁴ Ousted in 472 B. C.

⁵ Diodorus, IX, 20.

⁶ Aristotle, Politics V, 10, 13.

Universal freedom having been acclaimed, governments more or less democratic were set up everywhere. (B. C. 467.)⁷

What was Demos to do with his newly acquired independence? For one thing he began to talk; he could not help it, for as Democritus once remarked, "The sign of liberty is freedom of speech." For a while he probably talked in order to experience the pleasure of hearing himself talk, but soon he betook himself to the ecclesia and the court room. Liberty of speech brought with it responsibility, the responsibility of making laws and of interpreting them. At this point Demos made a discovery—even as he did in the time of the French Revolution; even as the Germans and the Russians are now doing—that the order which seems to prevail under the dominion of a single will, gives way to apparent chaos when the many attempt, without experience, to rule themselves. Politics, law-making and court-room procedure always mean a divergence of ideas. Out of the innumerable disputes in Sicily after the revolutions, Rhetoric was born—proof of which fact will now be given.

Mention was just made of court-room procedure, because one of the questions that bothered the Trinacrians was the ownership of land. Of course, the aboriginal Sikels were not considered as having any title—they were serfs bound to the soil. The descendants of the Greek colonizer, however, on returning from the banishment, to which they had been sent by the tyrants, naturally recalled the days when their fathers owned the estates and held the offices, conditions which gave their claims the precedence, at least in their own minds. Opposed to them, however, were the favorites of the former tyrants, men to whom the estates had been given, sometimes a whole generation before the revolutions. Then came Demos loudly declaring that the land was his, because he tilled it and because just at that moment he controlled the legislature, the courts, and the army. In fine, the old oligarchs and the concessionaires of the late tyrants found themselves face to face with the possessors of the soil. Very similar are the conditions today in Mexico, where the former peons have taken possession of the land held by the descendants of the conquistadores or by the friends of Juarez, Diaz and Co., heads of pseudo-republican administrations that succeeded the Spanish dominion. Naturally the hacendados

⁷ Diodorus XI, 67, 5; 68, 5. *Tās de allās poleīs tās tyrannoumenās ē phrourās echousās eleuthērōsantes apokatestēsan tais polei tās demokratiāc.*

will carry their cases into court as soon as the political wheel turns. So also Ivan Ivanovitch and Hans of Deutschland-über-alles will soon be reaping a harvest of lawsuits when the junkers and titled heads recover their breath. Nowadays, of course, the rival claimants will hire lawyers, who will attempt to find precedents for the enlightenment of the judges, forgetting, it may be, that revolutions often overthrow precedents, as they establish society on a new basis. In the days of Sicilian upheaval, however, there were no lawyers, but each free man according to the Greek custom pleaded his own case.⁸ It soon became evident that the best speakers, those who won applause and verdicts, possessed something which was lacking in their opponents. What was that something? A study of the speeches made in the courts and of those delivered in the assembly, when laws were being considered or when some prominent citizen was about to be handed an olive leaf,⁹ led to the discovery that the ability to organize or marshal material was helpful and that the skilful, persuasive handling of winged words was necessary. The man who made the discovery, who wrote the first treatise on the art of the orator (*rhetorikē technē*)—the first text-book on art of any kind—, and who began to give lessons in public speaking¹⁰ according to a system, was Corax of Syracuse.

Concerning the man we know nothing. He was born, he died, yet his name remains as the founder of rhetoric.¹¹ We must content ourselves with an examination of the contents of the treatise, first, however, running briefly over the evidence that he really wrote such a work. As in the cases of Protagoras¹² and Prodicus¹³ our

⁸ Thucydides, VII, 55. "The Sicilians were the only cities which the Athenians had encountered similar in character to their own." Id. VIII, 96. "The Syracusans who are most like the Athenians fought best against them." Jowett, tr.

⁹ Diod. Sic. XI, 86. In Athens the oyster shell was used when voting banishment, whence ostracism (*ostreon*, oyster); in Syracuse, the olive leaf was used, whence petalism (*petalon*, leaf).

¹⁰ Scholiast on Hermogenes. Tisias was a pupil of Corax. "*Mathētēs tou Korakos*."

¹¹ It is sometimes stated that Erupedocles made the first observations or rules concerning rhetoric. Diog. Laert. VIII, 57. Aristotle in the Sophist remarks: *prōton Empedoklea rhētorikēn heurein*. Quintilian states (III. 1): *Primus movisse aliqua circa Rhetoricen Empedocles, dicitur*. But we are absolutely ignorant of anything that the philosopher may have written on rhetoric.

¹² See the rhetorical study on Protagoras: The Father of Debate, in the Q. J. of Sp. Ed., March, 1918.

¹³ Prodicus of Ceos: The Sire of Synonymy, in Q. J. or Sp. Ed., April, 1920.

knowledge of the text, because no fragment of the original has survived, must be gleaned from stray references by various authors. Curiously enough what information they do give is generally connected with his pupil Tisias. Both Greek and Latin writers seem fond of coupling their names, altho one is occasionally mentioned without the other. For instance, Cicero in his *Brutus* refers to both, as follows: "Aristotle, therefore, informs us that the tyrants were expelled from Sicily, and private property, after a long interval of servitude, was secured by the administration of justice, the Sicilians, Corax and Tisias, (for this people in general were very quick and acute, and had a natural turn for disquisition), first attempted to write precepts on the art of speaking. Before them, he says, no one spoke by prescribed method, conformably to rules of art, tho many discoursed sensibly, and generally from written notes."¹⁴ As this remark of Aristotle occurs nowhere in his extant writings it is surmised that Cicero probably had in hand the lost *Synagoge technōn*, wherein an account was given of the systems of Greek rhetoric.¹⁵ In another place Cicero remarked that "no writer on the art of rhetoric was even moderately eloquent, going back as far as Corax and Tisias who appeared to be the inventors and first authors of rhetorical science."¹⁶ Some years later Quintilian, having apparently been over the same ground, bears witness: "The first who laid down rules for rhetoric were two Sicilians, Corax and Tisias."¹⁷

So much for the evidence of authorship in which two are mentioned together; another phase occurs in which each is mentioned without the other. The *Rhetoric to Alexander*, which was probably an early work of Aristotle's, speaks of two works, one by himself and another by Corax.¹⁸ If Aristotle wrote the book, he forgot it

¹⁴ Cicero, *Brutus*: 12.

¹⁵ That Cicero had read the lost work is known from his statement in *De Orat.* II, 38: "I have read the book in which he explains the rhetorical systems of all who went before him, as those in which he gives us some notions of his own on the art." Again, in *De Invent.* II, 2: "Aristotle indeed has collected together all the ancient writers on the art, from the first writer on the subject and inventor of it, Tisias, and has compiled with great perspicuity the precepts of each of them, mentioning them by name, after having sought them out with exceeding care."

¹⁶ Cicero, *De Orat.* I, 20.

