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Open not the law to Hatteren. The mon this law to tatterers nd Shut them to Truth Milliam finite Logic Vory ill defined by J. W. Wm. D. Jentes. Triderick Goly. Md. March 31. 1872.

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#### GEORGE R.

EORGE the Second, by the Grace of God, King of Great-J Britain, France and Ireland, Defender of the Faith, &c. To all to whom these Presents shall come, Greeting. Whereas James Buckland, James Waugh, John Ward, Thomas Lorgmon, and Edward Dilly, Citizens and Bookfellers of our City of London, have by their Petition humbly represented unto Us, that they have purchased the Copy-Right of the WNOLE WORKS of the late Doc TOR ISAAC WATTS, and that they are now printing and preparing for the Prefs, new Editions with Improvements, of several of the separate Pieces of the faid Doctor Ifaac Watts. They have therefore most humbly prayed Us, that We would be graciously pleafed to grant them our Royal Licence and Prosection for the fole printing, publishing, and wonding the faid Works, in as ample Manner and Form as has been done in Cafes of the like Nature ; We being willing to give all due Encou-ragement to Works of this Nature, which may be of publick Ufe and Benefit, are graciously pleased to condescend to their Request, and do therefore by these Presents, as far as may be agreeable to the Statute in that Behalf made and provided, grant unto them, the faid James Buckland, James Waugh, John N ard, Thomas Longman, and Edward Dilly, their Executors, Administrators, and Affigns, our Royal Privilege and Licence, for the fole printing, publishing, and vending the faid Works for the Term of fourteen Years, to be computed from the Date hereof, firictly forbidding and prohibiting all our Subjects within our Kingdoms and Dominions, to reprint, abridge, or translate the same, either in the like, or any other Volume or Volumes whatsoever, or to import, buy, vend, utter, or diffribute any Copies thereof reprinted beyond the Seas, during the aforefaid Term of fourteen Printed beyond the Seas, during the aforefaid Term of fourteen Buckland, James Waugh, John Ward, Thomas Longman, and Edward Dilly, their Executors, Administrators and Affigns, by Writing under their Hands and Seals first had and obtained, as they and every of them offending herein, will answer the contrary at their Peril, whereof the Commissioners and other Officers of our Cuftoms, the Mafter, Wardens, and Company of Stafforers of our City of London, and all other our Officers and Minifters, whom it may concern, are to take Notice, that due Obedience be rendered to our Pleasure herein fignified.

Given at our Court at St. James's the Twenty First Day of March, 1758, in the Thirty First Year of Our Reign.

By His Majefty's Command.

W. PIT

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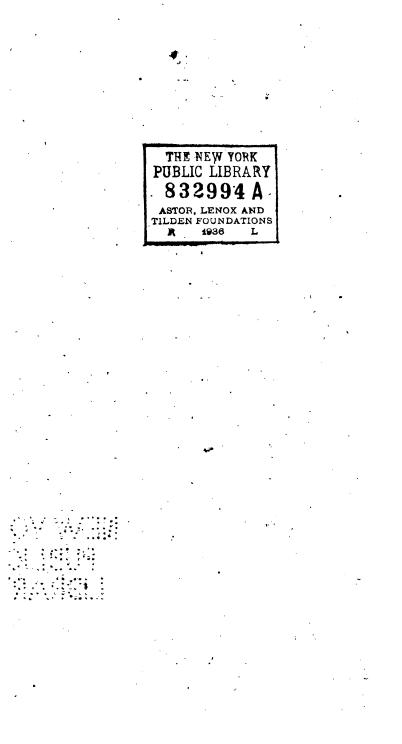
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# ENQUIRY after TRUTH.

#### WITH

A Variety of RULES to guard against Error, in the Affairs of Religion and HUMAN LIFE, as well as in the Sci-ENCES.

•	By ISAAC WATTS, D. D.
-	The TWELFTH EDITION:
	LONDON: Minted for J. BUCKLAND, and T. LONGMAN, in Pater- Nofter-Row; J. WAUGH in Lombard-Street; E. DILLY in the Poultry; and T. FIELD in Cheapfide.
	M.DCC.LXIII.



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#### ΤO

# Sir JOHN HARTOPP, Baronet.

#### SIR,

T is fit the Publick fhould receive through your Hands what was written originally for the Affiftance of your younger Studies, and was then prefented to you.

It was by the repeated Importunities of our Learned Friend Mr. John Eames, that I was perfuaded to revife these Rudiments of Logick; and when I had once fuffered myself to begin the Work, I was drawn still onward far beyond my first Design, even to the Neglect, or too long Delay of other pressing and important Demands that were upon me.

It has been my Endeavour to form every Part of this Treatife both for the Inftruction of Students to open their Way into the Sciences, and for the more extensive and general Service of Mankind, that the Gentleman and the Chriftian might find their Account in the Perusal as well as the Scholar. I have therefore collected and proposed the chief Principles and Rules of right Judgment in Matters of common and facred Importance, and pointed out our most frequent Mistakes and Prejudices in the Concerns of Life and Religion, that we might better guard against the Springs of Error, Guilt and Sorrow, which furround us in every State of Mortality.

You know, Sir, the great Defign of this noble Science is to refcue our reafoning Powers from their unhappy Slavery and Darknefs; and thus, with all due Submiffion and Deference, it offers a humble Affiftance to divine Revelation. Its chief Bufinefs is to relieve the natural Weakneffes of the Mind by fome better Efforts of Nature; it is to diffuse a Light over the Understanding in our Enquiries after Truth, and not to furnish the Tongue with Debate

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#### DEDICATION.

and Controversy. True Logick is not that noisy Thing that deals all in Difpute and Wrangling, to which former Ages had debased and confined it; yet its Disciples must acknowledge alfo, that they are taught to vindicate and defend the Truth, as well as to fearch it out. True Logick doth not require a long Detail of hard Words to amuse Mankind, and to puff up the Mind with empty Sounds, and a Pride of falle Learning; yet fome Diffinctions and Terms of Art are necessary to range every Idea in its proper Class, and to keep our Thoughts from Confusion. The World is now grown fo wife as not to fuffer this valuable Art to be engroffed by the Schools. In fo polite and knowing an Age every Man of Reason will covet some Acquaintance with Logick, fince it renders its daily Service to Wi/dom . and Virtue, and to the Affairs of common Life, as well as 1 to the Sciences.

I will not prefume, Sir, that this little Book is improved fince its firft Composure in Proportion to the Improvements of your manly Age. But when you shall pleafe to review it in your retired Hours, perhaps you may refresh your own Memory in some of the early Parts of *Learning*: And if you find all the additional Remarks and Rules made to familiar to you already by your own Obfervation, that there is nothing new among them, it will be no unpleasing Reflection that you have to far anticipated the prefent Zeal and Labour of,

ondon, Aug. 24, 1724.

#### SIR,

#### Your most faithful and

Obedient Servant.

#### I. WATTS.

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#### ÁND

# GENERAL SCHEME.

OGICK is the Art of using Reason \* well in our Enquiries after Truth, and the Communication of it to others.

Reason \* is the Glory of human Nature, and one of the chief Eminencies whereby we are railed above our Fellow-creatures the Brutes in this lower World.

Reason, as to the Power and Principle of it, is the common Gift of God to all Men; though all are not favoured with it by Nature in an equal Degree: But the acquired Improvements of it in different Men, make a much greater Diffinction between them than Nature had made. I could even venture to fay, that the Improvement of Reason hath raifed the Learned and the Prudent in the European World, almost as much above the Hottentots, and other Savages of Africa, as those Savages are by Nature superior to the Birds, the Beasts, and the Fishes.

Now the Defign of Logick is to teach us the right Use of our Reason, ot Intellectual Powers, and the Improvement of them in ourselves and others; this is not only necessary in order to at-A 4 tain

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 The Word Reafon in this Place is not confined to the meer Faculty of reafoning, or inferring one Thing from another, but includes all the intellection of Powers of Mass.

tain any competent Knowledge in the Sciences, or the Affairs of Learning, but to govern both the greater and the meaner Altions of Life. <sup>11</sup>It is the Cultivation of our Reason by which we are better enabled to diftinguish Good from Evil, as well as Truth from Falshood: And both thefe are Matters of the highest Importance, whether we regard this Life, or the Life to come.

The Pursuit and Acquisition of Truth is of infinite Concernment to Mankind. Hereby we become acquainted with the Nature of Things both in Heaven and Earth, and their various Relations to each other. It is by this Means we discover our Duty to God and our Fellow-Creatures : By this we arrive at the Knowledge of natural Religion, and learn to confirm our Faith in divine Revelation. as well as to understand what is revealed. Our Wisdom, Prudence and Piety, our present Conduct, and our future Hope, are all influenced by the Use of our rational Powers in the Search after Truth.

There are feveral Things that make it very neceffary that our Reafon fhould have fome Affiftance in the Exercise or U/e of it.

The first is, the Depth and Difficulty of many Truths, and the Weakness of our Reason to see far into Things at once, and penetrate to the Bottom of them. It was a faying among the Ancients, Veritas in Puteo, Truth lies in a Well; and to carry on this Metaphor we may very justly fay, that Logick does, as it were, fupply us with Steps whereby we may go down to reach the Water; or it frames the Links of a Chain, whereby we may draw the Water up from the Bottom. 1, Thus, by the Means of many Reasonings well connected together, Philosophers in our Age have drawn a thousand Truths out of the Depths of Darknefs, nefs, which our Fathers were utterly unacquainted with.

Another Thing, that makes it necessary for our Reason to have some Affistance given it, is the Difguise and falfe Colours in which many Things appear to us in this prefent imperfect State :', There are a thousand Things which are not in reality what they appear to be, and that both in the natural and the moral World : So the Sun appears to be flat as a Plate of Silver, and to be lefs than twelve Inches in Diameter: The Moon appears to be as big as the Sup, and the Rainbow appears to be a large fubstantial Arch in the Sky; all which are in reality grofs Falfhoods. So Knavery puts on the Face of Justice, Hypocrify and Superstition wear the Vizard of Piety, Deceit and Evil are often cloathed in the Shapes and Appearances of Truth and Goodnefs. Now Logick helps us to strip off the outward Difguife of Things, and to behold them and judge of them in their own Nature.

There is yet a farther Proof that our intellectual or rational Powers need fome Affiftance, and that is, becaufe they are fo frail and fallible in the prefent State; we are imposed upon at bome as well as abroad; we are deceived by our Senles, by our Imaginations, by our Paffions and Appetites; by the Authority of Men, by Education and Custom, &c. and we are led into frequent Errors, by judging according to these false and flattering Principles, rather than according to the Nature of Things. Something of this Frailty is owing to our very Conftitution, Man being compounded of Flesh and Spirit: Something of it arifes from our Infant-State, and our growing up by fmall Degrees to Manhood, fo that we form a thousand Judgments before our Reason is mature. But there is still more of it owing to our original Defection from God, and the

the foolifh and evil Difpolitions that are found iff fallen Man: So that one great Part of the Defign of Logick is to guard us against the delusive Influences of our meaner Powers, to cure the Mistakes of immature Judgment, and to raife us in fome Measure from the Ruins of our Fall.

It is evident enough from all thefe Things, that our *Reason* needs the Affistance of *Art* in our Enquiries after *Truth* or *Duty*; and without fome Skill and Diligence in forming our Judgments aright, we shall be led into frequent Mistakes, both in Matters of *Science*, and in Matters of *Practice*, and fome of these Mistakes may prove fatal too.

The Art of Logick, even as it affifts us to gain the Knowledge of the Sciences, leads us on toward Virtue and Happiness; for all our *fpeculative Acquaint*ance with Things should be made subservient to our better Condust in the vivil and the religious Life. This is infinitely more valuable than all Speculations; and a wife Man will use them chiefly for this better Purpose.

All the good Judgment and Prudence that any Man exerts in his common Concerns of Life, without the Advantage of Learning, is called *natural Logick*: And it is but a higher Advancement, and a farther Affiftance of our rational Powers, that is defigned by and expected from this *artificial Logick*.

In order to attain this, we must enquire what are the principal Operations of the Mind, which are put forth in the Exercise of our Reason: And we shall find them to be these four, (viz.) Perception, Judgment, Argumentation and Disposition.

Now the Art of Logick is composed of those Obfervations and Rules, which Men have made about these four Operations of the Mind, Perception, Judgment, Reasoning, and Disposition, in order to affist and improve them.

I. Perception,

I. Perception, Conception, or Apprebension, is the mere fimple Contemplation of Things offered to our Minds, without affirming or denying any Thing concerning them. 1 So we conceive or think of a Horse, a Tree, Higb, Swist, Slow, Animal, Time, Motion, Matter, Mind, Lise, Death, Sc. The Form under which these Things appear to the Mind, or the Refult of our Conception or Apprehension, is called an Idea.

II. Judgment is that Operation of the Mind, whereby we join two or more Ideas together by one Affirmation or Negation, that is, we either affirm or deny this to be that. So This Tree is high; That Horfe is not fwift; The Mind of Man is a thinking Being; Mere Matter has no Thought belonging to it; God is just; Good Men are often miserable in this World; a righteous Governor will make a Difference betwist the Evil and the Good; which Sentences are the Effect of Judgment, and are called Propositions.

III. Argumentation or Reafoning is that Operation of the Mind, whereby we infer one Thing, *i. e.* one Proposition, from two or more Propositions premifed. Or it is the drawing a Conclusion, which before was either unknown, or dark, or doubtful, from fome Propositions which are more known and evident. So when we have judged that Matter cannot think, and that the Mind of Man doth think, we then infer and conclude, that therefore the Mind of Man is not Matter.

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So we judge that A just Governor will make a Difference between the Evil and the Good; we judge also that God is a just Governor; and from thence we conclude, that God will make a Difference between the Evil and the Good.

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This Argumentation may be carried on farther, thus, God will one Time or another make a Difference between the Good and the Evil: But there is little or no Difference made in this World: Therefore there must be another World wherein this Difference shall be made.

These Inferences or Conclusions are the Effects of Reasoning, and the three Propositions taken all together are called a Syllogism, or Argument.

IV. Disposition is that Operation of the Mind, whereby we put the Ideas, Propositions and Arguments, which we have formed concerning one Subject, into such an Order as is fittest to gain the clearest Knowledge of it, to retain it longest, and to explain it to others in the best Manner : Or, in short, it is the ranging of our Thoughts in such Order, as is best for our own and others Conception and Memory. \* The Effect of this Operation is called Method. This very Description of the four Operations of the Mind and their Effects in this Order, is an Instance or Example of Method.

Now as the Art of Logick affifts our Conceptions, fo it gives us a large and comprehensive View of the Subjects we enquire into, as well as a clear and diftinct Knowledge of them. As it regulates our Judgment and our Reasoning, fo it fecures us from Miftakes, and gives us a true and certain Knowledge of Things; and as it furnishes us with Method, fo it makes our Knowledge of Things both easy and regular, and guards our Thoughts from Confusion.

Logick is divided into four Parts, according to thele four Operations of the Mind, which it directs, and therefore we shall treat of it in this Order.

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# FIRST PART

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# Of Perceptions and Ideas.

HE first Part of Logick contains Observations and Precepts about the first Operation of the Mind, Perception or Conception: And fince all our Knowledge, how wide and large foever it grow, is founded upon our Conceptions and Ideas, here we chall confider,

1. The general Nature of them.

2 The Objects of our Conception, or the Archetypes or Patterns of these Ideas.

3. The feveral Divisions of them.

4. The Words and Terms whereby our Ideas are expressed.

5. General Directions about our Ideas.

6. Special Rules to direct our Conceptions.

# CHAP.

# C.H.A.P. I.

## Of the Nature of Ideas.

**F** IRST, the Nature of Conception or Perception + fhall just be mentioned, though this may feem to belong to another Science rather than Logick.

Perception is that Att of the Mind (or as fome Philosophers call it, rather a Passion or impression) whereby the Mind becomes conscious of any Thing, as when I feel Hunger, Thirst, or Cold, or Heat; when I fee a Horse, a Tree, or a Man; when I hear a human Voice, or Thunder, I am conscious of these Things, and this is called Perception. If I study, meditate, wish, or sear, I am conscious of these inward Acts also, and my Mind perceives its own Thoughts, Wishes, Fears, &cc.

An Idea is generally defined a Reprefentation of a Thing in the Mind; it is a Reprefentation of fomething that we have feen, felt, heard, &c. or heen confcious of. That Notion or Form of a Horfe, a Tree, or a Man, which is in the Mind, is called the Idea of a Horfe, a Tree, or a Man.

That Notion of Hunger, Cold, Sound, Colour, Thought, or Wish, or Fear, which is in the Mind, is called the *Idea of Hunger*, Cold, Sound, Wish, &cc.

It is not the outward Object, or Thing which is perceived, (viz.) the Horfe, the Man, &c. nor

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<sup>+</sup> Note. The Words Conception and Perception are often used promiscuously, as I have done here, because I would not embarrass a Learner with too many Distinctions; but if I were to distinguish them, I would say Perception is the Conficious of an Object when prefent; Conception is the forming an Idea of the Object whether prefent or absent.

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is it the very Perception or Sense, and Feeling, viz. of Hunger, or Cold, &c. which is called the Idea; but it is the Thing as it exists in the Mind by Way of Conception or Representation that is properly called the Idea, whether the Object be present or absent.

As a Horic, a Man, a Tree, are the outward Objects of our Perception, and the outward Archetypes, or Patterns of our Ideas; fo our own Senfations of Hunger, Cold, &c. are also inward Archetypes, or Patterns of our Ideas: But the Notions or Pistures of these Things, as they are confidered, or conceived in the Mind, are precisely the Ideas that we have to do with in Logick. To fee a Horse, or to feel Cold, is one Thing; to think of, and converse about a Man, a Horse, Hunger, or Cold, is another.

Among all these Ideas, such as represent Bodies, are generally called Images, especially if the Idea of the Shape be included. Those inward Representations which we have of Spirit, Thought, Love, Hatred, Cause, Effect, &cc. are more pure and mental Ideas, belonging more especially to the Mind, and carry nothing of Shape or Sense in them. But I shall have Occasion to speak more particularly of the Original and the Distinction of Ideas in the third Chapter. I proceed therefore now to consider the Objects of our Ideas.

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## CHAP. II.

Of the Objects of Perception.

#### SECT. I.

#### Of Being in general.

HE Object of Perception is that which is reprefented in the Idea, that which is the Archetype or Pattern, according to which the Idea is formed; and thus Judgments, Propositions, Reafons, and long Difcourfes, may all become the Objects of Perception; but in this Place we fpeak chiefly of the first and more fimple Objects of it, before they are joined and formed into Propositions or Difcourfes.

Every Object of our Idea is called a Theme, whether it be a Being or Not-Being; for Not-Being may be proposed to our Thoughts, as well as that which has a real Being. But let us first treat of Beings, and that in the largest Extent of the Word.

A Being is confidered as possible, or as actual.

When it is confidered as *poffible*, it is faid to have an *Effence* or *Nature*; fuch were all *Things* before their Creation: When it is confidered as actual, then it is faid to have *Existence* also; fuch are all *Things* which are created, and God himself the Creato?

Effence therefore is but the very Nature of any Being, whether it be actually existing or no. A Rose in Winter has an Effence, in Summer it has Existence also.

### Ch. II. S. 2. The right Use of Reason.

Note, There is but one Being which includes Exiftence in the very Effence of it, and that is God, who therefore actually exifts by natural and eternal Neceffity! But the allual Existence of every Creature is very diffinct from its Effence, for it may be or may not be, as God please.

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Again, Every Being is confidered either as fubfifting in and by its felf, and then it is called a Subflance; or it fubfifts in and by another, and then it is called a Mode or Manner of Being. Though few Writers allow Mode to be called a Being in the fame perfect Senfe as a Subflance is; and fome Modes have evidently more of real Entity or Being than others, as will appear when we come to treat of them. These Things will furnish us with Matter for larger Discourse in the following Sections.

#### SECT: II.

#### Of Substances and their various Kinds.

A Subflance is a Being which can fublift by itfelf, without Dependence upon any other created Being. The Notion of fubfifting by itfelf, gives occasion to Logicians to call it a Subflance. So a Horfe, a Houfe, Wood, Stone, Water, Fire, a Spirit, a Body, an Angel, are called Subflances, because they depend on nothing but God for their Existence.

It has been usual also in the Description of Subfance to add, it is that which is the Subject of Modes or Accidents; a Body is the Substance or Subject, its Shape is the Mode.

But left we be led into Miftakes, let us here take Notice, that when a Substance is faid to *fubfift with*out Dependence upon another created Being, all that we mean is, that it cannot be annihilated, or utterly destroyed, and reduced to nothing, by any Power inferior to that of our Creator; though its prefent B particular 1Ž

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particular Form, Nature and Properties may be altered and deftroyed by many inferior Caufes: A Horfe may die and turn to Duft; Wood may be turned into Fire, Smoke, and Albes; a Houle into Rubbilb, and Water into Ice or Vapour; but the Subftance or Matter of which they are made ftill remains, though the Forms and Shapes of it are altered. A Body may cease to be a Houle or a Horle, but it is a Body ftill; and in this Senfe it depends only upon God for its Existence.

Among Substances fome are thinking or confcious Beings, or have a Power of Thought, fuch as the Mind of Man, God, Angels. Some are extended and folid, or impenetrable, that is, they have Dimentions of Length, Breadth, and Depth, and have also a Power of Refiftance, or exclude every Thing of the fame Kind from being in the fame Place. This is the proper Character of Matter or Body.

As for the Idea of Space, whether it be void or full, i. e. a Vacuum or a Plenum, whether it be interfperfed among all Bodies, or may be fuppofed to reach beyond the Bounds of the Creation, it is an Argument too long and too hard to be difputed in this Place what the Nature of it is: It has been much debated whether it be a real Subfrance, or a mere Conception of the Mind, whether it be the Immenfity of the divine Nature, or the mere Order of co-existent Beings, whether it be the Manner of our Conception of the Distances of Bodies, or a mere Nothing. Therefore I drop the Mention of it here, and refer the Reader to the first Effay among the Philosophical Essay by I. W. published 1733.

Now if we fectude Space out of our Confideration, there will remain but two Sorts of Substances in the World, i. e. Matter and Mind, or as we otherwite

# Ch. II. S. 2. The right Use of Reason. If otherwise call them, Body and Spirit; at least, we have no Ideas of any other Substance but these \*. Among

• Becaule Men have different Ideas and Notiens of Subflance, I thought it not proper entirely to omit all Accounts of them, and therefore have thrown them into the Margin.

Some Philosophers suppose that our Acquaintance with Matter or Mind reaches no farther than the mere Properties of them, and that there is a fort of unknown Being, which is the Subfrance or the Subject by which these Properties of folid Extension and of Cognation are supported, and in which these Properties inhere or exist. But perhaps this Notion arises only from our turaing the mere abstracted or logical Notion of Subfrance or Self-Subfiging into the Notion of a difting physical or natural Being, without any Necessity. Solid Extension feems to me to be the very Substance of Matter, or of all Bodies z and a Power of thinking, which is always in Act, teems to be the very Subfrance of all Spirits; for God himfelf is an intelligent, almighty Power; nor is there any Need to feek for any other fecret and unknown Being, or abfracted Subfrance entirely difficat from thele, in order to fupport the feveral Modes or Properties of Matter or Mind, for these two Ideas are sufficient for that Purpole; therefore I rather think these are Subfrances.

It must be confested, when we say pirit is a thinking Subfance, and Matter is an extended folid Subfance, we are fometimes ready to imagine that Extension and Solidity are but mere Modes and Properties of a certain unknown Subflance or Subject which supports them, and which we call Body; and that a Porter of thinking is but a meer Mode and Property of fome unknown Subfance or Subject which supports it, and which we call Spirit: But I rather take this to be a mere Mistake, which we are led into by the grammatical Form and Use of Words; and perhaps our logical Way of thinking by Subfances and Modes, as well as our grammatical Way of talking by Subfancies and Adjectives, help to delude us into this Supposition.

