## Aristotle by Leo Rosten

<sup>1</sup>HE KNEW THAT WE DO NOT really know until we can explain. He wrote the first systematic texts in physics. chemistry, meteorology. He founded aesthetics, psychology, formal rhetoric. He capped political theorizings with political science. He was the first man to organize research and collaborative inquiry. He was a biologist compared to whom, said Darwin, Cuvier and Linnaeus are "mere schoolboys"—for he described 500 animal specimens; was the first to classify living things by genus and species; and first truly identified heredity, nutrition, propagation, adaptation. And in a stupendous feat of pure analysis, he focused reason on reasoning itself to found systematic logic—formulating the rules of thinking by syllogism, setting down principles of proof, defining the methods of induction and deduction. He staked out a dozen new fields-of knowledge and of nature—for the human eye and hand and mind to explore.

<sup>2</sup>Facts about his life are scanty. A Macedonian, born in 384 B.C., he entered Plato's Academy at 17 or 18, stayed there 20 years, then moved around some Greek islands and pursued his rich, encyclopedic researches. He tutored the 13-year-old Alexander, who, become Great, sent him specimens of shells, plants, fossils from the world he conquered. Happily married, Aristotle happily took a mistress (who bore him a son) after his wife died. In 335 BC, he opened his own school in Athens. On Alexander's demise, anti-Macedonian hatred indicted Aristotle for "impiety," for teaching that prayer and sacrifices to the gods are useless. He took the option Socrates had refused: exile, saying he would not let Athens sin twice against philosophy. He died in 322 BC.

<sup>3</sup>Few of the 400 treatises Aristotle wrote have survived; we have only dry

lecture notes, probably by students. (His eloquent *Dialogues* perished.) But the sparks that fly off the hard, bright anvil of that intellect can still amaze us: "All men by nature desire to know...Man is a political animal...To live alone, one must be either an animal or a god...Birds of a feather flock together...No one loves the man he fears...Melancholy men are the most witty...One may go wrong in many ways, but right in only one...Tragedy [has] a beginning, a middle and an end...[and arouses] pity and terror with which to accomplish its purgation of these emotions."

<sup>4</sup>His political writing is a watershed in human thought. He focused analysis on political power—and class structure. Liberty depends on a middle class, he said; both the rich and the poor will use their strength against freedom. He collected and analyzed 158 political constitutions, specified the basic forms of government (and their corruption), and said a mixed democracy and oligarchy is "the only stable state." He was a constitutionalist who saw that laws must check arbitrary force or royal prerogative: "Passion influences those in power, even the best of men; but law is reason without desire." Liberty and equality" are best obtained when all persons share in government"—but by "all persons," Aristotle meant legal citizens, not slaves "by nature." He tied citizenship to property, excluding those who labor or trade: "Such a life is ignoble...inimical to virtue." He thought only aristocrats' children should be educated—and never taught anything useful.

<sup>5</sup>Plato had dreamed of abolishing the family and establishing communal property. Aristotle, an aristocrat, opposed both ideas, dryly noting that men, "easily

induced to believe that in some wonderful manner everybody will become everybody's friend," take better care of what they own than what they share. The evils of private ownership he traced to a deeper cause: "the wickedness of human nature."

<sup>6</sup>Plato had led philosophy into the mysticism of Ideas, those imaginary Forms he treated as if they were real-and *preceded* matter. Aristotle, who preferred observing reality to extending surmise, rejected this and Plato's dictum that all knowledge could be deduced from one central set of principles. Each science, he held, had its own "first principles."

<sup>7</sup>Aristotle, observing the heavens with naked eye, *saw* the earth in the center of the universe, concluded that celestial bodies are unchanging and assumed they move in circles. (The Greeks found circles, with no beginning or end, "perfect.") His physiology embraced quaint notions: that the heart controls intelligence, that men have more teeth than women, that human conception is best during a north wind.

<sup>8</sup>All these might have remained historical oddities had not churchmen. centuries later, trying to incorporate Aristotle's immense empirical knowledge into theology, turned even his errors into sacred dogmas, chiefly his idea of an Unmoved Mover, "eternal and unmovable and separate from sensible things," a "perfection" that "moves" the world. Catholic philosophers, seeking to buttress faith with reason, seized on a Prime Mover as proof that God exists. The fusion of Christian religion and Aristotelian logic (and cosmology) was one of the most portentous events in civilization. It converted the pagan Aristotle into a pillar of the Church. To question his theories, his methods, even his fallacies, became heresy; in his name, men were torturedand inquiry strangled.

<sup>9</sup>Aristotle was not religious, nor did he believe in personal immortality. His

Prime Mover was a hypothetical point in an analytic exercise. His "God" was totally unconcerned with man, faith or morals, and spent eternity in nothing more thancontemplation. To Aristotle, happiness lay in the cool, inquiring life of *reason*. He echoed no Judaic mercy, anticipated no Christian charity or love. And his marvelous syllogism is but one kind of logic—useless in, say, mathematics.

10The foolish wise men came to look not at life nor nature nor reality, but at Aristotle's words. How many bright new ideas, how many fresh speculations and hypotheses and actual discoveries—in astronomy, physics, medicine, philosophy—were fought by the faithful, in Aristotle's name? History knows no greater irony. For this surpassing rationalist, this investigator par excellence, the kinsman of Copernicus, Galileo, Newton, Darwin, would not have crippled his vision with blind Aristotelianism nor his mind with mystical dogmas.

<sup>11</sup>He remains one of the most stupendous intellects the race of man ever produced. He turned men, animals, plants, stars, seas, physical forces and psychological impulsions—even the dreams he coolly analyzed—into subjects for study. He rigorously refined such concepts as matter, energy, cause, quality, quantity, relation, action, space, time. His conviction that there is a necessary order in nature, that inanimate, no less than living, things are shaped to some purpose. has exerted the most profound and powerful influence—not only on religion but on biology and ethics, physics and political theory and cosmology, down to this very day. He liberated reason from sophistry and put it to work. He made science possible. —LEO ROSTEN

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