Francis Bacon
1561–1626

Francis Bacon was the youngest child of Sir Nicholas Bacon, a statesman in the service of Queen Elizabeth. His mother, Lady Bacon, who possessed a good humanist education and devout Puritan beliefs, tutored her sickly but precocious son at home and then sent him to Cambridge at age twelve. When Bacon was eighteen, his father died, leaving debts that did not permit much support for a younger son. Bacon became a lawyer, trading on family connections at court to launch a career in politics. In 1584, at age twenty-three, he won a seat in the House of Commons. He gradually rose in Elizabeth’s favor, and under her successor, James I, he became Lord Chancellor. In 1621, he entered the nobility as Lord Verulam, Viscount St. Albans.

Bacon was noted among his contemporaries for his knowledge of law and the pithy eloquence of his speeches on legal and political matters. He supported greater power for the legislative branch of government, although he also held out for the rights of the monarchy. As a practical politician, Bacon negotiated the conflicts and compromises of his career in ways that may sometimes strike us today as unethical. He seemed to believe that one might go along with convention if it was necessary for self-preservation, even if in private one saw its limitations or errors. This attitude may help to explain Bacon’s involvement in some distasteful political dealings. Although championed in his early career by the Earl of Essex, Bacon acquiesced to Elizabeth’s demand that he prepare the legal prosecution of her former favorite, by which Essex was brought to the scaffold. Bacon’s behavior in this case is mitigated, perhaps, by the fact that Essex did indeed seem to be guilty of treason. But there were other spots on Bacon’s reputation. He never denied, for example, that he accepted presents—or bribes—from favor seekers. He was convicted of doing so and turned out of office in disgrace in 1621. He then devoted renewed attention to the private philosophical and scientific studies that had always occupied him, even in the midst of his public career. After his death, Bacon’s family was left with a mountain of debt, a result of the extravagant manner of living that he had justified as necessary to his political career.

Bacon wrote and published a number of important works: the Essays (1597, revised and expanded 1625), The Advancement of Learning (1605; excerpted here), Novum Organum (1620; excerpted here), DeAugmentis Scientiarum (an expanded version of The Advancement of Learning), and the utopian New Atlantis (published posthumously in 1627). His works include a large number of speeches, letters, and collections of aphorisms from the commonplace books that he diligently kept, believing that to do so was essential for the serious orator. In the Essays, Bacon tests common wisdom about moral and civic virtue against actual experience, using a concise, aphoristic style in preference to the copious style popular with his contemporaries. In his philosophical works, Bacon seeks to survey and comment on the methods of inquiry and the present state of knowledge in every branch of learning. He argues that “natural philosophy” has made little progress since ancient times and has even deteriorated in some ways. Philosophy should, he claims, reject hollow
Scholasticism, which relies on received wisdom and the tautologies of syllogism and so can discover nothing new. His preferred model is the practice of successful scientists, which combines careful observation, experimentation, and classification with an inductive logic that advances learning by revealing natural laws. In *New Atlantis*, Bacon describes the research institute that would be necessary for the large-scale pursuit of knowledge he proposed. He tried, unsuccessfully, to persuade James I to establish such institutes at Cambridge and Oxford.

Bacon divided knowledge into two branches, theology and philosophy, and then subdivided the latter into theoretical inquiry, which investigates causes, and practical inquiry, which seeks effects. He further subdivided the theoretical into physics and metaphysics, and the scheme brachiates through all the sciences. Bacon used the device of binary opposition popularized by Ramus (p. 674) insofar as it suited his purposes, but he was no advocate of Ramism. Indeed, he regarded Ramist dialectic as no more than a version of Scholasticism, dependent on syllogistic disputation. Moreover, as we shall see, Bacon does not subscribe to the Ramist separation between dialectic and rhetoric.