However, that I may not be wanting to any of my Readers, I would let them know Mr. Locke's Opinion, which has obtained much in the prefent Age, and it is this : " That our idea of any particular Subflance is only fuch a Combie" nation of fimple Ideas as reprefents that Thing as fubfilting by itfelf, in " which the fuppofed or confuded Idea of Subflance (fuch as it is) is always ready to offer itfelf. It is a Conjunction of Ideas co-exifting in fuch a Caufe to their Union, and makes the whole Subject fubfift by itfelf, though the " Caufe of their Union be unknown; and our general Idea of Subflance arifes " from the Self-fubfiftence of this Collection of Ideas."

Now if this Notion of Subfance reft here, and be confidered merely as an unknown Caufe of the Union or Properties, it is much more eafy to be admitted: But if we proceed to fupport a fort of real, fubfantial, diffinct Being, different from fold Quantity or Extension in Bodies, and different from a Power of thinking in Spirits, in my Opinion it is the Introduction of a needlefs (cholaftical Notion into the real Nature of Things, and then fancying it to have a real Existence.

Mr. Locke, in his Effay of Human Underflanding, Book II. Chap. 22. §. 2. feems to ridicule this common Idea of Subfance, which Man have generally fuppofed to be a fort of Subfaratum diffined from all Properties whatfoever, and to be the Support of all Properties. Yet in Book IV. Ch. 3. §. 6. he feems to fuppofe there may be fome fuch unknown Subfaratum, which may be capable of receiving the Properties both of Matter and of Mind. (wiz.) Extension, Soibility, and Cogitation; for he fuppofes it possible for God to add Gegitation to that Subflance which is corpored, and thus to cause Matter to think. If this be

Among Substances, fome are called Simple, fome are Compound, whether the Words be taken in a philosophical or a vulgar Sense. ٩.

Simple Substances in a philosophical Sense, are either Spirits, which have no Manner of Composition in them, and in this Senfe God is called a fimple Being; or they are the first Principles of Bodies, which are usually called *Elements*, of which all other Bodies are compounded : Elements are fuch Substances as cannot be refolved, or reduced, into two or more Substances of different Kinds.

The various Sects of Philosophers have attributed the Honour of this Name to various Things. The Peripateticks, or Followers of Aristotle, made Fire, Air, Earth and Water, to be the four Elements, of which all earthly Things were compounded; and they supposed the Heavens to be a Quintessence, or fifth fort of Body diffinct from all thefe: But fince Experimental Philosophy and Mathematicks have been better understood, this Doctrine has been abundantly refuted. The Chemifts make Spirit, Salt, Sulpbur, Water and Earth, to be their five Elements, because they can reduce all terrestrial Things to these five: This feems to come nearer the Truth; though they are not all agreed in this Enumeration of Elements. In fhort, our modern Philosophers generally fuppofe Matter or Body to be but one fimple Principle, or folid Extension, which being diversified by its various Shapes, Quantities, Motions, and Situations, makes all the Varieties that are found in the Universe; and therefore they make little Use of the Word Element.

#### Compound

true, then Spirits (for ought we know) may be corpored Beings, or thinking Badles, which is a Dectrine too favourable to the Mortality of the Soul. But I l-ave these Debates to the Philosophers of the Age, and will not be teo pefitive in my Opinion of this abilirule Subject. See more of this Argument in Pithipphical Effage, before cited, Effay 2d.

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Compound Substances are made up of two or more fimple Substances : So every Thing in this whole material Creation, that can be reduced by the Art of Man into two or more different Principles or Substances, is a compound Body in the philosophical Senfe.

But if we take the Words Simple and Compound in a vulgar Senfe, then all those are fumple Substances which are generally  $e^{-\alpha}$  eemed uniform in their Natures. So every Herb is called a Simple; and every Metal and Mineral; though the Chemist perhaps may find all his feveral Elements in each of them. So a Needle is a fimple Body, being only made of Steel; but a Sword or a Knife is a Compound, because its Haft or Handle is made of Materials different from the Blade. So the Bark of Peru, or the Juice of Sorrel, is a simple Medicine : But when the Apothecaries Art has mingled feveral Simples together, it becomes a Compound, as Diafcordium or Mitbridate.

The Terms of pure and mixed, when applied to Bodies, are much a-kin to fimple and compound. So a Gainea is pure Gold, if it has nothing but Gold in it, without any Alloy or bafer Metal: But if any other Mineral or Metal be mingled with it, it is called a mixed Substance or Body.

Substances are also divided into animate and in-Animated Substances are either animal or animate. vegetable 🗮 .

Some of the animated Substances have various organical or instrumental Parts, fitted for a Variety of Motions from Place to Place, and a Spring of Life within themselves, as Beasts, Birds, Fishes, and Infetis; these are called Animals. Other anii-B 2 maied

Note, Vegetables as well as Animals, have gotten the Name of animated Substances, because forme of the Ancients fuppofed Herbs and Plants, Beufis and Birds, Sec. to have a fort of Souls diffinct from Matter or Body.

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mated Subfances are called Vegetables, which have within themfelves the Principles of another fort of Life and Growth, and of various Productions of Leaves, Flowers and Fruit, fuch as we fee in Plants, Herbs and Trees.

And there are other Subftances, which are called inanimate, because they have no fort of Life in them, as Earth, Stone, Air, Water, &cc.

There is also one fort of Substance, or Being, which is compounded of Body and Mind, or a rational Spirit united to an Animal; fuch is Mankind. | Angels, or any other, Beings of the fpiritual and invisible World, who have affumed visible Shapes for a Season, can hardly be reckoned among this Order of compounded Beings; because they drop their Bodies, and divest themselves of those visible Shapes, when their particular Message is performed, and thereby thew that these Bodies do not belong to their Natures.

#### SECT. III.

#### Of Modes and their various Kinds, and first of effential and accidental Modes.

THE next fort of Objects which are reprefented in our Ideas, are called *Modes*, or *Manners of Being* \*.

A Mode is that which cannot fubfift in and of itfelf, but is always efteemed as belonging to, and fubfifting by, the Help of fome Subftance, which for that Reafon, is called its Subjett. A Mode muft depend on that Subftance for its very Exiftence and Being; and that not as a Being depends

• Note, The Term Made is by fome Author applied chiefly to the Relations or relative Manners of Being. But in logical Treatifes it is often used in a larger Senfe, and extends to all Attributes whatfoever, and includes the most effential and inward Properties, as well as outward Respects and Relations, and seather to Attributes themfelves as well as Manner of Actica.



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on its Caufe, (for fo Subftances themfelves depend on God their Creator;) but the very Being of a Mode depends on fome Subftance for its Subject, in which it is, or to which it belongs; fo Motion, Shape, Quantity, Weight, are Modes of Body; Knowledge, Wit, Folly, Love, Doubting, Judging, are Modes of the Mind; for the one cannot fubfift without Body, and the other cannot fubfift without Mind.

Modes have their feveral Divisions, as well as Substances.

#### I. Modes are either effential, or accidental.

An effential Mode or Attribute, is that which belongs to the very Nature or Effence of the Subject wherein it is; and the Subject can never have the fame Nature without it; fuch is Roundness in a Bowl, Hardness in a Stone, Softness in Water, vital Motion in an Animal, Solidity in Matter, Thinking in a Spirit; for though that piece of Wood which ` is now a Bowl may be made square, yet if Roundnels be taken away, it is no longer a Bowl: So that very Flesh and Bones, which is now an Animal. may be without Life or inward Motion; but if all Motion be entirely gone, it is no longer an Ani-. mal, but a Carcafe: So if a Body or Matter be divested of Solidity, it is a meer void Space or Nothing; and if Spirit be entirely without Thinking, I have no Idea of any Thing that is left in it; therefore so far as I am able to judge, Consciousness must be its effential Attribute \*. Thus all the Perfections of God are called his Attributes, for he cannot be without them.

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• Note, When I call folid Extension an effential Mode or Attribute of Matter, and a Power of Thinking an effential Mode or Attribute of a Spirit, I do it in Compliance with common Forms of Speech: But perhaps in reality these are the very Effences or Subfrances themfelves, and the most subfrantial Ideas that we can frame of Body and Spirit, and have no need of any (we know pass what) Subfratum or unintelligible Subfrance to Support them in their Ex-

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An effential Mode is either primary or fecondary. A primary effential Mode is the first or chief Thing, that conftitutes any Being in its particular Effence or Nature, and makes it to be that which it is, and diffinguishes it from all other Beings : This is called the Difference in the Definition of Things, of which hereafter: So Roundness is the primary effectial Mode, or Difference of a Bowl; the meeting of two Lines is the primary effential Mode, or the Difference of an Angle; the Perpendicularity of these Lines to each other is the Difference of a right Angle: Solid Extension is the primary Attribute, or Difference of Matter : Consciousness, or at least a Power of Thinking, is the Difference, or primary Attribute of a Spirit \*; and to fear and love God is the primary Attribute of a pious Man.

A fecondary effential Mode is any other Attribute of a Thing, which is not of primary Confideration: This is called a Property : Sometimes indeed it goes towards making up the Effence, efpecially of a complex Being, fo far as we are acquainted with it; fometimes it depends upon, and follows from the Effence of it; fo Volubility, or Aptne/s to roll, is the Property of a Bowl, and is derived from its Roundnefs. Mobility and Figure or Shape are Properties of Matter; and it is the Property of a pious Man to love his Neighbour.

An accidental Mode, or an Accident, is fuch a Mode as is not neceffary to the Being of a Thing, for the Subject may be without it, and yet remain of the fame Nature that it was before; or it is that Mode which may be feparated or abolifhed from its Subject; fo Smoothnefs or Roughnefs, Blacknefs or Whitenefs, Motion or Reft, are the Accidents of a Bowl; for these may be all changed, and yet the Body remain a Bowl still: Learning, Justice,

See the Note in the foregoing Page,

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Justice, Folly, Sickness, Health, are the Accidents of a Man: Motion, Squareness, or an starticular Shape or Size, are the Accidents of Body: Yet Shape and Size in general are effential Modes of it; for a Body must have fome Size and Shape, nor can it be without them: So Hope, Fear, Wishing, Affenting, and Doubting, are Accidents of the Mind, though Thinking in general feems to be effential to it.

Here observe, that the Name of Accident has been oftentimes given by the old Peripatetick Philosophers to all Modes, whether effential or accidental; but the Moderns confine this Word Accident to the Senfe in which I have described it.

Here it should be noted also, that though the Word Property be limited fometimes in logical Treatifes to the fecondary effential Mode, yet it is used in common Language to fignify these four Sorts of Modes; of which some are effential, and fome accidental.

(1.) Such as belong to every Subject of that Kind, but not only to those Subjects. So yellow Colour and Dustility are Properties of Gold; they belong to all Gold, but not only to Gold: For Saffron is also yellow, and Lead is dustile.

(2.) Such as belong only to one Kind of Subject but not to every Subject of that Kind. So Learning, Reading, and Writing, are Properties of buman Nature; they belong only to Man, but not to all Men.

(3.) Such as belong to every Subject of one Kind, and only to them, but not always. So Speech or Language is a Property of Man, for it belongs to all Men, and to Men only; but Men are not always speaking.

(4.) Such as belong to every Subject of one kind, and to them only and always. So Shape and Divisibility LOGICK: Or,

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Divisibility are Properties of Body; fo Omniscience and Omnipotence are Properties of the Divine Nature, for in this Sense Properties and Attributes are the fame, and except in logical Treatises there is scarce any Distinction made between them. These are called Propria quarte mode in the Schools, or Properties of the fourth Sort.

Note, Where there is any one Property or effential Attribute fo fuperior to the reft, that it appears plainly that all the reft are derived from it, and fuch as is fufficient to give a full Diffinction of that Subject from all other Subjects, this Attribute or Property is called the effential Difference, as is before declared; and we commonly fay, the Effence of the Thing confifts in it; fo the Effence of Matter in general feems to confift in Solidity, or folid Extension. But for the most Part, we are fo much at a Lofs in finding out the intimate Effence of particular natural Bodies, that we are forced to diftinguish the effential Difference of most Things by a Combination of Properties. So a Sparrow is a Bird which has fuch coloured Feathers, and fuch a particular Size, Shape, and Motion. So Wormwood is an Herb which has fuch a Leaf of fuch a Colour, and Shape, and Tafte, and fuch a Root and Stalk. So Beafts and Fifnes, Minerals, Metals and Works of Art fometimes, as well as of Nature, are diffinguished by fuch a Collection of Properties.

#### SECT. IV.

The farther Divisions of Mode.

II. THE fecond Division of Modes is into abfolute and relative. An absolute Mode is that which belongs to its Subject, without Respect

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fpect to any other Beings whatfoever: But a relative Mode is derived from the Regard that one Being has to others. So Roundne/s and Smoothnels are the ablolute Modes of a Bowl; for if there were nothing elfe exifting in the whole Creation. a Bowl might be round and fmooth: But Greatness and Smallne/s are relative Modes; for the very Ideas of them are derived merely from the Comparifon of one Being with others: A Bowl of four Inches Diameter is very great, compared with one of an Inch and a half; but it is very (mall in Comparison of another Bowl, whose Diameter is eighteen or twenty Inches. Motion is the absolute Mode of a Body, but Swiftnefs or Slowne/s are relative Ideas; for the Motion of a Bowl on a Bowling-Green is *wift*, when compared with a Snail; and it is flow, when compared with a Cannon-Bullet.

These relatives Modes are largely treated of by fome logical and metaphylical Writers under the Name of Relation: And these Relations themselves are farther subdivided into such as arise from the Nature of Things, and fuch as arile merely from the Operation of our Minds; one Sort are called real Relations, the other mental; so the Likeness of one Egg to another is a real Relation, because it arifes from the real Nature of Things; for whether there was any Man or Mind to conceive it or no, one Egg would be like another : But when we confider an Egg 'as a Noun Subfantive in Grammar, or as fignified by the Letters, e, g, g, these are mere mental Relations, and derive their very Nature from the Mind of Man. These Sort of Relations are called by the Schools Entia Rationis, or fecond Notions, which have no real Being, but depend entirely on the Operation of the Mind.

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III. The third Division of Modes shews us, they are either intrinsical or extrinsical. Intrinsical Modes are conceived to be in the Subject or Substance, as when we say a Globe is round, or swift, rolling, or at rest: Or when we say, a Man is tall, or learned, these are intrinsick Modes: But extrinsick

or learned, thefe are intrinsick Modes: But extrinsick Modes are fuch as arife from fomething that is not in the Subject or Substance itself; but it is a Manner of Being which fome Substances attain by Reafon of fomething that is external or foreign to the Subject; as, This Globe lies within two Yards of the Wall; or, this Man is beloved or bated. Note, Such Sort of Modes, as this last Example, are called external Denominations.

IV. There is a fourib Division much a-kin to this, whereby Modes are faid to be Inberent or Adberent, that is, Proper or Improper. Adberent or improper Modes arise from the joining of some accidental Substance to the chief Subject, which yet may be separated from it; so when a Bowl is wet, or a Boy is clothed, these are adberent Modes; for the Water and the Clothes are distinct Substances which adhere to the Bowl, or to the Boy: But when we fay, the Bowl is fwist or round; when we fay, the Boy is firong or witty, these are proper or inberent Modes, for they have a sort of In-being in the Midstance itself, and do not arise from the Addition of any other Substance to it.

V. Action and Paffion are Modes or Manners which belong to Subfrances, and fhould not entirely be omitted here. When a Smith with a Hammer firikes a Piece of Iron, the Hammer and the Smith are both Agents, or Subjects of Ac-

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tion; the one is the Prime or Supreme, the other the Subordinate: The Iron is the Patient, or the Subject of Paffion, in a philosophical Senfe, because it receives the Operation of the Agent: Though this Senfe of the Words Passion and Patient differs much from the vulgar Meaning of them <sup>\*</sup>.

VI. The fixth Division of Modes may be into Physical, i. e. Natural, Civil, Moral, and Supernatural. So when we confider the Apostle Paul, who was a little Man, a Roman by the Privilege of his Birth, a Man of Virtue or Honesty, and an inspired Apostle; his low Stature is a physical Mode, his being a Roman is a civil Privilege, his Honesty is a moral Confideration, and his being inspired is supernatural.

VII. Modes belong either to Body or to Spirit, or to both. Modes of Body belong only to Matter, or to corporeal Beings; and these are Shape, Size, Situation, or Place, &c. Modes of Spirit belong only to Minds; such are Knowledge, Alsent, Dissent, Doubting, Reasoning, &c. Modes which belong to both, have been sometimes called mixed Modes, or buman Modes, for these are only found in human Nature, which is compounded both of Body and Spirit; such are Sensation, Imagination, Passion, &c. in all which there is a Concurrence of the Operations both of Mind and Body, *i. e.* of animal and intellectual Nature.

But the Modes of Body may be yet farther diftinguished. Some of them are primary Modes or Qualities,

• Note, Agent fignifies the Doer, Patient the Sufferer, Action is Doing, Paffion is Suffering : Agent and Action have retained their original and philosophical Senfe, though Patient and Paffion have acquired a very different Meaning in common Language.

Qualities, for they belong to Bodies confidered in themselves, whether there were any Man to take Notice of them or no; fuch are those before mentioned, (viz.) Shape, Size, Situation, Sc. Secondary Qualities, or Modes, are fuch Ideas as we alcribe to Bodies on account of the various Impressions which are made on the Senfes of Men by them; and these are called sensible Qualities, which are very numerous: fuch are all Colours, as Red, Green, Blue, &c. fuch are all Sounds, as Sharp, Shrill, Loud, Hoarle; all Taftes, as Sweet, Bitter, Sour; all Smells, whether Pleafant, Offensive, or Indifferent; and all Tattile Qualities, or fuch as affect the Touch or Feeling, (viz.) Heat, Cold, &c. Thefe are properly called *lecondary Qualities*, for though we are ready to conceive them as existing in the very Bodies themfelves which affect our Senses, yet true Philosophy has most undeniably proved, that all these are really various Ideas or Perceptions excited in human Nature, by the different Impressions that Bodies make upon our Senfes by their primary Modes, i. e. by Means of the different Shapes, Size. Morion and Polition of those little invisible Parts that compose them. Thence it follows, that a fecondary Quality, confidered as in the Bodies themfelves, is nothing elfe but a Power or Aptitude to produce fuch Senfations in .us: See Locke's Effay of the Understanding, Book II. Ch. 8.

VIII. I might add, in the laft Place, that as Modes belong to Subfances, to there are fome alfo that are but Modes of other Modes: For though they fublift in and by the Subfance, as the original Subject of them, yet they are properly and directly attributed to fome Mode of that Subfance. Motion is the Mode of a Body; but the Swiftnels,

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nefs, or Slownefs of it, or its Direction to the North or South, are but Modes of Motion. Walking is the Mode or Manner of Man, or of a Beaft; but Walking gracefully, implies a Manner or Mode fuperadded to that Action. All comparative and fuperlative Degrees of any Quality, are the Modes of a Mode, as Swifter implies a greater Measure of Swiftnefs.

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It would be too tedious here to run through all the Modes, Accidents, and Relations at large, that belong to various Beings, and are copioufly treated of in general, in the Science called Metaphyficks, or more properly Ontology: They are alfo treated of in particular in those Sciences which have affumed them feverally as their proper Subjects.

#### SECT. V.

# • Of the ten Categories. Of Substance modified.

W E have thus given an Account of the two chief Objects of our Ideas, (viz.) Subfances and Modes, and their various Kinds: And in these last Sections we have briefly comprized the greatest Part of what is necessary in the famous. ten Ranks of Being, called the ten Predicaments or Categories of Aristotle, on which there are endless Volumes of Discourses formed by several of his Followers. But that the Reader may not utterly be ignorant of them, let him know the Names are these: Substance, Quantity, Quality, Relation, Action, Paffion, Where, When, Situation and Clothing. It would be mere Lofs of Time to fhew how loofe, how injudicious, and even ridiculous, is this ten-fold Division of Things: And whatfoever farther relates to them, and which way

# 26 LOGICK: Or, Part I. may tend to improve useful Knowledge, should be

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fought in Ontology, and in other Sciences. Befides Subftance and Mode, fome of the Moderns would have us confider the Subftance modified as a

would have us confider the Subflance modified, as a diffinct Object of our Ideas; but I think there is nothing more that need be faid on this Subject, than this, (viz.) There is fome Difference between a Subflance when it is confidered with all its Modes about it, or clothed in all its Manners of Existence, and when it is diffinguished from them, and confidered naked without them.

# SECT. VI.

# , Of Not-Being.

A S Being is divided into Subflance and Mode, fo we may confider Not-Being with Regard to both thefe.

I. Not-Being is confidered as excluding all Subfance, and then all Modes are also necessarily excluded, and this we call pure Nibility, or mere Nothing.

This Nothing is taken either in a vulgar or a philofophical Senfe; fo we fay there is nothing in the Cup, in a vulgar Senfe, when we mean there is no Liquor in it; but we cannot fay there is nothing in the Cup, in a strict philosophical Senfe, while there is Air in it, and perhaps a Million of Rays of Light are there.

II. Not-Being, as it has relation to Modes or Manners of Being, may be confidered either as a mere Negation, or as a Privation.

A Negation is the Ablence of that which does not naturally belong to the Thing we are fpeaking of, or which has no Right, Obligation, or Neceffity to be prefent with it; as when we fay a Stone C. II. S. 5. The right Use of Reason.

a Stone is Inanimate, or Blind, or Deaf, i. e. it has no Life, nor Sight, nor Hearing; nor when we fay a Carpenter or a Fisherman is unlearned, these are mere Negations.

But a Privation is the Absence of what does naturally belong to the Thing we are fpeaking of, or which ought to be prefent with it, as when a Man or a Horse is deaf, or blind, or dead, or if a Physician or a Divine be unlearned, these are called Privations: So the Sinfulness of any human Action is faid to be a Privation; for Sin is that Want of Conformity to the Law of God, which ought to be found in every Action of Man.

Note, There are fome Writers who make all fort of relative Modes or Relations, as well as all external Denominations, to be mere Creatures of the Mind, and Entia Rationis, and then they rank them also under the general Head of Not-Beings; but it is my Opinion, that whatfoever may be determined concerning mere mental Relations and external Denominations, which feem to have fomething lefs of *Entity* or. *Being* in them, yet there are many real Relations, which ought not to be reduced to fo low a Clafs: fuch are the Situation of Bodies, their mutual Distances, their particular Proportions and Measures, the Notions of Fatherbood, Brotherbood, Sonship, &c. all which are relative Ideas. The very Effence of Virtue or Holine's confifts in the Conformity of our Actions to the Rule of Right Reafon, or the Law of God: The Nature and Effence of Sincerity is the Conformity of our Words and Actions to our Thoughts, all which are but mere Relations; and I think we must not reduce such positive Beings as Piety, and Virtue, and Truth, to the Rank of Non-Entities, which have nothing real in them, though Sin, (or rather the Sinfulness of an Action) may

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may be properly called a Not-Being, for it is want of Piety and Virtue. This is the most usual, and perhaps the justeft Way of representing these Matters.

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# CHAP. III.

# Of the feveral Sorts of Perceptions or Ideas.

**I** DEAS may be divided with Regard to their Original, their Nature, their Objects, and their Qualities.

# SECT. I.

#### Of fenfible, spiritual, and abstracted Ideas.

THERE has been a great Controverfy about the Origin of Ideas, (viz.) whether any of our Ideas are *innute* or no, *i. e.* born with us, and naturally belonging to our Minds. Mr. Locke utterly denies it; others as politively affirm it. Now, though this Controverfy may be compromifed, by allowing that there is a Senfe, wherein our firft Ideas of fome Things may be faid to be *innute*, (as I have fhewn in fome Remarks on Mr. Locke's Effay, which have lain long by me) yet it does not belong to this Place and Businefs to have that Point debated at large, nor will it hinder our Purfuit of the prefent Work to pass it over in Silence.