¹⁷ Quint. *Inst. Orat.* III, 1: *Artium autem scriptores antiquissimi Corax et Tisias Siculi.* II, 17: *doctores artis sero jam et circa Tisiam et Coraca primum repertos.*

¹⁸ *Rhet. ad Alex.* I, 17.

when he penned the *Sophistical Elenchi*, for therein he overlooks Corax, as he mentions those "who discovered principles rhetorical made but little progress, but men who are now celebrated (receiving, as it were, by succession from many who promoted art by parts) have increased it: Tisias after the first authors, but Thrasy-machus after Tisias, Theodorus after him and many others, and brought together many particulars, wherefore it is no wonder that the art has a certain multitude of precepts." What has become of Corax? Note the expression, "Tisias after the first." The first was probably Corax, for Aristotle specifically mentions him in his *Rhetoric* (II, 24, 11) as we shall presently note therein, but omits Tisias.

The same trick is played by Plato in the *Phaedrus*, for he draws from Socrates these words: "I cannot help feeling that this is a wonderfully mysterious art which Tisias has discovered, or, whoever the gentleman was, or whatever his name or country may have been, who was the discoverer."¹⁹

Enough has been said on the question of authorship. For those who may be curious as to the details of individual, or joint, authorship, the researches and opinions of Verrall²⁰ and Hamberger,²¹ both of whom have thoroughly thrashed out that phase, are valuable. There seems to be no doubt, in spite of the fact that his name does not always appear, that Corax composed a treatise on *Rhetoric*, which was probably the first.

What was in that treatise? Here again we must be content with scanty gleanings. In the first place we learn from the *Prolegomena ad Hermogenem* that Corax defined *Rhetoric*. He called it the art of persuasion (*peithous dēmiourgos*).²² The definition indicates that at a very early date men had discovered the value of pleasant, agreeable, delightful speech. They had observed the effect of honeyed words, uttered by some sweet-voiced Nestor, advocating, urging, counselling, advising, recommending. Those who could speak fitly prudent words were heard with rapt attention by their fellows. They had their way in the hearts and minds of men. To discover the secret of the enchanters, to set it down in a book, to reduce to rules the methods of the successful orators, be-

¹⁹ Plato: *Phaed.* 273, C. "Whoever the gentleman was"—probably Corax.

²⁰ Korax and Tisias: *Journal of Phil.* IX (1881).

²¹ Hamberger: *Die Rednerische Disposition*. Paderborn, 1914.

²² Walz, *Rhetores Graeci*, IV, 19.

came the task of the rhetoricians. Quite generally they agreed on the function of their profession. Apollodorus, for instance, said that "the first and supreme object of judicial pleading is to *persuade* the judges, and to lead him to whatever opinion the speaker may wish." Patrocles called it the "power of finding whatever is *persuasive* in speaking." Ariston agrees, for he defines it as "the science of discovering and expressing what ought to be said on political affairs, in language adapted to *persuade* the people." Cornelius Celsus is of the opinion that it is used when the orator wishes "to speak *persuasively* on doubtful and political matters."²² Pass on to Aristotle, who regarded "Rhetoric as the faculty of discovering or finding in any question presented that which is adapted to produce *persuasion*, or the possible means of *persuasion*."²³

Agreeing apparently with the ancients, a modern authority or two may be cited. Whately, for instance, says "the province of rhetoric * * * in the narrowed sense would be limited to '*persuasive speaking*'." Sir Richard Jebb calls it "the art of using language in such a way as to produce a desired impression upon the hearer or reader. The object is strictly persuasion, rather than intellectual approval or conviction."²⁴ The New English Dictionary defines Rhetoric as "the art of using language so as to *persuade* or influence others." With such an array of authorities in practical agreement on the definition, Corax is certainly in the best of company. The honor of defining the subject that he taught is not, however, the only honor that must be conferred upon the ancient Sicilian.

The second crown due Corax must be awarded because he named the parts of a discourse. Strange as it may seem men had delivered speeches for hundreds, perhaps thousands of years, but no one had analyzed those speeches. Corax listened to the pleas in the courts, to the addresses in the forum with the mind of a philosopher. He perceived that the majority of those harangues might have five divisions: the *prooimion* (proem, exordium, or introduction), the *diēgēsis* (narration), the *agōn* (struggle, argument, proof), the *parekbasis* (digression, subsidiary remarks), and final-

²² These authorities are quoted from De Quincey's *Essays on Style, Rhetoric, and Language*, p. 140. Edited by F. N. Scott.

²³ Arist. Rhet. I, 2.

²⁴ Ency. Brit. Article on Rhetoric by Jebb.

ly the *epilogos* (peroration, or conclusion).²⁵ There is some dispute, however, as to the number of these divisions ascribed to Corax. For instance, Doxopatros and an unknown writer attribute to him only a tripartite division—exordium, argument, and peroration.²⁶ Further, after a careful study of all available sources Hamberger came to the conclusion that Cicero, Sopatros, Troilos, and others had drawn from a common reservoir, namely, Aristotle's lost work; and that the treatise credited Corax with seven divisions: *prooimion*, *prokataskeuē*, *prokastasis*, *katastasis*, *agōnes*, *parekthesis*, *epilogos*.²⁷ A little study of these terms, however, will make it evident that the first three are equivalents, practically synonyms, and that *katastasis* is so nearly akin to *diēgēsis* that the number after all is really five. If Aristotle ever did mention in his lost *Synagōgē technōn* that Corax divided speeches into seven parts, he took great pains to state in his own Rhetoric that "a speech has two parts. It is necessary first to state the case (*prothesis*) and then to prove it (*pistis*). * * * It appears then that the only indispensable parts of a speech are the statement of the case and the proof. These are the only proper characteristic parts; but if more are added, they must not exceed four, viz: exordium, exposition, proof, and peroration."²⁸ Whatever then may have been the number of divisions in that first treatise it is safe to say that Corax, after listening to the pleas in the courts and to the arguments in the legislatures, conceived that out of the mass of complicated details, out of the evidence direct, documentary, and circumstantial, a logical order could be made which would probably apply in most cases. No one has been able to procure a better *dispositio* than the quintuplex, altho many attempts have been made, from the dual division of Aristotle centuries ago to that suggested by Winans in his recent work on Public Speaking.²⁹ Accordingly a teacher who places before his pupils the model arrangement of five parts for orations and debates is paying a tribute to the old Sicilian rhetorician.

²⁵ Rhet. Graec., Walz, IV, p. 12.

²⁶ Rhet. Graec., Walz, IV, p. 13.

²⁷ Hamberger: Die Rednerische Disposition, p. 38.

²⁸ Arist. Rhet. III, 13.

²⁹ The suggested outline of Winans, p. 452, is adapted especially to debate: I. The Approach. 1. Exordium, 2. Explanation, 3. Elimination of irrelevant matter, 4. Concessions, 5. Common Ground, 6. Issues, 7. Partition or proposition. II. Discussion. III. Conclusion. Note how minutely The Approach is divided, while no analysis is made of the Discussion.