Bacon hoped that his taxonomy of philosophy and science would foster vigorous empirical study, but he warned against narrow empiricism or what would later be called positivism, an uncritical acceptance of the idea that sense perceptions constitute reality. He urged instead a critical epistemology, which he developed in several ways. First, he separated the mind into faculties—reason, memory, and imagination. Reason is the ability to see regularities, to analyze, and to generalize; philosophy is the branch of learning that develops and appeals to this faculty. Memory, the second faculty, is the storehouse of experienced events and material facts; history is its special genre. Imagination is the faculty that appreciates fiction; hence poesy is its genre. Bacon regarded appetite and will as faculties of a slightly different kind, forces that move us to acquire and act. This description of the psyche dominated psychology for almost three hundred years.

Bacon’s second contribution to epistemology is his observation that perception is not infallible, nor are mental operations neutral. In his analysis of the false ideas that he calls “Idols” (reprinted here from *Novum Organum*), he maintains that reason and the senses are warped by common preconceptions, personal predilections, the ambiguities of language, and the misrepresentations of philosophical systems. There may be objective truth in the world, but knowing is subjective. Bacon proposes no strict method for overcoming the perversions of the Idols (as Descartes would do some years later). He relies instead on the strength of observation, experiment, and induction to dispel the mists of prejudice and complacency that hinder learning.

Bacon divides the operation of the intellect into four intellectual arts or, as he calls them in *De Augmentis*, “the branches of logic”: (1) inquiry and invention, (2) judgment, (3) memory, and (4) delivery. These arts, which resemble the five parts of classical rhetoric, serve both logic and rhetoric. Bacon would not credit Ramus’s fanatical distinctions between the disciplines, distinctions that limited rhetoric to style. Bacon acknowledges practical differences between invention and judgment in philosophy and in rhetoric, but those very differences argue for the
need to allow the two disciplines to overlap. Invention, for example, he wishes to redefine in the modern sense of finding or making something new, at least as it applies to science. In rhetoric, this means recall or recovery and relies on commonplaces of wisdom and knowledge produced by science. Judgment is an extension of invention, the evaluation of knowledge. Here syllogistic logic may be used to guard against fallacious generalization in both logic and rhetoric. In discussing memory, Bacon suggests that mental representations are counters or signs for experiences and information. Finally, he treats the art of communication (delivery) as the means by which knowledge is used and incorporated into social institutions, which are maintained by memory. The parts of Bacon’s various schemes do not necessarily match up perfectly, nor need they do so. The Idols appear to develop as an extension of Bacon’s reflections on fallacious conclusions in the art of judgment. But it is not clear how the three faculties match up with the four intellectual arts. If anything brings these schemes together, if indeed anything links Bacon’s passion for knowledge with his passion for politics, it is rhetoric.

Rhetoric, in Bacon’s famous definition, applies reason to the imagination to move the will. Bacon concurs with the ancient Greek philosopher Zeno’s popular characterization of dialectic as a fist and rhetoric as an open hand—that is, the idea that scientific discourse is a technical treatment of truth, whereas rhetoric links knowledge to social concerns. Such a distinction, especially in the context of Bacon’s high regard for scientific inquiry, suggests a split between thought and speech. For Descartes, this split is decisive. But Bacon will not deride rhetoric, even if he distances it from inquiry. He refutes Plato’s argument that rhetoric is a distortion of truth, and in the Idol of the Marketplace the villain is not rhetoric but the ambiguity of words— their inevitable shifts in denotation and connotation. Merely ornamental rhetoric may contribute to such confusions, but that is reason to reform the art on sound psychological principles, not to condemn it. Rhetoric is a serious art and a great responsibility, for it brings knowledge into play in the world. It links morality with reason, although Bacon notes that this is not sufficient in and of itself to enforce ethical behavior.

Certainly Bacon did oppose what he perceived as the excessive ornamentation of the Ciceronian prose of the day, chastising those who “hunt more after words than matter.” But he did not embrace its alternative, the self-proclaimed plainness of the anti-Ciceronians or Senecans. His style has its own particular complexities, though the common view for many years was that his supposed plainness was deliberately suited to the development of science. Scientific style, as we now freely admit, is hardly nonrhetorical, and so Bacon need not be seen as rhetoric’s enemy. Bacon’s apothegms and aphorisms are not plain but cryptic (as historian of science James Stephens argues), impressing the images of scientific knowledge only upon those superior minds that can penetrate the code. Moreover, framing thought in aphoristic sentences is not just a way of conveying the ideas effectively to the target audience; it actually affects the content of the ideas. Literary historian Lisa Jardine

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maintains that Bacon recognizes the heuristic quality of the writing process itself. Bacon’s many collections of “colors and antitheses,” “apothegms,” “formulae,” “sentences,” and other commonplaces are intended not for mere decoration but as a means of investigating how our knowledge can be formulated in effective language, in discourse that shapes our beliefs and actions.