There is fufficient Ground to fay, that all our Ideas, with Regard to their Original, may be divided into three forts. (viz.) fenfible, fpiritual, and abstracted Ideas.

I. Senfible or corporeal Ideas, are derived originally from our Senfes, and from the Communication

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which the Soul has with the animal Body in this prefent State; fuch are the Notions we frame of all Colours, Sounds, Taftes, Figures, or Shapes and Motions; for our Senfes being converfant about particular fenfible Objects become the Occafions of feveral diftinct Perceptions in the Mind; and thus we come by the Ideas of Yellow, White, Heat, Cold, Soft, Hard, Bitter, Sweet, and all thofe which we call fenfible Qualities. All the Ideas which we have of Body, and the fenfible Modes and Properties that belong to it, feem to be derived from Sonfation.

And howfoever thefe may be treafured up in the Memory, and by the Work of Fancy may be increafed, diminifhed, compounded, divided, and diverfified, (which we are ready to call our Invention) yet they all derive their first Nature and Being from fomething that has been let into our Minds by one or other of our Senfes. If I think of a golden Mountain, or a Sea of liquid Fire, yet the fingle Ideas of Sea, Fire, Mountain and Gold came into my Thoughts at first by Senfation; the Mind has only compounded them.

II. \* Spiritual or Intellectual Ideas are those which we gain by reflecting on the Nature and Actions of our own Souls, and turning our Thoughts within our felves, and observing what is transacted in our own Minds. Such are the Ideas we have of Thought, Alsent, Dissent, Judging, Reason, Knowledge, Understanding, Will, Love, Fear, Hope.

By Senfation the Soul contemplates Things (as it were) out of itfelf, and gains corporeal Representations or fenfible Ideas: By Reflection the Soul contemplates itfelf, and Things within itfelf and

• Here the Word Spiritual is used in a mere natural, and not in a reli-

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by this Means it gains *fpiritual* Ideas, or Reprefentations of Things *intellectual*.

Here it may be noted, though the first Original of these two Sorts of Ideas, (viz) Sensible and Spiritual, may be entirely owing to thefe two Principles, Senfation and Reflection, yet the Recollection and fresh Excitation of them may be owing to a thoufand other Occafions and Occurrences of Life. We could never inform a Man who was born Blind or Deaf what we mean by the Words Yellow, Blue, Red, or by the Words Loud or Shrill, nor convey any just Ideas of these Things to his Mind, by all the Powers of Language, unlefs he has experienced those Sensations of Sound and Colour; nor could we ever gain the Ideas of Thought, Judgment, Reason, Doubting, Hoping, &c. by all the Words that Man could invent, without turning our Thoughts inward upon the Actions of our own Souls. Yet when once we have attained thefe Ideas by Senlation and Reflection, they may be excited afresh by the Use of Names, Words, Signs, or by any Thing elfe that has been connected with them in our Thoughts; for when two or more Ideas have been affociated together, whether it be by Cuftom, or Accident, or Defign, the one prefently brings the other to Mind.

III. Belides these two which we have named, there is a third Sort of Ideas, which are commonly called abstrated Ideas, because though the original Ground or Occasion of them may be Sensation, or Reflection, or both, yet these Ideas are framed by another Act of the Mind, which we usually call Abstraction. Now the Word Abstraction fignifies a withdrawing some Parts of an Idea from other Parts of it, by which Means such abstracted Ideas are formed, as neither represent any Thing corporeal

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real or *[piritual*, i. e. any thing peculiar or proper to Mind or Body. Now thefe are of two Kinds.

Some of these abstracted Ideas are the most abfolute, general and universal Conceptions of Things confidered in themfelves, without Refpect to others, fuch as Entity or Being, and Not-being, Effence, Existence, Act, Power, Substance, Mode, Accident, ଟିମ.

The other Sort of abstracted Ideas is relative, as when we compare feveral Things together, and confider merely the Relations of one Thing to another, entirely dropping the Subject of those Relations, whether they be corporeal or fpiritual; fuch are our Ideas of Caule, Effect, Likenels, Unlikeness, Subject, Object, Identity, or Sameness, and Contrariety, Order, and other Things which are treated of in Ontology.

Most of the Terms of Art in feveral Sciences may be ranked under this Head of abstracted Ideas, as Noun, Pronoun, Verb, in Grammar, and the feveral Particles of Speech, as wherefore, therefore, when, how, although, how foever, &c. So Connexions, Transitions, Similitudes, Tropes, and their various Forms in Rhetorick.

These abstracted Ideas, whether absolute or relative, cannot fo properly be faid to derive their immediate, complete and diffinct Original, either from Sensation, or Reflection, (1.) Because the Nature and the Actions both of Body and Spirit give us Occasion to frame exactly the fame Ideas of E/sence, Mode, Cause, Effect, :Likenes, Contrariety, Therefore these cannot be called either fensi-ઈર. ble or *piritual* Ideas, for they are not exact Representations either of the peculiar Qualities or Actions of Spirit or Body, but feem to be a diffinct Kind of Idea framed in the Mind, to reprefent our most general Conceptions of Things or their Relations to . C<sub>3</sub>

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one another, without any Regard to their Natures, whether they be corporeal or fpiritual. And, (2.) the fame general Ideas, of Caufe and Effect, Likenefs, & c. may be transferred to a Thoufand other Kinds of Being, whether bodily or fpiritual, befides those from whence we first derived them: Even those abstracted Ideas, which might be first occafioned by Bodies, may be as properly afterward attributed to Spirits.

Now, though Mr. Locke fuppofes Senfation and Reflection to be the only two Springs of all Ideas, and that thefe two are fufficient to furnish our Minds with all that rich Variety of Ideas which we have; yet Abstraction is certainly a different Act of the Mind, whence these abstracted Ideas have their Original; though perhaps Senfation or Reflection may furnish us with all the first Objects and Occasions whence these abstracted Ideas are excited and derived. Nor in this Senfe and View of Things can I think Mr. Locke himself would deny my Representation of the Original of abstracted Ideas, nor forbid them to stand for a distinct Species.

Note, Though we have divided Ideas in this Chapter into three Sorts, (viz.) fenfible, fpiritual, and abstracted, yet it may not be amis just to take notice here, that as Man may be called a compound Substance, being made up of Body and Mind, and the Modes which arise from this Composition are called mixed Modes, such as Sensation, Passion, Discourse, &c. So the Ideas of this Substance or Being called Man, and of these mixed Modes may be called mixt Ideas, for they are not properly and strictly spiritual, sensible or abstracted. See a much larger Account of every Part of this Chapter in the Philosophical Essays, by I.W. Ess. 3, 4, &c.

SECT.

#### SECT. II.

### Of fimple and complex, compound and collective Ideas.

**TDEAS** confidered in their Nature, are either fimple or complex.

A fimple Idea is one uniform Idea which cannot be divided or diftinguished by the Mind of Man into two or more Ideas; fuch are a Multitude of our Senfations, as the Idea of Sweet, Bitter, Cold, Heat, White, Red, Blue, Hard, Soft, Motion, Reft, and perhaps Extension and Duration: Such are alfo many of our fpiritual Ideas; fuch as Thought, Will, Wild, Knowledge, &c.

A complex Idea is made by joining two or more fimple Ideas together; as a Square, a Triangle, a Cube, a Pen, a Table, Reading, Writing, Truth, Falshood, a Body, a Man, a Horse, an Angel, a beavy Body, a fwift Horfe, &c. Every Thing that can be divided by the Mind into two or more Ideas is called *complex*.

Complex Ideas are often confidered as fingle and distinct Beings, though they may be made up of feveral simple Ideas; so a Body, a Spirit, a House, a Tree, a Flower. But when feveral of thefe Ideas of a different Kind are joined together, which are wont to be confidered as diffinct fingle Beings, this is called a compound Idea, whether these united Ideas be fimple or complex. So a Man is compounded of Body and Spirit, fo Mithridate is a compound Medicine, because it is made of many different Ingredients: This I have fhewn under the Doctrine of Substances. And Modes also may. be compounded; Harmony is a compound Idea made up of different Sounds united; fo feveral different Virtues must be united to make up the com-C 4 pounded

pounded Idea or Character, either of a Hero, or a Saint.

But when many Ideas of the *fame Kind* are joined together and united in one Name, or under one View, it is called a *collective Idea*; fo an *Army*, or a *Parliament*, is a Collection of Men; a *Dictionary*, or *Nomenclatura* is a Collection of Words; a *Flock* is a Collection of Sheep; a *Foreft*, or *Grove*, a Collection of Trees; a *Heap* is a Collection of Sand, or Corn, or Duft, & c. a City is a Collection of *Houfes*; a *Nofegay* is a Collection of *Flowers*; a *Montb*, or a *Year*, is a Collection of Days; and a *Thoufand* is a Collection of Units.

The precife Difference between a compound and *collective* Idea is this, that a compound Idea unites Things of a different Kind, but a collective Idea Things of the fame Kind: Though this Diffinction in fome Cafes is not accurately observed, and Cuftom oftentimes uses the Word compound for collective.

#### SECT. III.

# Of universal and particular Ideas, real and imaginary.

DEAS, according to their Objetts, may first be divided into particular or universal.

A *particular Idea* is that which reprefents one Thing only.

Sometimes the one Thing is represented in a loofe and indeterminate Manner, as when we fay fome Man, any Man, one Man, another Man; fome Herse, any Horse; one City, or another, which is called by the Schools Individuum Vagum.

Sometimes the *particular Idea* reprefents one Thing in a determinate Manner, and then it is called

called a *fingular Idea*; fuch is *Bucepbalus*, or *Alex*ander's Horfe, *Cicero* the Orator, *Peter* the Apoftle, the Palace of *Verfailles*, *this Book*, *that River*, the *New Foreft*, or the City of *London*: That Idea which reprefents one particular determinate Thing to me is called a *fingular Idea*, whether it be fimple, or complex, or compound.

The Object of any particular Idea, as well as the Idea itfelf, is fometimes called an Individual: So Peter is an individual Man, London is an individual City. So this Book, one Horfe, another Horfe, are all Individuals; though the Word Individual is more ufually limited to one fingular, certain, and determined Object.

An universal Idea is that which represents a common Nature agreeing to several particular Things; so a Horse, a Man, or a Book, are called universal Ideas, because they agree to all Horses, Men, or Books.

And I think it not amifs to intimate, in this Place, that these univerfal Ideas are formed by that Act of the Mind which is called *Abstraction*, i. e. a withdrawing fome Part of an Idea from other Parts of it: For when *fingular Ideas* are first let into the Mind by Senfation or Reflection, then, in order to make them univerfal, we leave out, or drop all those peculiar and determinate Characters, Qualities, Modes, or Circumstances, which belong merely to any particular individual Being, and by which it differs from other Beings; and we only contemplate those Properties of it, wherein it agrees with other Beings.

Though it must be confessed, that the Name of abstracted Ideas is sometimes attributed to univerfal Ideas, both fensible or spiritual, yet this Abstraction is not so great, as when we drop out of our Idea every fensible or spiritual Representation, and

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and retain nothing but the moft general and abfolute Conceptions of Things, or their mere Relations to one another, without any Regard to their particular Natures, whether they be fenfible or fpiritual. And it is to this Kind of Conceptions we more properly give the Name of abstracted Ideas, as in the first Section of this Chapter.

An universal Idea is either general or special.

A general Idea is called by the Schools a Genus; and it is one common Nature agreeing to feveral other common Natures. So Animal is a Genus, becaufe it agrees to Horfe, Lion, Whale, Butterfly, which are also common Ideas; so Fifh is a Genus, becaufe it agrees to Trout, Herring, Crab, which are common Natures also.

A *fpecial Idea* is called by the Schools a *Species*; it is one common Nature that agrees to feveral fingular individual Beings; fo *Horfe* is a *fpecial Idea*, or a *Species*, becaufe it agrees to *Bucephalus*, *Trott*, and *Snow-ball*. City is a *fpecial Idea*, for it agrees to London, Paris, Briftol.

Note, Ift. Some of these Universals are Genus's, if compared with less common Natures; and they are Species's, if compared with Natures more common. So Bird is a Genus, if compared with Eagle, Sparrow, Raven, which are also common Natures: But it is a Species, if compared with the more general Nature, Animal. The same may be faid of Filb, Beaft, & c.

This fort of univerfal Ideas, which may either be confidered as a Genus, or a Species, is called Subaltern: But the higheft Genus, which is never a Species, is called the most general; and the loweft Species, which is never a Genus, is called the most species.

It may be observed here also, that that general Nature or Property wherein one Thing agrees with

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most other Things is called its more remote Genus: So Subfrance is the remote Genus of Bird, or Beaft, because it agrees not only to all Kinds of Animals, but also to things inanimate, as Sun, Stars, Clouds, Metals, Stones, Air, Water, &c. But Animal is the proximate or nearest Genus of Bird, because it Those general Naagrees to feweft other Things. tures which stand between the nearest and most remote are called Intermediate.

Note, II<sup>dly</sup>, In universal Ideas it is proper to confider their Comprehension and their Extension \*.

The Comprehension of an Idea regards all the effential Modes and Properties of it: So Body in its Comprehension takes in Solidity, Figure, Quantity, Mobility, &c. So a Bowl in its Comprehension includes, Roundness, Volubility, &c.

The Extension of an universal Idea regards all the particular Kinds and fingle Beings that are contained under it. So a Body in its Extension includes Sun, Moon, Star, Wood; Iron, Plant, Animal, &c. which are feveral Species, or Individuals, under the general Name of Body. So a Bowl, in its Extenfion, includes a wooden Bowl, a brass Bowl, a white and black Bowl, a heavy Bowl, &c. and all Kinds of Bowls, together with all the particular individual Bowls in the World.

Note, The Comprehension of an Idea is fometimes taken in fo large a Senfe, as not only to include the effential Attributes, but all the Properties, Modes, and Relations what foever, that belong to any Being, as will appear, Chap. VI.

This Account of Genus and Species is part of that famous Doctrine of Universals, which is taught in the Schools, with divers other Formalities belonging to it; for it is in this Place that they in-

\* Note, The Word Extension here is taken in a mere logical Senie, and for in a physical and imperation Senie.

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troduce Difference, which is the primary effential Mode, and Property, or the fecondary effential Mode, and Accident or the accidental Mode; and thefe they call the five Predicables, becaufe every Thing that is affirmed concerning any Being muft be either the Genus, the Species, the Difference, fome Property, fome Accident: But what farther is neceffary to be faid concerning thefe Things will be mentioned when we treat of Definition.

Having finished the Doctrine of universal and particular Ideas, I should take notice of another Division of them, which also hath Respect to their Objects; and that is, they are either real or imaginary.

Real Ideas are fuch as have a juft Foundation in Nature, and have real Objects, or Exemplars, which did, or do, or may actually exift, according to the prefent State and Nature of Things; fuch are all our Ideas of Long, Broad, Swift, Slow, Wood, Iron, Men, Horfes, Thoughts, Spirits, a cruel Mafter, a proud Beggar, a Man feven Feet high.

Imaginary Ideas, which are also called fantastical, or chimerical, are such as are made by enlarging, diminishing, uniting, dividing real Ideas in the Mind, in such a Manner, as no Objects, or Exemplars, did or ever will exist, according to the present Course of Nature, though the several Parts of these Ideas are borrowed from real Objects; such are the Conceptions we have of a Centaur, a Satyr, a golden Mountain, a slying Horse, a Dog without a Head, a Bull less than a Mouse, or a Mouse as big as a Bull, and a Man twenty Feet bigb.

Some of these fantaftick Ideas are possible, that is, they are not utterly inconfistent in the Nature of Things; and therefore it is within the Reach of Divine Power to make fuch Objects; fuch are most of the Instances already given : But Impossibles carry

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carry an utter Inconfistence in the Ideas which are joined; fuch are *felf-attive Matter*, and *infinite* or *eternal Men*, a *pious Man without Honefly*, or *Heaven* without Holinefs.

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#### SECT. IV.

# The Division of Ideas, with Regard to their Qualities.

**I** DEAS, with Regard to their *Qualities*, afford us these several Divisions of them. I. They are either *clear* and *distinct*, or *obscure* and *consused*. 2. They are *vulgar* or *learned*. 3. They are *perfect* or *imperfect*. 4. They are *true* or *false*.

I. Our Ideas are either *clear* and *diffinct*, or *obfcure* and *confufed*.

Several Writers have diffinguished the clear Ideas from those that are distinct; and the confused Ideas from those that are obscure; and it must be acknowledged, there may be fome Difference between them; for it is the *Clearnels* of Ideas for the most Part makes them *distinct*; and the Ob*fcurity* of Ideas is one Thing that will always bring a Sort of Confusion into them. Yet when these Writers come to talk largely upon this Subject, and to explain and adjust their Meaning with great Nicety, I have generaly found that they did not keep up the Diffinction they first defigned, but they confound the one with the other. I shall therefore treat of *clear* or *diftint Ideas*, as one and the fame Sort, and obscure or confused Ideas, as another.

A clear and diffinit Idea is that which reprefents the Object of the Mind with full Evidence and Strength, and plainly diftinguishes it from all other Objects whatfoever.

An obscure and confused Idea represents the Object either so faintly, so imperfectly, or so mingled with other Ideas, that the Object of it doth not appear plain to the Mind, nor purely in its own Nature, nor sufficiently diffinguished from other Things.

When we fee the Sea and Sky nearer at Hand; we have a *clear* and *diffinct* Idea of each; but when we look far toward the Horizon, efpecially in a misty Day, our Ideas of both are but obscure and confused; for we know not which is Sea and which is Sky. So when we look at the Colours of the Rainbow, we have a clear Idea of the red, the blue, the green in the middle of their feveral Arches, and a distinct Idea too, while the Eye fixes there; but when we confider the *Border* of those Colours, they fo run into one another that it renders their Ideas confused and obscure. So the Idea which we have of our Brother, or our Friend, whom we fee daily, is clear and diffinct; but when the Absence of many Years has injured the Idea, it becomes obscure and confused.

Note bere, that fome of our Ideas may be very clear and distinct in one Respect, and very obscure and confused in another. So when we speak of a Chiliagonum, or a Figure of a thousand Angles, we may have a clear and diffinct rational Idea of the Number one thousand Angles; for we can demonftrate various Properties concerning it by Reafon: But the Image, or senfible Idea, which we have of the Figure, is but confused and obscure; for we cannot precifely diftinguish it by Fancy from the Image of a Figure that has nine bundred Angles, or nine bundred and ninety. So when we fpeak of the infinite Divisibility of Matter, we always keep in our Minds a very clear and diffinct Idea of Divifion and Divisibility. But after we have made a little

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little Progrefs in dividing, and come to Parts that are far too fmall for the Reach of our Senfes, then our *Ideas*, or *fenfible Images* of these little Bodies, become *obfcure*, and *indiftinit*, and the Idea of *Infinite* is very *obfcure*, *imperfect*, and *confufed*.

II. Ideas are either vulgar or learned. A vulgar Idea represents to us the most obvious and fensible Appearances that are contained in the Object of them : But a learned Idea penetrates farther into the Nature, Properties, Reasons, Causes and Effects of Things. This is best illustrated by some Examples.

It is a vulgar Idea that we have of a Rainbow. when we conceive a large Arch in the Clouds, made up of various Colours parallel to each other; But it is a learned Idea which a Philosopher has when he confiders it as the various Reflexions and Refractions of Sun-beams, in Drops of falling Rain. So it is a vulgar Idea which we have of the Colours of folid Bodies, when we perceive them to be, as it were, a red, or blue, or green Tincture of the Surface of those Bodies: But it is a philo*fopbical Idea* when we confider the various Colours to be nothing elfe but different Senfations excited in us by the variously refracted Rays of Light, reflected on our Eyes in a different Manner, according to the different Size, or Shape, or Situation of the Particles of which the Surfaces of those Bodies are composed. It is a vulgar Idea which we have of a Watch or Clock, when we conceive of it as a pretty Inftrument, made to fhew us the Hour of the Day: But it is a learned Idea which the Watchmaker has of it. who knows all the feveral Parts of it, the Spring, the Balance, the Chain, the Wheels, their Axles, Sc. together with the various Connexions and Adjuste . 🖽

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Adjuftments of each Part, whence the exact and uniform Motion of the Index is derived, which points to the Minute or the Hour. So when a common Understanding reads Virgil's Æneid, he has but a vulgar Idea of that Poem, yet his Mind is naturally entertained with the Story, and his Ears with the Verse: But when a Critick, or a Man who has Skill in Poefy, reads it, he has a learned Idea of its peculiar Beauties, he tastes and relistes a superior Pleasure; he admires the Roman Poet, and wishes he had known the Cbristian Theology, which would have furnished him with nobler Materials and Machines than all the Heathen Idols.

It is with a vulgar Idea that the World beholds the Cartoons of Raphael at Hampton-Court, and every one feels his Share of Pleafure and Entertainment: But a Painter contemplates the Wonders of that Italian Pencil, and fees a thoufand Beauties in them which the vulgar Eye neglected: His learned Ideas give him a transcendent Delight, and yet, at the fame time, difcover the Blemisthes which the common Gazer never observed.

III. Ideas are either *perfect* or *imperfect*, which are otherwife called *adequate* or *inadequate*.

Those are adequate Ideas which perfectly reprefent their Archetypes or Objects. Inadequate Ideas are but a partial, or incomplete Representation of those Archetypes to which they are referred.

All our *fimples Ideas* are in fome Senfe adequate or perfect, because *fimple Ideas*, confidered merely as our first Perceptions, have no Parts in them s So we may be faid to have a perfect Idea of White, Black, Sweet, Sour, Length, Light, Motion, Reft, &c. We have also a perfect Idea of various Figures, as a Triangle, a Square, a Cylinder.

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der, a Cube, a Sphere, which are complex Ideas: But our Idea or Image of a Figure of a thousand Sides, our Idea of the City of London, or the Powers of a Loadstone, are very imperfect, as well as all our Ideas of infinite Length or Breadth, infinite. Power, Wildom or Duration; for the Idea of infinite is endlefs and ever growing, and can never be compleated.

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Note, 1. When we have a perfect Idea of any thing in all its Parts, it is called a complete Idea; when in all its Properties, it is called comprehensive. But when we have but an *inadequate* and *imperfect* Idea, we are only faid to apprehend it; therefore use the Term Apprehension, when we speak of our Knowledge of God, who can never be comprehended by his Creatures.

Note, 2. Though there are a Multitude of Ideas which may be called *perfett*, or *adequate* in a *vulgar* Senfe, yet there are fcarce any Ideas which are adedequate, comprehensive and complete, in a philosophical Senfe; for there is fcarce any thing in the World that we know, as to all the Parts, and Powers, and Properities of it, in Perfection. Even fo plain an Idea as that of a Triangle has, perhaps, infinite **Properties belonging to it, of which we know but** a few. Who can tell what are the Shapes and Pofitions of those Particles, which cause all the Variety of Colours that appear on the Surface of Things? Who knows what are the Figures of the little Corpufcles that compose and diffinguish different Bodies? The Ideas of Brass, Iron, Gold, Wood, Stone, Hyffop, and Rosemary, have an infinite Variety of hidden Mysteries contained in the Shape, Size, Motion and Polition of the little Particles, of which they are composed; and, perhaps, alfo infinite unknown Properties and Powers, that may be derived from them. And if we arile to the L O G I C K: Or,

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the Animal World, or the World of Spirits, our Knowledge of them mult be amazingly imperfect, when there is not the leaft Grain of Sand, or empty Space, but has too many Queftions and Difficulties belonging to it for the wifeft Philosopher upon Earth to answer and resolve.

