In an age when political thinkers were writing books full of quotations of ancient and modern authors, Thomas Hobbes of Malmesbury (1588-1679) developed a philosophical system which was based on scientific method rather than on the authority of books. He emphasized that the absurdities that philosophers fall into are actually due precisely to a lack of method and to the habit of quoting other thinkers as if the truth was to be found in their words. It is certainly not inappropriate to read what philosophers, historians, and poets wrote, whether for pure amusement or to find intellectual spurs useful for one’s own research and speculation; but the written word should not be confused with the truth. In the investigation aimed at discovering the truth in political matters, the philosopher must use his own intellect, relying on the strength of reasoning. Thus, political philosophy becomes a science: the science of “consequences from the accidents of politic bodies”. With his reflections on scientia civilis, Thomas Hobbes may be considered the inventor of political science.

**Keywords:** Hobbes, books, doctrinal errors, scientific method, scientia civilis/political science

In his political master piece *Leviathan* (1651), Thomas Hobbes (1588-1679) explains the meaning of philosophy as science:

> By philosophy, is understood the knowledge acquired by reasoning, from the manner of the generation of anything, to the properties: or from the properties, to some possible way of generation of the same; to the end to be able to produce, as far as matter, and human force permit, such effects, as human life requireth. (*Leviathan*, 1651, XLVI, 1)

Political philosophy—in Hobbesian terms: “civil science”—investigates the properties (“accidents”) of the State; more precisely, it is “the knowledge of consequences”. Which consequences? “Consequences from the accidents of politic bodies” (*Leviathan*, 1651, IX, table).

Hobbes emphasizes the scientific character of his own theory. In the Epistle Dedicatory of his book *De Corpora* (1655) he claims to be the inventor of political science, though he complains that his intellectual effort is more appreciated abroad than in England:

> And in the same epistle, where I say of the civil philosophy: “It is no ancieneter than my book De Cive”; these words are added: “I say it provoked, and that my detractors may see they lose their labour”. But that which is truly said, and upon provocation, is not boasting but defence. A short sum of that book of mine, now publicly in French, done by a gentleman I never saw, carrieth the title of Ethics Demonstrated. The book itself translated into French, hath not only a great testimony from the translator Sorberius, but also from Gassendus, and Mersennus, who being both of the Roman religion had no cause to praise it, or the divines of England have no cause to find fault with it. (“Six Lessons”, 1656, p. 333; the French

According to Hobbes, neither prudence (which is a mere experience) and neither false doctrines (because they do not constitute *recta ratiocinatio*) nor supernatural revelation (which is a divine gift), and nor even what is the result of reflection on book contents is part of the true philosophy: “Nor that which is gotten by reasoning from the authority of books; because it is not by reasoning from the cause to the effect, nor from the effect to the cause; and is not knowledge, but faith” (*Leviathan*, 1651, XLVI, 5).

No matter how authoritative books may be considered, because they were written by learned authors, it is not by reflecting on them that we can reach truth. To embrace a theory, whether in whole or in part, say that of Plato or Protagoras, is not a question of wisdom and “knowledge”, but of “faith”, that is of belief, and this does not rest on secure foundations: It is due to a subjective inclination of the soul, which can vary from person to person, as the objects of passions vary as well, while truth is instead in itself immutable and eternal (“nothing is produced by reasoning aright, but general, eternal, and immutable truth”, *Leviathan*, 1651, XLVI, 2).

Enunciating a series of propositions deduced from the Platonic theory of ideas or from Protagorean relativism does not constitute science, wisdom, and knowledge: It is simply a form of erudition that, although it may appear to be formally correct, is actually based on inadequate assumptions, that is, on—often artificial—“names” to which only imagined realities correspond. According to Hobbes, one of these imagined realities (or unrealities) is the idea of “soul” as an entity separate from the body, which for him is a logical absurdity, given that all that exists has and cannot have anything but a bodily nature.

The reference to books and to the *authority of books* is expunged in the Latin version of *Leviathan*—in which criticism of books seems to be generally diminishing, which is also evidenced by the fact that the Review & Conclusion is no longer to be found with the large paragraph (namely the 15th) in which Hobbes focuses on the question of erudite quotations and their deliberate absence in *Leviathan*, listing a series of reasons for this stylistic and expository choice.