There were probably other features of merit in the first treatise besides the definition of rhetoric and the *dispositio*, but unfortunately only one of them has survived. This surviving part is, however, so original, so fundamental, so far-reaching that the fame of Corax would rest secure had he given nothing else to science and to letters. In the beginning of this paragraph I used the word *probably*, having in mind that the surviving relic of the first treatise on rhetoric dealt with the principle or topic of probability. Indeed, it was Aristotle who remarked that the rhetorical system of Corax was composed of this topic, and then placed it among his array of fallacies. In order to make clear his contention he gave an illustration: "If the defendant is not liable to the charge brought against him, as, for instance, if a feeble person were to be tried for assault and battery, he defends himself upon the ground that it is improbable (that he a weak man should attack a strong one). Or if he be liable, as, for instance, if he be a strong man against whom the charge is brought, he argues that it is improbable, on the ground that it was sure to seem probable; and therefore knowing that he would be exposed to the suspicion he was less likely to bring upon himself an almost certain punishment."³⁰ To Aristotle this stock story from the rhetorics of the schools furnished evidence of faulty logic; he did not seem to grasp its real significance in human action. Before him there was a problem of assault in which the argument in one case would be that the probability of guilt was absolute (*eikos haplōs*) and in the other case was particular or relative (*eikos ti*). He saw that it might be possible for a scheming attorney to present a particular probability so adroitly that it would defeat an absolute probability. Such a procedure he regarded as immoral. "This in fact," he said, "is the meaning of converting the worse argument into the better."³¹

Plato, likewise, in the *Phaedrus*, failed to see the real bearing of Corax' principle, for he caused Socrates to relate with gusto the same story with variations, ascribing it however to Tisias. "If a weak, but courageous man, is brought to trial for having knocked down and robbed of his clothes, or purse, a strong and cowardly one, neither accuser nor accused is to tell the truth to the judges,

³⁰ Arist. Rhet. II, 24. Welldon, tr.

³¹ See the defense of Protagoras, in Q. J. S., Ed. March, 1918, who maintained that every subject had two sides opposite and contradictory.

but the coward is to say that the other had assistance when he knocked him down; while the brave man must first prove the fact of his being alone, and then appealing to his favorite probable, exclaim, 'Why, how could a man like myself have ever thought of attacking a man like that?' But the other, you may be sure, is not to plead his own cowardice, but rather essay some fresh falsehood, which will, perhaps, supply the adversary with the means of refuting the accusation. And so, whatever be the matter on hand, this, Tisias says, is the style of pleading warranted by art."³² For this art Socrates had nothing but scorn. He apparently never discovered that his attacks should have been directed at men instead of at rhetoric. "For men," he says, "intending to be competent speakers, there is not the slightest occasion at all to do with the truth, about actions just or good * * * For in courts of justice, they say, no one troubles himself in the least degree with the truth of these matters, but only with what is plausible, that is to say, with what is likely * * * Whatever you say, it is the *probable* that you must chiefly aim at, and pay no regard at all to the true."³³

Having thus paid his respects to the schools of rhetoric, at least to the lessons taught in them, Plato then trips himself neatly, for he defines the thing he is condemning. "The *probable*, he says, "means that which accords with the opinion of the many," and "this vaunted *probability* of yours only made itself felt in the minds of the many by virtue of its resemblance to the truth."³⁴ On account of these definitions one might concede that Plato was not really attacking probability itself, but the misuse of it by tricky speakers, by the shyster lawyers of his day; for he must have known, as Aristotle should have known, that direct, unimpeachable evidence (that is, absolute probability) is difficult to obtain, and that most audiences and juries are swayed by the particular probabilities of a case. Indeed, Aristotle himself bears witness to the importance in human affairs of probabilities, for he devoted a portion of his *Organon*—the *Topics*—"to discover a method by which to syllogize about every proposed problem from probabilities."³⁵ He defines his

³² Plato, *Phaed.* 273. Wright, tr.

Similar stories of altercations between young and old, strong and weak, rich and poor, violent and mild, are mentioned in *Rhet. ad Alex.* 36, evidently stock cases for use in schools.

³³ *Phaed.* 272. Jowett, tr.

³⁴ *Phaed.* 273.

³⁵ *Arist. Topics I, 1.*

term as follows: "Probabilities are those things which appear to all, or to most men, or to the wise, and to these either to all or the greater number, or to such as are especially renowned and illustrious."³⁶ Again, he defines it in the *Rhetoric* as "something that usually happens, altho the definition must not be stated, as it sometimes is, without qualification, but something that usually happens in such matters as are indeterminate."³⁷ If he had allowed that definition to stand on its own feet, he would never have condemned Corax for giving the world a false system of rhetoric.

Why did Aristotle run off at a tangent in his condemnation of the Sicilian? Perhaps he was at the time he wrote those lines in the throes of logical parturition. A casual reading of his *Rhetoric* will reveal the fact that a goodly portion of the immortal work is applied logic. In the application of logic to public address he employs probabilities in spite of his opinion that they are fallacious and immoral. That is to say, in theory he was opposed to the use of probabilities, but in actual practice he found it necessary to use them and to give instruction concerning them. For instance, he says "the orator must employ his speech in upsetting an opposite hypothesis."³⁸ To obtain skill in this he must practise on common topics (*koinoi topoi*), such as that of possibility and impossibility. One of these is the topic tending to show that a thing either has or has not occurred, a kind which is used especially in judicial oratory. The evidence used is that of likelihood (probability), as, "if it was a person's intention to do a thing, it may be argued that he did it, as there is always a probability that the intention was carried out."³⁹ It would seem that Aristotle is giving rules for using what he condemned. No matter how antagonistic he may have been in theory, in practice he was compelled to use the method of Corax. From this it may be seen that the Sicilian had given to speakers and writers of all ages a permanent principle, a practical method of handling the affairs of life. It was nothing new to any man, for all had used it every day, but Corax had the honor to be the first to set it down in a book. That principle or method which he called probability I shall now attempt to explain.

³⁶ Arist. *Topics* I, 3.

³⁷ Arist. *Rhet.* I, 2. Consult also the *Prior Analytics*, II, 27, on the use of *eikos*, *sêmeion*, and *tekmerion*. Cope's Introduction, 160-163, has an excellent exposition of these terms.

³⁸ Arist. *Rhet.* II, 18.

³⁹ Arist. *Rhet.* II, 19, 20. *eikos gar ton mellonta kai poiēsai*.

To explain and interpret probability one must plunge into the "boundless deep" of human experience, there to struggle feebly with the mighty waves. Already the definitions of the term according to Aristotle and Plato have been given. Other philosophers, ancient and modern, have exercised their wits in giving it a meaning. No one has done better than Locke in his *Essay on Human Understanding*, wherein he says that probability is nothing but the appearance of such an agreement or disagreement, by the intervention of proofs, whose connection is not constant and immutable, or at least is not perceived to be so, but is, or appears for the most part to be so, and is enough to induce the mind to judge the proposition to be true or false, rather than the contrary. * * * Probability is likeliness to be true; the first notation of the word signifying such a proposition for which there be arguments or proofs to make it pass, or be received for true. * * * The entertainment the mind gives this sort of proposition is called belief, assent, or opinion, which is admitting or receiving any proposition for true, upon arguments or proofs that are found to persuade us to receive it as true, without certain knowledge that it is so. * * * The grounds of probability are first, the conformity of anything with our own knowledge, observation, and experience. Secondly, the testimony of others, touching their observation and experience.⁴⁰

An application of the definition to the illustration given by Aristotle will make clear that the plea of the feeble man in the assault case was probable, for it had the appearance of "likeness" to the truth, as founded upon the experiences of men—that is, the weak seldom attack the strong. This position is not a universal, because the opposition could argue that the weak man might have committed the assault, because he would reason that the jury would not suspect him on account of his weakness. Likewise the plea of the strong man would have a likelihood of winning credence; but there could be the counter probability that he might have committed an assault because he was by nature a bully. It will be seen then that the jury in deciding cases would not be guided by unimpeachable evidence, that is, by Aristotle's absolute probability or certainty, but by their own "previous observation, experience, and by the testimony of others." That, at least, is the way juries do nowadays, and they probably acted in the same way in the days of Aristotle

⁴⁰ Locke, *Essay on Human Understanding*. Bk. IV, ch. 15.

and Plato. Corax then was only applying common sense when he wrote about probability. He knew that when men were at loggerheads absolute truth could seldom be found; but that the probabilities of the case decided the issue. If he were alive in our day, he might have the pleasure of reading that the Supreme Court of the United States has been so uncertain of the truth that they settled cases by a 5 to 4 vote.