Selected Bibliography

The standard edition is The Works of Francis Bacon, edited by J. Spedding, R. L. Ellis, and D. D. Heath (1859; rpt. 1961). The 1955 Modern Library edition, edited by Hugh G. Dick, follows Spedding et al. The selections printed here are taken from this edition. It contains all of the Essays, The Advancement of Learning, The New Organon, and New Atlantis. The full title of The Advancement of Learning is The Two Booke of the Proficiency and Advancement of Learning, which may help to distinguish it from the nine-book version written eighteen years later, called in Latin De Augmentis Scientiarum and in English Of the Dignity and Advancement of Learning. There are several editions of this expanded work, in Spedding et al. and elsewhere, which contains Bacon’s fullest treatment of rhetoric.


For a broad selection of scholarship that considers Bacon as a lawyer and historian as well as a scientist and rhetorical stylist, see Brian Vickers’s collection, Essential Articles for the Study of Francis Bacon (1968), which also provides further bibliography. Much debate has focused on Bacon’s contribution to the development of English prose style and the relationship of style to the rise of modern science. In The Rise of Modern Prose Style (1968), Robert Adolff provides a helpful summary of earlier discussions by Croll and Jones (see the bibliography in the introduction to Part Three) and supports Jones’s argument that Bacon was neither Ciceronian nor strictly anti-Ciceronian; see also Brian Vickers, Francis Bacon and Renaissance Prose (1968). James Stephens, in Francis Bacon and the Style of Science (1975), has argued that Bacon’s aphoristic style was intentionally cryptic; see also Lisa Jardine, Francis Bacon: Discovery and the Art of Discourse (1974). An interesting discussion of “The Most Significant Passage on Rhetoric in the Works of Francis Bacon” by six scholars will be found in Rhetoric Society Quarterly 26:3 (summer 1996).

From *The Advancement of Learning*

From Book II

The Arts Intellectual are four in number; divided according to the ends whereunto they are referred: for man's labour is to invent that which is sought or propounded; or to judge that which is invented; or to retain that which is judged; or to deliver over that which is retained. So as the arts must be four: Art of Inquiry or Invention; Art of Examination or Judgment; Art of Custody or Memory; and Art of Elocution or Tradition.

Invention is of two kinds, much differing; the one, of Arts and Sciences; and the other, of Speech and Arguments. . . .

The invention of speech or argument is not properly an invention: for to invent is to discover that we know not, and not to recover or resumne that which we already know; and the use of this invention is no other but out of the knowledge whereof our mind is already possessed, to draw forth or call before us that which may be pertinent to the purpose which we take into our consideration. So as, to speak truly, it is no Invention, but a Remembrance or Suggestion, with an application; which is the cause why the schools do place it after judgment, as subsequent and not precedent. Nevertheless, because we do account it a Chase as well of deer in an inclosed park as in a forest at large, and that it hath already obtained the name, let it be called invention: so as it be perceived and discerned, that the scope and end of this invention is readiness and present use of our knowledge, and not addition or amplification thereof.

