Leviathan

To My Most Honor'd Friend
Mr. Francis Godolphin,[1]
Of Godolphin

Honor'd Sir,

Your most worthy brother, Mr. *Sidney Godolphin*,[2] when he lived, was pleased to think my studies something, and otherwise to oblige me, as you know, with real testimonies of his good opinion, great in themselves, and the greater for the worthiness of his person. For there is not any virtue that disposeth a man, either to the service of God or to the service of his country, to civil society or private friendship, that did not manifestly appear in his conversation, not as acquired by necessity or affected upon occasion, but inherent, and shining in a generous constitution of his nature. Therefore, in honour and gratitude to him, and with devotion to yourself, I humbly dedicate unto you *this my discourse of Commonwealth.[3]

I know not how the world will receive it, nor how it may reflect on those that shall seem to favour it. For in a way beset with those that contend, on one side for too great liberty, and on the other side for too much authority, 'tis hard to pass between the points of both unwounded. *But yet, methinks, the endeavour to advance the civil power, should not be by the civil power condemned; nor private men, by reprehending it, declare they

1. Francis Godolphin (1605–1667) was the royalist governor of the Scilly Islands during the Civil War, until he surrendered them in 1646.

2. Sidney Godolphin (1610–1643), royalist M.P. (1628 and 1640) and poet, died in battle fighting for the King. He left Hobbes a bequest of £200. Cf. R&C, 4. Clarendon claims Hobbes never knew Francis Godolphin personally. (*Brief View*, p. 7)

3. OL: "this treatise on the Civil and Ecclesiastical Power."

think that power too great.[4] Besides, I speak not of the men, but (in the abstract) of the seat of power (like to those simple and unpartial creatures in the Roman Capitol, that with their noise defended those within it, not because they were they, but there), offending none, I think, but those without, or such within (if there be any such) as favour them.

That which perhaps may most offend are certain texts of Holy Scripture,[5] alleged by me to other purpose than ordinarily they use to be by others. But *I have done it with due submission,[6] and also (in order to my subject) necessarily; for they are the outworks of the enemy, from whence they impugn the civil power. If notwithstanding this, you find my labour generally decried, you may be pleased to excuse yourself, and say, I am a man that love my own opinions, and think all true I say, that I honoured your brother, and honour you, and have presumed on that, to assume the title (without your knowledge) of being, as I am,

SIR,

Your most humble, and most obedient Servant,

THOMAS HOBBES.

Paris, April 15/25, 1651.

4. OL: "But I see no reason why either side would be angry with me. For I do but magnify as much as I can the civil power, which anyone who possesses it wishes to be as great as possible."

5. At the end of the Latin Leviathan there is an index of sixteen Biblical passages which are identified as being particularly important. These passages are marked by an asterisk in the Index of Biblical Citations at the end of this edition. The Latin edition's index may provide a guide to those passages Hobbes had in mind when he called attention to his controversial interpretation of scripture.

6. OL: "I have taken great care not to write anything contrary to the public teaching of our church (for it is permissible to disagree with particular individuals)."

The Introduction

[1] Nature (the art whereby God hath made and governs the world) is by the *art* of man, as in many other things, so in this also imitated, that it can make an artificial animal. For seeing life is but a motion of limbs, the beginning whereof is in some principal part within, why may we not say that all *automata* (engines that move themselves by springs and wheels as doth a watch) have an artificial life? For what is the *heart*, but a *spring*; and the *nerves*, but so many *strings*; and the *joints*, but so many *wheels*, giving motion to the whole body, such as was intended by the artificer*? *Art* goes yet further, imitating that rational and most excellent work of nature, *man*. For by art is created that great LEVIATHAN[1] called a COMMONWEALTH,* or STATE (in Latin CIVITAS), which is but an artificial man, though of greater stature and strength than the natural, for whose protection and defence it was intended; and in which the *sovereignty* is an artificial soul, as giving life and motion to the whole body; the *magistrates* and other *officers* of judicature and execution, artificial *joints*; *reward* and *punishment* (by which fastened to the seat of the sovereignty every joint and member is moved to perform his duty) are the *nerves*, that do the same in the body natural; the *wealth* and *riches* of all the particular members are the *strength*; *salus populi* (the people's safety) its *business*; *counsellors*, by whom all things needful for it to know are suggested unto it, are the *memory*; *equity* and *laws*, an artificial *reason* and *will*; *concord, health; sedition,* sickness*; and *civil war, death*. Lastly, the *pacts* and *covenants* by which the parts of this body politic were

1. As Hobbes notes (xxviii, 27), his title alludes to Job 41 (where Leviathan is a sea-monster, whose symbolic meaning is obscure). Leibniz found Hobbes' work "monstrous even in what its title suggests." (Letter to Jacob Thomasius, 23 September 1670). Hobbes himself hints (xvii, 13) that the title may be irreverent. Perhaps the problem is that Leviathan was often associated with the devil. Cf. Aquinas, *The Literal Exposition on Job* (ed. A. Damico & M. Yaffe, Scholars Press, 1989, p. 448) and especially, Jean Bodin, *Colloquium of the Seven* (ed. M. Kuntz, Princeton, 1975, pp. 105, 107, 110, 118).

at first made, set together, and united, resemble that *fiat*, or the *let us make man*, pronounced by God in the creation.

[2] To describe the nature of this artificial man, I will consider

First, the *matter* thereof, and the *artificer*, both which is *man*.

Secondly, *how* and by what *covenants* it is made; what are the *rights* and *just power* or *authority* of a *sovereign*; and what it is that *preserveth* and *dissolveth* it.

Thirdly, what is a *Christian commonwealth*.

Lastly, what is the *kingdom of darkness*.

[3] Concerning the first, there is a saying much usurped* of late, that *wisdom* is acquired, not by reading of *books*, but of *men*. Consequently whereunto, those persons that for the most part can give no other proof of being wise take great delight to show what they think they have read in men, by uncharitable censures of one another behind their backs.[2] But there is another saying not of late understood, by which they might learn truly to read one another, if they would take the pains; and that is, *nosce teipsum, read thy self*, which was not meant, as it is now used, to countenance either the barbarous state of men in power towards their inferiors, or to encourage men of low degree to a saucy behaviour towards their betters, but to teach us that for the similitude of the thoughts and passions of one man to the thoughts and passions of another, whosoever looketh into himself and considereth what he doth, when he does *think, opine, reason, hope, fear*, &c, and upon what grounds, he shall thereby read and know, what are the thoughts and passions of all other men upon the like occasions. I say the similitude of *passions*, which are the same in all men, *desire, fear, hope*, &c, not the similitude of the *objects* of the passions, which are the things *desired, feared, hoped*, &c; for these the constitution individual and particular education do so vary, and they are so easy to be kept from our knowledge, that the characters of man's heart, blotted and confounded as they are with dissembling, lying, counterfeiting, and erroneous doctrines, are legible only to him that searcheth hearts. And though by men's actions we do discover their design sometimes, yet to do it without comparing them with our own, and distinguishing all circumstances by which the case may come to be altered, is to decipher without a key, and be for the most part deceived, by too much trust, or by too much diffidence,* as he that reads is himself a good or evil man.