Why a five to four vote? Why not make the decision unanimous? There are many reasons. The observations and experiences of men differ. They come to different conclusions because their early environments, education, family beliefs, temperaments, even physical health prevent them from seeing the same things in the same way. Some are radicals, others conservatives; some are cowardly, others brave; some look for what they think is right, others for what is expedient. Hence the voting is unanimous only in clear-cut cases, those with unmistakable absolute probability as "common observation in like cases and particular testimonies in that particular instance favor or contradict it."⁴¹ An English jury hearing that a man had slipped and fallen while walking on ice would unanimously agree that such an accident might happen, for it would be within their own observation and experience; but the king of Siam when told by the Dutch ambassador "that the water in Holland would sometimes be so hard that men walked upon it, and that it would bear an elephant if he were there,"⁴² was of the opinion that the ambassador was a liar. Such a phenomenon being contrary to the king's experiences, he would not have believed it though sworn to by a dozen ambassadors. If the Dutchman wanted to make his story probable, he would have to show his majesty an icicle or a film of ice, whereupon the mind of the king would have made an inductive leap from scanty evidence to a universal. Yet in doing so he might have fallen into the grave danger that Aristotle may have had in mind when he condemned particular probabilities. Errors may be made because the evidence is insufficient for certainty. Certainty, the universal, his logical mind demanded. Often he fell into error by accepting the testimony of too few particulars. Sometimes he thought he had the whole truth because based on some observation, as when he wrote that the back of the head is

⁴¹ Locke, IV, 16, 9.

⁴² Locke, IV, 15, 5.

empty and hollow * * * the brain is without blood * * * it is naturally cold to the touch * * * Man is the only animal with ears that cannot move them * * * Man is the only ambidextrous animal * * * Longlived persons have one or more lines which extend through the whole hand, short lived persons have two lines not extending through the whole hand.⁴³ There are many other cases dealing with physical phenomena in which Aristotle erroneously employs universals. They are simply indications of a tendency among all men, even of philosophers, to generalize from too few particulars. Modern scientists, having a greater knowledge of the universe than the ancients, would probably employ qualifying phrases, for they have come to know by long experience that many things which seem certain for a time are afterward found to be false, even with the evidence furnished by the senses. If this be true of trained scientists, how much more so will it be of those whose powers of observation have not been trained?

A personal illustration may not be out of place. Some months ago while making a call on a neighbor I happened to glance toward the window. I saw streaks extending downward, saw a paper whirled by the wind, heard a pattering sound, and smelled moisture. I knew then of a certainty that rain was falling, for three senses had furnished their data. Imagine my astonishment, when I left the house a few moments later, at finding the sun shining, the sidewalk dry, and the street dusty. Nonplussed I returned to the same position to repeat the observations. They were the same; yet a closer scrutiny developed the streaks into wire netting, the patter into the frying of meat in an adjoining room, and the odor of moisture into the vapor of a recent scrubbing of the floor. If now the evidence furnished by the senses can not be trusted, cannot give certainty, belongs in a large measure to the realm of probabilities, what shall we say of the inferences of the mind from intangible material?

At this point we are forced to say that altho we are seldom sure of certainty, nevertheless we act as though we were sure, both in regard to tangible and to intangible things. We act in this way, dependent on probabilities, living in the sphere of particular probability as tho it was absolute. Shall we cease from action until we are sure that everything is certain? Long ago Cicero answered that

⁴³ Arist. *The History of Animals*, I, 13, 3, I, 9, 10, II, 1, 3.

question, for he wrote, "the wise man is often guided by what is *probable*, not being comprehended, nor perceived, nor assented to, but only *likely*; and unless a man acts on such circumstances there is an end to the whole of life. For what must happen? Has the wise man when he embarks on board ship a positive comprehension and perception in his mind that he will have a successful voyage? How can he? But suppose he goes from this place to Puteoli, thirty furlongs, in a seaworthy vessel, with a good pilot, and in fine weather like this, it appears *probable* (*probabile videatur*) that he will arrive safe. According to appearances of this kind then he will make up his mind to act or not to act."⁴⁴

The illustration just used is found in the *Academics*, a work in which Cicero refers many times to Carneades. His interest in the distinguished Academician was two-fold, Carneades being an excellent orator as well as an eminent philosopher. His powerful voice and acute mind caused pupils to quit their own schools in order to listen to his lectures.⁴⁵ So effective was he that the Greeks sent him on an embassy to Rome. While there he incurred the wrath of Cato the Censor by haranguing one day in praise of justice and the next day proving it to be an odious institution. Thereby the philosopher was simply putting into practice the pedagogy of Protagoras and Corax: that every question has two sides and that there are probabilities on each side. To Cato's simple mind such teaching was dangerous to morals, hence he persuaded the senate to send Carneades back to Greece without delay. There he continued his heretical doctrines, for he taught that the imagination, the understanding and the senses deceive so frequently that they cannot be regarded as the infallible judges of truth. For the guidance of life only probabilities are attainable. These probabilities are the common agreements in men's sensations and experiences, which represent in some degree the truth. Carneades then began an analysis, distinguishing three degrees of probability:⁴⁶ 1st. That which is probable in itself.⁴⁷ This is the kind termed by Locke "matter-of-fact" * * * "the argument from the nature of things themselves," as fire arms, iron sinks in water—things not controverted by any-

⁴⁴ Cicero, *Academics*, II, 31.

⁴⁵ Diog. Laert., *Vit. Phil.*, Carneades.

⁴⁶ Ency. Brit., Article on Carneades.