To procure this ready use of knowledge there are two courses, Preparation and Suggestion. The former of these seemeth scarcely a part of Knowledge, consisting rather of diligence than of any artificial erudition. And herein Aristotle wittily, but hurtfully, doth deride the sophists near his time, saying, they did as if one that professeth the art of shoe-making should not teach how to make up a shoe, but only exhibit in a readiness a number of shoes of all fashions and sizes. But yet a man might reply, that if a shoemaker should have no shoes in his shop, but only work as he is bespoken, he should be weakly customed. But our Saviour, speaking of Divine Knowledge, saith, that the kingdom of heaven is like a good householder, that bringeth forth both new and old store; and we see the ancient writers of rhetoric do give it in precept, that pleaders should have the Places¹ whereof they have most continual use ready handled in all the variety that may be; as that, to speak for the literal interpretation of the law against equity, and contrary; and to speak for presumptions and inferences against testimony, and contrary. And Cicero himself, being broken unto it by great experience, delivereth it plainly, that whatsoever a man shall have occasion to speak of, (if he will take the pains) he may have it in effect premeditate, and handled in thesi,² so that when he cometh to a particular, he shall have nothing to do but to put to names and times and places, and such other circumstances of individuals. We see likewise the exact diligence of Demosthenes; who, in regard of the great force that the entrance and access into causes hath to make a good impression, had ready framed a number of prefaces for orations and speeches. All which authorities and precedents may overthrow Aristotle's opinion, that would have us change a rich wardrobe for a pair of shears.

But the nature of the collection of this provision or preparatory store, though it be common both to logic and rhetoric, yet having made an entry of it here, where it came first to be spoken of, I think fit to refer over the further handling of it to rhetoric.

The other part of Invention, which I term Suggestion, doth assign and direct us to certain marks or places, which may excite our mind to return and produce such knowledge as it hath for-

¹The classical *topoi* or *loeci*. Bacon makes further distinctions as he goes on between the common and special topics and collections of "commonplaces." [Ed.]

²In general form, like a "thesis." [Ed.]
merely collected, to the end we may make use thereof. Neither is this use (truly taken) only to furnish argument to dispute probably with others, but likewise to minister unto our judgment to conclude aright within ourselves. Neither may these Places serve only to appromit our invention, but also to direct our inquiry. For a faculty of wise interrogating is half a knowledge. For as Plato saith, Whosoever seeketh, knoweth that which he seeketh for in a general notion; else how shall he know it when he hath found it? And therefore the larger your Anticipation is, the more direct and compendious is your search. But the same Places which will help us what to produce of that which we know already, will also help us, if a man of experience were before us, what questions to ask; or if we have books and authors to instruct us, what points to search and revolve: so as I cannot report that this part of invention, which is that which the schools call Topics, is deficient.

Nevertheless Topics are of two sorts, general and special. The general we have spoken to; but the particular hath been touched by some, but rejected generally as inartificial and variable. But leaving the humour which hath reigned too much in the schools, (which is to be vainly subtle in a few things which are within their command, and to reject the rest,) I do receive particular topics, that is places or directions of invention and inquiry in every particular knowledge, as things of great use; being mixtures of Logic with the matter of sciences: for in these it holdeth, Ars inventendi adolescit cum inventis, for as in going of a way we do not only gain that part of the way which is passed, but we gain the better sight of that part of the way which remaineth; so every degree of proceeding in a science giveth a light to that which followeth; which light if we strengthen, by drawing it forth into questions or places of inquiry, we do greatly advance our pursuit.

Now we pass unto the arts of Judgment, which handle the natures of Proofs and Demonstrations; which as to Induction hath a coincidence with Invention; for in all inductions, whether in good or vicious form, the same action of the mind which

inventeth, judgeth; all one as in the sense; but otherwise it is in proof by syllogism; for the proof being not immediate but by mean, the invention of the mean is one thing, and the judgment of the consequence is another; the one exciting only, the other examining. Therefore for the real and exact form of judgment we refer ourselves to that which we have spoken of Interpretation of Nature.

For the other judgment by Syllogism, as it is a thing most agreeable to the mind of man, so it hath been vehemently and excellently laboured. For the nature of man doth extremely covet to have somewhat in his understanding fixed and immovable, and as a rest and support of the mind. And therefore as Aristotle endeavoureth to prove that in all motion there is some point quiescent; and as he elegantly expoundeth the ancient fable of Atlas (that stood fixed and bare up the heaven from falling) to be meant of the poles or axle-tree of heaven, whereupon the conversion is accomplished; so assuredly men have a desire to have an Atlas or axle-tree within to keep them from fluctuation, which is like to a perpetual peril of falling; therefore men did hasten to set down some Principles about which the variety of their disputations might turn.