[4] But let one man read another by his actions never so perfectly, it serves him only with his acquaintance, which are but few. He that is to

2. Given Hobbes' reputation as someone who holds a low view of human nature, it is somewhat surprising to see him complain that others censure their fellow men uncharitably. Cf. xi, 2.

govern a whole nation must read in himself, not this or that particular man, but mankind, which though it be hard to do, harder than to learn any language or science, yet when I shall have set down my own reading orderly and perspicuously, the pains left another will be only to consider if he also find not the same in himself. For this kind of doctrine admitteth no other demonstration.

PART I

OF MAN

CHAPTER I

Of SENSE

[1] Concerning the thoughts of man, I will consider them first *singly*, and afterwards in *train*, or dependence upon one another. *Singly*, they are every one a *representation* or *appearance*, of some quality or other accident, of a body without us, which is commonly called an *object*. Which object worketh on the eyes, ears, and other parts of a man's body, and by diversity of working produceth diversity of appearances.

[2] The original of them all is that which we call SENSE. (For there is no conception in a man's mind which hath not at first, totally or by parts, been begotten upon the organs of sense.) The rest are derived from that original.

[3] To know the natural cause of sense is not very necessary to the business now in hand, and I have elsewhere written of the same at large.[1] Nevertheless, to fill each part of my present method, I will briefly deliver the same in this place.

[4] The cause of sense is the external body, or object, which presseth the organ proper to each sense, either immediately, as in the taste and touch, or mediately, as in seeing, hearing, and smelling; which pressure, by the mediation of nerves and other strings and membranes of the body, continued inwards to the brain and heart, causeth there a resistance, or counter-pressure, or endeavour of the heart to deliver itself; which endeavour, because *outward*, seemeth to be some matter without. And this *seeming*, or *fancy*,* is that which men call *sense*; and consisteth, as to the eye, in a *light* or *colour figured*; to the ear, in a *sound*; to the nostril, in an *odour*; to the tongue and palate, in a *savour*; and to the rest of the body, in *heat*,

1. The only work Hobbes had published on this subject by 1651 was his *Tractatus opticus*, published by Mersenne in 1644 in his *Cogitata physico-mathematica*. But he had discussed it in two unpublished works (EL I, ii, and DCr xxv).

cold, hardness, softness, and such other qualities as we discern by *feeling*. All which qualities called *sensible* are in the object that causeth them but so many several motions of the matter, by which it presseth our organs diversely. Neither in us that are pressed are they anything else but divers* motions (for motion produceth nothing but motion). But their appearance to us is fancy, the same waking that dreaming. And as pressing, rubbing, or striking the eye, makes us fancy a light, and pressing the ear, produceth a din, so do the bodies also we see, or hear, produce the same by their strong, though unobserved action. For if those colours and sounds were in the bodies, or objects, that cause them, they could not be severed from them, as by glasses, and in echoes by reflection, we see they are, where we know the thing we see is in one place, the appearance in another. And though at some certain distance the real and very object seem invested with the fancy it begets in us, yet still the object is one thing, the image or fancy is another. So that sense in all cases, is nothing else but original fancy, caused (as I have said) by the pressure, that is, by the motion, of external things upon our eyes, ears, and other organs thereunto ordained.

[5] But the philosophy-schools, through all the universities of Christendom, grounded upon certain texts of *Aristotle*, teach another doctrine, and say, for the cause of *vision*, that the thing seen sendeth forth on every side a *visible species* (in English, a *visible show, apparition,* or *aspect*, or *a being seen*), the receiving whereof into the eye is *seeing*. And for the cause of *hearing*, that the thing heard sendeth forth an *audible species*, that is, an *audible aspect*, or *audible being seen*, which entering at the ear maketh *hearing*. Nay for the cause of *understanding* also, they say the thing understood sendeth forth *intelligible species*, that is, an *intelligible being seen*, which coming into the understanding makes us understand. I say not this as disapproving the use of universities; but because I am to speak hereafter of their office in a commonwealth, I must let you see on all occasions by the way, what things would be amended in them, amongst which the frequency of insignificant speech is one.

Chapter II

Of Imagination

[1] That when a thing lies still, unless somewhat else stir it, it will lie still for ever, is a truth that no man doubts of. But that when a thing is in motion, it will eternally be in motion, unless somewhat else stay it, though the reason be the same (namely, that nothing can change itself), is not so

easily assented to. For men measure, not only other men, but all other things, by themselves; and because they find themselves subject after motion to pain and lassitude,* think everything else grows weary of motion and seeks repose of its own accord, little considering whether it be not some other motion wherein that desire of rest they find in themselves consisteth. From hence it is that the schools say heavy bodies fall downwards out of an appetite to rest, and to conserve their nature in that place which is most proper for them, ascribing appetite and knowledge of what is good for their conservation (which is more than man has) to things inanimate, absurdly.

[2] When a body is once in motion, it moveth (unless something else hinder it) eternally; and whatsoever hindreth it, cannot in an instant, but in time and by degrees, quite extinguish it. And as we see in the water, though the wind cease, the waves give not over rolling for a long time after, so also it happeneth in that motion which is made in the internal parts of a man, then when he sees, dreams, &c. For after the object is removed, or the eye shut, we still retain an image of the thing seen, though more obscure than when we see it. And this is it, the Latins call *imagination*, from the image made in seeing, and apply the same, though improperly, to all the other senses. But the Greeks call it *fancy*, which signifies *appearance*, and is as proper to one sense as to another. IMAGINATION therefore is nothing but *decaying sense*, and is found in men and many other living creatures, as well sleeping as waking.

[3] The decay of sense in men waking is not the decay of the motion made in sense, but an obscuring of it, in such manner as the light of the sun obscureth the light of the stars; which stars do no less exercise their virtue, by which they are visible, in the day than in the night. But because amongst many strokes which our eyes, ears, and other organs receive from external bodies, the predominant only is sensible, therefore the light of the sun being predominant, we are not affected with the action of the stars. And any object being removed from our eyes, though the impression it made in us remain, yet other objects more present succeeding and working on us, the imagination of the past is obscured and made weak, as the voice of a man is in the noise of the day.