⁴⁷ Sextus Empiricus, *Adv. Math.*, VII, 171.

body.⁴⁸ 2nd. That which is probable and uncontradicted (*aperispastos*), literally "not pulled aside," not distracted when compared with others.⁴⁹ This is the condition when the testimony of many reliable witnesses agrees; as, for instance, that men prefer their private advantage to the public good, that it is agreed by all historians concerning Tiberius that he did so and so.⁵⁰ 3rd. That which is probable, uncontradicted and thoroughly investigated and confirmed, as well in its several parts as in the relations to the subject out of which it arose, and without any circumstances being discovered which might militate against probability.⁵¹ Accordingly, the highest degree of probability is possessed by an idea which after being analyzed in itself and tested in all possible combinations with others, appears to be wholly devoid of improbability.⁵²

This attempt of Carneades to classify probabilities is of little value except as showing the philosophic mind at work on the problems of life, hunting vainly for a solution. Locke saw this when he wrote that "circumstances, reports, different qualifications, tempers, designs, oversights, etc., of the reporters make it impossible to reduce to precise rules the various degrees wherein men give their assent. This only may be said in fine, that as the arguments and proofs, pro and con, upon due examination, nicely weighing every particular circumstance, shall to any one appear upon the whole matter, in a greater or less degree, to preponderate on either side; so they are fitted to produce in the mind such different entertainment as we call 'belief, conjecture, guess, doubt, wavering, distrust, disbelief, etc.'"⁵³

From the quotation just given one can easily see that Locke did not follow the lead of Carneades: probabilities were to him incapable of classification. Both of these men were philosophers and both were interested in the theological problems of their day. Others also, especially since the Renaissance, were interested in theology who, in attempting to solve its problems, seized on probabilities and the possibility of classifying them. Forgotten then was Corax and the application of his principle to the ownership of land, the

⁴⁸ Locke, IV, 16.

⁴⁹ Sext. Emp. Adv. Math., VII, 176, sqq.

⁵⁰ Locke, IV, 16.

⁵¹ Sext. Emp., Adv. Math., VII, 184.

⁵² Ritter, Hist. of Phil., III, 618.

⁵³ Locke, IV, 16, 9.

guilt of criminals, and the policies of state, as the clergy lost themselves in the bogs of casuistry. They began by asking themselves for definitions of sin. Were there two kinds, venial and mortal: that is, pardonable and unpardonable? What were the boundaries between the two? Could the priest forgive sin? In the attempt to define sins and to adjudicate penalties and pardons the learned fathers descended the spirals of *Inferno* until they stood in the very presence of Satan himself. On the downward path they invented direction of intention, mental reservation, and Probabilism.

We must digress for a moment, in the interest of future clergymen, to see the bearing of Corax's teaching in the realm of religion. There arose a school of thinkers in the church who were called Probabilistae, men who maintained that a certain degree of probability as to the lawfulness of an action was enough to secure against sin. This certain degree could be furnished by a single very grave doctor who having made a special study of the subject could give a good and sufficient reason.⁵⁴ Whenever there was doubt as to the law, or disagreement among the learned experts on morality a man might adopt the opinion in favor of liberty with absolute assurance that he was justified in doing so, even though there was greater probability on the opposite side.⁵⁵ Of course, in such cases there would always be two sides and consequently those who were fond of ecclesiastical disputation would find themselves in clover. It was utterly impossible for men to agree when they attempted to systematize morality. For instance, a discussion arose as to whether it was sufficient to love God once in one's life (Vasquez), or thrice (Henriquez), or once every three years (Coninch), or once every year (Mendoza). As indicated by the authorities in the parentheses each view had its supporters, whereupon Escobar held that a confessor was morally bound to give absolution on any of these terms. Thus with probability on its side a soul might in nearly every case squeeze its way into Paradise.

Against this doctrine of Probability the Sorbonne in 1620 protested, but without effect. The world seemed to be waiting for the Provincial Letters of Blaise Pascal, a work in which he impaled the learned doctors both by direct lunge and by skilful riposte. His attack was just as much needed as was that of Plato against the

⁵⁴ Pascal, *Provincial Letters*, V.

⁵⁵ *Ency. of Religion and Ethics*, Probabilism, by G. H. Joyce, S. J.

Bad Sophists of his day. Pascal showed that the doctrine of Probabilism always made it possible for a sinner to find an authority who would decide in his favor. The system had all the advantages referred to in the old saying: "When one god presses hard, another brings relief." As an example of this, note the working out of the doctrine of Probabilism in a case of assassination. Here was a crime which was so heinous that the perpetrator was denied sanctuary in the church. How could he escape damnation? How could he secure absolution for his crime? The probability of innocence was established by interpreting the word assassin as follows: "Are assassins unworthy of sanctuary in churches? Yes, by the bull of Gregory XIV. they are. But by the word assassin we understand those that have received money to murder one; and accordingly such as kill without taking any reward for the deed, but merely to oblige their friends, do not come under the category of assassins."^{55a} By such monstrous perversions of Probabilism it was possible to legalize theft, assault, rape and murder.

There were those who saw this flaw and who sought a way of escape. They began a hedging process by pleading for Probabiliorism. According to this principle of morals a man was bound in the presence of several alternatives to choose the one which had the greatest likelihood of being right; that is, there being several opinions, he should be guided by the reasons and the scholars militating in favor of the more probable opinion.⁵⁶ Then there arose a faction called the Aequiprobabilistae who took a middle ground, that in a balance of opinion the less safe opinion might be lawfully followed, provided it be as probable, or nearly as probable as its opposite.⁵⁷ Besides these systems were two others differing *toto coelo*: Laxism and Rigorism. Of these the Laxists maintained that it was justifiable to follow any probability, however slight, in favor of liberty. They were somewhat akin to the Latitudinarians of the English church. On the other hand the Rigorists maintained that in doubtful cases the strictest course is always to be followed.

In order to illustrate these grades of ecclesiastical probability I draw from Viscount St. Cyres:⁵⁸ "Suppose, for instance, that some casuists held it wrong to dance on Sunday, while others held

^{55a} Pascal's Letters, VI.

⁵⁶ Ency. of Relig. and Ethics. Also Catholic Ency.

⁵⁷ New English Dictionary.

⁵⁸ Ency. Brit. XVI, 679.

it perfectly lawful. There were four ways of answering the question. Strict moralists—called rigorists, or ‘tutorists’—maintained that the austerer opinion ought always to be followed; dancing on Sunday was certainly wrong if any good authorities had declared it to be so. Probabiliorists maintained that the more general opinion ought to prevail, irrespectively of whether it was the stricter or the laxer; dancing on Sunday was perfectly lawful if the majority of casuists approved it. Probabiliorists argued that any opinion might be followed, if it could show good authority on its side, even if there was still better authority against it; dancing on Sunday must be innocent if it could show a fair sprinkling of eminent names in its favor. The fourth and last school—the ‘laxists’—carried the principle one step farther and held that a practice must be unobjectionable if it could prove that any one ‘grave Doctor’ had defended it; even if dancing on Sunday had hitherto lain under the ban of the church, a single casuist could legitimate it by one stroke of his pen. Liguori’s great achievement lay in steering a middle course between the various extremes. The gist of his system, which is known as ‘equiprobabilism,’ is that the more indulgent opinion may always be followed, whenever the authorities in its favor are as good, or nearly as good, as those on the other side. In this way he claimed that he had secured liberty in its rights without allowing it to degenerate into licence. However much they might personally disapprove, zealous priests could not forbid their parishioners to dance on Sunday, if the practice had won widespread toleration; on the other hand, they could not relax the usual discipline of the church on the strength of a few unguarded opinions of too indulgent casuists.”

Such then was the peculiar phase which the doctrine of probability assumed in the Roman church. As an attempt to systematize morality it was a dismal failure; yet there was a modicum of good in the procedure, for it represented a sincere effort to help the clergy in the confessional as they dealt with the sins of men.