The custody or retaining of knowledge is either in Writing or Memory; whereof Writing hath two parts, the nature of the character, and the order of the entry. For the art of characters, or other visible notes of words or things, it hath nearest conjugation with grammar, and therefore I refer it to the due place. For the disposition and collocation of that knowledge which we preserve in writing, it consisteth in a good digest of commonplace; wherein I am not ignorant of the prejudice imputed to the use of commonplace books, as causing a retardation of reading, and some sloth or relaxation of memory. But because it is but a counterfeit thing in knowledge to be forward and pregnant, except a man be deep and full, I hold the entry of commonplace to be a matter of great use and essence in studying; as that which assureth copia of invention, and contracteth judgment to a strength. But this is true,

AAbundance. [Ed.]
that of the methods of commonplaces that I have
seen, there is none of any sufficient worth; all of
them carrying merely the face of a school, and
not of a world: and referring to vulgar matters
and pedantic divisions without all life or re-
spect to action.

For the other principal part of the custody of
knowledge, which is Memory, I find that faculty
in my judgment weakly enquired of. An art there
is extant of it; but it seemeth to be that there are
better precepts than that art, and better practices
of that art than those received. It is certain the art
(as it is) may be raised to points of ostentation
prodigious; but in use (as it is now managed) it is
barren; not burdensome nor dangerous to natural
memory, as is imagined, but barren; that is, not
dexterous to be applied to the serious use of busi-
ness and occasions. And therefore I make no
more estimation of repeating a great number of
names or words upon once hearing, or the pour-
ing forth of a number of verses or rhymes ex tem-
porum, or the making of a satirical simile of every
thing, or the turning of every thing to a jest, or
the falsifying or contradicting of every thing by
cavil, or the like, (whereof in the faculties of the
mind there is great copie, and such as by device
and practice may be exalted to an extreme degree
of wonder,) than I do of the tricks of tumblers,
funambuloes, baladiones: the one being the same
in the mind that the other is in the body; matters
of strangeness without worthiness.

This art of Memory is but built upon two in-
tentions; the one Prenotion, the other Emblem.
Prenotion dischargeth the indefinite seeking of
that we would remember, and directeth us to seek
in a narrow compass; that is, somewhat that hath
congruity with our place of memory. Emblem re-
duceth conceits intellectual to images sensible,
which strike the memory more; out of which ax-
ioms may be drawn much better practique6 than
that in use; and besides which axioms, there are
divers moe7 touching help of memory, not im-
erior to them. But I did in the beginning dis-
tinguish, not to report those things deficient, which
are but only ill managed.

5Funambuloes are rope-dancers; baladines are theatrical
dancers. [Ed.]
6Practice. [Ed.]
7Many others. [Ed.]

There remaineth the fourth kind of Rational
Knowledge, which is transitive, concerning the
expressing or transferring our knowledge to oth-
ers; which I will term by the general name of
Tradition or Delivery. Tradition hath three parts:
the first concerning the organ of tradition; the
second concerning the method of tradition; and
the third concerning the illustration of tradition.

For the organ of tradition, it is either Speech
or Writing: for Aristotle saith well, Words are
the images of cogitations, and letters are the im-
ages of words; but yet it is not of necessity that
cogitations be expressed by the medium of
words. For whatsoever is capable of sufficient
differences, and those perceptible by the sense, is
in nature competent to express cogitations. And
therefore we see in the commerce of barbarous
people that understand not one another’s lan-
guage, and in the practice of divers that are dumb
and deaf, that men’s minds are expressed in ges-
tures, though not exactly, yet to serve the turn.
And we understand further that it is the use of
China and the kingdoms of the high Levant to
write in Characters Real, which express neither
letters nor words in gross, but Things or Notions;
insomuch as countries and provinces, which un-
derstand not one another’s language, can never-
theless read one another’s writings, because the
characters are accepted more generally than the
languages do extend; and therefore they have a
vast multitude of characters; as many, I suppose,
as radical words.