From whence it followeth that the longer the time is after the sight or sense of any object, the weaker is the imagination. For the continual change of man's body destroys in time the parts which in sense were moved, so that distance of time and of place hath one and the same effect in us. For as, at a great distance of place, that which we look at appears dim and without distinction of the smaller parts, and as voices grow weak and inarticulate, so also, after great distance of time, our imagination of the past is weak, and we lose (for example) of cities we have seen, many particular streets, and of actions, many particular circumstances. This *decaying sense*, when we would express the thing itself (I mean *fancy* itself), we call *imagination*, as I said before; but when we would

express the *decay*, and signify that the sense is fading, old, and past, it is called *memory*. So that *imagination* and *memory* are but one thing, which for diverse considerations hath diverse names. *Memory.*

[4] Much memory, or memory of many things, is called *experience*. Again, imagination being only of those things which have been formerly perceived by sense, either all at once or by parts at several times, the former (which is the imagining the whole object, as it was presented to the sense) is *simple imagination*; as when one imagineth a man, or horse, which he hath seen before. The other is *compounded*; as when from the sight of a man at one time, and of a horse at another, we conceive in our mind a Centaur. So when a man compoundeth the image of his own person with the image of the actions of another man, as when a man imagines himself a *Hercules* or an *Alexander* (which happeneth often to them that are much taken with reading of romances), it is a compound imagination, and properly but a fiction of the mind. There be also other imaginations that rise in men (though waking) from the great impression made in sense, as from gazing upon the sun, the impression leaves an image of the sun before our eyes a long time after; and from being long and vehemently attent* upon geometrical figures, a man shall in the dark (though awake) have the images of lines and angles before his eyes, which kind of fancy hath no particular name, as being a thing that doth not commonly fall into men's discourse.

Dreams.

[5] The imaginations of them that sleep are those we call *dreams*. And these also (as all other imaginations) have been before, either totally or by parcels, in the sense. And because[1] the brain and nerves, which are the necessary organs of sense, are so benumbed in sleep as not easily to be moved by the action of external objects, there can happen in sleep no imagination, and therefore no dream, but what proceeds from the agitation of the inward parts of man's body, which inward parts, for the connexion they have with the brain and other organs, when they be distempered, do keep the same in motion; whereby the imaginations there formerly made appear as if a man were waking, saving that the organs of sense being now benumbed, so as there is no new object which can master and obscure them with a more vigorous impression, a dream must needs be more clear, in this silence of sense, than are our waking thoughts. And hence it cometh to pass, that it is a hard matter, and by many thought impossible, to distinguish exactly between sense and dreaming. For my part, when I consider that in dreams I do not often, nor constantly, think of the same persons, places, objects, and actions that I do waking, nor remember so long a train of coherent thoughts dreaming as at other times, and because waking I often observe the absurdity of dreams, but never dream of the absurdities of my waking thoughts, I am well satisfied that being awake I know I dream not, though when I dream, I think myself awake.

1. The English editions add here "in sense," which is not in OL and is probably a mistake.

[6] And seeing dreams are caused by the distemper of some of the inward parts of the body, diverse distempers must needs cause different dreams. And hence it is that lying cold breedeth dreams of fear and raiseth the thought and image of some fearful object (the motion from the brain to the inner parts, and from the inner parts to the brain, being reciprocal); and that as anger causeth heat in some parts of the body when we are awake, so when we sleep the overheating of the same parts causeth anger and raiseth up in the brain the imagination of an enemy. In the same manner as natural kindness, when we are awake, causeth desire, and desire makes heat in certain other parts of the body, so also too much heat in those parts, while we sleep, raiseth in the brain an imagination of some kindness shown. In sum, our dreams are the reverse of our waking imaginations, the motion when we are awake beginning at one end, and when we dream at another.

[7] The most difficult discerning of a man's dream from his waking thoughts is then, when by some accident we observe not that we have slept, which is easy to happen to a man full of fearful thoughts, and whose conscience is much troubled, and that sleepeth without the circumstances of going to bed, or putting off his clothes, as one that noddeth in a chair. For he that taketh pains, and industriously lays himself to sleep, in case any uncouth* and exorbitant* fancy come unto him, cannot easily think it other than a dream. We read of *Marcus Brutus* (one that had his life given him by *Julius Caesar*, and was also his favourite, and notwithstanding murdered him), how at *Philippi*, the night before he gave battle to *Augustus Caesar*, he saw a fearful apparition, which is commonly related by historians as a vision, but considering the circumstances, one may easily judge to have been but a short dream. For sitting in his tent, pensive and troubled with the horror of his rash act, it was not hard for him, slumbering in the cold, to dream of that which most affrighted him, which fear, as by degrees it made him wake, so also it must needs make the apparition by degrees to vanish; and having no assurance that he slept, he could have no cause to think it a dream, or anything but a vision. And this is no very rare accident; for even they that be perfectly awake, if they be timorous and superstitious, possessed with fearful tales and alone in the dark, are subject to the like fancies, and believe they see spirits and dead men's ghosts walking in churchyards; whereas it is either their fancy only, or else the knavery of such persons as make use of such superstitious fear to pass disguised in the night to places they would not be known to haunt.

Apparitions or Visions.

[8] From this ignorance of how to distinguish dreams and other strong fancies from vision and sense did arise the greatest part of the religion of the gentiles* in time past, that worshipped satyrs, fawns, nymphs, and the like; and now-a-days the opinion that rude* people have of fairies, ghosts, and goblins, and of the power of witches. For as for witches, I think not that their

witchcraft is any real power, but yet that they are justly punished, for the false belief they have that they can do such mischief, joined with their purpose to do it if they can, their trade being nearer to a new religion than to a craft or science. And for fairies and walking ghosts, the opinion of them has I think been on purpose, either taught or not confuted, to keep in credit the use of exorcism, of crosses, of holy water, and other such inventions of ghostly* men.[2]

Nevertheless, there is no doubt but God can make unnatural apparitions. But that he does it so often as men need to fear such things more than they fear the stay or change of the course of nature, which he also can stay and change, is no point of Christian faith. But evil men, under pretext that God can do anything, are so bold as to say anything when it serves their turn, though they think it untrue; it is the part of a wise man to believe them no further than right reason makes that which they say appear credible. If this superstitious fear of spirits were taken away, and with it prognostics from dreams, false prophecies, and many other things depending thereon, by which crafty ambitious persons abuse the simple people, men would be much more fitted than they are for civil obedience.

[9] And this ought to be the work of the schools; but they rather nourish such doctrine. For (not knowing what imagination or the senses are) what they receive, they teach, some saying that imaginations rise of themselves and have no cause, others that they rise most commonly from the will, and that good thoughts are blown (inspired) into a man by God, and evil thoughts by the Devil, or that good thoughts are poured (infused) into a man by God, and evil ones by the Devil. Some say the senses receive the species of things and deliver them to the common sense, and the common sense delivers them over to the fancy, and the fancy to the memory, and the memory to the judgment, like handing of things from one to another, with many words making nothing understood.

Understanding.

[10] The imagination that is raised in man (or any other creature endued* with the faculty of imagining) by words or other voluntary signs is that we generally call *understanding*, and is common to man and beast. For a dog by custom will understand the call or the rating* of his master; and so will many other beasts. That understanding which is peculiar to man is the understanding *not only his will, but his conceptions and thoughts,[3] by the sequel* and contexture* of the names of things into affirmations, negations, and other forms of speech; and of this kind of understanding I shall speak hereafter [cf. v, 6].