While the Jesuits of the continent were wrestling with probabilities in morals, Bishop Butler of England was laboring over his great work on *The Analogy of Religion, Natural and Revealed*, a work which when published profoundly influenced the thinking of millions. The modest bishop protested that he did not profess to give an absolute demonstration that the Holy Scriptures were the word

of God, so much as a *probable* proof. This probable evidence he thought varied from the highest moral certainty to the lowest presumption. That which chiefly constitutes probability is expressed in the word likely, i. e., like some truth or true event. Again, probable evidence in its very nature affords but an imperfect kind of information; and is to be considered as relative only to beings of limited capacities. For nothing which is the possible object of knowledge, whether past, present, or future, can be probable to an infinite intelligence; since it is in itself, certainly true, or certainly false. But to us, *probability is the very guide of life*. The decision in a case rests on the weight of evidence, for there are many probabilities, which cannot be confuted, i. e., shown to be no probabilities, and yet may be overbalanced by greater probabilities on the other side. Thus did the keen minded Bishop speak in the introduction to his immortal work. He then proceeded to draw from analogies the proofs of future life, revelation, miracles, and other theological propositions, holding that the weight of probability lies with the affirmative.⁵⁹ Students of Argumentation who may be interested in Theology will find *The Analogy* a splendid supplement to their text-books. They will see the doctrine of Corax applied in a manner far different from what the originator had ever dreamed.

Every question having two sides, however, as Protagoras had long ago written, there would naturally arise an opposition to Bishop Butler. This opposition also arose in England, where the philosopher Hume went over the ground carefully and came to the conclusion that the probabilities were all negative. His course of reasoning runs as follows: "We are determined by custom to transfer the past to the future, in our inferences; where the past has been entirely regular and uniform, we expect the event with the greatest assurance, and leave no room for any contrary supposition. But where different effects have been found to follow from causes, which to appearances are exactly similar, all these various effects must occur to the mind in transferring the past to the future, and enter our consideration, when we determine the probability of an event."⁶⁰ Applying his reasoning to miracles he concluded that they are not in accord with the regularity and uniformity of nature, and that "no testimony for any kind of a miracle has ever amounted to

⁵⁹ Hume's *Analogy*. I have used largely his own words.

⁶⁰ Hume's *Essays*, Sect. VI. *Of Probability*.

a probability."⁶¹ Of course, such an attitude brought upon the head of Hume the anathemas of all believers in the miraculous. A curious result in clerical circles has been the tendency to *interpret* supernatural occurrences, to use them as stories from which helpful lessons may be drawn, rather than admit their improbability, or cast them in toto from the Canon of Holy Scripture. By thus approaching Hume's position the clergy have rendered miracles more acceptable.

A moment ago Butler's expression, "probability is the very guide of life," was used. Strange to say in that statement the orthodox bishop finds himself in agreement with Voltaire, the free-thinker. That sceptical, some say atheistical, Frenchman once wrote an "Essay on Probabilities in Judicial Proceedings," in which he used these words:

"Presque toute la vie humaine roule sur des probabilités. Tout ce qui n'est pas démontré aux yeux, ou reconnu pour vrai par les parties évidemment intéressées à la nier, n'est tout au plus que *probable*. * * * L'incertitude étant presque toujours le partage de l'homme, vous détermineriez très-rarement, si vous attendiez une démonstration. Cependant il faut prendre un parti: et il ne faut pas le prendre au hasard. Il est donc nécessaire à notre nature faible, aveugle, toujours sujette à l'erreur, d'étudier les probabilités avec autant de soin, que nous apprenons l'arithmétique et la géométrie."⁶²

Inasmuch as Voltaire was discussing judicial inquiries it may not be out of place to use his remark as a transition to the next phase of the subject: the application of probabilities in law. * * * In so doing we return, after wandering in the fields of philosophy and theology, to the original sphere. We enter the court, behold the jury, and listen to the impassioned pleas of the opposing attorneys. At once we are struck by the uncertainties of the suits. Seldom is there a clearly proved case. Most of the legal disputes seem to have strong probabilities on each side. This circumstance, so attracted the keen mind of Corax that it lead him to base his work upon it. In making the effort he furnished the starting point for innumerable discussions and treatises on proof and evidence, in-

⁶¹ Hume's Essays, Sect. X. *Of Miracles*.

⁶² Voltaire: Works, XXVI, p. 457. Quoted by Gladstone in an article on "Probability as the Guide of Conduct" in the *Nineteenth Century*, Vol. 5:908.

ference and demonstration, testimony and conjecture, fact, hearsay and opinion. All of these have become more or less crystallized in law and in judicial decisions; but first they had to pass thru the classrooms and courts of antiquity, thru that stage which caused condemnation by Plato and Aristotle. Traces of their feeling toward probabilities, toward questions having two sides, are manifest to this day in the attitude of many people toward the legal profession, the lawyer being looked upon as a man of questionable morality because he is ready to defend either side of a case for pay. Now the period of transition, we might almost say, of misunderstanding, in ancient days may be called for want of a better term, the era of the sophists. What happened during that period has very fortunately for the student of Rhetoric been reproduced by the logographer Antiphon. In the famous Tetralogies he reveals the classroom methods and court procedure of the generations immediately following the enunciation of probabilities by Corax. No better type forms for briefs in argumentation and debate are used by modern teachers than those exercises of the first speech writer, changing the subjects, of course, from murder cases to modern problems, except in moot courts.

Suppose we enter the school of Antiphon while a class is debating the question: Resolved that an Athenian citizen has committed murder. The Affirmative opens with a warning that the defendant's cunning is so great as to make it difficult to prove a case against him. The defendant is, however, probably guilty of deliberate murder, for

I. The facts of the case exclude any other supposition. Thieves, for instance, would *probably* have robbed the deceased, but he was not plundered; the time and place show that the act was *probably* not the result of a drunken brawl; and it is not *probable* that he was killed by mistake, for the man's slave also was attacked, injured and slain.

II. The general *probabilities* point to the defendant as the murderer, for he had the motives of revenge on account of past defeats and the fear of losing a pending lawsuit.

III. The dying slave *probably* told the truth when he testified that he recognized the defendant, for dying men have no good reason for lying.

The Negative then being called maintains that the defendant is *probably* innocent, for

I. It is not *probable* that so cunning a man as the affirmative mentioned would commit a murder, knowing that he would be suspected.

II. The thieves were *probably* frightened away before robbing the victim.

III. The murdered man was *probably* slain where, and when, he was because he was a witness of some brawl.

IV. Some other enemy *probably* did the killing, because he would know that suspicion would be sure to fall on the defendant.

V. The slave's evidence is *probably* untrustworthy. for in his terror he could easily be mistaken.

VI. The defendant would *probably* not run the risk of detection by being present in person.

VII. He would *probably* *reason* that the loss of the suit would be a small thing compared with the loss of his life.

VIII. The defendant appeals to his services to the state.

In rebuttal the Affirmative notes:

I. It is *probable* there would be witnesses to show that thieves were frightened away.

II. It is *probable* that no other committed the murder, for those less in danger would have less motive.

III. It is *probable* that the defendant was alone, for he would not then run the risk of betrayal by an accomplice.

IV. He would *probably* reason that he could not win the lawsuit, but he might escape trial for murder.

V. Those with less motive would *probably* be likewise deterred.

VI. His services to the state show his wealth and not his innocence.

The Negative in refutation avers:

I. It is *probable* that the passersby who frightened the robbers would themselves be afraid of being found with two dead bodies.