There is nothing I distrust more than my elocution; which nevertheless I am confident (excepting the mischances of the press) is not obscure. That I have neglected the ornament of quoting ancient poets, orators, and philosophers, contrary to the custom of late time (whether I have done well or ill in it), proceedeth from my judgement, grounded on many reasons. (*Leviathan*, 1651, Review & Conclusion, 15)

It is precisely the unconventional choice of not citing ancient (and modern) authors and therefore proceeding with *pure* philosophical reasoning, not contaminated by philosophers’ theories and opinions on the questions of metaphysics, mathematics, physics, ethics, and politics, which conveys the meaning of a *scientific* and non-doxographic philosophical writing that is not historical or poetic but *logical*.

Hobbes had indeed taken the side of mathematicians since the time of *Elements of Law* (1640), when he had indeed distinguished the “*mathematici*”, who base their knowledge on solid principles, and the “*dogmatici*”, who base themselves on the opinions of others, drawn from the “infinite volumes” written over time:

On the other side, those men who have written concerning the faculties, passions, and manners of men, that is to say, of moral philosophy, or of policy, government, and laws, whereof there be infinite volumes, have been so far from removing doubt and controversy in the questions they have handled, that they have much multiplied the same; nor doth any man at this day so much as pretend to know more than hath been delivered two thousand years ago by Aristotle. […] in their writings and discourses they take for principles those opinions which are already vulgarly received, whether true or false; being for the most part false. (*Elements of Law*, 1640, I, 13, 3)
Furthermore, in *De Motu, Loco et Tempore* (around 1642), arguing against the statement “Philosophia non est logice tractandam” (“philosophy should not be treated logically”) (White, 1642, p. 7, marginalia), in the first of Thomas White’s three dialogues about the world (Tutino, 2008, pp. 15-41), Hobbes had emphasised how philosophy, precisely as a science, must structure its discourse not in rhetorical or poetic form, let alone in historical form (the purpose of historical narrative is to inform about facts, not to discover immutable truths), but in logical form (“logice”), that is according to schemes of necessary inferences (Hobbes, *De Motu*, 1642, I, 2-3; Hobbes, *De Corpore*, 1655, I, 7).

As for White: “He could indeed have affirmed that metaphysics, physics, ethics and many other parts of philosophy had not yet been treated logically; however, he did not have to say that this should not be done” (Hobbes, *De Motu*, 1642, I, 4).

From the assertion that it would be correct to maintain that philosophy—considered in its various branches—has not yet been (i.e., until 1642) treated logically, it may be inferred that Hobbes is thinking of his own philosophical system as the intellectual operation that will be able to finally fill this gap: the logical treatment of philosophy, i.e., the construction of science through method. The absurdities that philosophers fall into are actually due precisely to a lack of method:

[...] the privilege of absurdity; to which no living creature is subject, but men only. And of men, those are of all most subject to it, that profess philosophy. For it is most true that Cicero saith of them somewhere; that there can be nothing so absurd, but may be found in the books of philosophers. And the reason is manifest. For there is not one of them that begins his ratiocination from the definitions, or explications of the names they are to use; which is a method that hath been used only in geometry; whose conclusions have thereby been made indisputable. (Hobbes, *Leviathan*, 1651, V, 7)

As far as ethics and politics are concerned, the *Elements of Law* and *De Cive* fully respect this approach, avoiding the ornaments of *elocutio*, in favour of an essential prose and cadenced according to a logical-rational rhythm (Skinner, 1996)—with two exceptions, which, however, make the general logicality of the discourse even more evident: the metaphor of the race to illustrate passions expounded in the first work (*Elements of Law*, 1640, I, IX, 21) and the oppositional comparison between *imperium affectum* and *imperium rationis* in the second (*De Cive*, 1647, X, 1); it is no coincidence that in both cases the subject addressed is passions. Since the rhetorical discourse is addressed to the passions, in an attempt to *movere animos*, here Hobbes plays with writing and unexpectedly introduces two rhetorical elements precisely when he is talking about passions; the presence of these elements brings out even more the non-rhetorical approach of the rest of the discourse.