2. Cf. the Latin Appendix, iii, 3–4; OL III, 560.

3. OL: "not only of the will, but also of the conceptions and thoughts of other men."

CHAPTER III

Of the Consequence or TRAIN *of Imaginations*

[1] By *Consequence*, or TRAIN of thoughts, I understand that succession of one thought to another which is called (to distinguish it from discourse in words) *mental discourse*.

[2] When a man thinketh on anything whatsoever, his next thought after, is not altogether so casual* as it seems to be. Not every thought to every thought succeeds indifferently. But as we have no imagination whereof we have not formerly had sense, in whole or in parts, so we have no transition from one imagination to another whereof we never had the like before in our senses. The reason whereof is this. All fancies are motions within us, relics of those made in the sense; and those motions that immediately succeeded one another in the sense continue also together after sense, insomuch as the former coming again to take place and be predominant, the latter followeth by coherence of the matter moved, in such manner as water upon a plain table is drawn which way any one part of it is guided by the finger. But because in sense, to one and the same thing perceived, sometimes one thing, sometimes another succeedeth, it comes to pass in time that in the imagining of anything there is no certainty what we shall imagine next; only this is certain, it shall be something that succeeded the same before, at one time or another.

Train of Thoughts unguided.

[3] This train of thoughts, or mental discourse, is of two sorts. The first is *unguided, without design*, and inconstant, wherein there is no passionate thought to govern and direct those that follow to itself, as the end and scope of some desire or other passion; in which case the thoughts are said to wander, and seem impertinent* one to another, as in a dream. Such are commonly the thoughts of men that are not only without company, but also without care of anything, though even then their thoughts are as busy as at other times, but without harmony, as the sound which a lute out of tune would yield to any man, or in tune, to one that could not play. And yet in this wild ranging of the mind, a man may oft-times perceive the way of it, and the dependence of one thought upon another. For in a discourse of our present civil war, what could seem more impertinent than to ask (as one did) what was the value of a Roman penny? Yet the coherence to me was manifest enough. For the thought of the war introduced the thought of the delivering up the king to his enemies; the thought of that brought in the thought of the delivering up of Christ; and that again the thought of the 30 pence which was the price of that treason; and thence easily followed that malicious question; and all this in a moment of time, for thought is quick.

Train of Thoughts regulated.

[4] The second is more constant, as being *regulated* by some desire, and design. For the impression made by such things as we desire or fear is strong and permanent, or (if it cease for a time) of quick return; so strong it is sometimes as to hinder and break our sleep. From desire ariseth the thought of some means we have seen produce the like of that which we aim at; and from the thought of that, the thought of means to that mean; and so continually, till we come to some beginning within our own power. And because the end, by the greatness of the impression, comes often to mind, in case our thoughts begin to wander, they are quickly again reduced into the way; which, observed by one of the seven wise men, made him give men this precept, which is now worn out, *Respice finem*, that is to say, in all your actions, look often upon what you would have, as the thing that directs all your thoughts in the way to attain it.

[5] The train of regulated thoughts is of two kinds: one, when of an effect imagined, we seek the causes, or means that produce it; and this is common to man and beast. The other is when, imagining anything whatsoever, we seek all the possible effects that can by it be produced; that is to say, we imagine what we can do with it, when we have it. Of which I have not at any time seen any sign, but in man only; for this is a curiosity hardly incident to the nature of any living creature that has no other passion but sensual, such as are hunger, thirst, lust, and anger. In sum, the discourse of the mind, when it is governed by design, is nothing but *seeking*, or the faculty of invention, which the Latins called *sagacitas*, and *solertia*; a hunting out of the causes of some effect, present or past, or of the effects of some present or past cause. Sometimes a man seeks what he hath lost, and from that place and time wherein he misses it, his mind runs back, from place to place, and time to time, to find where and when he had it; that is to say, to find some certain and limited time and place in which to begin a method of seeking. Again, from thence his thoughts run over the same places and times, to find what action or other occasion might make him lose it. This we call *remembrance*, or calling to mind; the Latins call it *reminiscentia*, as it were a *re-conning** of our former actions.

Remembrance.

[6] Sometimes a man knows a place determinate, within the compass whereof he is to seek; and then his thoughts run over all the parts thereof, in the same manner as one would sweep a room to find a jewel, or as a spaniel ranges the field till he find a scent, or as a man should run over the alphabet to start a rhyme.

[7] Sometimes a man desires to know the event* of an action; and then he thinketh of some like action past, and the events thereof one after another, supposing like events will follow like actions. As he that foresees what will become of a criminal re-cons what he has seen follow on the like crime before, having this order of thoughts: the crime, the officer, the prison, the judge, and

Prudence. the gallows. Which kind of thoughts is called *foresight*, and *prudence*, or *providence*, and sometimes *wisdom*, though such conjecture, through the difficulty of observing all circumstances, be very fallacious. But this is certain: by how much one man has more experience of things past than another, by so much also he is more prudent, and his expectations the seldomer fail him. The *present* only has a being in nature; things *past* have a being in the memory only; but things *to come* have no being at all, the *future* being but a fiction of the mind, applying the sequels* of actions past to the actions that are present; which with most certainty is done by him that has most experience, but not with *certainty enough.[1] And though it be called prudence when the event answereth our expectation, yet in its own nature it is but presumption. For the foresight of things to come, which is providence, belongs only to him by whose will they are to come. From him only, and supernaturally, proceeds prophecy. The best prophet naturally is the best guesser; and the best guesser, he that is most versed and studied in the matters he guesses at, for he hath most *signs* to guess by.

[8] A *sign* is the event antecedent of the consequent, and contrarily, the consequent of the antecedent, when the like consequences have been observed before; and the oftener they have been observed, the less uncertain is the sign. And therefore he that has most experience in any kind of business has most signs whereby to guess at the future time, and consequently is the most prudent; and so much more prudent than he that is new in that kind of business, as not to be equalled by any advantage of natural and extemporary* wit, though perhaps many young men think the contrary.

Signs.

[9] Nevertheless it is not prudence that distinguisheth man from beast. There be beasts that at a year old observe more, and pursue that which is for their good more prudently, than a child can do at ten.

[10] As prudence is a *presumption* of the *future*, contracted from the *experience* of time *past*, so there is a presumption of things past taken from other things (not future but) past also. For he that hath seen by what courses and degrees a flourishing state hath first come into civil war and then to ruin, upon the sight of the ruins of any other state will guess the like war and the like courses have been there also. But this conjecture has the same uncertainty almost with the conjecture of the future, both being grounded only upon experience.

Conjecture of the time past.

[11] There is no other act of man's mind that I can remember, naturally planted in him so as to need no other thing to the exercise of it but to be born a man, and live with the use of his five senses. Those other faculties of which I shall speak by and by, and which seem proper to man only, are acquired and increased by study and industry, and of most men learned by instruction and

1. OL: "complete certainty."

discipline, and proceed all from the invention of words and speech. For besides sense, and thoughts, and the train of thoughts, the mind of man has no other motion, though by the help of speech and method the same faculties may be improved to such a height as to distinguish men from all other living creatures.