II. As the slave was not tortured and knew he was going to die, he would *probably* give the answer his owners wanted.

III. Conclusion: The defendant can prove an alibi, for his

slaves can testify that he did not leave his house on the night of the murder. 'Wherefore he did not commit the crime.'⁶³

It is rather amusing to note the triumph of the negative as the trump card of an alibi is slipped from its sleeve. In modern practice all the cards are supposed to be laid on the table, except in college debates. Lest the reader should think that this is a mere classroom exercise I need only to refer to an actual case—Antiphon's Murder of Herodes—in which the very same methods are used.

Such treatment of causes developed the sophistry which produced the raw material out of which Aristotle created his Rhetoric and logical treatises. But before the analyst appeared, the philosopher Plato had already condemned the sophists and their rhetoric. They seemed to him plausible, fallacious reasoners who puzzled inquirers after truth and weakened faith in the current religion. Curiously enough while he was condemning these teachers of eloquence, philosophy and politics, he was himself producing the greatest sophist of all—the renowned Socrates. He did not seem to understand that those who discussed the conduct of life were moral teachers, that those who lectured on methods of handling evidence were educating the future leaders of the state; that men who gave the youth practice in weighing probabilities, imaginary and real, were developing good citizens. It is only fair to say that Plato's antagonism diminished as he grew to maturity and began to comprehend the real actions of the human mind. This is revealed very plainly in "The Sophist," wherein he describes the "minister of the art of intellectual purification, the teacher who cross-examines and refutes his pupils until he has freed them from self-conceit, and forced them to think for themselves."⁶⁴ A splendid picture indeed of Corax in his Syracusan classroom!

The students of that class-room were forced to think for themselves, and probably wanted to, because each man expected to become his own lawyer. They knew that they could not secure the necessary experience by reciting passages of Homer, but by the keen conflict of man face to face with his fellow. They perceived that law suits occurred between clients whose views were diamet-

⁶³ Good digests of the Tetralogies may be found in Jebb's *Attic Orators*, I, 48 sqq., Jevons' *Hist. of Greek Lit.*, p. 374, Müller and Donaldson's *Hist. of the Lit. of Ancient Greece*, II, 106.

⁶⁴ Plato, *The Sophist*, 230.

rically opposite. Each client or his attorney seemed to be bound to present in the most probable manner the case. There is no "ipse dixit" in the court room as there often has been in the pulpit. Nowhere is this better shown than in Erskine's Defense of Lord Gordon. Did the defendant, in the language of the indictment, "maliciously and traitorously compass, imagine and intend to raise and levy war and rebellion against the King?" His guilt must be determined according to law, not upon "conjectural presumptions or inferences, or strains of wit; but upon plain and direct proof. * * * For the King, Lords, and Commons," said Lord Coke, "did not use the word *probably*, for the common argument might have served; but *provably*, which signifies the highest force of demonstration." The evidence of guilt was *improbable* for it consisted of "a few broken interrupted, disjointed words, without context or connection—uttered by the speaker in agitation and heat—heard, by those who relate them to you, in the midst of tumult and confusion—and even those words, mutilated as they are, in direct opposition to, and inconsistent with repeated and earnest declarations delivered at the very same time and on the same occasion, related to you by a much larger number of persons, and absolutely incompatible with the whole tenor of his conduct." In a similar manner Webster, defending the Kenistons against a charge of assault and robbery, said, "There is no end to the series of *improbabilities* growing out of the prosecutor's story." * * * "If the jury are satisfied that there is the highest *improbability* that these persons could have had any previous knowledge of Goodridge, or been concerned in any previous concert to rob him; if * * *; if * * *; if * * *; it will be for the jury to say whether they can pronounce them guilty." These cases are only typical of the thousands tried every year in courts, wherein the jury or the judge must decide by the probabilities.

Having drifted into the court room we will try to find a channel thru which to guide our craft. We note that two beacons light the way to decisions: one being positive proof, the other being proof circumstantial. For instance, how carefully the Constitution provides that "No warrant (for searches and seizures) shall issue, but upon *probable* cause, supported by oath and affirmation, and particularly describing the place to be searched, and the persons or things to be seized." In this use of the word probable it would

seem that the original meaning, *probus*, is used. Curiously enough from the same root come provable and probable. If the positive proof is lacking, then circumstantial evidence must be used, of which there may be presumptions violent and presumptions probable; that is, "those arising from such circumstances as usually attend the fact."⁶⁵ At this point the rocks in the channel begin to obstruct the way; wherefore we must call for the assistance of some legal lights. Judge McGowen speaks thus: "It seems to us that there is a difference between probability and proof. The object of both words is to express a particular effect of evidence, but proof is the stronger expression. All the dictionaries give different definitions of probability. That of Worcester is 'Likelihood of the occurrence of an event in the doctrine of chance, or the quotient obtained by dividing the number of favorable chances by the whole number of chances; and one in Webster is 'Likelihood, appearance of truth, that state of a case or question of fact which results from superior evidence or preponderation of argument on one side, inclining the mind to receive it as the truth, but having room to doubt.' 'Demonstration produces certain knowledge, proof produces belief, and probability opinion'."⁶⁶ "Probable cause is the existence of such facts and circumstances as would excite the belief in a reasonable mind, acting on the facts within the knowledge of the prosecutor, that the person charged was guilty of the crime for which he was prosecuted."⁶⁷ Probable cause is such a state of facts, as would lead a man of ordinary caution and prudence, acting conscientiously, impartially, reasonably and without prejudice, upon facts within the party's knowledge, to believe, or entertain an honest and strong suspicion that the person accused is guilty.⁶⁸ Probable cause means not *prima facie* evidence, or such evidence as in the absence of exculpatory proof would justify condemnation, it means reasonable grounds of presumption that the charge is or may be well founded.⁶⁹

From these definitions by eminent authorities one may perceive a substantial agreement with the original idea of Corax: likelihood of truth must always be present in order to be convincing.

⁶⁵ Blackstone's Commentaries, III, § 371. Good illustrations may be found in the foot notes of Sharwood's Edition.

⁶⁶ Am. and Eng. Ency. of Law, Vol. 19.

⁶⁷ Am. and Eng. Ency. of Law, Vol. 14.

⁶⁸ Hilliard on Torts, ch. 12, § 18.

⁶⁹ Am. and Eng. Ency. of Law, Vol. 14. Malicious Prosecution.

"Lest men suspect your tale untrue,
Keep probability in view."

Indeed there is no way of escape from such a condition, for direct first hand evidence, unimpeachable, is generally very difficult to secure. Shakespeare, with his marvelous insight into human action, understood this, for Antony presented such plausible evidence of the deeds of Caesar that the mob was persuaded that he "was not ambitious." Brabantio believed that Othello had won his daughter probably by charms and 'drugs. How did Cleopatra die?