*Leviathan* also adds the rhetorical component to the logically structured writing, combining “solid reasoning” and “powerful eloquence”, so that the discourse is more captivating and the doctrine more persuasive (Skinner, 1996). However, he never slips (or at least never significantly) into the practice of erudite quotations, and does not base himself on the history of thought—except in the case of the 42nd chapter, with the confutation of Roberto Bellarmino’s theses. Here, however, it is a particular case: For Hobbes, the Cardinal’s constitutes the most advanced and subtle theorisation, and consequently the most dangerous, of the “*jus pontificium*”; in order to demolish the latter, it was necessary to submit the Bellarminian theory to confutation (Fabbri, 2009).

The first two grounds, in order not to slip into the widespread yet incorrect practice of quotations, are the following:
For first, all truth of doctrine dependeth either upon reason, or upon Scripture; both which give credit to many, but never receive it from any writer. Secondly, the matters in question are not of fact, but of right, wherein there is no place for witnesses. (*Leviathan*, 1651, Review & Conclusion, 15)

The demonstration of ethics and civil science and their foundations (*lex naturalis* and *lex civilis*; rights and duties of the sovereign representative and the citizens; absolute and undivided character of sovereign power) is of a rational nature and is presented in the first two parts of *Leviathan*.

The other operation carried out by Hobbes is the search for confirmation, in *Holy Scriptures*, of what reason has methodically discovered, so as to implement a theological foundation of the sovereign power. With his original reading and interpretation of the sacred texts in the third part of *Leviathan*, Hobbes shows that reason and revelation provide the same indications regarding what the nature of the sovereign power should be.

The *Bible* is the only book that enjoys, at least for believers, an absolute authority, as it gathers the divine word—the other “book” whose authority, for the citizens of every State, must be undisputed, is the peculiar *corpus iuris* that—in every country—contains civil laws. Hobbes is persuaded that he has discovered the truth about ethics and politics, and that he has managed to confirm this truth through the analysis of the *Holy Scriptures*, an analysis from which the same conclusions reached by scientific reasoning emerge.

Except from the *Bible*, which enjoys undisputed authority, the other books cannot be taken as a basis either for further formulation of thought or to find a confirmation of one’s theories:

> For words are wise men’s counters, they do but reckon by them: but they are the money of fools, that value them by the authority of an Aristotle, a Cicero, or a Thomas, or any other doctor whatsoever, if but a man. (*Leviathan*, 1651, IV, 13; *Leviathan Latinus*, 1668, IV, 13, “*ab authoritate librorum*”)

Not even Euclid’s *Elements*, which, however, Hobbes cites extensively and takes as a model in his mathematical works, holding the book in great esteem both for the method employed and for many of the contents expounded, can be used as conclusive evidence. In the second of the “Six Lessons” (entitled *Of the Faults That Occur in Demonstration*), for example, responding to the objections raised by John Wallis (Maierù, 2007) in relation to his definition of the line based on the movement of the point as a micro-body, he writes: “Whether you call in others for help or testimony, it is not done like a geometrician; for they use not to prove their conclusions by witnesses, but rely upon the strenght of their own reason” (“Six Lessons”, 1656, p. 213).

And he proceeds to show Wallis how a true surveyor acts, never relying on the authority of books, no matter how much he values their content, as is the case for the Euclidean work:

> Euclid defines a sphere to be a solid figure described by the revolution of a semicircle about the unmoved diameter. [...] But it is not my purpose to defend my definition by the example of that of Euclid. Therefore first, I say, to me, howsoever it may be to others, it was fit to define a line by motion. For the generation of a line is the motion that describes it. And having defined philosophy in the beginning, to be the knowledge of the properties from the generation, it was fit to define it by its generation. (“Six Lessons”, 1656, p. 215)

The demonstrations are based on reasoning, not on the authors’ testimonies, although these are wise and identified parts of truth, as Euclid surely did, according to Hobbes. The fact remains that philosophical books, like “registers of science”, enjoy a certain importance in the process of search for truth and are the custodians of the letter which expresses the content of the latter:
The registers of science, are such books as contain the demonstrations of consequences of one affirmation, to another; and are commonly called books of philosophy; whereof the sorts are many, according to the diversity of the matter; and may be divided in such manner as I have divided them in the following table. (Leviathan, 1651, IX, 3)

Hobbes uses the same expression (registers of science) that characterises the function of language, that is the record and recording of thoughts, including in a hypomnematic function, to “recall them when they are passed”. Words then also serve to record (register) and to “fix and recall the thoughts of men” (“cogitate hominum conscribi, revocari in memoriam”), just as philosophy books record the results of the work of thought. While performing this important task, books as such can never take the place of right reasoning.