[12] Whatsoever we imagine is *finite*. Therefore there is no idea or conception of anything we call *infinite*. No man can have in his mind an image of infinite magnitude, nor conceive infinite swiftness, infinite time, or infinite force, or infinite power. When we say anything is infinite, we signify only that we are not able to conceive the ends and bounds of the thing named, having no conception of the thing, but of our own inability. And therefore the name of *God* is used, not to make us conceive him (for he is *incomprehensible*, and his greatness and power are unconceivable), but that we may honour him. Also because whatsoever (as I said before) we conceive has been perceived first by sense, either all at once or by parts, a man can have no thought representing anything not subject to sense. No man therefore can conceive anything, but he must conceive it in some place, and endued with some determinate magnitude, and which may be divided into parts; nor that anything is all in this place, and all in another place at the same time; nor that two or more things can be in one and the same place at once; for none of these things ever have, or can be, incident to sense, but are absurd speeches, taken upon credit (without any signification at all) from deceived philosophers, and deceived or deceiving schoolmen.[2]

Chapter IV
Of Speech

[1] The invention of *printing*, though ingenious, compared with the invention of *letters* is no great matter. But who was the first that found the use of letters is not known. He that first brought them into *Greece*, men say, was

2. The schoolmen here attacked are those who defend the Roman interpretation of the eucharist, according to which the body of Christ is really present in what looks like bread (so that one body is present in many places at once, whenever priests celebrate mass in different places at the same time). At first the Anglican Church accepted the Roman doctrine, but controversy began early and continued till Hobbes' day. High-church Anglicans (like Bramhall and Cosin) affirmed the real presence, but denied that it had to be interpreted in the Roman way. See Horton Davies, *Worship and Theology in England*, I, iii, II, viii, Princeton UP, 1970.

Cadmus, the son of *Agenor*, king of Phoenicia. A profitable invention for continuing the memory of time past, and the conjunction* of mankind, dispersed into so many and distant regions of the earth; and withal difficult, as proceeding from a watchful observation of the divers motions of the tongue, palate, lips, and other organs of speech, whereby to make as many differences of characters to remember them. But the most noble and profitable invention of all other was that of SPEECH, consisting of *names* or *appellations,* and their connexion, whereby men register their thoughts, recall them when they are past, and also declare them one to another for mutual utility and conversation, without which there had been amongst men, neither commonwealth, nor society, nor contract, nor peace, no more than amongst lions, bears, and wolves. The first author of speech was **God* himself, that instructed *Adam* how to name such creatures as he presented to his sight;[1] for the Scripture goeth no further in this matter. But this was sufficient to direct him to add more names, as the experience and use of the creatures should give him occasion, and to join them in such manner by degrees, as to make himself understood; and so by succession of time, so much language might be gotten as he had found use for, though not so copious as an orator or philosopher has need of. For I do not find anything in the Scripture out of which, directly or by consequence, can be gathered that **Adam* was taught the names of all[2] figures, numbers, measures, colours, sounds, fancies, relations, *much less[3] the names of words and speech, as *general, special, affirmative, negative, interrogative, optative, infinitive*, all which are useful, and least of all, of *entity, intentionality, quiddity*, and other insignificant words of the School.

Original of Speech.

[2] But all this language gotten, and augmented by *Adam* and his posterity, was again lost at the tower of *Babel*, when by the hand of God every man was stricken, for his rebellion, with an oblivion of his former language [Genesis 11:1–9]. And being hereby forced to disperse themselves into several parts of the world, it must needs be that the diversity of tongues that now is proceeded by degrees from them, in such manner as need (the mother of all inventions) taught them; and in tract of time grew everywhere more copious.

[3] The general use of speech is to transfer our mental discourse into verbal, or the train of our thoughts into a train of words; and that for two commodities,* whereof one is the registering of the consequences of our thoughts, which being apt to slip out of our memory and put us to a new labour, may again be recalled by such words as they were marked by. So that the first use of names is to serve for *marks*, or *notes* of remembrance. Another

The use of Speech.

1. OL (more accurately reflecting Genesis 2:19–20): "Adam, who named the creatures which God presented to his sight."

2. OL: "Adam imposed names on every variety of."

3. OL: "much less that he imposed."

is when many use the same words to signify (by their connexion and order) one to another, what they conceive or think of each matter, and also what they desire, fear, or have any other passion for. And for this use they are called *signs*. Special uses of speech are these: first, to register what by cogitation we find to be the cause of anything, present or past, and what we find things present or past may produce or effect; which, in sum, is acquiring of arts. Secondly, to show to others that knowledge which we have attained, which is to counsel and teach one another. Thirdly, to make known to others our wills and purposes, that we may have the mutual help of one another. Fourthly, to please and delight ourselves and others, by playing with our words, for pleasure or ornament, innocently.

[4] To these uses, there are also four correspondent abuses. First, when men register their thoughts wrong, by the inconstancy of the signification of their words, by which they register for their conceptions that which they never conceived, and so deceive themselves. Secondly, when they use words metaphorically, that is, in other sense than that they are ordained for, and thereby deceive others. Thirdly, when by words they declare that to be their will, which is not. Fourthly, when they use them to grieve one another; for seeing nature hath armed living creatures, some with teeth, some with horns, and some with hands, to grieve an enemy, it is but an abuse of speech, to grieve him with the tongue, unless it be one whom we are obliged to govern; and then it is not to grieve, but to correct and amend.

Abuses of Speech.

[5] The manner how speech serveth to the remembrance of the consequence of causes and effects consisteth in the imposing of *names* and the *connexion* of them.

[6] Of names, some are *proper*, and singular to one only thing, as *Peter, John, this man, this tree*; and some are *common* to many things, as *man, horse, tree*, every of which, though but one name, is nevertheless the name of divers particular things, in respect of all which together it is called an *universal*, there being nothing in the world universal but names; for the things named are every one of them individual and singular.

Names Proper & Common.

Universal.

[7] One universal name is imposed on many things for their similitude in some quality or other accident; and whereas a proper name bringeth to mind one thing only, universals recall any one of those many.

[8] And of names universal, some are of more, and some of less extent, the larger comprehending the less large; and some again of equal extent, comprehending each other reciprocally. As for example, the name *body* is of larger signification than the word *man*, and comprehendeth it; and the names *man* and *rational* are of equal extent, comprehending mutually one another. But here we must take notice that by a name is not always understood, as in grammar, one only word, but sometimes by circumlocution many words together. For all these words, *he that in his actions observeth the laws of his country*, make

but one name, equivalent to this one word, *just*.