IV. Our Ideas are either true or false; for an Idea being the Representation of a Thing in the Mind, it must be either a true or a false Representation of it. If the Idea be conformable to the Object or Archetype of it, it is a true Idea; if not, it is a false one. Sometimes our Ideas are referred to things really exifting without us as their Archetypes. If I fee Bodies in their proper Colours I have a true Idea: But when a Man under the Jaundice fees all Bodies yellow, he has a falle Idea of them. So if we fee the Sun or Moon rifing or fetting, our Idea reprefents them bigger than when they are on the Meridian: And in this Senfe it is a falfe Idea, because those heavenly Bodies are all Day and all Night of the fame Bigness. Or when I fee a strait Staff appear crooked while it is half under the Water, I fay, the Water gives me a *falle Idea* of it. Sometimes our Ideas refer to the Ideas of other Men, denoted by fuch a particular Word, as their Archetypes: So when I hear a *Protestant* use the Words Church and Sacraments, if I understand by these Words, a Congregation of faithful Men who profess Christianity, and the two Ordinances, Baptifm and the Lord's Supper, I have a true Idea of those Words in the common Senfe of Protestants : But if the Man who speaks of them be a Papis, he means the Church of Rome and the seven Sacraments, and then I have a mistaken Idea of those Words, as spoken by him, for he has a different Senfe and Meaning: And in general whenfoever I miftake the Senfe of any Speaker or Writer, I may be faid to have a falfe Idea of it.

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Some think that Truth or Falfhood properly belongs only only to Propositions, which shall be the Subject of Discourse in the second Part of Logick; for if we confider Ideas as mere Impressions upon the Mind, made by outward Objects, those Impresfions will ever be conformable to the Laws of Nature in fuch a Cafe: The *Water* will make a Stick - appear crooked, and the borizontal Air will make the Sun and Moon appear bigger. And generally where there is Falfbood in Ideas, there feems to be fome fecret or latent Proposition, whereby we judge falily of Things: This is more obvious where we take up the Words of a Writer or Speaker in a miltaken Sense, for we join his Words to our own Ideas, which are different from his. But after all. fince Ideas are Pictures of Things, it can never be very improper to pronounce them to be true or falle, according to their Conformity or Nonconformity to their Exemplars.

### CHAP. IV.

Of Words and their feveral Divisions, together with the Advantage and Danger of them.

### SECT. I.

#### Of Words in general, and their Use.

THOUGH our Ideas are first acquired by the Perception of Objects, or by various Senfations and Reflections, yet we convey them to each other by the Means of certain Sounds, or written Marks, which we call Words; and a great Part of our Knowledge is both obtained and communicated by these Means, which are called Speech or Language.

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But as we are led into the Knowledge of Things by Words, fo we are oftentimes led into Error, or Miftake, by the Ufe or Abufe of Words alfo. And in order to guard against fuch Miftakes as well as to promote our Improvement in Knowledge, it is neceffary to acquaint ourfelves a little with Words and Terms. We shall begin with these Observations.

Observ. 1. Words (whether they are fpoken or written) have no natural Connexion with the Ideas they are defigned to fignify, nor with the Things which are represented in those Ideas. There is no Manner of Affinity between the Sounds white in English, or blanc in French, and that Colour which we call by that Name; nor have the Letters, of which these Words are composed, any natural Aptness to fignify that Colour rather than red or green. Words and Names therefore are mere arbitrary Signs, invented by Men to communicate their Thoughts or Ideas to one another.

Observ. 2. If one fingle Word were appointed to express but one fimple Idea, and nothing elfe, as White, Black, Sweet, Sour, Sharp, Bitter, Extension, Duration, there would be fearce any Mistake about them.

But alas! It is a common Unhappinels in Language, that different *fimple Ideas* are fometimes exprefied by the *fame Word*; fo the Words *fweet* and *fharp* are applied both to the Objects of hearing and tafting, as we fhall fee hereafter; and this, perhaps, may be one Caufe or Foundation of Obfcurity and Error arifing from Words.

*Cbferv.* 3. In communicating our complex Ideas to one another, if we could join as many peculiar and appropriated Words together in one Sound, as we join imple Ideas to make one complex

Ch. IV. S. 1. The right Use of Reason. 47 plex one, we should feldom be in Danger of mistaking: When I express the Taste of an Apple, which we call the *Bitter Sweet*, none can mistake what I mean.

Yet this fort of *Compolition* would make all Language a most tedious and unweildy Thing, fince most of our Ideas are complex, and many of them have eight or ten fimple Ideas in them; fo that the Remedy would be worse than the Discase; for what is now expressed in one short Word as *Montb*, or *Year*, would require two Lines to express it. It is necessary, therefore, that *fingle Words* be invented to express *complex Ideas*, in order to make Language short and useful.

But here is our great Infelicity, that when fingle Words fignify complex Ideas, one Word can never diftinctly manifest all the Parts of a complex Idea; and thereby it will often happen, that one Man includes more or less in his Idea, than another does, while he affixes the fame Word to In this Cafe there will be Danger of Mifit. take between them, for they do not mean the same Object, though they use the same Name. So if one Person or Nation, by the Word Year, mean twelve Months of thirty Days each, i. e. three hundred and fixty Days, another intend a Solar Year of three hundred fixty five Days, and a third mean a Lunar Year, or twelve Lunar Months, i. e. three hundred fifty four Days, there will be a great Variation and Error in their Account of Things, unlefs they are well apprized of each other's Meaning beforehand. ' This is supposed to be the Reason, why some ancient Hiltories and Prophecies, and Accounts of Chronology, are fo hard to be adjusted. And this is the true Reason of fo furious and endless Debates on many Points D 3 in

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in Divinity; the Words Church, Worfhip, Idolatry, Repentance, Faith, Election, Merit, Grace, and many others which fignify very complex Ideas, are not applied to include just the fame fimple Ideas, and the fame Number of them, by the various contending Parties; thence arife Confusion and Contest.

Observ. 4. Though a single Name does not certainly manifest to us all the Parts of a complex Idea, yet it must be acknowledged, that in many of our complex Ideas, the fingle Name may point out to us fome chief Property which belongs to the Thing that the Word fignifies; especially when the Word or Name is traced up to its Original, through several Languages from whence it is borrowed. So an Apostle signifies one who is set forth.

But this tracing of a Word to its Original, (which is called *Etymology*) is fometimes a very precarious and uncertain Thing: And after all, we have made but little Progrefs towards the Attainment of the full Meaning of a *complex Idea*, by knowing fome one chief Property of it. We know but a finall Part of the Notion of an *Apofile*, by knowing barely that he is *fent fortb*.

Observ. 5. Many (if not most) of our Words which are applied to moral and intellectual Ideas, when traced up to the Original in the learned Languages, will be found to fignify fensible and corporeal Things: Thus the Words Apprebension, Understanding, Abstraction, Invention, Idea, Inference, Prudence, Religion, Church, Adoration, &c. have all a corporeal Signification in their Original. The Name Spirit itself fignifies Breath or Air, in Latin, Greek, and Hebrew: Such is the Poverty of all Languages, they are forced to use these Names for

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for incorporeal Ideas, which Thing has a Tendency to Error and Confusion.

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Observ. 6. The last Thing I shall mention, that leads us into many a Mistake is, the Multitude of Objects that one Name fometimes fignifies : There is almost an infinite Variety of Things and Ideas, both fimple and complex, beyond all the Words that are invented in any Language; thence it becomes almost necessary that one name should fignify feveral Things. Let us but confider the two Colours of Yellow and Blue, if they are mingled' together in any confiderable Proportion, they make a Green: Now there may be infinite Differences of the Proportions in the Mixture of Yellow and Blue; and yet we have only these three Words, Yellow, Blue, and Green, to fignify all of them, at least by one fingle Term.

When I use the Word Shore, I may intend thereby a Coaft of Land near the Sea, or a Drain to carry off Water, or a Prop to support a Building; and by the Sound of the Word Porter, who can tell whether I mean a Man who bears Burthens, or a Servant who waits at a Nobleman's Gate? The World is fruitful in the Invention of Utenfils of Life, and new CharaEters and Offices of Men, yet Names entirely new are feldom invented; therefore old Names are almost necessarily used to fignify new Things, which may occasion much Confusion and Error in the receiving and communicating of Knowledge.

Give me leave to propose one fingle Instance, wherein all these Notes shall be remarkably exemplified. It is the Word Bifhop, which in French is called Evêque; upon which I would make thefe. feveral Observations. (1.) That there is no natural Connexion between the facred Office hereby fignified, and the Letters or Sound which fignify this

this Office; for both these Words Eveque and Bi-(hop, fignify the fame Office, though there is not one Letter alike in them; nor have the Letters which compose the English or the French Word, any thing facred belonging to them, more than the Letters that compose the Words King or Soldier. (2.) If the Meaning of a Word could be learned by its Derivation or Etymology, yet the original Derivation of Words is oftentimes very dark and unfearchable; for who would imagine, that each of these Words are derived from the Latin Episcopus, or the Greek 'Enigrande? Yet in this Instance we happen to know certainly the true Derivation; the French being anciently writ Eveloue, is borrowed from the first Part of the Latin Word; and the old English Biscop from the middle of it. (3.) The original Greek Word fignifies an Overlooker, or one who ftands higher than his Fellows, and overlooks them: It is a compound Word, that primarily fignifies fenfible Ideas, translated to fignify or include feveral moral or intellectual Ideas; therefore all will grant that the Nature of the Office can never be known by the mere Sound or Senfe of the Word Overlooker. (4.) I add farther, the Word Bishop or Episcopus, even when it is thus translated from a fenfible Idea, to include feveral intellectual Ideas, may yet equally fignify an Over/eer of the Poor; an In/pector of the Customs; a Surveyor of the Highways; a Supervisor of the Excise, &c. But by the Confent of Men, and the Language of Scripture, it is appropriated to fignify a facred Office in the Church. (5.) This very Idea and Name, thus translated from Things fensible, to fignify a fpiritual and facred Thing, contains but one Property of it, (viz.) one that has an Overlight, or Care over others: But it does not tell us whether it includes

# Ch. IV. S. 2. The right Use of Reason.

cludes a Care over one Church, or many; over the Laity, or the Clergy. (6.) Thence it follows, that those who in the complex Idea of the Word Bilhop, include an Overfight over the Clergy, or over a whole Diocefe of People, a Superiority to Prefbyters, a diffinct Power of Ordination, &c. must neceffarily difagree with those who include in it only the Care of a fingle Congregation. Thus according to the various Opinions of Men, this Word fignifies a Pope, a Gallican Bishop, a Lutheran Superintendant, an English Prelate, a Pastor of a single Asfembly, or a Presbyter or Elder. Thus they quarrel with each other perpetually; and it is well if any of them all have hit precifely the Senfe of the facred Writers, and included just the fame Ideas in it, and no others.

I might make all the fame Remarks on the Word Church or Kirk, which is derived from Kugis  $dixG_{,}$ , or the Houfe of the Lord, contracted into Kyrioik, which fome fuppole to fignify an Alfembly of Chrifitians, fome take it for all the World that profelles Chriftianity, and fome make it to mean only the Clergy, and on these Accounts it has been the Occasion of as many and as furious Controversies, as the Word Bilbop which was mentioned before.

#### SECT. II.

#### Of negative and positive Terms.

**R** OM these and other Confiderations it will follow, that if we would avoid Error in our Pursuit of Knowledge, we must take good heed to the Use of *Words* and *Terms*, and be acquainted with the various Kinds of them.

I. Terms are either politive or negative.

Negative

Negative Terms are fuch as have a little Word or Syllable of denying joined to them, according to the various Idioms of every Language, as Unpleasant, Imprudent, Immortal, Irregular, Ignorant, Infinite, Endless, Lifeless, Deatbless, Nonsense, Aby/s, Anonymous, where the Propositions Un, Im, In, Non, A, An, and the Termination less, fignify a Negation, either in English, Latin, or Greek.

**Politive** Terms are those which have no fuch negative Appendices belonging to them, as Life, Death, End, Sense, Mortal.

But fo unhappily are our Words and Ideas link. ed together, that we can never know which are pofitive Ideas, and which are negative, by the Word that is used to express them, and that for these Reafons.

1st, There are fome politive Terms which are made to fignify a negative Idea; as Dead is properly a Thing that is deprived of Life; Blind implies a Negation or Privation of Sight; Deaf a Want of Hearing; Dumb a Denial of Speech.

2dly, There are also fome negative Terms which imply politive Ideas, such as immortal and deathless, which fignify ever-living, or a Continuance in Life: Infolent fignifies rude and haughty: Indemnify to keep fafe; and Infinite perhaps has a politive Idea too, for it is an Idea ever growing; and when it is applied to God, it fignifies his complete Perfection.

3dly, There are both positive and negative Terms, invented to fignify the *fame* inftead of *contrary* Ideas; as Unhappy and Miserable, Sinkels and Holy, Pure and Undefiled, Impure and Filthy, Unkind and Cruel, Irreligious and Profane, Unforgiving and Revengeful, &c. and there is a great deal of Beauty and Convenience derived to any Language from this Variety of Expression; though sometimes it a little confounds

Ch. IV. S. 2: The right Use of Reason. 53, confounds our Conceptions of Being and Not-being, our positive and negative Ideas.

4thly, I may add alfo, that there are fome Words which are negative in their original Language, but feem politive to an Engliloman, because the Negation is unknown; as Abyls, a Place without a Bottom; Anodyne, an easing Medicine; Annuelty, an Unremembrance, or general Pardon; Anarchy, a State without Government; Anonymous, i. e. namelefs; Inept, i. e. not fit; Iniquity, i. e. Unrighteoufnefs; Infant, one that cannot speak, (viz.) a Child; Injurious, not doing Justice or Right.

The Way therefore to know whether any Idea be negative or not is, to confider whether it primarily imply the Absence of any positive Being, or Mode of Being; if it doth, then it is a Negation or negative Idea; otherwise it is a positive one, whether the Word that expresses it be positive or negative. Yet after all, in many Cases this is very hard to determine, as in Anness, Infinite, Abys, which are originally relative Terms, but they fignify Pardon, & c. which seem to be Positives. So Darkness, Madness, Clown, are positive Terms, but they imply the Want of Light, the Want of Reason, and the Want of Manners; and perhaps these may be ranked among the negative Ideas.

Here note, that in the English Tongue iwo nogative Terms are equal to one positive, and fignify the fame Thing, as not unbappy, fignifies bappy; not immortal, fignifies mortal; he is no imprudent Man, i. e. he is a Man of Prudence: But the Senfe and Force of the Word in fuch a negative Way of Expression, feems to be a little diminished.

#### SECT.

# SECT. III.

## Of fimple and complex Terms.

II. **TERMS** are divided into *fimple* or *complex*. A *fimple Term* is one Word, a *complex Term* is when more Words are used to fignify one Thing.

Some Terms are complex in Words, but not in Senfe, fuch is the fecond Emperor of Rome; for it excites in our Minds only the Idea of one Man, (viz.) Augustus.

Some Terms are complex in Senfe, but not in Words; fo when I fay an Army, a Forest, I mean a Multitude of Men, or Trees; and almost all our moral Ideas, as well as many of our natural ones, are expressed in this Manner; Religion, Piety, Loyalty, Knavery, Thest, include a Variety of Ideas in each Term.

There are other Terms which are complex both in Words and Sen/e; fo when I fay a fierce Dog, or a pious Man, it excites an Idea, not only of those two Creatures, but of their peculiar Characters alfo.

Among the Terms that are complex in Senfe, but not in Words, we may reckon those fimple Terms . which contain a primary and a fecondary Idea in them; as when I hear my Neighbour speak that which is not true, and I say to him this is not true, or this is falle, I only convey to him the naked Idea of his Error; this is the primary Idea: But if I say it is a Lie, the Word Lie carries also a fecondary Idea in it, for it implies both the Falshood of the Speaker. On the other Hand, if I say it is a Missiake, this carries also a fecondary Idea with it;

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it; for it not only refers to the Fallhood of his Speech, but includes my Tendernels and Civility to him at the fame Time. Another Inftance may be this; when I use the Word, Incest, Adultery, and Murder, I convey to another not only the primary Idea of those Actions, but I include also the fecondary Idea of their Unlawfulnels, and my Abhorrence of them.

Note ift, Hence it comes to pais, that among Words which fignify the fame principal Ideas, fome are clean and decent, others unclean; fome chaste, others obscene; some are kind, others are affronting and reproachful, because of the lecondary Idea which Cuftom has affixed to them. And it is the Part of a wife Man, when there is a Neceffity of expressing any evil Actions, to do it either by a Word that has a fecondary Idea of Kindnels, or Softnels; or a Word that carries in it an Idea of Rebuke and Severity, according as the Cafe requires. So when there is a Necessity of expressing Things unclean or obscene, a wife Man will do it in the most decent Language, to excite as few uncleanly Ideas as possible in the Minds of the Hearers.

Note 2dly, In Length of Time, and by the Power of Cultom, Words fometimes change their primary Ideas, as fhall be declared, and fometimes they have changed their fecondary Ideas, though the primary Ideas may remain: So Words that were once chafte, by frequent Ufe grow obscene and uncleanly; and Words that were once bonourable, may in the next Generation grow mean and contemptible. So the Word Dame originally fignified a Miftrefs of a Family, who was a Lady, and it is used ftill in the English Law to fignify a Lady but in common Use now-a-days it reprefents a Farmer's Wife, or a Mistrefs of a Family

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of the lower Rank in the Country. So those Words of Rabshakeb, Ifa. xxxvi. 12. in our Translation, (Eat their own Dung, &c.) were doubtless decent and clean Language, when our Translators wrote them above a hundred Years ago. The Word Dung has maintained its old fecondary Idea and inoffenfive Senfe to this Day; but the other Word in that Sentence has by Cuftom acquired a more uncleanly Idea, and should now rather be changed into a more decent Term, and fo it should be read in publick, unlefs it should be thought more proper to omit the Sentence **\***.

For this Reason it is, that the Jewish Rabbins have fupplied other chafte Words in the Margin of the Hebrew Bible, where the Words of the Text, through Time and Cuftom, are degenerated, to as to carry any base and unclean secondary Idea in them; and they read the Word which is in the Margin, which they call Keri, and not that which was written in the Text, which they call Chetib.

### SECT. IV.

### Of Words common and proper.

III. WORDS and Names are either common or proper. Common Names are fuch as ftand for univerfal Ideas, or a whole Rank of Beings, whether general or fpecial. These are called Appellatives; fo Fifb, Bird, Man, City, River, are common Names; and fo are Trout, Eel, Lobster, for they all agree to many Individuals, and fome of them to many Species: But Cicero, Virgil, Bucephalus,

• So in fome Places of the facred Historians, where it is written, Every e that piffes against the Wall, we thousd read, Every Male.

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Ch. IV. S. 4. The right Use of Reason. 57 phalus, London, Rome, Æina, the Thames, are proper Names, for each of them agrees only to one single Being.

Note here first, that a proper Name may become in fome Sense common, when it hath been given to feveral Beings of the same Kind; so Cæsar, which was the proper Name of the first Emperor Julius, became also a common Name to all the following Emperors. And Tea, which was the proper Name of one Sort of Indian Leas, is now-a-days become a common Name for many Infusions of Herbs, or Plants, in Water; as Sage-Tea, Ale-boof Tea, Limon-Tea, &cc. So Peter, Thomas, John, William, may be reckoned common Names also, because they are given to many Persons, unless they are determined to fignify a fingle Person at any particular Time or Place.

Note in the fecond Place, that a common Name may become proper by Cuftom, or by the Time, or Place, or Perfons that ufe lit; as in Great Britain, when we fay the King, we mean our prefent rightful Sovereign King George, who now reigns; when we fpeak of the Prince, we intend his Royal Highnefs George Prince of Wales: If we mention the City when we are near London, we generally mean the City of London; when in a Country Town, we fay the Parson or the Esquire, all the Parish knows who are the fingle Perfons intended by it; fo when we are fpeaking of the History of the New Testament, and use the Words Peter, Paul, John, we mean those three Apostles.

Note in the third Place, that any common Name whatfoever is made proper, by Terms of Particularity added to it, as the common Words Pope, King, Horfe, Garden, Book, Knife, & c. are defigned to fignify a fingular Idea, when we fay the prefent Pope;

# LOGICK: Or, Part I.

**Pope**; the King of Great Britain; the Horse that won the last Plate at New-Market; the Royal Garden at Kensington; this Book; that Knife, &cc.

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### SECT. V.

### Of concrete and abstract Terms.

IV. WORDS or Terms are divided into abstrate and concrete.

Abstract Terms fignify the Mode or Quality of a Being, without any Regard to the Subject in which it is; as Whiteness, Roundness, Length, Breadth, Wisdom, Mortality, Life, Death.

Concrete Terms, while they express the Quality, do also either express, or imply, or refer to fome Subject to which it belongs; as white, round, long, broad, wife, mortal, living, dead. But these are not always Noun Adjectives in a grammatical Senfe; for a Fool, a Knave, a Philosopher, and many other Concretes are Substantives, as well as Folly, Knavery, and Philosophy, which are the abstract Terms that belong to them.

### SECT. IV.

### Of univocal and equivocal Words.

V. WORDS and Terms are either univocal or equivocal. Univocal Words are fuch as fignify but one Idea, or at least but one Sort of Thing; equivocal Words are fuch as fignify two or more different Ideas, or different Sorts of Objects. The Words Book, Bible, Fifb, Houfe, Elephant, 'may be called univocal Words; for I know

# Ch. IV. S. 6. The right Use of Reason.

know not that they fignify any thing elfe but those Ideas to which they are generally affixed; but Head is an equivocal Word, for it fignifies the Head of a Nail, or of a Pin, as well as of an Animal: Nail is an equivocal Word, it is used for the Nail of the Hand or Foot, and for an iron Nail to fasten any thing. Post is equivocal, it is a Piece of Timber, or a fwist Messenger. A Cburch is a religious Assending, or the large fair Building where they meet; and fometimes the fame Word means a Syned of Bishops or of Prefbyters, and in fome Places it is the Pope and a general Council.

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Here let it be noted, that when two or more Words fignify the fame Thing, as Wave and Billow, Mead and Meadow, they are ufually called fynonymous Words: But it feems very ftrange, that Words, which are directly contrary to each other, fhould fometimes reprefent almost the fame Ideas; yet thus it is in fome few Instances; a valuable, or an invaluable Bleffing; a fbameful, or a fbamelefs Villain; a tbick Skull, or a tbin fkull'd Fellow, a mere Paper Skull; a Man of a large Confcience, little Confcience, or no Confcience; a famous Rascal, or an infamous one: So uncertain a Thing is human Language, whole Foundation and Support is Custom.

As Words fignifying the fame Thing are called fromymous; fo equivocal Words, or those which fignify several Things, are called bomonymous, or ambiguous; and when Persons use such ambiguous Words, with a Design to deceive, it is called Equivocation.

Our fimple Ideas, and especially the fensible Quaties, furnish us with a great Variety of equivocal or ambiguous Words; for these being the first, and most natural Ideas we have, we borrow some

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of their Names, to fignify many other Ideas, both fimple and complex. The Word Sweet expreffes the pleafant Perceptions of almost every Senfe; Sugar is fweet, but it hath not the fame Sweetness as Musick; nor hath Musick the Sweetnefs of a Rofe; and a fweet Prospect differs from them all: Nor yet have any of these the same Sweetness as Discourse, Counsel, or Meditation hath; yet the royal Plalmist faith of a Man, We took fweet Counfel together; and of God, My Meditation of him shall be fweet. Bitter is also fuch an equivocal Word; there is bitter Wormwood, there are bitter Words, there are bitter Enemies, and a bitter cold Morning. So there is a Sharpnefs in Vinegar, and there is a Sharpnefs in Pain, in Sorrow, and in Reproach; there is a fharp Eye, a sharp Wit, and a sharp Sword: But there is not one of these feven Sbarpnesses, the fame as another of them, and a sharp East Wind is different from them all.