Maybe it is precisely with the purpose of avoiding a possible misunderstanding in this regard that in the Latin version of the 9th chapter of Leviathan Hobbes eliminates any reference to books, writing instead only about sciences and of “scientiarum distributio”. In the same chapter, he distinguishes philosophy as “science of consequences” (“scientia consequentiarum”) or “knowledge of the consequence of one affirmation to another” from history, which gathers instead “knowledge of fact” (“cognition facti”). The idea that, when you want to prove the truth—i.e., when you are formulating a scientific discourse—“there is no space for witnesses” is also connected to this crucial distinction (it is history that is based on testimonies, not philosophy; in reality, in Leviathan there is no lack of historical examples, even if their presence is justified above all by the rhetorical need to further enrich the text in terms of examples too).

However, the reading of books is not in itself negative; on the contrary, from books one can receive a positive incentive to devote himself to research (“curiosity” being aroused) and reading can stimulate thinking on several levels; however, care must be taken not to mistake the written word for absolute truth. In “Decameron Physiologicum” Hobbes (1678) states that reading is neither sufficient nor necessary for research, but not for this inappropriate (Sorell, 2000):

A. If I have a mind to study, for example natural philosophy, must I then needs read Aristotle, or some of those that now are in request?

B. There is no necessity of it. But if in your own meditation you light upon a difficulty, I think it is not a loss of time, to enquire what other men say of it, but to rely only upon reason. (“Decameron Physiologicum”, 1678, p. 72)

Reading the works of philosophers and reflecting on their ideas cannot be the solution to the problem of truth; truth can only be discovered by reason, also because, for every aspect of every discipline of knowledge, authors disagree with one another. Another reason not to mention other authors—also explained in the 15th paragraph of the Review & Conclusion of Leviathan—is in fact the extreme variety of their theories and even the inconsistency between them and within them: “There is scarce any of those old writers, that contradicteth not sometimes both himself, and others; which makes their testimonies insufficient” (Leviathan, 1651, Review & Conclusion, 15).

The conflict of opinions is inherent in human nature and in the diversity of the objects of passions; it is therefore inevitable. If in your research you base yourself on the history of thought, then you cannot possibly identify the truth among the many theories that claim to have found it. Furthermore, space is left for the objections put forward by the Sceptics, who also use the many-sidedness of philosophers’ opinions to demonstrate the need to suspend judgment (epoke) and, at times, go so far as to deny the existence of any truth whatsoever—as Hobbes makes clear in the dedicatory epistle of the “Six Lessons”, arguing that in De Corpore he intended to demonstrate different geometric truths and to “avoid the cavils of the sceptics”, a few lines
before he had named Sextus Empiricus and his attempt to demolish the first three definitions of Euclid’s Elements.

Hobbes also points out a difference between the ancients, who cite the previous thinkers with full knowledge of the facts (one can think of Aristotle’s first book of *Metaphysics* or of Plato’s *Sophist* and other dialogues) and the moderns, who fill up their writings with scholarly quotations, written often in Greek and Latin, deliberately difficult to understand. Hobbes thinks of Lipsius’s *Politics*, Burton’s *The Anatomy of Melancholy*, and many other similar works, which show an abuse of quotations, including entire passages from other authors, whose writings plunder like thieves. The criticism is not mild:

Fourthly, such opinions as are taken only upon credit of antiquity, are not intrinsically the judgement of those that cite them, but words that pass (like gaping) from mouth to mouth. Fiftieth, it is many times with a fraudulent design that men stick their corrupt doctrine with the cloves of other men’s wit. Sixthly, I find not that the ancients they cite, took it for an ornament, to do the like with those that wrote before them. Seventhly, it is an argument of indigestion, when Greek and Latin sentences unchewed come up again, as they use to do, unchanged. ([Leviathan](https://en.wikipedia.org/wiki/Leviathan_(Hobbes)), 1651, Review & Conclusion, 15)

A further criticism of the method of quoting works from the past is found in the 11th chapter of *De Homine*. Questioning what is pleasant (“*jucundum*”) for man, here Hobbes maintains that the enjoyableness of the sciences and the arts (“*Scientiae sive Artes, Bonum. Jucundum enim*”) is due to a peculiar characteristic of human nature, namely: the wonder that you feel in front of the world and of the thirst for knowledge connected thereto. Man is “*rei novae admiratorem*” and “*avidum sciendi omnium rerum causas*”. He admires all that is new and wants to discover the causes of things; it is a greed that, contrary to the voracity that urges the body to look for food, can never be satisfied: “*animus autem sciendo expleri non potest*” (*De Homine*, 1658, XI).

However, Hobbes writes, not all those who claim to possess a science or an art (considered here in an almost synonymous way, in that art is science in its practical applications) actually possess it. The discriminating factor, as we can guess immediately after, lies in the method. Hobbes does not explain again what it consists of, because he already did it in *De Corpore* that *De Homine* logically assumes as the first part of the *Elementa Philosophiae*, but does not spare a criticism to those who do not make use of the scientifically correct method, misrepresenting instead erudition as truth, with the risk of falling into error and tarnishing the truth itself; actually, confirming the errors of the ancients, they hinder the way to the truth:

> *Intelligendum autem non omnes habere scientiam quam profitentur; nam qui de rerum causis ex aliorum scriptis disserunt neque quicquam (aliorum sententias transcribentes) adinveniant, omnino utiles non sunt. Nam actum agere boni in se nihil habet, sed contra nonnunquam hoc malum, quod veterum errores confirmando viam veritati obstruant. ([De Homine](https://en.wikipedia.org/wiki/De_Homine), 1658, XI, 9)*

The idea that re-proposing doctrinal errors merely propagates, disseminates, and amplifies them to the detriment of the truth, is the opposite of that expressed by John Milton in his discourse on the freedom of the press: *Aeropagitica* Referring to the authority of *De Jure Naturali et Gentium Juxta Disciplinam Ebraeorum* by John Selden, Milton actually claimed the usefulness of errors and of the books that resumed them:

> […] bad books […] to a discreet and judicious reader serve in many respects to discover, to confute, to forewarn and to illustrate. Whereof what better witness can ye expect I should produce than one of your own now sitting in parliament, the chief of learned men reputed to this land, Mr Selden, whose volume of natural and national laws proves, not only by great authorities brought together, but by exquisite reasons and theorems almost mathematically demonstrative, that all opinions, yea, errors, known, read and collated are of main service and assistance toward the speedy attainment of what is truest. ([Milton](https://en.wikipedia.org/wiki/John_Milton), 2003, p. 246)
Hobbes, on the other hand, is not so much worried that a mistake cannot be taken into consideration, if only to be discarded, as about the possibility that the error might spread and find fertile ground in the minds of men (Santi, 2019).

This is all the more serious, as we approach those branches of knowledge that concern behaviour within society and civil obedience, that is, moral and political philosophy, in which doctrinal errors are transformed into real threats to the citizens’ safety and to the very survival of the State; according to Hobbes, the civil war is in fact the product of a distorted philosophy, of seditious political doctrines and religious controversies, which incite to disobedience.

Especially dangerous are the ethical and political writings of the ancients—especially if re-proposed by the moderns to stir up souls and provoke rebellions—because they do not teach obedience to the laws, but propose their own moral vision, which changes from philosopher to philosopher and from school to school.