[9] By this imposition of names, some of larger, some of stricter signification, we turn the reckoning of the consequences of things imagined in the mind into a reckoning of the consequences of appellations. For example, a man that hath no use of speech at all (such as is born and remains perfectly deaf and dumb), if he set before his eyes a triangle, and by it two right angles (such as are the corners of a square figure), he may by meditation compare and find that the three angles of that triangle are equal to those two right angles that stand by it. But if another triangle be shown him, different in shape from the former, he cannot know without a new labour, whether the three angles of that also be equal to the same. But he that hath the use of words, when he observes that such equality was consequent, not to the length of the sides, nor to any other particular thing in his triangle, but only to this, that the sides were straight, and the angles three, and that that was all for which he named it a triangle, will boldly conclude universally that such equality of angles is in all triangles whatsoever, and register his invention* in these general terms: *every triangle hath its three angles equal to two right angles* [Euclid, *Elements* I, 32]. And thus the consequence found in one particular comes to be registered and remembered as an universal rule, and discharges our mental reckoning of time and place, and delivers us from all labour of the mind, saving the first, and makes that which was found true *here* and *now*, to be true in *all times* and *places*.

[10] But the use of words in registering our thoughts is in nothing so evident as in numbering. A natural fool,* that could never learn by heart the order of numeral words, as *one, two*, and *three*, may observe every stroke of the clock, and nod to it, or say one, one, one, but can never know what hour it strikes. And it seems there was a time when those names of number were not in use, and men were fain* to apply their fingers of one or both hands to those things they desired to keep account of, and that thence it proceeded that now our numeral words are but ten in any nation, and in some but five, and then they begin again. And he that can tell ten, if he recite them out of order, will lose himself and not know when he has done. Much less will he be able to add, and subtract, and perform all other operations of arithmetic. So that without words there is no possibility of reckoning of numbers, much less of magnitudes, of swiftness, of force, and other things the reckonings whereof are necessary to the being, or well-being, of mankind.

[11] When two names are joined together into a consequence or affirmation (as thus, *a man is a living creature*, or thus, *if he be a man, he is a living creature*), if the latter name, *living creature*, signify all that the former name, *man*, signifieth, then the affirmation or consequence is *true*; otherwise false. For *true* and *false* are attributes of speech, not of things. And where speech is not, there is neither *truth* nor *falsehood*. *Error* there may be, as when we expect that which

shall not be, or suspect what has not been; but in neither case can a man be charged with untruth.

[12] Seeing then that *truth* consisteth in the right ordering of names in our affirmations, a man that seeketh precise *truth* had need to remember what every name he uses stands for, and to place it accordingly, or else he will find himself entangled in words; as a bird in lime twigs, the more he struggles the more belimed. And therefore in geometry (which is *the only science that it hath pleased God hitherto to bestow on mankind[4]) men begin at settling the significations of their words; which settling of significations they call *definitions*, and place them in the beginning of their reckoning.

Necessity of Definitions.

[13] By this it appears how necessary it is for any man that aspires to true knowledge, to examine the definitions of former authors, and either to correct them where they are negligently set down, or to make them himself. For the errors of definitions multiply themselves according as the reckoning proceeds, and lead men into absurdities, which at last they see, but cannot avoid without reckoning anew from the beginning, in which lies the foundation of their errors. From whence it happens that they which trust to books do as they that cast up many little sums into a greater, without considering whether those little sums were rightly cast up or not; and at last finding the error visible, and not mistrusting *their first grounds,[5] know not which way to clear themselves, but spend time in fluttering over their books, as birds that entering by the chimney, and finding themselves enclosed in a chamber, flutter at the false light of a glass window, for want of wit to consider which way they came in.

So that in the right definition of names lies the first use of speech, which is the acquisition of science; and in wrong or no definitions lies the first abuse, from which proceed *all false and senseless tenets,[6] which make those men that take their instruction from the authority of books, and not from their own meditation, to be as much below the condition of ignorant men as men endued with true science are above it. For between true science and erroneous doctrines, ignorance is in the middle. Natural sense and imagination are not subject to absurdity. Nature itself cannot err; and as men abound in copiousness of language, so they become more wise, or more mad, than ordinary. Nor is it possible without letters for any man to become either excellently wise, or (unless his memory be hurt by disease or ill constitution of organs) excellently foolish. 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.

4. OL: "virtually the only precise science."

5. OL: "the principles of their masters."

6. OL: "the false and absurd opinions of the philosophers."

Subject to Names.

[14] *Subject to names* is whatsoever can enter into or be considered in an account, and be added one to another to make a sum, or subtracted one from another and leave a remainder. The Latins called accounts of money *rationes*, and accounting *ratiocinatio*; and that which we in bills or books of account call *items*, they call *nomina*, that is *names*; and thence it seems to proceed that they extended the word *ratio* to the faculty of reckoning in all other things. The Greeks have but one word, *logos*, for both *speech* and *reason*; not that they thought there was no speech without reason, but no reasoning without speech; and the act of reasoning they called *syllogism*, which signifieth summing up of the consequences of one saying to another. And because the same things may enter into account for divers accidents, their names are (to show that diversity) diversly wrested* and diversified. This diversity of names may be reduced to four general heads.

[15] First, a thing may enter into account for *matter* or *body*, as *living, sensible, rational, hot, cold, moved, quiet*, with all which names the word *matter*, or *body*, is understood, all such being names of matter.

[16] Secondly, it may enter into account, or be considered, for some accident or quality which we conceive to be in it, as for *being moved*, for *being so long*, for *being hot*, &c; and then, of the name of the thing itself, by a little change or wresting we make a name for that accident which we consider, and for *living* put into the account *life*; for *moved, motion*; for *hot, heat*; for *long, length*, and the like; and all such names are the names of the accidents and properties by which one matter and body is distinguished from another. These are called *names abstract*, because severed (not from matter, but) from the account of matter.

[17] Thirdly, we bring into account the properties of our own bodies whereby we make such distinction, as when anything is *seen* by us, we reckon not the thing itself, but the *sight*, the *colour*, the *idea* of it in the fancy; and when anything is *heard*, we reckon it not, but the *hearing* or *sound* only, which is our fancy or conception of it by the ear; and such are names of fancies.

Use of Names Positive.

[18] Fourthly, we bring into account, consider, and give names to *names* themselves and to *speeches*. For *general, universal, special, equivocal* are names of names. And *affirmation, interrogation, commandment, narration, syllogism, sermon, oration*, and many other such, are names of speeches. And this is all the variety of names *positive*, which are put to mark somewhat which is in nature, or may be feigned* by the mind of man, as bodies that are, or may be conceived to be; or of bodies, the properties that are, or may be feigned to be; or words and speech.

Negative Names with their Uses.

[19] There be also other names, called *negative*, which are notes to signify that a word is not the name of the thing in question, as these words *nothing, no man, infinite, indocible,* three want four*, and the like; which are nevertheless of use in reckoning, or in correcting of reckoning, and

call to mind our past cogitations, though they be not names of anything, because they make us refuse to admit of names not rightly used. *Words insignificant.*

[20] All other names are but insignificant sounds; and those of two sorts. One when they are new, and yet their meaning not explained by definition; whereof there have been abundance coined by schoolmen, and puzzled philosophers.