There are also Verbs, or Words of Action, which are equivocal as well as Nouns or Names. The Words to bear, to take, to come, to get, are fufficient Inftances of it; as when we fay, to bear a Burden, to bear Sorrow or Reproach, to bear a Name, to bear a Grudge, to bear Fruit, or to bear Children; the Word bear is used in very different Senfes: And so is the Word get, when we fay, to get Money, to get in, to get off, to get ready, to get a Stomach, and to get a Cold, &c.

There is alfo a great deal of Ambiguity in many of the English Particles, as, but, before, beside, with, without, that, then, there, for, forth, above, about, &c. of which Grammars and Dictionaries will sufficiently inform us.

Part I.

# SECT. VII.

### Various Kinds of equivocal Words.

**T** would be endless to run through all the Varieties of Words and Terms, which have different Senses applied to them; I shall only mention therefore a few of the most remarkable and most useful Distinctions among them.

1st, The first Division of equivocal Words lets us know that fome are equivocal only in their Sound or Pronunciation; others are equivocal only in Writing; and others, both in Writing and in Sound.

Words equivocal in Sound only, are fuch as thefe; the Rein of a Bridle, which hath the fame Sound with the Reign of a King, or a Shower of Rain, but all three have different Letters, and diffinct Spelling. So Might, or Strength, is equivocal in Sound, but differs in Writing from Mite, a little Animal, or a fmall Piece of Money. And the Verb in write, has the fame Sound with Wright a Workman, Right or Equity, and Rite or Ceremony, but it is spelled very differently in them all.

Words equivocal in Writing only, are fuch as thefe; to tear to Pieces has the fame Spelling with a Tear: To lead, or guide, has the fame Letters as Lead the Metal: And a Bowl for Recreation, is written the fame Way as a Bowl for drinking; but the Pronunciation of all thefe is different.

But those Words, which are most commonly and justly called *equivocal*, are such as are both written and pronounced the same Way, and yet have different Senses or Ideas belonging to them;

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fuch are all the Inftances which were given in the preceding Section.

Among the Words which are equivocal in Sound only, and not in Writing, there is a large Field for Perfons who delight in Jefts, and Puns, in Riddles and Quibbles, to iport themfelves. This fort of Words is also used by wanton Perfons to convey lewd Ideas, under the Covert of Expressions capable of a chaste Meaning, which are called double Entendres; or when Perfons speak Fallbood with a Design to deceive, under the Covert of Trutb. Though it must be confessed, that all forts of equivocal Words yield sufficient Matter for such Purposes.

There are many Cafes alfo, wherein an equivocal Word is used for the Sake of *Decency* to cover a *foul Idea*: For the most chaste and modest, and well-bred Persons, having sometimes a Necessity to speak of the Things of Nature, convey their Ideas in the most inoffensive Language by this Means. And indeed, the mere Poverty of all Languages makes it necessary to use *equivocal Words* upon many Occasions, as the common Writings of Men, and even the Holy Book of God sufficiently manifest.

2dly, Equivocal Words are ufually diffinguished, according to their Original, into such, whose various Senses arise from mere Chance or Accident, and such as are made equivocal by Design; as the Word Bear signifies a stagey Beast, and it signifies also to bear or carry a Burden; this seems to be the mere effect of Chance: But if I call my Dog, Bear, because he is shaggy, or call one of the Northern Constellations by that Name, from a fancied Situation of the Stars in the Shape of that Animal, then it is by Design that the Word is made yet farther equivocal.

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But because I think this common Account of the Spring or Origin of equivocal Words is too flight and imperfect, I shall referve this Subject to be treated of by itself, and proceed to the *third Division*.

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gdly, Ambiguous, or equivocal Words, are fuch as are fometimes taken in a large and general Senfe, and fometimes in a Senfe more strict and limited, and have different Ideas affixed to them accordingly. Religion, or Virtue, taken in a large Senfe, includes both our Duty to God and our Neighbour; but in a more strict, limited, and proper Senfe, Virtue fignifies our Duty towards Men. and Religion our Duty to God. Virtue may yet be taken in the strictest Sense, and then it fignifies Power or Courage, which is the Senfe of it in fome Places of the New Testament. So Grace, taken in a large Senfe means the Favour of God, and all the fpiritual Bleffings that proceed from it, (which is a frequent Senfe of it in the Bible) but in a limited Senfe it fignifies the Habit of Holine/s wrought in us by Divine Favour, or a complex Idea of the Christian Virtues. It may be also taken in the fricteft Senfe; and thus it fignifies any fingle Christian Virtue, as in 2 Cor. viii. 6, 7. where it is used for Liberality. So a City, in a strict and proper Senfe, means the Houfes inclosed within the Walls; in a larger Senfe it reaches to all the Suburbs.

This larger and firitier Senfe of a Word is used in almost all the Sciences, as well as in Theology, and in common Life. The Word Geography, taken in a firit Senfe, fignifies the Knowledge of the Circles of the earthly Globe, and the Situation of the various Parts of the Earth; when it is taken in a little larger Senfe, it includes the Knowledge of the Seas also; and in the largeft Senfe of

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all, it extends to the various Cuftoms, Habits, and Governments of Nations. When an Aftronomer uses the Word Star in its proper and first Sense, it is applied only to the fixed Stars, but in a large Sense it includes the Fasters also.

This equivocal Senfe of Words belongs also to many proper Names: So Afia taken in the largest Senfe, is one Quarter of the World; in a more limited Senfe it fignifies Natolia, or the leffer Afia; but in the strictest Senfe it means no more than one little Province of Natolia, where stood the Cities of Epbefus, Smyrna, Sardis, &c. And this is the most frequent Senfe of it in the New Testament. Flanders and Holland, in a strict Sense, are but two single Provinces among the sevence, but in a large Sense Holland includes seven of them, and Flanders ten.

There are also fome very common and little Words in all Languages, that are used in a more extensive or more limited Sense; such as all, every, whatsoever, &c. When the Apostle fays, all Men bave sinned, and all Men must die, all is taken in its most universal and extensive Sense, including all Mankind, Rom. v. 12. When he appoints Prayer to be made for all Men, it appears by the following Verses, that he restrains the Word all to fignify chiefly all Ranks and Degrees of Men, I Tim. II. I. But when St. Paul fays, I please all Men in all Things, I Cor. x. 33. the Word all is exceedingly limited, for it reaches no farther than that he pleased all those Men whom he conversed with, in all Things that were lawsful.

4thly, Equivocal Words are in the fourth Place diffinguished by their *literal* or *figurative* Senfe. Words are used in a *proper* or *literal* Sense, when they are designed to fignify those Ideas for which they were originally made, or to which they are primarily

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primarily and generally annexed; but they are used in a figurative or tropical Sense, when they are made to fignify some Things, which only bear either a Reference or Resemblance to the primary Ideas of them. So when two Princes contend by their Armies, we fay they are at War in a proper Senfe; but when we fay there is a War betwixt the Winds and the Waves in a Storm, this is called figurative, and the peculiar Figure is a Metaphor. So when the Scriptures fay, Riches make themselves Wings, and fly away as an Eagle toward Heaven, the Wings and the Flight of the Eagle are proper Expressions; but when Flight and Wings are applied to Riches, it is only by Way of Figure and Metaphor. So when a Man is faid to repent, or laugh, or grieve, it is literally raken; but when God is faid to be grieved, to repent, or laugh, &c. these are all figurative Exprefions, borrowed from a Refemblance to Mankind. And when the Words Job or Efther are ufed to fignify those very Perfons, it is the literal Senfe of them; but when they fignify those two Books of Scripture, this is a figurative Sense. The Names of Horace, Juvenal, and Milton, are used in the fame Manner either for Books or Men.

When a Word, which originally fignifies any particular Idea or Object, is attributed to feveral other Objects, not fo much by Way of Refemblante, but rather on the Account of fome evident Reference or Relation to the original Idea, this is fometimes peculiarly called an analogical Word; fo a found or bealtby Pulfe; a found Digestion; found Sleep, are all fo called, with Reference to a found and bealiby Constitution; but if you speak of sound Dostrine, or sound Speech, this is by Way of Refemblance to Health, and the Words Ел

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Words are *metaphorical*: Yet many Times Analogy and Metaphor are used promiscuously in the fame Sense, and not distinguished.

Here note, That the Defign of metaphorical Language and Figures of Speech is not merely to represent our Ideas, but to represent them with Vivacity, Spirit, Affection, and Power; and though they often make a deeper Impression on the Mind of the Hearer, yet they do as often lead him into a Mistake, if they are used at improper Times and Places. Therefore, where the Defign of the Speaker or Writer is merely to explain, to instruct, and to lead into the Knowledge of naked Truth, he ought, for the most Part, to use plain and proper Words, if the Language affords them, and not to deal much in figurative Speech. But this Sort of Terms is used very profitably by Poets and Orators, whole Business is to move, and perfuade, and work on the Passions, as well as on the Understanding. Figures are also happily employed in proverbial moral Sayings by the wifest and the best of Men, to impress them deeper on the Memory by fensible Images; and they are often used for other valuable Purposes in the facred Writings.

5thly, I might adjoin another fort of equivocal Words; as there are fome which have a different Meaning in common Language, from what they have in the Sciences; the Word Paffion fignifies the receiving any Action in a large philosophical Senfe; in a more limited philosophical Senfe, it fignifies any of the Affections of buman Nature, as Love, Fear, Joy, Sorrow, &c. But the common People confine it only to Anger. So the Word Simple philosophically fignifies Single, but vulgarly it is used for Foulyb.

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6thly, Other equivocal Words are used fometimes in an *abfolute* Senfe, as when God is called *perfett*, which allows of no Defect; and fometimes in a *comparative* Senfe, as good Men are oftentimes called *perfett* in Scripture, in Comparifon of those who are much inferior to them in Knowledge or Holines: But I have dwelt rather too long upon this Subject already, therefore I add no more.

### SECT. VIII.

#### The Origin or Caufes of equivocal Words.

N OW, that we may become more fkilful in guarding ourfelves and others against the Dangers of Mistake which may arise from equivocal Words, it may not be amiss to conclude this Chapter with a short Account of the various Ways or Means whereby a Word changes its Signification, or acquires any new Sense, and thus becomes equivocal, especially if it keeps its old Sense also.

1. Mere Chance fometimes gives the fame Word different Senfes; as the Word Light fignifies a Body that is not heavy; and it also fignifies the Effect of Sun-beams, or the Medium whereby we fee Objects: This is merely accidental, for there feems to be no Connexion between these two Senfes, nor any Reafon for them.

2. Error and Missiake is another Occasion of giving various Senses to the fame Word; as when different Persons read the Names of Priest, Bishop, Church, Easter, &cc. in the New Testament, they affix different Ideas to them, for want of Acquaintance with the true Meaning of the facred Writer; though it must be confessed, those various rious Senfes, which might arife at first from honefs Mistake may be culpably supported and propagated by Interest, Ambition, Prejudice, and a Party-Spirit on any Side.

3. Time and Cuftom alters the Meaning of Words. Knave heretofore fignified a diligent Servant (Gnavus;) and a Villain was a nearer Tenant to the Lord of the Manor (Villicus;) but now both these Words carry an Idea of Wickedness and Reproach to them. A Ballad once fignified a folemn and facred Song, as well as oge that is trivial, when Solomon's Song was called the Ballad of Ballads; but now it is applied to nothing but trifling Verse, or comical Subjects.

4. Words change their Senfe by Figures and Metaphors, which are derived from fome real Analogy or Refemblance between feveral Things; 20 when Wings and Flight are applied to Riches, it fignifies only, that the Owner may as eafily lofe them, as he would lofe a Bird who flew away with Wings.

And I think, under this Head, we may rank those Words, which fignify different Ideas, by a Sort of an unaccountable far-fetcht Analogy, or diftant Resemblance that Fancy has introduced between one Thing and another; as when we fay, the Meat is green, when it is balf roasted: We speak of airing Linnen by the Fire, when we mean drying or warming it: We call for round Coals for the Chimney, when we mean large square ones: And we talk of the Wing of a Rabbit, when we mean the Fore-leg: The true Reason of these Appellations we leave to the Criticks.

5. Words also change their Sense by the special Occasion of using them, the peculiar Manner of Pronunciation, the Sound of the Voice, the Motion of the Face, or Gestures of the Body; so when an angry

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angry Master fays to his Servant, it is bravely done, or you are a fine Gentleman, he means just the contrary; namely, it is very ill done; you are a forry Fellow: It is one Way of giving a fevere Reproach, for the Words are spoken by Way of Sarca/m or Irony.

6. Words are applied to various Senfes, by new Ideas appearing or arifing fafter than new Words are framed. So when Gun-powder was found out, the Word Powder, which before fignified only Duft, was made then to fignify that Mixture or Composition of Nitre, Charcoal, &cc. And the Name Canon, which both fignified a Law or a Rule, is now also given to a great Gun, which gives Laws to Nations. So Foot-boys, who had frequently the common Name of Jack given them, were kept to turn the Spit, or to pull off their Master's Boots; but when Instruments were invented for both those Services, they were both called Jacks, though one was of Iron, the other of Wood, and very different in their Form.

7. Words alter their Significations according to the Ideas of the various Persons, Setts, or Parties who use them, as we have hinted before; fo when a Papist uses the Word Hereticks, he generally means the Protestants; when a Protestant uses the Word, he means any Persons who were wilfully (and perhaps contentiously) obstinate in fundamental Errors. When a Jew speaks of the true Religion, he means the Institutions of Moses; when a Turk mentions it, he intends the Dostrine of Mahomet; but when a Christian makes Use of it, he defigns to fignify Christianity, or the Truths and Precepts of the Gospel.

8. Words have different Significations according to the Book, Writing, or Difcourfe in which they ftand. So in a Treatife of Anatomy, a Foot fignifies 70

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fignifies that Member in the Body of Man: But in a Book of Geometry or Menfuration, it fignifies twelve Inches.

If I had Room to exemplify most of these Particulars in one fingle Word, I know not where to chuse a fitter than the Word Sound, which feems (as it were) by Chance, to fignify three diffinct Ideas, (viz.) Healthy (from Sanus) as a found Body; Noife, (from Sonus) as a [brill Sound ; and to found the Sea (perhaps from the French Sonde, a Probe, or an Inftrument to find the Depth of Water.) From these three, which I may call original Senses, various derivative Senses arife; as found Sleep, found Lungs, found Wind and Limb. a found Heart, a found Mind, found Dostrine, a found Divine, found Reafon, a found Cosk, found Timber, a found Reproof, to beat one foundly, to found one's Meaning or Inclination, and a Sound or narrow Sea; turn these all into Latin, and the Variety will appear plain.

I confeis, some few of these which I have mentioned as the different Springs of equivocal Words, may be reduced in some Cases to the same Original: But it must also be granted, that there may be other Ways besides these whereby a Word comes to extend its Signification, to include various Ideas, and become equivocal. And though it is the Bufinels of a Grammarian to pursue these Remarks with more Variety and Particularity, yet it is also the Work of a Logician to give Notice of these Things, left Darkness, Confusion, and Perplexity be brought into our Conceptions by the Means of Words, and thence our Judgments and Reasonings become erroneous.

### CHAP. V.

# General Directions relating to our Ideas.

Direction I. PUrnish yourfelves with a rich Variety of Ideas; acquaint yourfelves with Things ancient and modern; Things natural, civil and religious; Things domestick and national; Things of your native Land, and of foreign Countries: Things present, pass and future; and above all, be well acquainted with God and yourselves; learn animal Nature, and the Workings of your own Spirits.

Such a general Acquaintance with Things will be of very great Advantage.

The *first Benefit* of it is this; it will affift the Use of *Reason* in all its following Operations; it will teach you to judge of Things aright, to argue *justly*, and to methodise your Thoughts with Accuracy. When you shall find several Things a-kin to each other, and several different from each other, agreeing in fome Part of their Idea, and difagreeing in other Parts, you will range your Ideas in better Order, you will be more easily led into a diffinist Knowledge of Things, and will obtain a rich Store of proper Thoughts and Arguments upon all Occasions.

You will tell me perhaps, that you defign the Study of the Law or Divinity; and what Good can natural Philosophy or Mathematicks do you, or any other Science, not directly fubordinate to your chief Defign? But let it be confidered, that all Sciences have a fort of mutual Connexion; and Knowledge of all Kinds fits the Mind to reafon and judge better concerning any particular Subject.

Part I. ject: I have known a Judge upon the Bench betray his Ignorance, and appear a little confused in his

Sentiments about a Cafe of fuspected Murder brought before him, for want of fome Acquaintance with animal Nature and Philosophy.

Another Benefit of it is this; fuch a large and general Acquaintance with Things will fecure you from perpetual Admirations and Surprizes, and guard you against that Weakness of ignorant Persons, who have never feen any Thing beyond the Confines of their own Dwelling, and therefore they wonder at almost every Thing they fee; every Thing beyond the Smoke of their own Chimney. and the Reach of their own Windows, is new and ftrange to them.

A third Benefit of fuch an universal Acquaintance with Things, is this; it will keep you from being. too politive and dogmatical, from an Excels of Credulity and Unbelief, i. e. a Readinefs to believe, or to deny every Thing at first Hearing; when you shall have often feen, that strange and uncommon Things, which often feemed incredible, are found to be true; and Things very commonly received have been found false.

The Way of attaining fuch an extensive Treasure of Ideas, is, with Diligence to apply yourfelf to read the best Books, converse with the most knowing and the wifeft of Men, and endeavour to improve by every Perfon in whofe Company you are; fuffer no Hour to pass away in a lazy Idleneis, an impertinent Chattering or useles Trifles : Visit other Cities and Countries when you have feen your own, under the Care of one who can teach you to profit by Travelling, and to make wife Observations; indulge a just Curiofity in feeing the Wonders of Art and Nature : fearch into Things yourfelves, as well as learn them -

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them from others; be acquainted with Men as well as Books; learn all Things as much as you can at first Hand; and let as many of your Ideas as possible be the Representations of Things, and not merely the Representations of other Mens Ideas: Thus your Soul, like fome noble Building, shall be richly furnished with original Paintings, and not with mere Copies.

Direct II. Use the most proper Methods to retain that Treasure of Ideas which you have acquired; for the Mind is ready to let many of them slip, unless some Pains and Labour be taken to fix them upon the Memory.

And more especially let those Ideas be laid up and preferved with the greatest Care, which are most directly fuited, either to your *eternal Wel*fare as a Corifian, or to your particular Station and Profession in this Life; for though the former Rule recommends an universal Acquaintance with Things, yet it is but a more general and superficial Knowledge that is required or expected of any Man, in Things which are utterly foreign to his own Busines; but it is necessary you should have a more particular and accurate Acquaintance with those Things that refer to your peculiar Province and Duty in this Life, or your Happines in another.

There are fome Perfons who never arrive at any deep, folid, or valuable Knowledge in any Science, or any Business of Life, because they are perpetually fluttering over the Surface of Things in a curious and wandering Search of infinite Variety; ever hearing, reading, or asking after fomething new, but impatient of any Labour to lay up and preferve the Ideas they have gained: Their Souls may be compared to a Looking-Gla/s, that

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that wherefoever you turn it, it mieives the Images of all Objects, but retains none.

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In order to preferve your Treasure of Ideas and the Knowledge you have gained, pursue these Advices, especially in your younger Years.

1. Recollett every Day the Things you have feen, or heard, or read, which may have made any Addition to your Understanding: Read the Writings of God and Men with Diligence and perpetual Reviews: Be not fond of hastening to a new Book, or a new Chapter, till you have well fixed and established in your Minds what was useful in the last: Make use of your Memory in this Manner, and you will sensibly experience a gradual Improvement of it, while you take care not to load it to Excess.

2. Talk over the Things which you have seen, beard or learned with some proper Acquaintance; this will make a fresh Impression upon your Memory; and if you have no Fellow Student at hand, none of equal Rank with yourselves, tell it over to any of your Acquaintance, where you can do it with Propriety and Decency; and whether they learn any Thing by it or no, your own Repetition of it will be an Improvement to yourself: And this Practice also will furnish you with a Variety of Words, and copious Language, to express your Thoughts upon all Occasions.

3. Commit to Writing fome of the most confiderable Improvements which you daily make, at least fuch Hints as may recall them again to your Mind, when perhaps they are vanished and lost. And here I think Mr. Locke's Method of Adverfaria or common Places, which he defcribes in the End of the first Volume of his postbumous Works, is the best; using no learned Method at all, fetting down Things as they occur, leaving a diftinct



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tinct Page for each Subject, and making an Index to the Pages.

At the End of every Week, or Month, or Year, you may review your Remarks for these Reasons; First, to judge of your own Improvement, when you shall find that many of your younger-Collections are either weak and trifling; or if they are just and proper, yet they are grown now so familiar to you, that you will thereby see your own Advancement in Knowledge. And in the next Place, what Remarks you find there worthy of your riper Observation, you may note them with a marginal Star, instead of transcribing them, as being worthy of your fecond Year's Review, when the others are neglected\*.

To shorten something of this Labour, if the Books which you read are your own, mark with a Pen, or Pencil, the most considerable Things in them which you defire to remember. Thus you may read that Book the second Time over with half the Trouble, by your Eye running over the Paragraphs which your Pencil has noted. It is but a very weak Objection against this Practice to say, I shall spoil my Book; for I persuade myself, that you did not buy it as a Bookfeller, to sell it again for Gain, but as a Sebolar, to improve your Mind by it? and if the Mind be improved, your Advantage is abundant, though your Book yields less Money to your Executors.

• Nove, This Advice of Writing; Marking, and Reviewi-g your Marks, refers chiefly to those acceptional Notions you neet with either in Reading er in Conversation: But when you are directly and professed by purfuing any Subject of Knowledge in a good System in your younger Years, the System their is your Common-Place Book, and must be entirely reviewed. The same may be fild concerning any Treastle which closely, succently, and accurately hid es any particular Theme.

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Direct. III. As you proceed both in Learning and in Life, make a wife Observation what are the Ideas, what the Discourses and the Parts of Knowledge that bave been more or less useful to yourself or others. In our younger Years, while we are furnishing our Minds with a Treasure of Ideas, our Experience is but fmall, and our Judgment weak; it is therefore impossible at that Age to determine aright concerning the real Advantage and Usefulne is many Things we learn. But when Age and Experience have matured your Judgment, then you will gradually drop the more useles. Part of your younger Furniture, and be more folicitous to retain that which is most necessary for your Welfare in this Life, or a better. Hereby you will come to make the fame Complaint that almost every learned Man has done after long Experience in Study, and in the Affairs of human Life and Religion: Alas! bow many Hours, and Days. and Months, have I lost in pursuing some Parts of. Learning, and in reading some Authors, which have turned to no other Account, but to inform me, that they were not worth my Labour and Pur/uit ! Happy the Man who has a wife Tutor to conduct him through all the Sciences in the first Years of his Study: and who has a prudent Friend always at Hand to point out to him, from Experience, how much of every Science is worth his Pursuit! And happy the Student that is fo wife as to follow fuch Advice!

Direct. IV. Learn to acquire a Government over your Ideas and your Thoughts, that they may come when they are called, and depart when they are bidden. There are fome Thoughts that rife and intrude upon us while we fhun them; there are others The right Use of Reason.

others that fly from us, when we would hold and fix them.

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If the Ideas which you would willingly make the Matter of your prefent Meditation are ready to fly from you, you must be obstinate in the Purfuit of them by an Habit of fixed Meditation s you must keep your Soul to the Work, when it is ready to ftart aside every Moment, unless you will abandon yourfelf to be a Slave to every wild Imagination. It is a common, but it is an unhappy and a fhameful Thing, that every Trifle that comes across the Senses or Fancy should divert us, that a buzzing Fly should teaze our Spirits, and scatter our best Ideas : But we must learn to be deaf and regardless of other Things, besides that which we make the prefent Subject of our Meditation: And in order to help a wandering and fickle Humour, it is useful to have a Book or Paper in our Hands, which has fome proper Hints of the Subject that we defign to purfue. We must be resolute and laborious, and sometimes conflict with ourfelves if we would be wife and learned.