The works of the Greeks and Romans are:

[...] written upon no other principle than their own passions and presumptions, without any respect to the laws of commonwealth, which are the ground and measure of all true morality. So that their books tend rather to teach men to censure than obey the laws; which has been a great hindrance to the peace of the western world ever since. (“Decameron Physiologicum”, 1678, pp. 75-76; Leviathan, 1651, XLVI, 11, 32)

In Hobbes’s opinion, works on natural philosophy and mathematic writings are less dangerous and, indeed, have steered towards the truth—he thinks above all of the fragments of the Pythagoreans, Archimedes, Plato’s Timaeus, and Euclid’s Elements. About Philolaus he writes that, although his works have been lost, nevertheless his theories have found confirmation in the speculation of the moderns: “the doctrines of Philolaus concerning the motion of the earth have been revived by Copernicus, and explained and confirmed by Galileo now of late” (“Decameron Physiologicum”, 1678, p. 76). In general:

A. [...] the old philosophers [...] they were many of them wise men, as Plato, Aristotle, Seneca, and others, and have written excellently of morals and politics, yet there is very little natural philosophy to be gathered out of their writings.

B. Their ethics and politics are pleasant reading, but I find not any argument in their discourses of justice or virtue drawn from the supreme authority, on whose laws all justice, virtue, and good politics depend. (“Decameron Physiologicum”, 1678, p. 128)

Despite his praise of the ancients, which is also reflected elsewhere in his works, Hobbes concludes the 15th paragraph of the Review & Conclusion of Leviathan with the following statement, which leaves no room for misunderstanding:

Lastly, though I reverence those men of ancient time, that either have written truth perspicuously, or set us in a better way to find it out ourselves; yet to the antiquity itself I think nothing due. For if we will reverence the age, the present is the oldest. If the antiquity of the writer, I am not sure, that generally they to whom such honour is given, were more ancient when they wrote, than I am that am writing; but if it be well considered, the praise of ancient authors, proceeds not from the reverence of the dead, but from the competition, and mutual envy of the living. (Leviathan, 1651, Review & Conclusion, 15)

Ultimately, Hobbes’s position with respect to the knowledge gathered in books is sufficiently clear: It is not inappropriate to read what philosophers, historians, and poets wrote, whether for pure amusement (as they are precisely pleasant readings) or to find intellectual spurs useful for one’s own research and speculation; but the written word should not be confused with the truth. In the investigation aimed at discovering the truth, the
philosopher must use his own intellect, relying on the strength of reasoning and—to paraphrase Galilei—taking care to read the book of the universe rather than the books written by men, which give a partial, limited, and often incorrect representation of that book.

This is precisely what Hobbes claims to have achieved, methodically, in De Corpore and in his subsequent mathematic works (Dunlop, 2016), drawing inspiration also from Galilean physics. Furthermore, he also applies the scientific method to politics, transforming it into a “scientia civilis”.

If some of his findings may surely be taken into question, it is true that, thanks to his political meta-analysis and reflections on politics, using what he believed to be the right scientific method rather than the un-scientific erudition coming from authority of books, Hobbes can be rightly considered the inventor of modern political science.

References


Recent biographers of Hobbes say that Hobbes and fear were born twins. The war and other factors imposed unprecedented pressure upon the British administration in general and the treasury in particular. The British treasury was practically empty and in order to fill it up the king made attempts to impose taxes upon the British people. This was faced with stiff opposition from the parliament because its argument was that since its members were elected by the people the monarchy had no authority to ignore it. But James I refused to give due cognizance to the view or argument of parliament and this ultimately aggravated the relationship between king and parliament.
First, Hobbes himself understood his political philosophy, or as he called it “civil philosophy,” to be a science capable of demonstration. Thus, understanding his general views about the nature of scientific demonstration promises to shed light on the way in which he saw civil philosophy as scientific. 3. Hobbes on Experimentation: Conflict with Robert Boyle and the Royal Society. 4. The Prospects for a Science of Civil Philosophy. Bibliography. Hobbes believes it is important for people to understand the true basis of the sovereign’s claims. This is partly because the shape of Hobbesian political obligation is so counter-intuitive, that only a true understanding will produce the right results. But it is also due in part to an inherent respect for individual reason in Hobbes’s writings. Of the inhabitants of Hobbes’s England that not one perhaps of ten thousand knew what right any man had to command him. But the answer was to teach them the basis of that right by guiding them, as active intellects, through reasoning supportive of political obligation that might as well have been their reasoning, rather than requiring them simply to submit.