[21] Another, when men make a name of two names, whose significations are contradictory and inconsistent, as this name, an *incorporeal body*, or (which is all one) an *incorporeal substance*,[7] and a great number more. For whensoever any affirmation is false, the two names of which it is composed, put together and made one, signify nothing at all. For example, if it be a false affirmation to say *a quadrangle is round*, the word *round quadrangle* signifies nothing, but is a mere sound. So likewise, if it be false to say that virtue can be poured, or blown up and down, the words *in-poured virtue*, *in-blown virtue*, are as absurd and insignificant as a *round quadrangle*. And therefore you shall hardly meet with a senseless and insignificant word that is not made up of some Latin or Greek names. A Frenchman seldom hears our Saviour called by the name of *parole*, but by the name of *verbe* often; yet *verbe* and *parole* differ no more, but that one is Latin, the other French.

[22] When a man, upon the hearing of any speech, hath those thoughts which the words of that speech, and their connexion, were ordained and constituted to signify, then he is said to understand it, *understanding* being nothing else but conception caused by speech. And therefore if speech be peculiar to man (as for aught I know it is), then is understanding peculiar to him also. And therefore of absurd and false affirmations, in case they be universal, there can be no understanding, though many think they understand then, when they do but repeat the words softly, or con* them in their mind. *Understanding.*

[23] What kinds of speeches signify the appetites, aversions, and passions of man's mind, and of their use and abuse, I shall speak when I have spoken of the passions.

[24] The names of such things as affect us, that is, which please and displease us, because all men be not alike affected with the same thing, nor the same man at all times, are in the common discourses of men of *inconstant* signification. For seeing all names are imposed to signify our conceptions, and all our affections are but conceptions, when we conceive the same things differently, we can hardly avoid different naming of them. For though the nature of that we conceive be the same, yet the diversity of our reception of it, in respect of different constitutions of body and prejudices of opinion, gives everything a tincture* of our different passions. And therefore in reasoning a man must take heed of words which, besides the signification of *Inconstant names.*

7. Cf. the Latin Appendix, iii, 5–6; OL III, 561.

what we imagine of their nature, have a signification also of the nature, disposition, and interest of the speaker, such as are the names of virtues and vices; for one man calleth *wisdom*, what another calleth *fear*; and one *cruelty*, what another *justice*; one *prodigality*, what another *magnanimity*; and one *gravity*, what another *stupidity*, &c.[8] And therefore such names can never be true grounds of any ratiocination. No more can metaphors, and tropes* of speech; but these are less dangerous, because they profess their inconstancy, which the other do not.

CHAPTER V
Of REASON, and SCIENCE

Reason what it is.

[1] When a man *reasoneth*, he does nothing else but conceive a sum total from *addition* of parcels, or conceive a remainder from *subtraction* of one sum from another; which (if it be done by words) is conceiving of the consequence of the names of all the parts to the name of the whole, or from the names of the whole and one part to the name of the other part. And though in some things (as in numbers) besides *adding* and *subtracting* men name other operations, as *multiplying* and *dividing*, yet they are the same; for multiplication is but adding together of things equal, and division, but subtracting of one thing as often as we can. These operations are not incident to numbers only, but to all manner of things that can be added together and taken one out of another. For as arithmeticians teach to add and subtract in *numbers*, so the geometricians teach the same in *lines, figures* (solid and superficial*), *angles, proportions, times*, degrees of *swiftness, force, power*, and the like; the logicians teach the same in *consequences of words*, adding together *two names* to make an *affirmation*, and *two affirmations* to make a *syllogism*; and *many syllogisms* to make a *demonstration*; and from the *sum*, or *conclusion*, of a *syllogism* they subtract one *proposition* to find the other. Writers of politics add together *pactions** to find men's *duties*; and lawyers, *laws* and *facts*, to find what is *right* and *wrong* in the actions of private men. In sum, in what matter soever there is place for *addition* and *subtraction*, there also is place for *reason*; and where these have no place, there *reason* has nothing at all to do.

Reason defined.

[2] Out of all which we may define (that is to say determine) what that is which is meant by this word *reason*, when we reckon it amongst the faculties of the mind. For REASON, in this sense, is nothing but *reckoning*

8. Cf. Thucydides III, 82.

(that is, adding and subtracting) of the consequences of general names agreed upon for the *marking* and *signifying* of our thoughts; I say *marking* them when we reckon by ourselves, and *signifying*, when we demonstrate or approve our reckonings to other men.

[3] And as in arithmetic, unpractised men must, and professors themselves may, often err and cast up false, so also in any other subject of reasoning, the ablest, most attentive, and most practised men may deceive themselves and infer false conclusions; not but that reason itself is always right reason, as well as arithmetic is a certain and infallible art, but no one man's reason, nor the reason of any one number of men, makes the certainty, no more than an account is therefore well cast up, because a great many men have unanimously approved it. And therefore, as when there is a controversy in an account, the parties must by their own accord set up for right reason the reason of some arbitrator or judge to whose sentence they will both stand, or their controversy must either come to blows or be undecided, for want of a right reason constituted by nature, so is it also in all debates of what kind soever. And when men that think themselves wiser than all others clamour and demand right reason for judge, yet seek no more but that things should be determined by no other men's reason but their own, it is as intolerable in the society of men as it is in play, after trump is turned, to use for trump on every occasion that suit whereof they have most in their hand. For they do nothing else, that will have every of their passions, as it comes to bear sway in them, to be taken for right reason, and that in their own controversies, bewraying* their want of right reason by the claim they lay to it.

Right reason where.

[4] The use and end of reason is not the finding of the sum and truth of one or a few consequences, remote from the first definitions and settled significations of names, but to begin at these, and proceed from one consequence to another. For there can be no certainty of the last conclusion without a certainty of all those affirmations and negations on which it was grounded and inferred. As when a master of a family, in taking an account, casteth up the sums of all the bills of expense into one sum, and not regarding how each bill is summed up by those that give them in account, nor what it is he pays for, he advantages himself no more than if he allowed the account in gross, trusting to every of the accountants' skill and honesty, so also in reasoning of all other things, he that takes up conclusions on the trust of authors, and doth not fetch them from the first items in every reckoning (which are the significations of names settled by definitions), loses his labour, and does not know anything, but only believeth.

The use of Reason

[5] When a man reckons without the use of words, which may be done in particular things (as when upon the sight of any one thing, we conjecture what was likely to have preceded, or is likely to follow upon it), if that which he thought likely to follow, follows not, or that which he thought likely to have

Of Error and Absurdity

preceded it, hath not preceded it, this is called ERROR, to which even the most prudent men are subject. But when we reason in words of general signification, and fall upon a general inference which is false, though it be commonly called *error*, it is indeed an ABSURDITY, or senseless speech. For error is but a deception, in presuming that somewhat is past, or to come, of which, though it were not past, or not to come, yet there was no impossibility discoverable. But when we make a general assertion, unless it be a true one, the possibility of it is inconceivable. And words whereby we conceive nothing but the sound are those we call *absurd, insignificant*, and *nonsense*. And therefore if a man should talk to me of a *round quadrangle*, or *accidents of bread in cheese*, or *immaterial substances*, or of *a free subject*, *a free will*, or any *free*, but free from being hindered by opposition, I should not say he were in an error, but that his words were without meaning, that is to say, absurd.