Now we descend to that part which concern-
eth the Illustration of Tradition, comprehended
in that science which we call Rhetoric, or Art of
Eloquence; a science excellent, and excellently
well laboured. For although in true value it is in-
erior to wisdom, as it is said by God to Moses,
when he disabled himself for want of this faculty,
Aaron shall be thy speaker, and thou shalt be to
him as God; yet with people it is the more
mighty: for so Salomon saith, Sapiens corde ap-
pellabitur prudent, sed dulcis eloquio majora
reperiet,8 signifying that profundity of wis-
dom will help a man to a name of admiration, but

8“The wise-hearted is called discerning, but one whose
speech is sweet gains wisdom” (Proverbs 16:21). [Ed.]
that it is eloquence that prevaileth in an active life. And as to the labouring of it, the emulation of Aristotle with the rhetoricians of his time, and the experience of Cicero, hath made them in their works of Rhetorics exceed themselves. Again, the excellency of examples of eloquence in the orations of Demosthenes and Cicero, added to the perfection of the precepts of eloquence, hath doubled the progression in this art; and therefore the deficiencies which I shall note will rather be in some collections which may as handmaids attend the art, than in the rules or use of the art itself.

Notwithstanding, to stir the earth a little about the roots of this science, as we have done of the rest: The duty and office of Rhetoric is to apply Reason to Imagination for the better moving of the will. For we see Reason is disturbed in the administration thereof by three means: by Illauration or Sophism, which pertains to Logic; by Imagination or Impression, which pertains to Rhetoric; and by Passion or Affection, which pertains to Morality. And as in negotiation with others men are wrought by cunning, by importunity, and by vehemency; so in this negotiation within ourselves men are undermined by inconsequences, solicited and importuned by Impressions or Observations, and transported by Passions. Neither is the nature of man so unfortunately built, as that those powers and arts should have force to disturb reason, and not to establish and advance it: for the end of Logic is to teach a form of argument to secure reason, and not to entrap it; the end of Morality is to procure the affections to obey reason, and not to invade it; the end of Rhetoric is to fill the imagination to second reason, and not to oppress it: for these abuses of arts come in but ex obliquo, for caution.

And therefore it was great injustice in Plato, though springing out of a just hatred of the rhetoricians of his time, to esteem of Rhetoric but as a voluptuary art, resembling it to cookery, that did mar wholesome meats, and help unwholsome by variety of sauces to the pleasure of the taste. For we see that speech is much more conversant in adorning that which is good than in colouring that which is evil; for there is no man but speaketh more honestly than he can do or think: and it was excellently noted by Thucydides in Cleon, that because he used to hold on the bad side in causes of estate, therefore he was ever inveighing against eloquence and good speech; knowing that no man can speak fair of courses sordid and base. And therefore as Plato said elegantly, That virtue, if she could be seen, would move great love and affection; so seeing that she cannot be shewed to the Sense by corporal shape, the next degree is to shew her to the Imagination in lively representation: for to shew her to Reason only in subtily of argument, was a thing ever derided in Chrysippus and many of the Stoics; who thought to thrust virtue upon men by sharp disputations and conclusions, which have no sympathy with the will of man.

Again, if the affections in themselves were pliant and obedient to reason, it were true there should be no great use of persuasions and insinuations to the will, more than of naked proposition and proofs; but in regard of the continual mutinies and seditions of the affections,

Video meliora, proboque;
Deteriora sequor.\[11\]

reason would become captive and servile, if Eloquence of Persuasions did not practise and win the Imagination from the Affection's part, and contract a confederacy between the Reason and Imagination against the Affections. For the affections themselves carry ever an appetite to good, as reason doth; the difference is, that the affection beholdeth merely the present; reason beholdeth the future and sum of time; and therefore the present filling the imagination more, reason is commonly vanquished; but after that force of eloquence and persuasion hath made things future and remote appear as present, then upon the revolt of the imagination reason prevailith.

We conclude therefore, that Rhetoric can be no more charged with the colouring of the worse part, than Logic with Sophistry, or Morality with Vice. For we know the doctrines of contraries are the same, though the use be opposite. It appeareth

9"Indirectly." [Ed.]