Yet I would not be too fevere in this Rule: It must be confessed there are Seasons when the Mind, or rather the Brain is overtired or jaded with Study or Thinking; or upon fome other Accounts animal Nature may be languid or cloudy, and unfit to affift the Spirit in Meditation, at fuch Seafons (provided that they return not too often) it is better fometimes to yield to the prefent Indifpofition; for if Nature entirely refift, nothing can be done to the Purpofe, at least in that Subject or Sci-Then you may think it proper to give ence: yourself up to some Hours of Leisure and Recreation, or n/eful Idlenes; or if not, then turn your Thoughts to fome other alluring Subject, and pore oa

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no longer upon the *first*, till fome brighter or more favourable Moments arife. A Student shall do more in one Hour, when all Things concur to invite him to any special Study, than in four Hours, at a dull and improper Season.

I would also give the fame Advice, if fome vain or wortble/s, or foolifh Idea will crowd itfelf into your Thoughts; and if you find that all your Labour and Wrestling cannot defend yourself from it, then divert the Importunity of that which offends you by turning your Thoughts to fome entertaining Subject, that may amule a little and draw you off from the troublessome and imposing Guess; and many a Time also in such a Case, when the impertinent and intruding Ideas would divert from present Duty, Devotion and Prayer have been very successful to overcome such obstinate Troublers of the Peace and Profit of the Soul.

If the natural Genius and Temper be too volatile, fickle and wandering, fuch Perfons ought in a more effectial Manner to apply themfelves to mathematical Learning, and to begin their Studies with Arithmetick and Geometry; wherein new Truths, continually arifing to the Mind out of the plaineft and eafieft Principles, will allure the Thoughts with incredible Pleafure in the Purfuit: This will give the Student fuch a delightful Tafte of Reafoning, as will fix his Attention to the fingle Subject which he purfues, and by Degrees will cure the habitual Levity of his Spirit: But let him not indulge and purfue there fo far, as to neglect the prime Studies of his defigned Profeffion.

# CHÁP. VI.

# Special Rules to direct our Conceptions of Things.

A Great Part of what has been already written is defigned to lay a Foundation for those Rules, which may guide and regulate our Conceptions of Things; this is our main Business and Defign in the *first Part of Logick*. Now if we can but direct our Thoughts to a just and happy Manner in *forming our* Ideas of Things, the other Operations of the Mind will not fo eafily be perverted; because most of our Errors in *Judgment*, and the Weakness, Fallacy and Mistake of our Argumentation, proceed from the 'Darkness, Confusion, Defect, or fome other Irregularity in our Conceptions.

The Rules to affift and direct our Conceptions and are these,

- 1. Conceive of things clearly and diffinitly in their own Natures.
- 2. Conceive of things completely in all their Parts.
- 3. Conceive of things comprehensively in all their Properties and Relations.
- 4. Conceive of things extensively in all their Kinds.
- 5. Conceive of things orderly, or in a proper *Method*,

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## SECT. I.

### Of gaining clear and diftinct Ideas.

THE first Rule is this, Seek after a clear and distinct Conception of Things as they are in their own Nature, and do not content yourselves with obscure and confused Ideas, where clearer are to be attained.

There are fome Things indeed whereof diffine. Ideas are fcarce, attainable, they feem to furpats. the Capacity of the Understanding in our prefent State; fuch are the Notions of Eternal, Immense, Infinite, whether this Infinity be applied to Number, as an infinite Multitude; to Quantity, as infinite Length, Breadth; to Powers and Perfections, as Strength, Wisdom, or Goodness infi-nite, &c. Though Mathematicians in their Way demonstrate feveral Things in the Doctrine of, Infinities, yet there are still fome infolvable Difficulties that attend the Ideas of Infinity, when it is applied to Mind or Body; and while it is in reality but an Idea ever growing, we cannot have fo clear and diffinct a Conception of it as to lecure us from Miltakes in fome of our Reafonings about it.

There are many other Things that belong to the material World, wherein the fharpest Philofophers have never yet arrived at clear and distinct Ideas, such as the particular Shape, Situation, Contexture, Motion of the fmall Particles of Minerals, Metals, Plants, &c. whereby their very Natures and Effences are distinguished from each other, Nor have we either Senses or Instruments sufficiently nice and accurate to find them out. There are other Things in the World of Spirits wherein

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wherein our Ideas are very dark and confused, fuch as their Union with animal Nature, the Way of their atting on material Beings, and their Converse with each other. And though it is a laudable Ambition to fearch what may be known of these Matters, yet it is a vast Hindrance to the Enrichment of our Understandings, if we spend too much of our Time and Pains among Infinites and Unstarchables, and those Things for the Investigation whereof we are not furnished with proper Faculties in the present State. It is therefore of great Service to the true Improvement of the Mind, to distinguish well between Knowables and Unknowables.

As far as Things are knowable by us, it is of excellent Use to accustom ourselves to clear and diffinel-Ideas. Now among many other Occasions of the Darkness and Mistakes of our Minds, there are these two Things which most remarkably bring Confusion into our Ideas.

1. That from our Infancy we have had the Ideas of Things to far connected with the *Ideas of Words* that we often mittake Words for Things, we mingle and confound one with the other.

2. From our youngest Year's we have been ever ready to confider Things not so much in their own Natures, as in their various Respects to ourselves, and chiefly to our Senses; and we have also joined and mingled the Ideas of some Things, with many other Ideas, to which they were not a-kin in their own Natures.

In order therefore to a clear and diffinit Knowledge of Things, we must unclothe them of all these Relations and Mixtures, that we may contemplate them naked, and in their own Natures: and diffinguish the Subject that we have in View from all other Subjects what for view to per-

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form this well, we must here confider the Definition. of Words, and the Definition of Things.

### SECT. II.

### Of the Definition of Words or Names.

F we could conceive of Things as Angels and unbodied Spirits do, without involving them in those Clouds which Words and Language throw upon them, we should seldom be in Danger of fuch Mistakes as are perpetually committed by us in the prefent State; and indeed it would be of. unknown Advantage to us to accustom ourselves to form Ideas of Things without Words, that we might know them in their own proper Natures. But fince we must use Words, both to learn and to communicate most of our Notions, we should do it with just Rules of Caution. I have already declared in part, how often and by what Means our Words become the Occasions of Errors in our Conceptions of Things. To remedy fuch Inconveniencies, we must get an exact Definition of the Words we make use of, i. e. we must determine precifely the Senfe of our Words, which is called the Definition of the Name.

Now a Definition of the Name being only a Declaration in what Senfe the Word is used, or what Idea or Object we mean by it, this may be expressed by any one or more of the Properties, Effects or Circumstances of that Object which do fufficiently distinguish it from other Objects : As if I were to tell what I mean by the Word Air, I may fay it is that thin Matter which we breathe in and breathe gut continually; or it is that fluid Body in which the Birds fly a little above the Earth; or it is that invisible Matter which fills all Places

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Places near the Earth, or which immediately encompasses the Globe of Earth and Water. So if I would tell what I mean by Light, I would fay, it is that Medium whereby we see the Colours and Shapes of Things ; or it is that which distinguishes the Day from the Night. If I were asked what I mean by Religion, I would answer, it is a Collection of all our Duties to God. if taken in a strict and limited Sense; but if taken in a large Senfe, it is a Collection of all our Duties both to God and Man. These are called the Definitions of the Name.

Note. In defining the Name there is no Necessity that we should be acquainted with the intimate Eifence or Nature of the Thing; for any Manner of Description that will but fufficiently acquaint another Perfon what we mean by fuch a Word, is a fufficient Definition for the Name. And on this Account, a fynonymous Word, or a mere Negation of the contrary, a Translation of the Word into another Tongue, or a Grammatical Explication of it, is fometimes sufficient for this Purpose; as if one would know what I mean by a Sphere, I tell him it is a Globe; if he ask what is a Triangle, it is that which has three Angles; or an Oval is that which has the Shape of an Egg. Dark is that which has no Light : Afthma is a Difficulty of Breathing; a Diaphoretick Medicine, or a Sudorifick, is fomething that will provoke Sweating; and an Infolvent is a Man that cannot pay bis Debts.

Since it is the Defign of Logick, not only to affift us in Learning but in teaching also, it is necessary that we should be furnished with some particular Directions relating to the Definitions of Names, both in Teaching and Learning. ٠.

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# SECT. III. 🕤

#### Directions concerning the Definitions of Names.

Direct. I. MVE a Care of making Use of mere Words, instead of Ideas, i. e. fuch Words as have no Meaning, no Definition belonging to them: Do not always imagine that there are Ideas wheresever there are Names: For though Mankind hath fo many Millions of Ideas more than they have Names, yet fo foolish and lavish are we, that too often we use fome Words in mete Waste, and have no Ideas for them; or at least, our Ideas are so exceedingly stattered and confused, broken and blended, various and unfettled, that they can fignify Nothing toward the Improvement of the Understanding, You will find a great deal of Reason for this Remark, if you read the Popish Schoolmen, or the myssick Divines.

Never reft fatisfied therefore with mere Words which have not Ideas belonging to them, or at leaft na fettled and determinate Ideas. Deal not in fuch empty Ware, whether you are a Learner or a Teacher; for hereby fome Perfons have made themfelves rich in Words, and learned in their own Efteem; whereas in reality their Underftandings have been poor, and they knew Nothing.

Let me give, for Instance, some of those Writers or Talkers who deal much in the Word Nature, Fate, Luck, Chance, Perfession, Power, Life, Fortune, Instinct, &c. and that even in the most calm and instructive Parts of their Discourse; though neither they themselves nor their Hearers have any settled Meaning under those Words; and

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and thus they build up their Reafonings, and infer what they pleafe, with an Ambition of the Name of Learning, or of fublime Elevations in Religion; whereas in Truth they do but amufe themfelves and their Admirers with fwelling Words of Vanity, understanding neither what they fay, nor whereof they affirm. But this Sort of Talk was reproved of old by the two chief Apostles St. Peter and St. Paul, 1 Tim. i. 7. and 2 Pet. ii. 18.

When Pretenders to Philosophy or good Senfe grow fond of this Sort of Learning, they dazle and confound their weaker Hearers, but fall under the Neglect of the Wife. The Epicureans are guilty of this Fault, when they afcribe the Formation of this World to Chance : The Aristotelians, when they fay, Nature abbors a Vacuum: The Stoics when they talk of Fate, which is funerior to the Gods: And the Gamesters when they curfe their Ill-Luck, or hope for the Favours of Fortune. Whereas, if they would tell us, that by the Word Nature they mean the Properties of any Being, or the Order of Things established at the Creation; that by the Word Fate, they intend the Decrees of God, or the necessary Connexion and Influence of second Causes and Effects; if by the Word Luck or Chance they fignify the absolute Negation of any determinate Caufe, or only their Ignorance of any fuch Caule, we should know how to converse with them, and to affent to, or diffent from their Opinions. But while they flutter in the dark. and make a Noise with Words which have no fixed Ideas, they talk to the Wind, and can never profit.

I would make this Matter a little plainer still by Instances borrowed from the *Peripatetick* Philosophy, which was taught once in all the Schools, 86

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Schools. The Professor fancies he has affigned the true Reason, why all beavy Bodies tend downward. why Amber will draw Feathers or Straws, and the Loadfone draw Iron, when he tells you, that this is done by certain gravitating and attractive Qua. lities, which proceed from the fubstantial Forms of , those various Bodies. He imagines that he has explained why the Loadstone's \* North Pole, shall revel the North End of a Magnetick Needle, and astrati the South, when he affirms, that this is done by its Sympathy, with one End of it, and its Antipathy against the other End. Whereas in Truth. all thefe Names of Sympathy, Antipathy, fubflantial Forms and Qualities, when they are put for the Caufes of these Effects in Bodies, are but hard Words which only express a learned and pompous Ignorance of the true Caufe of natural Appearances; and in this Senfe they are mere Words without Ideas.

This will evidently appear if one afk me, why a concave Mirror or convex Glafs will burn Wood in the Sun-beams, or why a Wedge will cleave it! and I fhould tell him, it is by an uftorious Quality in the Mirror or Glafs, and by a cleaving Power in the Wedge, arifing from a certain unknown fubftantial Form in them, whence they derive these Qualities; or if he should ask me why a Clock strikes, and points to the Hour? and I should fay, it is by an indicating Form and fonorifick Quality; whereas I ought to tell him how the Sun-beams are collected and united by a burning Glafs; whence the mechanical Force of a Wedge is derived; and what are the Wheels and Springs,

• Note, Some Writers call that the South-Pole of a Loadstone which at tracts the South-End of the Needle ; but I chuse to follow those who call it the North-Pole.

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the Pointer and Hammer, and Bell, whereby a Clock gives Notice of the Time, both to the Eye and the Ear. But these uflorious and cleaving Powers, fonorous and indicating Forms and Qualities, do either teach the Enquirer nothing at all but what he knew before, or are they mere Words without Ideas +.

And there is many a Man in the vulgar and in the learned World, who imagines himfelf deeply fkilled in the Controverfies of Divinity, whereas he has only furnished himfelf with a Parcel of fcholastick or mystick Words, under some of which the Authors themselves had no just Ideas; and the Learner when he hears, or pronounces them, hath scarce any Ideas at all. Such fort of Words sometimes have become Matters of immortal Contention, as though the Gospel could not stand without them; and yet the Zealot perhaps knows little more of them than he does of Sbibboletb, or Higgaion, Selab, Judges xii. 6. Pfal. ix. 16.

Yet here I would lay down this Caution, that there are feveral Objects of which we have not a clear and diffinct Idea, much lefs an adequate or comprehensive one, and yet we cannot call the Names of these Things Words without Ideas;

† It may be objected here, " And what does the modern Philosopher " with all his detail of mathematical Numbers, and Diagrams, do more " than this toward the Solution of these Difficulties? Does he not describe " Gravity by a certain anknewn Force, whereby Bodies tend downward to the " Gravity by a certain anknewn Force, whereby Bodies tend downward to the " Gravity by a certain anknewn Force, whereby Bodies tend downward to the " Gravity by a certain anknewn Force, whereby Bodies tend downward to the " Gravity by a certain anknewn Force, whereby Bodies tend downward to the " Gravity by a certain anknewn Force, whereby Bodies tend downward to the " Gravity by a certain anknewn, That the Moderns have found a thouland " Magnetifm, &c." I answer, That the Moderns have found a thousand "Things by applying Mathematicks to natural Philosophy, which the Ancients were ignorant of; and when they use any Names of this Kind, viz. Gravitation, Attraction, &c. they use them only to fignify, that there are Gravitation further Causes, with a frequent Confession of their Ignorance of the true Springs of them: They do not pretend to make these Words thand for the real Causes of Things, as though they thereby affigned the true philosophical Solution of these Difficulties; for in this Sense they will fill be Words without Ideas, whether is the Mouth of an old Philosopher or a anyw one.

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fuch are the Infinity and Eternity of God himfelf, the Union of our own Soul and Body, the Union of the divine and human Natures in Jefus Chrift, the Operation of the Holy Spirit on the Mind of Man, Ec. Thefe ought not to be called Words without Ideas, for there is fufficient Evidence for the Reality and Certainty of the Existence of their Objects; though there is fome Confusion in our clearest Conceptions of them; and our Ideas of them, though imperfect, are yet sufficient to converse about them, fo far as we have Need, and to determine fo much as is necessary for our own Faith and Practice.

Direct. II. Do not fuppose that the Natures or Effences of Things always differ from one another, as much as their Names do. There are various Purposes in human Life, for which we put very different Names on the same Thing, or on Things whose Natures are near a-kin; and thereby oftentimes, by making a new nominal Species, we are ready to deceive ourselves with the Idea of another real Species of Beings: And those, whose Understandings are led away by the mere Sound of Words, fancy the Nature of those Things to be very different whose Names are so, and judge of them accordingly.

I may borrow a remarkable Inftance for my Purpofe almost out of every Garden, which contains a Variety of Plants in it. Most or all Plants agree in this, that they have a *Root*, a *Stalk*, . *Leaves*, *Buds*, *Bloffoms* and *Seeds*: But the Gardener ranges them under very different Names, as though they were really different Kinds of Beings, merely because of the different Use and Service to which they are applied by Men: As for Inftance, those

Ch. VI. S. 3. The right Use of Reason. 80 those Plants whose Roots are eaten shall appropriate the Name of Roots to themfelves; fuch are Carrots, Turnips, Radishes, &c. If the Leaves are of chief Use to us, then we call them Herbs; as Sage, Mint, Thyme: If the Leaves are eaten raw, they are termed Sallad; as Lettuce, Purflain: If boiled, they become Pot-berbs; as Spinage, Coleworts; and fome of those fame Plants, which are Pot-berbs in one Family, are Sallad in another. If the Buds are made our Food, they are called Heads, or Tops; fo Cabbage-Heads, Heads of Afparagus and Articboaks. If the Bloffom be of most Importance, we call it a Flower; fuch are Daifies, Tulips, and Carnations, which are the mere Bloffoms of those Plants. If the Hufk or Seeds are eaten, they are called the Fruits of the Ground. as Pease, Beans, Strawberries, &c. If any Part of the Plant be of known and common Ufe to us, in Medicine, we call it a phylical Herb, as Carduus, Scurvy-gras; but if we count no Part ufeful, we call it a Weed, and throw it out of the Garden; and yet perhaps our next Neighbour knows fome valuable Property and Use of it; he plants it in his Garden, and gives it the Title of an Herb, or You fee here how infall is the real Dia Flower. ftinction of these several Plants, confidered in their general Nature as the leffer Vegetables : Yet what very different Ideas we vulgarly form concerning them, and make different Species of them, chiefly because of the different Names given them.

Now when Things are fet in this clear Light, it appears how ridiculous it would be for two Perfons to contend, whether Dandelion be an Herb, or a Weed; whether it be a Pot-berb or Sallad; when by the Cultom or Fancy of different Families, this one Plant obtains all these Names according cording to the feveral Uses of it, and the Value that is put upon it.

Note here, that I find no Manner of Fault with the Variety of Names which are given to feveral Plants, according to the various Ufes we make of them. But I would not have our Judgments impofed upon hereby, to think that thefe mere nominal Species, viz. Herbs, Sallad, and Weeds, become three really different Species of Beings, on this Account, that they have different Names and Ufes. But I proceed to other Inflances.

It has been the Custom of MankinJ, when they have been angry with any thing, to add a new ill Name to it, that they may convey thereby a hateful Idea of it, though the Nature of the thing still abides the fame. So the Papiss call the Protestants Hereticks : A profane Person calls a Man of Piety a Precisian: And in the Times of the Civil War in the last Century, the Royalists called the Parliamentarians, Fanaticks, Roundbeads, and Sectaries. And they in Requital called the Royalists, Malignants: But the Partizans on each Side were really neither better nor worse for these Names.

It has also been a frequent Practice on the other Hand, to put new favourable Names upon ill Ideas, on purpose to take off the Odium of them. But notwithstanding all these flattering Names and Titles, a Man of profuse Generosity is but a Spendtbrift; a natural Son is a Bastard still; Gallant is an Adulterer, and a Lady of Pleasure is a Wbore.

Direct. III. Take beed of believing the Nature and Effence of two or more Things to be certainly the fame, because they may have the fame Name given them. This has been an unhappy and fatal Occafion

Ch. VI. S. 3. The right Use of Reason. 91 fion of a thousand Mistakes in the natural, in the civil, and in the religious Affairs of Life both amongst the Vulgar and the Learned. I shall give two or three Instances, chiefly in the Matters of Natural Philosophy, having hinted feveral Dangers of this Kind relating to Theology in the foregoing Discourse concerning Equivocal Words.

Our elder Philosophers have generally made use of the Word Soul to fignify that Principle whereby a Plant grows, and they called it the vegetative Soul: The Principle of the Animal Motion of a Brute has been likewife called a Soul, and we have been taught to name it the *fenfitive Soul*: They have also given the Name Soul to that superior Principle in Man, whereby he thinks, judges, reafons, &c. and though they diftinguished this by the honourable Title of the rational Soul, yet in common Difcourfe and Writing we leave out the Words vegetative, fenfative, and rational; and make the Word Soul ferve for all thefe Principles: Thence we are led early into this Imagination, that there is a Sort of (piritual Being in Plants and in Brutes, like that in Men. Whereas if we did but abstract and feparate these Things from Words, and compare the Caufe of Growth in a Plant, with the Caufe of Reasoning in Man, (without the Word Soul) we shall never think that these two Principles were at all like one another; nor should we perhaps to eafily and peremptorily conclude, that Brutes need and intelligent Mind to perform their animal Actions.

Another Inftance may be the Word LIFE, which being attributed to *Plants*, to *Brutes*, and to *Men*, and in each of them afferibed to the *Soul*, has very eafily betrayed us from our Infancy into this Miftake, that the Spirit or Mind, or thinking Principle, in Man, is the Spring of vegetative G and

and animal Life to bis Body: Whereas it is evident, that if the Spirit or thinking Principle of Man gave Life to his animal Nature, the Way to fave Men from dying would not be to use Medicines, but to perfuade the Spirit to abide in the Body. 5.1 I might derive a third Inftance from the Work HEAT; which is used to fignify the Sen (alian we have when we are near the Fire, as well as the Caule of that Senfation which is in the Fire itself; and thence we conclude from our Infancy, that there is a Sort of Heat in the Fire resembling our own Sensation, or the Heat which we feel: Whereas in the Fire there is nothing but little Particles of Matter of fuch particular Shapes, Sizes, Situations and Motions as are fitted to impress such Motions on our Flesh or Nerves as excite the Sense of Heat. Now if this Cause of our Sensation in the Fire had been always called by a diflinct Name, perhaps we had not been to rooted in this Mistake, that the Fire is bot with the fame Sort of Heat that we feel. This will appear with more Evidence, when we confider that we are fecure from the fame Miftake where there have been two different Names allotted to our Senlation. and to the Caufe of it; as, we do not fay, Pain is in the Fire that burns us, or in the Knife that cuts. and wounds us; for we call it burning in the Fire. cutting in the Knife, and Pain only when it is in our (elves.

Numerous Inftances of this Kind might be derived from the Words *fweet*, *four*, *loud*, *forill*, and almost all the *fenfible Qualities*, whose real Natures we mistake from our very Infancy, and we are ready to suppose them to be the fame in us, and in the Bodies that cause them; partly because the Words which fignify our own Sensations are applied

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Ch. VI. S. 3. The right Use of Reason. 93 plied also to fignify those unknown Shapes and Motions of the little Corpuscles, which excite and cause those Sensations.

Direct. IV. In Conversation or Reading be diligent to find out the true Sense, or distinct Idea, which the Speaker or Writer affixes to his Words; and especially to those Words which are the chief Subjett of his Discourse. As far as possible take heed, left you put more or fewer Ideas into one Word, than the Perfon did which he wrote or spoke; and endeavour that your Ideas of every Word may be the fame as his were: Then you will judge better of what he speakes or writes.

It is for want of this that Men quarrel in the Dark; and that there are fo many Contentions in the feveral Sciences, and especially in *Divinity*. Multitudes of them arife from a Mistake of the true Sense or complete Meaning, in which Words are used by the Writer or Speaker; and hereby sometimes *ibey seem to agree*, when *ibey really differ* in their Sentiments; and fometimes *they feem to differ when ibey really agree*. Let me give an Instance of both.

When one Man by the Word Church shall understand all that believe in Christ; and another by the Word Church means only the Church of Rome; they may both assent to this Proposition, There is no Salvation out of the Church, and yet their inward Sentiments may be widely different.