Caesar: If she had swallow'd poison, 'twould appear
By external swelling; but she looks like sleep,
As she would catch another Antony,
In her strong toil of grace.

Dolabella: Here, on her breast,
There is a vent of blood, and something blown;
The like is on her arm.

Guard: This is an aspic's trail; and these fig leaves
Have slime upon them, such as the aspic leaves
Upon the caves of Nile.

Caesar: Most *probable*,
That so she died; for her physician tells me
She hath pursued conclusions infinite
Of easy ways to die.⁷⁰

Again the master speaks from the depth of some awful experience concerning the death of Gloster:

"See, his face, black, and full of blood;
His eyeballs farther out than when he lived,
Staring full ghastly like a strangled man:
His hair unrear'd, his nostrils stretch'd with struggling;
His hands abroad displayed, as one that grasp'd
And tugg'd for life, and was by strength subdued.
Look, on the sheets, his hair, you see, is sticking;
His well-proportion'd beard made rough and rugged,
Like to the summer's corn by the tempest lodged.
It cannot be, but he was murder'd here:
The least of all these signs were *probable*."⁷¹

⁷⁰ Antony and Cleopatra, V, 2, 356.

⁷¹ Henry VI, Part II, Act III, 2, 178.

If probable signs are evidence in law, what might be said of them in other lines? Any scholar who has delved into the mysteries of textual criticism knows that he is soon in a maze of probabilities as to the exact words of the original manuscript. He must apply commonsense, must weigh, sift, even guess, as he meets errors of emendation, transposition, omission, insertion, substitution, confusion of letters, and contractions.⁷² Let him invade the realm of Sociology; he will soon be entangled in the problems of unionism, immigration, penology, pauperism, and divorce. Touching the field of Economics he will no longer wonder why it has been called the "dismal science," especially when he listens to the learned authorities discussing the probabilities of reducing the high cost of living. Politics will give him the night-mare if he tries to solve the problems of suffrage, finance, or civil service. What are the probabilities concerning the origin of man? Did he evolve, or was he created by divine fiat, from the dust of the earth? Whence came the various races if all had a common progenitor? The teacher of mathematics finds whole text-books on Probabilities, dealing among other things with the flipping of coins and statistics of birth and death. Insurance of all kinds is based on probabilities determined by actuarial experience.⁷³ Note how a prospect must balance between the absolute and unrequited loss of the premium, if his house does not burn down, and the gain he will derive if the less probable contingency of a fire should be his lot. Drop into the stock market in order to watch the attempts to predict the trend of securities. All writers on stocks and bonds invariably use the word probable. How guarded they are in stating that there will probably be a good yield of corn, on account of the snow fall; that it is very probable that the demand will be great for sugar on account of the scarcity; that it is extremely probable that high prices will continue for another year. These predictions are often made after consulting "Old Probabilities," as the weather man is facetiously called, because everyone knows the possibility of flarebacks after the prognostications. It would seem that all that is exact in science has been attained by way of probabilities, from the discovery of a planet to the finding of a new element.⁷⁴

⁷² Lindsay's Introduction to Latin Textual Emendation gives an excellent presentation of the difficulties met in reaching the original text of *Plautus*.

⁷³ De Morgan. *Logic of Chance*. *Quart. Rev.* 64: 285.

⁷⁴ Jevons: *The Principles of Science*, ch. X. *The Theory of Probability*.

All of these scientific phenomena have a mathematical background or are subject to experimentation, but when one enters the court room and presents a case to the jury, mathematics and experiment are of little value, for the conditions are wondrously intricate not only on account of the fallibility of human beings but because the heart of man is "deceitful above all things, and desperately wicked." Laplace, author of a profound work on Probability, realized the fact else he could not have written, "*Tant de passions, d'intérêts divers et de circonstances compliquent les questions relatives à ces objets, qu'elles sont presque toujours insolubles.*" Because human actions are so frequently insoluble, they cannot be reduced to formulae, hence we are forced to adopt the method of Corax. Like the wily Ulysses who sailed past the home of the rhetorician centuries ago, we steer carefully between the Scylla of our doubts and the Charybdis of our fears, piloted by probabilities. How often the frail bark of life has been cast on the rocks or swallowed in the whirlpool on account of some slight error in judgment. Life is a die with a thousand sides: who knows which side will rise?

"He that toss'd you down into the Field,
He knows about it all—HE knows—HE knows!"

Having now reached the end of our tether it would not be out of place to tie the frayed ends of the discussion. In what way could this be better done than by uniting Corax' definition of rhetoric to his principle of probability? Rhetoric the art of persuasion. Persuasion to be attained by presenting matter with such a likeliness to truth that it will be accepted and if necessary acted upon. Could any pedagogical principle be sounder? Yet strangely enough the principle has been well nigh forgotten. No modern texts on rhetoric mention it, altho they beat the bush in all direction striving to drive out the game. They contain pages on persuasion, showing how audiences may be won by a modest bearing, by a pleasant smile, by conciliatory remarks, by silvery tongue and graceful gesture, by sounding phrase and brilliant climax. Primarily they seem to agree that persuasion is largely emotional. Likewise they agree that conviction deals with the understanding. Rules are given to hammer these wedges into the mind. Yet the great rhetorical principle which might act as the sledge is hardly mentioned. The writers on rhetoric have apparently forgotten Corax' prob-

ability. Only here and there does one catch a glimpse of the word. Foster, for instance, states that evidence may prove possibility, probability, or actuality. No matter how strong your evidence may be on a really debatable proposition, it seldom proves more than a high degree of probability."⁷⁵ In some texts the word is used in connection with the argument from Cause to Effect under the term Antecedent Probability, losing sight of the fact that arguments from Sign and from Example are also dependent upon probability.

Now it might be possible to show that the foundation of rhetoric lies after all in making things appear true. Dimly do the writers perceive this when they use the words plausible, verisimilitude, or *vraisemblance*, striving thereby to indicate probability. They resort to antonyms, such as unlikely, inconceivable, incredible, unnatural, and unreal, to indicate improbability. It would seem that a whole text might be based upon the system of Corax. According to such a system narration must be treated so that events will happen in a probable manner. Descriptions must represent objects with a semblance to actuality. Argumentation must try to make audiences accept something as probable which they do not at the outset admit. They will at least be willing to admit that the preponderance of probabilities is on one side or the other. Exposition must state facts so clearly that the listener believes he understands them. In order to accomplish these purposes rules for the choice of words have been given—generally summed up in the expression, the right word in the right place; rules for the formation of sentences; rules for sincerity, vision, and beauty; rules for plots, situations and characterizations; rules for unity, coherence, and emphasis. All of these are valuable, for they help to persuade the mind that the ideas presented are probable.

Thus we have made our stumbling way over the infinite complex of human activities, following the trail of the ancient rhetorician. Instead of being a crow that "hatched out young birds in a nest to fly forth disagreeable and troublesome bawlers," as Cicero asserted, Corax gave to the world in his pedagogy the great principle that "probability is the guide of life." Strange it is that the paradox of Agathon becomes true:

"It may be one would call it probable
That many things improbable occur."

⁷⁵ Foster: *Argumentation and Debating*, p. 77.