[6] I have said before (in the second chapter [¶10]) that a man did excel all other animals in this faculty: that when he conceived anything whatsoever, he was apt to inquire the consequences of it, and what effects he could do with it. And now I add this other degree of the same excellence: that he can by words reduce the consequences he finds to general rules, called *theorems*, or *aphorisms*; that is, he can reason, or reckon, not only in number, but in all other things whereof one may be added unto or subtracted from another.

[7] But this privilege is allayed* by another, and that is by the privilege of absurdity, to which no living creature is subject but man 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:[1] 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.

[8] The first cause of absurd conclusions I ascribe to the want of method, in

Causes of Absurdity

that they begin not their ratiocination from definitions, that is, from settled significations of their words, as if they could cast account without knowing the value of the numeral words, *one, two*, and *three*.

[9] And whereas all bodies enter into account upon diverse considerations (which I have mentioned in the precedent chapter [¶¶15–18]), these considerations being diversely named, diverse absurdities proceed from the confusion and unfit connexion of their names into assertions. And therefore,

[10] The second cause of absurd assertions I ascribe to the giving of names

1. *De divinatione* II, 119, cited also by Montaigne, *Essays*, II, xii ("Apology for Raymond Sebond," p. 408 in Frame's edition) and Descartes, *Discourse on Method* i (AT VI, 16).

of *bodies* to *accidents*, or of *accidents* to *bodies*, as they do that say *faith is infused* or *inspired*, when nothing can be *poured* or *breathed* into anything but body, and that *extension* is *body*, that *phantasms* are *spirits*, &c.

[11] The third I ascribe to the giving of the names of the *accidents* of *bodies without us* to the *accidents* of our *own bodies*, as they do that say the *colour is in the body*, *the sound is in the air*, &c.

[12] The fourth, to the giving of the names of *bodies* to *names* or *speeches*, as they do that say that *there be things universal*, that *a living creature is genus*, or *a general thing*, &c.

[13] The fifth, to the giving of the names of *accidents* to *names* and *speeches*, as they do that say *the nature of a thing is its definition*, *a man's command is his will*, and the like.

[14] The sixth, to the use of metaphors, tropes, and other rhetorical figures, instead of words proper. For though it be lawful to say (for example) in common speech *the way goeth, or leadeth hither, or thither*, *the proverb says this or that* (whereas ways cannot go, nor proverbs speak), yet in reckoning and seeking of truth such speeches are not to be admitted.

[15] The seventh, to names that signify nothing, but are *taken up and learned by rote[2] from the schools, as *hypostatical, transubstantiate, consubstantiate, eternal-now*, and the like canting of schoolmen.

[16] To him that can avoid these things it is not easy to fall into any absurdity, unless it be by the length of an account, wherein he may perhaps forget what went before. For all men by nature reason alike, and well, when they have *good[3] principles. For who is so stupid as both to mistake in geometry, and also to persist in it when another detects his error to him?

[17] By this it appears that reason is not, as sense and memory, born with us, nor gotten by experience only, as prudence is, but attained by industry, first in apt imposing of names, and secondly by getting a good and orderly method in proceeding from the elements, which are names, to assertions made by connexion of one of them to another, and so to syllogisms, which are the connexions of one assertion to another, till we come to a knowledge of all the consequences of names appertaining to the subject in hand; and that is it men call SCIENCE. And whereas sense and memory are but knowledge of fact, which is a thing past and irrevocable, *Science* is the knowledge of consequences, and dependence of one fact upon another, by which, out of that we can presently do, we know how to do something else when we will, or the like, another time; because when we see how anything comes about, upon what causes, and by what manner, when the like causes come into our power, we see how to make it produce the like effects. *Science*

2. OL: "blindly accepted."

3. OL: "true and clear."

[18] Children therefore are not endued with reason at all till they have attained the use of speech, but are called reasonable creatures for the possibility apparent of having the use of reason in time to come. And the most part of men, though they have the use of reasoning a little way, as in numbering to some degree, yet it serves them to little use in common life, in which they govern themselves, some better, some worse, according to their differences of experience, quickness of memory, and inclinations to several ends, but specially according to good or evil fortune, and the errors of one another. For as for *science*, or certain rules of their actions, they are so far from it that they know not what it is. Geometry they have thought conjuring; but for other sciences, they who have not been taught the beginnings and some progress in them, that they may see how they be acquired and generated, are in this point like children, that having no thought of generation are made believe by the women that their brothers and sisters are not born, but found in the garden.

[19] But yet they that have no *science* are in better and nobler condition with their natural prudence than men that by mis-reasoning, or by trusting them that reason wrong, fall upon false and absurd general rules. For ignorance of causes and of rules does not set men so far out of their way as relying on false rules, and taking for causes of what they aspire to, those that are not so, but rather causes of the contrary.

[20] To conclude, the light of human minds is perspicuous words, but by exact definitions first snuffed* and purged from ambiguity; *reason* is the *pace*; increase of *science*, the *way*; and the benefit of mankind, the *end*. And on the contrary, metaphors, and senseless and ambiguous words, are like *ignes fatui* [a fool's fire], and reasoning upon them is wandering amongst innumerable absurdities; and their end, contention and sedition, or contempt.*

[21] As much experience is *prudence*, so is much science *sapience*. For though we usually have one name of wisdom for them both, yet the Latins did always distinguish between *prudentia* and *sapientia*, ascribing the former to experience, the latter to science. But to make their difference appear more clearly, let us suppose one man endued with an excellent natural use and dexterity in handling his arms, and another to have added to that dexterity an acquired science of where he can offend* or be offended by his adversary in every possible posture or guard; the ability of the former would be to the ability of the latter as prudence to sapience; both useful, but the latter infallible. But they that trusting only to the authority of books follow the blind blindly are like him that, trusting to the false rules of a master of fence, ventures presumptuously upon an adversary that either kills or disgraces him.

Prudence & Sapience, with their difference

[22] The signs of science are some, certain and infallible, some, uncertain. Certain, when he that pretendeth* the science of anything can teach the same, that is to say, demonstrate the truth thereof perspicuously to an-

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other; uncertain, when only some particular events answer to his pretence, *and upon many occasions prove so as he says they must.[4] Signs of prudence are all uncertain, because to observe by experience and remember all circumstances that may alter the success is impossible. But in any business whereof a man has not infallible science to proceed by, to forsake his own natural judgment and be guided by general sentences* read in authors (and subject to many exceptions) is a sign of folly, and generally scorned by the name of pedantry. And even of those men themselves that in councils of the commonwealth love to show their reading of politics and history, very few do it in their domestic affairs, where their particular interest is concerned, having prudence enough for their private affairs; but in public they study more the reputation of their own wit than the success of another's business.

4. OL: "but on many other occasions are not as he says." Although the English editions have the reading reproduced here, the Latin seems to make better sense.