Again, if one Writer shall affirm, that Virtue added to Faith is fufficient to make a Christian, and another shall as zealously deny this Proposition, they seem to differ widely in Words, and yet perhaps they may both really agree in Sentiment:

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If by the Word Virtue, the Affirmer intends our whole Duty to God and Man; and the Denier by the Word Virtue means only Courage, or at most our Duty towards our Neighbour, without including in the Idea of it the Duty which we owe to God.

Many fuch Sort of Contentions as thefe are, if traced to their Original, will be found to be mere Logomachies, or Strifes and Quarrels about Names and Words, and vain Janglings, as the Apoftle calls them in his first Letter of Advice to Timothy.

In order therefore to attain clear and diffins Ideas of what we read and hear, we must fearch the Senfe of Words; we must confider what is their Original and Derivation in our own or foreign Languages; what is their common Senfe amongst Mankind, or in other Authors, especially fuch as wrote in the fame Country, in the fame Age, about the fame Time, and upon the fame Subjects: We must confider in what Senfe the fame Author uses any particular Word or Phrase, and that when he is difcourfing on the fame Matter, and efpecially about the fame Parts or Paragraphs of his Writing: We must confider whether the Word be used in a strict and limited, or in a large and general Senfe; whether in a literal, in a figurative, or in a prophetick Senfe; whether it has any fecondary Idea annexed to it befides the primary or chief Senfe. We must enquire farther, what is the Scope and Defign of the Writer; and what is the Connexion of that Sentence with those that go before it, and those which follow it. By these and other Methods we are to fearch out the Definition of Names, i. e. the true Senfe and Meaning in which any Author or Speaker uses any Word which may be the chief. Subject

Ch. VI. S. 3. The right Use of Reason. 95 of Discourse, or may carry any considerable Importance in it.

Direct. V. When we communicate our Notions to others, merely with a Defign to inform and improve their Knowledge, let us in the Beginning of our Difcourse take care to adjust the Definitions of Names wherefoever there is need of it; that is, to determine plainly what we mean by the chief Words which are the Subjest of our Discourse; and be sure always to keep the same Ideas, when sever we use the same Words, unless we give due Notice of the Change. This will have a very large and happy Influence, in fecuring not only others but ourfelves too from Confusion and Miltake; for even Writers and Speakers themselves, for want of due Watchfulnels, are ready to affix different Ideas to their own Words, in different Parts of their Difcourses, and hereby bring Perplexity into their own Reasonings, and confound their Hearers.

It is by an Observation of this Rule that Mathematicians have fo happily fecured themfelves, and the Sciences which they have professed, from Wrangling and Controversy; because whensoever in the Progress of their Treatifes they have Occafion to use a new and unknown Word, they always define it, and tell in what Senfe they shall take it; and in many of their Writings you find a heap of Definitions at the very Beginning. Now if the Writers of Natural Philosophy and Morality had used the fame Accuracy and Care, they had effectually feeluded a Multitude of noify and fruitless Debates out of their several Provinces : Nor had that facred Theme of Divinity been perplexed with fo many intricate Disputes, nor the Church of Chrift been torn to Pieces by fo many Sects and Factions, if the Words Grace, Faith, Rigb-G3 teoulnels. LOGICK: Or,

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teousness, Repentance, Justification, Worship, Church, Bishop, Presbyter, &c. had been well defined, and their Significations adjusted, as near as possible, by the Use of those Words in the New Testament; or at least, if every Writer had told us at first in what Sense he would use those Words.

Direct. VI. In your own Studies, as well as in the Communication of your Thoughts to others, merely for their Information, avoid ambiguous and equivocal Terms as much as peffible. Do not use such Words as have two or three Definitions of the Name belonging to them, i. e. fuch Words as have two or three Senfes, where there is any Danger of Mi-Where your chief Business is to inform the stake. Judgment, and to explain a Matter, rather than to perfuade or affect, beyout fond of expressing yoursfelves in figurative Language, when there are any proper Words that fignify the fame Idea in their literal Sense. It is the Ambiguity of Names, as we have often faid, that brings almost infinite Confufion into our Conceptions of Things.

But where there is a Neceffity of using an ambiguous Word, there let double Care be used in defining that Word, and declaring in what Sense you take it. And be sure to suffer no ambiguous Word ever to come into your Definitions.

Direct. VII. In communicating your Notions, ufe. every Word as near as possible in the same Sense in which Mankind commonly uses it; or which Writersthat have gone before you have usually affixed to it, upon Condition that it is free from Ambiguity. Though Names are in their Original merely arbitrary, yet we should always keep to the catalished Micaning of them, unless great Necessity require the Al-

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alteration; for when any Word has been used to fignify an Idea, that old Idea will recur in the Mind, when the Word is heard or read, rather than any new Idea which we may fasten to it. And this is one Reason why the received Definition of Names should be changed as little as possible.

But I add farther, that though a Word entirely new, introduced into a Language, may be affixed to what Idea you pleafe, yet an old Word ought never to be fixed to an unaccuftomed Idea, without just and evident Necefility, or without prefent or previous Notice, left we introduce thereby a Licenfe for all Manner of pernicious Equivocations and Fallboods; as for Inftance, when an idle Boy who has not feen his Book all the Morning shall tell his Mafter that be bas learned bis Leffon, he can never excufe himfelf by faying, that by the Word Leffon he meant his Breakfaft, and by the Word learn he meant easing; furely this would be conftrued a downright Lie, and his fancied Wit would hardly procure his Pardon.

In using an ambiguous Word, which has been used in different Senfes, we may choose what we think the most proper Sense, as I have done, p. 86: in naming the Poles of the Loadstone, North or South.

And when a Word has been used in two or three Senses, and has made a great Inroad for Error upon that Account, it is of good Service to drop one or two of those Senses, and leave it only one remaining, and affix the other Senses or Ideas to other Words. So the modern Philosophers, when they treat of the buman Soul, they call it the Mind; or Mens humana, and leave the Word Anima or Soul to Signify the Brinciple of Eife and Motion in mere animal Beings. Sould a sense the sense

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The Poet Juvenal has long ago given us a Hint of this Accuracy and Diftinction, when he fays of Brutes and Men,

#### Indulfit mundi communis Conditor illis Tantum Animas; nobis Animum quoque. Sat. ix. v. 134.

Exception. There is one Cafe, wherein fome of these last Rules concerning the Definition of Words, may be in fome Meafure difpenfed with; and that is, when strong and rooted Prejudice hath establifhed fome favourite Word or Phrafe, and long used it to express some Mistaken Notion, or to unite some inconfistent Ideas; for then it is sometimes much easier to lead the World into Truth by indulging their Fondness for a Phrase, and by alfigning and applying new Ideas and Notions' to their Favourite Word ; and this is much fafer alfo than to awaken all their Paffions by rejecting both their old Words, and Phrases, and Notions, and introducing all new at once : Therefore we continue to fay, There is Heat in the Fire, there is Coldness in Ice, rather than invent new Words to express the Powers which are in Fire or Ice, to excite the Senfations of *Heat* or *Cold* in us. For the fame Reafon fome Words and Phrafes which are lefs proper, may be continued in Theology, while People are led into clearer Ideas with much more Eafe and Succefs, than if an Attempt were made to change all their beloved Forms of Speech.

In other Cases, these logical Directions should generally be observed, and different Names affixed to different Ideas.

Here I cannot but take Occasion to remark, that it is a confiderable Advantage to any Language to have a Variety of new Words introduced into

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into it, that when in Course of Time new Objects and new Ideas arise, there may be new Words and Names affigned to them : And also where one fingle Name has fultained two or three Ideas in Time past. thefe new Words may remove the Ambiguity by being affixed to fome of those Ideas. This Practice would by Degrees take away Part of the Uncertainty of Language. And for this Reafon I cannot but congratulate our English Tongue, that it has been abundantly enriched with the Translation of Words from all our Neighbour Nations, as well as from ancient Languages, and these Words have been as it were enfranchifed amongst us; for French. Latin, Greek and German Names will fignify English Ideas, as well as Words that are anciently and intirely English.

It may not be amifs to mention in this Place, that as the Determination of the particular Senfe in which any Word is ufed, is called the *Definition* of the Name, fo the Enumeration of the various Senfes of an equivocal Word, is fometimes called the *Divifion* or *Diffinition* of the Name; and for this Purpole good Dictionaries are of excellent Ufe.

This Distinction of the Name or Word is greatly neceflary in Argumentation or Dispute; when a fallacious Argument is used, he that answers it distringuishes the several Senses of some Word or Phrase in it, and shows in what Sense it is strue, and in what Sense it is as evidently false.

## SECT. IV.

## Of the Definition of Things.

S there is much Confusion introduced into our Ideas, by the Means of those Words to which they are affixed, fo the mingling our Ideas with each other without Caution is a farther Occasion whereby they become confused. A Court Lady, born and bred up amongst Pomp and Equipage, and the vain Notions of Birth and Quality. constantly joins and mixes all these with the Idea. of herself, and she imagines these to be effential to ber Nature, and as it were necessary to ber Being; thence the is tempted to look upon menial Servants, and the lowest Rank of Mankind, as another Species of Beings, quite diffinct from herself. Α Plougb-boy, that has never travelled beyond his own Village, and has feen nothing but thatched Houses and his Parisb-Church, is naturally led to imagine that Thatch belongs to the very Nature of a House, and that that must be a Church which is built of Stone, and efpecially if it has a Spire upon it. A Child whofe Uncle has been exceffive fond, and his School-mafter very fevere, eafily believes, that Fondme/s always belongs to Uncles, and that Severity is effential to Masters or Instructors. He has feen also Soldiers with red Coats, or Minifters with long black Gowns, and therefore he perfuades himfelf that these Garbs are effential to the Characters, and that he is not a Minister who has. not a long black Gown, nor can he be a Soldier who is not dreffed in red. It would be well if all fuch Miftakes ended with Childhood.

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It might be alfo fubjoined, that our complex Ideas become confused, not only by uniting or blending together more fimple or fingle Ideas, than really belong to them, as in the Instances just mentioned; but Obscurity and Confusion fometimes come upon our Ideas also, for want of uniting a sufficient Number of fingle Ideas to make the complex one: So if I conceive of a Leopard only as a spotted Beast, this does not distinguish it from a Tyger or a Lynx, nor from many Dogs or Horses, which are spotted too; and therefore a Leopard must have some more Ideas added to complete and distinguish it.

I grant that it is a large and free Acquaintance with the World, a watchful Obfervation and diligent Search into the Nature of Things that muft fully correct this kind of Errors: The Rules of Logick are not fufficient to do it: But yet the Rules of Logick may inftruct us by what means to diffinguish one thing from another, and how to fearch and mark out as far as may be, the Contents and Limits of the Nature of diffinct Beings, and thus may give us great Affistance towards the Remedy of these Miftakes.

As the Definition of Names frees us from that Confusion which Words introduce, fo the Definition of Things will in some Measure guard us a gainst that Confusion which mingled Ideas have introduced: For as a Definition of the Name explains what any Word means, so a Definition of the Thing explains what is the Nature of that Thing.

In order to form a *Definition* of any Thing we must put forth these three Acts of the Mind.

First, Compare the Thing to be defined with other Things that are most like to itself, and fee

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wherein its Effence or Nature agrees with them; and this is called the general Nature or Genus in a Definition: So if you would define what Wine is, first compare it with other Things like itself, as Cyder, Perry, &c. and you will find it agrees effentially with them in this, that it is a Sort of Juice.

Secondly, Confider the most remarkable and primary Attribute, Property, or Idea, wherein this Thing differs from those other Things that are most like it, and that is its effential or fpecifick Difference: So Wine differs from Cyder and Perry, and all other Juices, in it that it is preffed from a Grape. This may be called its fpecial Nature, which diftinguishes it from other Juices.

Thirdly, Join the general and fpecial Nature together, or (which is all one) the Genus and the Difference, and these make up a Definition. So the Juice of a Grape, or Juice preffed from Grapes, is the Definition of Wine.

So if I would define what Winter is, I confider first wherein it agrees with other Things which are most like it, (viz.) Summer, Spring, Autumn, and I find they are all Seafons of the Year; therefore a Seafon of the Year is the Genus. Then I observe wherein it differs from these, and that is in the Shortness of the Days; for it is this which does primarily diftinguish it from other Seafons; therefore this may be called its special Nature or its Difference. Then by joining these together I make a Definition. Winter is that Seafon of the Year wherein the Days are shortest. I confess indeed this is but a ruder Definition of it; for to define it as an accurate Aftronomer I must limit the Days, Hours, and Minutes.

> After the fame Manner if we would explain or define what the *Pidure of a Man* is, we confider firft

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first the Genus or general Nature of it, which is a Representation; and herein it agrees with many other Things, as a Statue, a Shadow, a Print, a verbal Description of a Man. &c. Then we confider wherein it differs from thefe, and we find it differs from a verbal Description in that it is a Representation to the Eve and not to the Ear : It differs from a Statue in that it is a Reprefentation upon a flat Surface, and not in a folid Figure : It differs from a Shadow in that it is an abiding Representation and not a fleeting one: It differs from a Print or Draught, because it represents the Colours by Paint as well as the Shape of the Object by Delineation. Now fo many or rather fo few of these Ideas put together, as are just fufficient to diffinguish a Pieture from all other Representations, make up its effential Difference or its *special Nature*; and all these are included in its being painted on a plain Surface. Then join this to the Genus, which is a Representation; and thus you have the complete Definition of the Pillure of a Man. (viz.) it is the Representation of a Man in Paint upon a Surface (or a, Plane.)

Here it must be observed, that when we speak of the Genus and Difference as composing a Definition, it must always be understood that the nearest Genus and the specifick Difference are required.

The next general Nature or the neareft Genus must be used in a Definition, because it includes all the reft as Parts of its complex Idea; as if I would define Wine, I must fay Wine is a Juice, which is the nearest Genus; and not fay, Wine is a Liquid, which is a remote general Nature; or Wine is a Substance, which is yet more remote, for Juice includes both Substance and Liquid. Besides, neither of these two remote general Natures would make any Distinction between tween Wine and a thousand other Substances, or other Liquids, a remote Genus leaves the Thing too much undiftinguished.

The *fpecifick Difference* is that primary Attribute which diffinguishes each Species from one another, while they stand ranked under the fame general Nature or Genus. Though *Wine* differs from other Liquids, in that it is the *fuice of a certain Fruit*, yet this is but a general or generick Difference, for it does not diffinguish *Wine* from Cyder or Perry; the Specifick Difference of Wine therefore is its Preffure from the Grape; as Cyder is pressed from Apples, and Perry from Pears.

In Definitions also we must use the primary Attribute that diftinguishes the Species or special Nature, and not attempt to define Wine by its particular Taftes, or Effects, or other Properties, which are but secondary or consequential, when its Pressure from the Grape is the most obvious and primary Distinction of it from all other Juices. I confeis in fome Cafes it is not fo eafily known which is the primary Idea that diffinguishes one Thing from another; and therefore fome would as foon define Winter by the Coldness of the Season, as by the Shortnefs of the Days; though the Shortness of the Days is doubtless the most just, primary and philosophical Difference between that and the other Seafons of the Year, fince Winter Days are always forteft, but not always the coldest; I add also, that the Shortness of the Days is one Cause of the Coldness, but the Cold is no Caufe of their Shortnes.

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#### SECT. V.

#### Rules of the Definition of the Thing.

#### THE special Rules of a good Definition, arg these:

Rule I. A Definition must be universal, or as fome call it, adequate; that is, it must agree to all the particular Species or Individuals that are included under the fame Idea; fo the Juice of a Grape agrees to all proper Wines, whether Red, White, French, Spanish, Florence, Sc.

Rule II. It must be proper and peculiar to the Thing defined, and agree to that alone; for it is the very Defign of a Definition effectually to diffinguish one Thing from all others: So the Juice of a Grape agrees to no other Substance, to no other Liquid, to no other Being but Wine.

These two Rules being observed, will always render a Definition reciprocal with the Thing defined; which is a scholastick Way of speaking, to signify that the Definition may be used in any Sentence in the Place of the Thing defined, or they may be mutually affirmed concerning each other, or substituted in the room of each other. The Juice of the Grape is Wine, or Wine is the Juice of the Grape. And wheresoever the Word Wine is used, you may put the Juice of the Grape instead of it, except when you consider Wine rather as a Word than a Thing, or when it is mentioned in such logical Rules.

Rule

Rule III. A Definition ought to be clear and plain ; for the Defign of it is to lead us into the Knowledge of the Thing defined.

Hence it will follow, that the Words used in a Definition ought not to be doubtful, and equivocal, the and obscure, but as plain and easy as the Language will afford: And indeed it is a general Rule concerning the Definition both of Names and Things, that no Word should be used in either of them, which has any Darknefs or Difficulty in it, unlefs it has been before explained or defined.

Hence it will follow alfo, that there are many Things which cannot well be defined either as to the Name or the Thing, unlefs it be by fynonymous Words, or by a Negation of the contrary Idea, &c. for learned Men know not how to make them more evident or more intelligible than the Ideas which every Man has gained by the vulgar Methods of teaching. Such are the Ideas of Extension. Duration, Thought, Consciousness, and most of our fimple Ideas, and particularly fenfible Qualities, as White, Blue, Red, Cold, Heat, Shrill, Bitter, Sour, ଟିମ.

We can fay of Duration, that it is a Continuance in Being, or a not ceafing to be; we can fay of Consciousness, that it is as it were a feeling within ourfelves; we may fay, Heat is that which is not Cold; or Sour is that which is like Vinegar; or. we may point to the clear Sky, and fay that it is Thefe are the vulgar Methods of teaching Blue. the Definitions of Names, or Meaning of Words. But there are fome Philosophers, whole Attempts to define these Things learnedly, have wrapped up their Ideas in greater Darknefs, and exposed themfelves to Ridicule and Contempt; as when they define Heat, they fay, it is Qualitas congregans bomogenea

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mogenea & fegregans beterogenea, i. e. a Quality gathering together Things of the fame Kind, and feparating Things of a different Kind. So they define White, a Colour arifing from the Prevalence of Brightnefs: But every Child knows Hot and White better without these Definitions.

There are many other Definitions given by the Peripatetick Philosophers, which are very faulty by Reason of their Obscurity; as Motion is defined by them the Ast of a Being in Power, so far forth as it is in Power. Time is the Measure or Number of Motion according to past, present and future. The Soul is the Ast of an organical natural Body, having Life in Power; and several others of the same Stamp.

Rule IV. It is also commonly preferibed among the Rules of Definition, that it should be short, fo that it must bave no Tautology in it, nor any Words *fuperfluous*. I confess Definitions ought to be expreffed in as few Words as is confiftent with a clear and just Explication of the Nature of the Thing defined, and a Diffinction of it from all other Things belide : But it is of much more Importance, and far better, that a Definition should explain clearly the Subject we treat of, though the Words be many, than to leave Obfcurities in the Sentence. by confining it within too narrow Limits. So int the Definition which we have given of Logick, that it is the Art of using Reason well in the Search after Truth and the Communication of it to others, it has indeed many Words in it, but it could not well be shorter. Art is the Genus wherein it agrees with Rhetorick, Poefy, Arithmetick, Wrestling, Sailing, Building, &c. for all these are Arts also: But the Difference or special Nature of it is drawn from its Object, Realon; from the Act using it well, and H ftsm

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from its two great Ends or Defigns, viz. the Search of Truth, and the Communications of it, nor can it be justly deferibed and explained in fewer Ideas.

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V. If we add a fifth Rule, it must be, that neither the Thing defined, nor a mere fynonymous Name, should make any Part of the Definition, for this would be no Explication of the Nature of the Thing; and a fynonymous Word at best could only be a Definition of the Name.

### SECT. VI.

#### Observations concerning the Definition of Things.

**B**EFORE I part with this Subject, I muft propose faveral Observations which relate to the Definition of Things.

1. Observ. There is no Need that in Definitions we should be confined to one fingle Attribute or Property, in order to express the Difference of the Thing defined, for sometimes the effential Difference confists in two or three Ideas or Attributes. So a Grocer is a Man who buys and sells Sugar and Plumbs and Spices for Gain. A Clock is an Engine with Weights and Wheels, that shews the Hour of the Day both by pointing and striking: And if I were to define a Repeating Clock, I must add another Property, viz. that it also repeats the Hour. So that the true and primary effential Difference of some complex Ideas confisting in feveral diffinct Properties, cannot be well expressed without conjunctive Particles of Speech.

2d Observ. There is no need that Definitions should always be positive, for some Things differ from Ch. VI. S. 6. The right Use of Reason, 100

from others merely by a Defect of what others have; as if a Chair be defined a Seat for a fingle Perfon with a Back belonging to it, then a Stool is a Seat for a fingle Perfon without a Back; and a Form is a Seat for feveral Perfons without a Back: Thefe are negative Differences. So Sin is a want of Conformity to the Law of God; Blindnefs is a want of Sight; a Vagabond is a Perfon without a Home. Some Ideas are negative, and their Definitions ought to be fo too.

3d Observ. Some Things may have two or more Definitions, and each of them equally just and good; as a Mile is the Length of eight Furlongs, or it is the third Part of a League, Eternal is that which ever was and ever shall be; or it is that which had no Beginning and shall have no End. \* Man is usually defined a rational Animal: But it may be much better to define him a Spirit united to an Animal of fuch a Shape, or an Animal of such a peculiar Shape united to a Spirit, or a Being composed of such an Animal and a Mind.

4th Observ. Where the Essences of Things are evident, and clearly diffinct from each other, there we may be more exact and accurate in the Definitions of them: But where their Essences approach near to each other, the Definition is more difficult. A Bird may be defined a feathered Animal with Wings, a Ship may be defined a large bollow Building made to pass over the Sea with Sails: But if you ask me to define a Batt, which is between a Bird and a Beast, or to define a Barge and Hoy, H 2 which

• The common Definition of Man, viz. a rational Animal is very faulty, 7. Becaufe the Animal is not rational; the Rationality of Man arifes from the Mind to which the Animal is united. 2. Becaufe if a Spirit flould be whited to a Horfe and make it a rational Being, furely this would not be a Ming, It is evident therefore that the peculiar Shape muft enter into the Definitionant a Man to render it just and perfect; and for want of a full Definition thereof all our Definitions are defective, 110

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which are between a *Boat* and a *Ship*, it is much harder to define them, or to adjust the Bounds of their Effence. This is very evident in all monstrous *Births* and *irregular Productions of Nature*, as well as in many *Works of Art*, which partake fo much of one Species and fo much of another, that we cannot tell under which Species to rank them, or how to determine their *fpecifick Difference*.

The feveral Species of Beings are feldom precifely limited in the Nature of Things by any certain and unalterable Bounds: The Effences of many Things do not confift in indivifibilii, or in one evident indivifibilities to int, as fome have imagined; but by various Degrees they approach nearer to, or differ more from others that are of a Kindred Nature. So (as I have hinted before) in the very Middle of each of the Arches of a Rainbow the Colours of green, yellow, and red are fufficiently diffinguifhed; but near the Borders of the feveral Arches they run into one another, fo that you hardly know how to limit the Colours, nor whether to call it red or yellow, green or blue.

5th Observ. As the highest or chief Genus's, viz. Being and Not-Being can never be defined, because there is no Genus superior to them; so neither can singular Ideas or Individuals be well defined, because either they have no effential Differences from other Individuals, or their Differences are not known; and therefore Individuals are only to be described by their particular Circumstances: So King George is distinguished from all other Men and other Kings, by describing him as the first King of Great Britain of the House of Brunswick; and Westminster Hall is described by its Situation and its Use, &c.