10In The Peloponnesian War, III, 9. [Ed.]
11"I see and approve the better things, but follow the worse" (Ovid, Metamorphoses, VII, 20). [Ed.]
also that Logic differeth from Rhetoric, not only as the fist from the palm, the one close the other at large; but much more in this, that Logic handleth reason exact and in truth, and Rhetoric handleth it as it is planted in popular opinions and manners. And therefore Aristotle both wisely place Rhetoric as between Logic on the one side and moral or civil knowledge on the other, as participating of both: for the proofs and demonstrations of Logic are toward all men indifferent and the same; but the proofs and persuasions of Rhetoric ought to differ according to the auditors:

Orpheus in sylvis, inter delphinas Arion: the application, in perfection of idea, ought to extend so far, that if a man should speak of the same thing to several persons, he should speak to them all respectively and several ways: though this politic part of eloquence in private speech [de prudentia sermonis privatis] it is easy for the greatest orators to want, whilst by the observing their well-graced forms of speech they lose the volubility of application: and therefore it shall not be amiss to recommend this to better inquiry; not being curious whether we place it here, or in that part which concerneth policy.

Now therefore will I descend to the deficiencies, which (as I said) are but attendances: and first, I do not find the wisdom and diligence of Aristotle well pursued, who began to make a collection of the popular signs and colours of good and evil, both simple and comparative, [colores boni et mali, simplicis et comparati] which are as the Sophisms of Rhetoric (as I touched before). For example:

SOPHISMA

Quod laudatur, bonum: quod vituperatur, malum.14

REDARGUTIO

Laudet venales qui vult extrudere merces.
Malum est, malum est, inquit emptor: sed cum necesserit, tum gloriarit.15

12"As Orpheus in the woods, as Arion with the dolphins" (Virgil, Eclogues, VIII, 56). [Ed.]
13Lose. [Ed.]
14"SOPHISM / What is praised is good; what is censured, evil." [Ed.]
15"REFUTATION / He who praises his wares wishes to sell them" (Horace, Epistles, II, 2). "‘It’s no good, it’s no good,'
From Novum Organum

From Book I

XXXVIII

The idols and false notions which are now in possession of the human understanding, and have taken deep root therein, not only so beset men’s minds that truth can hardly find entrance, but even after entrance obtained, they will again in the very instauration of the sciences meet and trouble us, unless men being forewarned of the danger fortify themselves as far as may be against their assaults.

XXXIX

There are four classes of Idols which beset men’s minds. To these for distinction’s sake I have assigned names—calling the first class Idols of the Tribe; the second, Idols of the Cave; the third, Idols of the Market-place; the fourth, Idols of the Theatre.

XL

The formation of ideas and axioms by true induction is no doubt the proper remedy to be applied for the keeping off and clearing away of idols. To point them out, however, is of great use; for the doctrine of Idols is to the Interpretation of Nature what the doctrine of the refutation of Sophisms is to common Logic.

Formulae are but decent and apt passages or conveyances of speech, which may serve indifferently for differing subjects; as of preface, conclusion, digression, transition, excusation, &c. For as in buildings there is great pleasure and use in the well-casting of the staircases, entries, doors, windows, and the like; so in speech the conveyances and passages are of special ornament and effect. So may we redeem the faults passed, and prevent the inconveniences future.

XLI

The Idols of the Tribe have their foundation in human nature itself, and in the tribe or race of men. For it is a false assertion that the sense of man is the measure of things. On the contrary, all perceptions as well of the sense as of the mind are according to the measure of the individual and not according to the measure of the universe. And the human understanding is like a false mirror, which, receiving rays irregularly, distorts and discolours the nature of things by mingling its own nature with it.

XLII

The Idols of the Cave are the idols of the individual man. For every one (besides the errors common to human nature in general) has a cave or den of his own, which refracts and discolours the light of nature; owing either to his own proper and peculiar nature; or to his education and conversation with others; or to the reading of books, and the authority of those whom he esteems and admires; or to the differences of impressions, accordingly as they take place in a mind preoccupied and predisposed or in a mind indifferent and settled; or the like. So that the spirit of man (according as it is meted out to different individuals)