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That individual Bodies can hardly have any effential Difference, at least within the Reach of our Knowledge, may be made thus to appear; Metbulelab, when he was nine hundred and fixty Years old, and perhaps worn out with Age and . Weaknefs, was the fame Perfon as when he was in his full Vigour of Manbood, or when he was an Infant, newly born; but how far was his Body the fame? Who can tell whether there was any Fibre of his Flesh or his Bones that continued the fame throughout his whole Life? Or who can determine which were those Fibres? The Ship in which Sir Francis Drake failed round the World might be new built and refitted fo often, that few of the fame Timbers remained; and who can fay whether it must be called the fame Ship or no? and what is its effential Difference? How shall we define Sir Francis Drake's Ship, or make a Definition for Methulelab?

To this Head belongs that most difficult Queftion, What is the Principle of Individuation? Or what is it that makes any one Thing the fame as it was fometime before? This is too large and laborious an Enquiry to dwell upon it in this Place : Yet I cannot forbear to mention this Hint, viz. Since our own Bodies must rife at the last Day for us to receive Rewards or Punishments in them. there may be perhaps fome original Fibres of each human Body, some Stamina Vite, or primeval Seed of Life, which may remain unchanged through all the Stages of Life, Death and the Grave; thefe may become the Springs and Principles of a Refurrection, and fufficient to denominate it the fame Body. But if there be any fuch constant and vital Atoms which diftinguish every human Body, they are known to God only.

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6th Oblerv. Where we cannot find out the E/fence or effential Difference of any Species or Kind of Beings that we would define, we must content ourfelves with a Collection of fuch chief Parts or Properties of it, as may best explain it fo far as it is known, and best distinguish it from other Things: So a Marigold is a Flower which hath many long yellow Leaves, round a little Knot of Seeds in the midst, with such a peculiar Stalk, &c. So if we would define Silver, we fay it is a white and bard Metal, next in Weight to Gold: If we would define an Elder-Tree, we might fay it is one among the leffer Trees, whose younger Branches are soft and full of Pith, whose Leaves are jagged or indented, and of fuch a particular Shape, and it hears large Clusters of small black Berries : So we must define Water. Earth, Stone, a Lion, an Eagle, a Serpent, and the greatest Part of natural Beings, by a Collection of those Properties, which according to our Observation diffinguish them from all other Things. This is what Mr. Locke calls nominal Effences, and nomi-: nal Definitions. And indeed fince the effential Differences of the various natural Beings or Bodies round about us arife from a peculiar Shape, Size, Motion and Situation of the fmall Particles of which they are composed, and fince we have no fufficient Method to inform us what these are, we must be contented with such a fort of Definition of the Bodies they compose.

Here note, that this Sort of Definition, which is made up of a mere Collection of the most remarkable Parts or Properties, is called an *imperfett* Definition or a Defcription; whereas the Definition is called perfet, when it is composed of the effential Difference, added to the general Nature or Genus.

7th Observ.

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7th Observ. The perfect Definition of any Being always includes the Definition of the Name whereby it is called, for it informs us of the Senfe or Meaning of that Word, and fhews us what Idea that Word is affixed to : But the Definition of the Names does by no Means include a perfect Definision of the Thing; for as we have faid before, a mere fynonymous Word, a Negation of the contrary, or the Mention of any one or two diftinguishing Properties of the Thing may be a fufficient Definition of the Name. Yet in those Cafes where the effential Difference or Effence of a Thing is unknown, there a Definition of the Name by the chief Properties, and a Description of the Thing are much the same.

And here I think it neceffary to take Notice of one general Sentiment, that feems to run through that excellent Performance, Mr. Locke's Effay of Human Understanding, and that is, " That the " Effences of Things are utterly unknown to us, " and therefore all our Pretences to diffinguish the " Effences of Things can reach no farther than " mere nominal Essences; or a Collection of fuch " Properties as we know; to fome of which we " affix particular Names, and others we bundle " up, feveral together, under one Name: And " that all our Attempts to rank Beings into differ-\* ent Kinds of Species, can reach no farther than " to make mere nominal Species: And therefore our " Definitions of Things are but mere nominal De-" (criptions or Definitions of the Name."

Now that we may do Justice to this great Author, we ought to confider that he compess this Sort of Discourse only to the Essence of simple Ideas, and to the Essence of Substances, as appears evident in the fourth and fixth Chapters of his Third Book :

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Book; for he allows the Names of mixed Modes always to fignify the real Effences of their Species, Chap. V. and he acknowledges artificial Things to have real diffined Species; and that in the Diffinction of their Effences, there is generally lefs Confusion and Uncertainty than in natural, Chap. VI. Sect. 40, 41. though it must be confessed that he fearce makes any Diffinction between the Definition of the Name, and the Definition of the Thing, as Chap. IV. and fometimes the Current of his Difcourfe decries the Knowledge of Effences in fuch general Terms as may justly give Occasion to Mistake.

It must be granted, that the Effence of most of our *fimple Ideas*, and the greatest Part of particular *natural Subfrances* are much unknown to us; and therefore the effential Difference of fensible Qualities, and of the various Kinds of Bodies, (as I have faid before) lie beyond the Reach of our Underftandings: We know not what makes the primary real inward Diffinctions between Red, Green, Sweet, Sour, &c. between Wood, Iron, Oil, Stone, Fire, Water, Flefb, Clay, in their general Natures, nor do we know what are the inward and prime Diftinctions between all the particular Kinds or Species in the Vegetable, Animal, Mineral, Metallick, or Liquid World of Things. See Philosoph. Esfays, Effay xi. Sect. 1.

But still there is a very large Field for the Knowledge of the Effences of Things, and for the Use of perfect Definitions amongst our complex Ideas, the modal Appearances and Changes of Nature, the Works of Art, the Matters of Science, and all the Affairs of the civil, the moral, and the religious Life: And indeed it is of much more Importance to all Mankind to have a better Acquaintance with the Works of Art for their own Livelihood and daily

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daily Ufe, with the Affairs of Morality for their Behaviour in this World, and with the Matters of Religion, that they may be prepared for the World to come, than to be able to give a perfect Definition of the Works of Nature.

If the particular Effences of Natural Bodies are unknown to us, we may yet be good Philosophers, good Artists, good Neighbours, good Subjects, and good Christians, without that Knowledge, and we have just Reason to be content.

Now that the Effences of fome of the modal Appearances and Changes in Nature, as well as Things of Art, Science and Morality are fufficiently known to us to make perfeti Definitions of them, will appear by the Specimen of a few Definitions of thefe Things.

Motion is a Change of Place. Swiftnels is the paffing over a long Space in a fhort Time. Α natural Day is the Time of one alternate Revolution of Light and Darkness, or it is the Duration of twenty-four Hours. An Eclipse of the Sun is a Defect in the Sun's Transmission of Light to us by the \* Snow is congealed Vapour. Moon interposing. \* Hail is congealed Rain. An \* Island is a Piece of Land rifing above the furrounding Water. An \* Hill is an elevated Part of the Earth, and a \* Grove is a Piece of Ground thick fet with Trees. An Houle 'is a Building made to dwell in. A Cottage is a mean House in the Country. A Supper is that Meal which we make in the Evening. A Triangle is a Figure composed of three Sides. A Gallon is a Measure containing eight Pints. A Porter is a Man who carries Burder Hire. Α King

• Note, Island, Hill, Grove, are not defigned here in their more remote and substantial Natures (if I may so express it) or as the Matter of them is Earth; for in this Sense we know not their Effence, but only as confidered in their modal Appearances, whereby one part of Farth is diffinguished from another. The same may be faid of Snow, Harmer, King is the chief Ruler in a Kingdom. Veracity is the Conformity of our Words to our Thoughts. Covetous finels is an exceffive Love of Money, or other Posseffions. Killing is the taking away the

other Poffeffions. Killing is the taking away the Life of an Anithal. Murder is the unlawful killing of a Man. Rivetorick is the Art of speaking in a Manner fit to persuade. Natural Philosophy is the Knowledge of the Properties of Bodies and the various Effects of them, or it is the Knowledge of the various Appearances in Nature, and their Causes; and Logick is the Art of using our Reason well, Effects.

Thus you fee the effential Differences of various Beings may be known, and are borrowed from their Qualities and Properties, their Causes, Effects, Objetts, Adjuntt, Ends, &c. and indeed as infinitely various as the Essences of Things are, their Definitions must needs have very various Forms.

After all it must be confessed, that many Logicians and Philosophers in the former Ages, have made too great a Bustle about the Exactness of their Definitions of Things, and entered into long fruitless Controversies and very ridiculous Debates, in the several Sciences about adjusting the Legical Formalities of every Definition; whereas that fort of Wrangling is now grown very justly contemptible, fince it is agreed that true Learning and the Knowledge of Things depends much more upon a large Acquaintance with their various Properties, Causes, Effects, Subject, Object, Ends and Defigns, than it does upon the formal and scholastick Niceties of Genus and Difference.

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# SECT. VII.

## Of a complete Conception of Things.

H AVING dwelt fo long upon the first Rule to direct our Conceptions, and given an Account of the Definition both of Names and Things in order to gain clear and diffinds Ideas, we make haste now to the fecond Rule to guide our Conceptions, and that is, Conceive of Things completely in all their Parts.

All Parts have a Reference to fome Whole: Now there is an old Diffinction which logical Writers make of a Whole and its Parts into four feveral Kinds, and it may be proper just to mention them here.

1. There is a metaphylical Whole, when the Effence of a Thing is faid to confift of two Paris, the Genus and the Difference, *i. e.* the general and the special Nature, which being joined together make up a Definition. This has been the Subject of the foregoing Sections.

2. There is a mathematical Whole which is better called integral, when the leveral Parts which go to make up the Whole are really diffinct from one another, and each of them may fubfift apart. So the Head, the Limbs, and the Trunk, are the integral Parts of an animal Body; fo Units are the integral Parts of any large Number; fo these Discourses which I have written concerning Perception, Judgment, Reasoning and Disposition, are the four integral Parts of Logick. This Sort of Parts goes to make up the Completeness of any Subject, and this is the chief and most direct Matter of our Discourse in this Section.

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3. There is a physical or effential Whole, which is ufually made to fignify and include only the twoeffential Parts of Man, Body and Soul: But I think the Senfe of it may better be altered, or at leaft enlarged, and fo include all the effential Modes, Attributes or Properties which are contained in the Comprehension of any Idea. This shall be the Subject of Discourse under the third Rule to direct our Conceptions.

4. There is a logical Whole, which is also called an Universal; and the Parts of it are all the particular Ideas to which this universal Nature extends. So a Genus is a Whole in respect of the several Species which are its Parts. So the Species is a Whole, and all the Individuals are the Parts of it. This shall be treated of in the fourth Rule to guide our Conceptions.

At prefent we confider an Idea as an integral Whole, and our fecond Rule directs us to contemplate it in all Parts: But this can only refer to complex Ideas, for fimple Ideas have no Parts.

### SECT. VIII.

#### Of Division, and the Rules of it.

S INCE our Minds are narrow in their Capacity and cannot furvey the feveral Parts of any complex Being with one fingle View, as God fees all Things at once; therefore we muft as it were take it to Pieces, and confider of the Parts feparately that we may have a more complete Conception of the Whole. So if I would learn the Nature of a Watch, the Workman takes it to pieces, and fhews me the Spring, the Wheels, the Axles, the Pinions, the Balance, the Dial-Plate, the Pointer, the Cafe,  $\mathfrak{S}c$ . and defcribes each of thefe Things Ch. VI. S. 8. The right Use of Reason. 110

to me apart, together with their Figures and their Uses. If I would know what an Animal is, the Anatomist confiders the Head, the Trunk, the Limbs, the Bowels apart from each other, and gives me distinct Lectures upon each of them. So a Kingdom is divided into its several Provinces; a Book into its several Chapters; and any Science is divided according to the several Subjects of which it treats.

This is what we properly call the Division of an Idea, which is an Explication of the Whole by its feveral Parts, or an Enumeration of the feveral Parts, that go to compose any Whole Idea, and to render it complete. And I think when Man is divided into Body and Soul, it properly comes under this part of the Doctrine of integral Division, as well as when the mere Body is divided into Head, Trunk and Limbs: This Division is fometimes called Partition.

When any of the Parts of any Idea are yet farther divided in order to a clear Explication of the Whole, this is called a Subdivision; as when a Year is divided into Months, each Month into Days, and each Day into Hours, which may also be farther fubdivided into Minutes and Seconds.

It is neceffary in order to the full Explication of any Being, to confider each Part, and the Properties of it, diffinct by itfelf, as well as in its Relation to the Whole: For there are many Properties that belong to the feveral Parts of a Being which cannot properly be afcribed to the Whole, though thefe Properties may fit each Part for its proper Station, and as it ftands in that Relation to the whole complex Being: As in a Houfe, the Doors are moveable, the Rooms fquare, the Cielings white, the Windows transparent, yet the Houfe is neither moveable, nor fquare, nor white, nor transparent. The 120

The special Rules of a good Division are these.

I Rule. Each Part fingly taken must contain lefs than the Whole, but all the Parts taken collectively (or together) must contain neither more nor lefs than the Whole. Therefore if in difcourting of a Tree, you divide it into the Trunk and Leaves it is an imperfect Division, because the Root and the Branches are needful to make up the Whole. So Logick would be ill divided into Apprehension, Judgment and Reasoning; for Method is a considerable Part of the Art which teaches us to use our Reason right, and should by no Means be omitted.

Upon this Account, in every Division wherein we delign a perfect Exactness, it is necessary to examine the whole Idea with Diligence, left we omit any Part of it through want of Care; though in fome Cases it is not possible, and in others it is not necessary that we should descend to the minutest Parts.

2. Rule. In all Divisions' we should first confider the larger and more immediate Parts of the Subject, and not divide it at once into the more minute and remote Parts. It would by no means be proper to divide a Kingdom first into Streets, and Lanes, and Fields, but it must be first divided into Provinces or Counties, then those Counties may be divided into Towns, Villages, Fields, &c. and Towns into Streets and Lanes.

3. Rule. The feveral Parts of a Division ought to be opposite, i. e. one Part ought not to contain another. It would be a ridiculous Division of an Animal into Head, Limbs, Body and Brain, for the Brains are contained in the Head.

Yet

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Yet here it must be noted, that fometimes the Subjects of any Treatife, or the Objects of any particular Science may be properly and neceffarily fo divided, that the fecond may include the first, and the third may include the first and second, without offending against this Rule, because in the fecond or following Parts of the Science or Difcourse, these Objects are not considered in the same Manner as in the first; as for Instance, Geometry divides its Objects into Lines, Surfaces and Solids; Now though a Line be contained in a Surface, or a Solid, yet it is not confidered in a Surface feparate and alone, or as a mere Line, as it is in the first Part of Geometry, which treats of Lines. So Logick is rightly divided into Conception, Judgment, Reasoning, and Method. For though Ideas or Conceptions are contained in the following Parts of Logick, yet they are not there treated of as leparate Ideas, which are the proper Subject of the first Part.

4. Rule. Let. not Subdivisions be too numerous without Neceffity: For it is better many Times to diffinguish more Parts at once if the Subject will bear it, than to mince the Difcourse by excessive dividing and subdividing. It is preferable therefore in a Treatife of Geography to fay, that in a City we will confider its Walls, its Gates, its Buildings, its Streets, and Lanes, than to divide it formally first into the encompassing and the encompassed Parts; the encompassing Parts are the Walls and Gates; the encompassed Part includes the Ways and the Buildings; the Ways are the Streets and the Lanes; Buildings consist of the Foundations and the Superstructure, Cc.

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Too great a Number of Subdivisions has been affected by fome Persons in Sermons, Treatises, Inftructions,  $\mathcal{S}c$ . under Pretence of greater Accuracy : But this Sort of Subtleties hath often given great Confusion to the Understanding, and sometimes more Difficulty to the Memory. In these Cases it is only a good Judgment can determine what Subdivisions are needful.

5. Rule. Divide every Subjett according to the special Design you have in View. One and the fame Idea or Subject may be divided in very different. Manners according to the different Purpofes we have in difcourfing of it. So if a Printer were to confider the feveral Parts of a Book, he must divide it into Sheets, the Sheets into Pages, the Pages into Lines, and the Lines into Letters. But a Grammarian divides a Book into Periods, Sentences, and Words, or Parts of Speech, as Noun, Pronoun, Verb, Ec. A Logician confiders a Book as divided into Chapters, Sections, Arguments, Propositions, Ideas; . and with the Help of Ontology, he divides the Propositions into Subject, Object, Property, Relation, Action, Paffion, Caufe, Effett, Cc. But it would be very ridiculous for a Logician to divide a Book into Sheets, Pages, and Lines; or for a Printer to divide it into Nouns and Pronouns, or into Propositions, Ideas, Properties or Canses.

6 Rule. In all your Divisions observe with greatest Examples the Nature of Things. And here I ami constrained to make a Subdivision of this Rule into two very necessary Particulars.

(1.) Let the Parts of your Division he such as are properly distinguished in Nature. Do not divide asunder those Parts of the Idea which are intimately

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timately united in Nature, nor unite those Things into one Part which Nature has evidently disjoined: Thus it would be very improper in treating of an animal Body to divide it into the fuperior and inferior Halves; for it would be hard to fay how much belongs by Nature to the inferior Half, and how much to the fuperior. Much more improper would it be still to divide the Animal into the Right-band Parts and Lesst-band Parts, which would bring greater Confusion. This would be as unnatural as a Man who should cleave a Hasel Nut in Halves through the Huse, the Shell and the Kernel, at once, and fay a Nut is divided into these two Parts; whereas Nature leads plainly to the threefold Diflinction of Huse, Shell, and Kernel.

(2.) Do not affett Duplicates nor Triplicities, nor any certain number of Parts in your Division of Tbings; for we know of no fuch certain Number of Parts which God the Creator has observed in forming all the Varieties of his Creatures, nor is there any uniform determined Number of Parts in the various Subjects of human Art or Science; yet fome Perfons have disturbed the Order of Nature, and abused their Readers by an Affectation of Dichotomies, Trichotomies, Sevens, Twelves, &c. Let the Nature of the Subject, confidered together with the Design which you have in view, always determine the Number of Parts into which you divide it.

After all, it must be confessed that an intimate Knowledge of Things and a judicious Observation will affist in the Business of *Division*, as well as of *Definition*, better than too nice and curious an Attention to the mere Formalities of logical Writers, without a real Acquaintance with Things.

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#### SECT. IX.

## Of a comprehensive Conception of Ibings, and of Abstraction.

T H E third Rule to direct our Conception requires us to conceive of Things comprehensively. As we must furvey an Object in all its Parts to obtain a complete Idea of it, fo we must confider it in all its Modes, Attributes, Properties, and Relations, in order to obtain a comprehensive Conception of it.

The Comprehension of an Idea, as it was explained under the Doctrine of Universalis, includes only the effential Modes or Attributes of that Idea; but in this Place the Word is taken in a larger Sense, and implies also the various occasional Preperties, accidental Modes and Relations.

The Neceffity of this Rule is founded upon the fame Reafon as the former, viz. That our Minds are narrow and fcanty in their Capacities, and as they are not able to confider all the Parts of a complex Idea at once, fo neither can they at once contemplate all the different Attributes and Circumftances of it: We must therefore confider Things fucceffively and gradually in their various Appearances and Circumftances: As our natural Eye cannot at once behold the fix Sides of a Dye or Cube, nor take Cognizance of all the Points that are marked on them, and therefore we turn up the Sides fucceffively, and thus furvey and number the Points that are marked on each Side, that we may know the whole.

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In order to a comprehensive View of any Idea we must first consider, whether the Object of it has an Existence as well as an Essence; whether it be a simple or complex Idea; whether it be a Substance or a Mode; if it be a Substance, then we must enquire what are the effential Modes of it, which are necessary to its Nature, and what are those Properties or Accidents of it, which belong to it occasionally, or as it is placed in fome particular Circumstances: We must view it in its internal and absolute Modes, and observe it in those various external Relations in which it ftands to other Beings: We must confider it in its Powers and Capacities either to do or suffer : We must trace it up to its various Caules, whether supreme or subordinate. We must descend to the Variety of its Effects, and take notice of its feveral Ends and Defigns which are to be attained by it. We must conceive of it as it is either an Object or a Subject, what are the Things that are a-kin to it, and what are the Opposites or Contraries of it; for many Things are to be known both by their contrary and their kindred Ideas.

If the Thing we discourse of be a mere Mode, we must enquire whether it belongs to Spirits or Bodies; whether it be a physical or moral Mode: If moral, then we must confider its Relation to God, to our felves, to our Neighbours; its Reference to this Life, or the Life to come. If it be a Virtue, we must feek what are the Principles of it, what are the Rules of it, what are the Tendencies of it, and what are the false Virtues that counterfeit it, and what are the real Vices that oppose it, what are the Ewils which attend the Neglet of it, what are the Rewards of the Practice of it both here and bereaster.

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If the Subject be biftorical or a Matter of Fast, we may then enquire whether the Action was done at all; whether it was done in fuch a Manner, or by fuch Perfons as is reported; at what Time it was done; in what Place; by what Motive, and for what Defign; what is the Evidence of the Fast; who are the Witneffes; what is their Charaster and Credibility; what Signs there are of fuch a Fact; what concurrent Circumfances which may either fupport the Truth of it, or render it doubtful.

In order to make due Enquiries into all these and many other Particulars which go towards the complete and comprehensive Idea of any Being, the Science of Ontology is exceeding necessary. This is what was wont to be called the first Part of Metapbyficks in the Peripatetick Schools. It treats of Being in its most general Nature, and all of its Affections and Relations. I confess the old Pepifs Schoolmen have mingled a Number of ufeles Subtleties with this Science; they have exhausted their own Spirits, and the Spirits of their Readers in many laborious and intricate Trifles, and fome of their Writings have been fruitful of Names without Ideas, which hath done much Injury to the facred Study of Divinty. Upon this Account many of the Moderns have most unjustly abandoned the whole Science at once, and thrown Abundance of Contempt and Raillery upon the very Name of Metaphyficks; but this Contempt and Cenfure is very unreasonable, for this Science feparated from fome Aristotelian Fooleries and Jebolastick Subtleties, is fo necessary to a distinct Conception, folid Judgment, and just Reasoning on many Subjects, that fometimes it is introduced as a Part of Logick, and not without Reason. And thole, who utterly despife and ridicule it, either betraw

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betray their own Ignorance, or will be fuppoled to make their Wit and Banter a Refuge and Excule for their own Lazinels. Yet thus much I would add, that the late Writers of Ontology are generally the belt on this Account, becaule they have left out much of the ancient Jargon. See the Brief Scheme of Ontology in the Philosophical Essays by I. W.

Here let it be noted that it is neither uleful, neceffary, or possible to run through all the Modes, Circumstances, and Relations of every Subject we take in hand; but in Ontology we enumerate a great Variety of them, that fo a judicious Mind may choose what are those Circumstances, Relations and Properties of any Subject, which are most neceffary to the present Design of him that speaks or writes, either to explain, to illustrate, or to prove the Point.

As we arrive at the complete Knowledge of an Idea in all its Parts, by that Act of the Mind which is called Division, fo we come to a comprebenfive Conception of a Thing in its feveral Properties and Relations, by that Act of the Mind which is called Abstraction, i. e. we confider each fingle Relation or Property of the Subject alone, and thus we do as it were withdraw and feparate it in our Minds both from the Subject itfelf, as well as from other Properties and Relations in order to make a fuller Obfervation of it.

This Act of Abstraction is faid to be twofold, either Precisive or Negative.

Presifive Abstrattion is when we confider those Things apart which cannot really exist apart; as when we confider a Mode, without confidering its Substance and Subjett, or one effential Mode without another. Negative Abstrattion is when we confider one Thing separate from another, which

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may also exist without it; as when we conceive of a Subjets without conceiving of its accidental Modes or Relations; or when we conceive of one Accident without thinking of another. If I think of reading or writing without the express Idea of fome Man, this is precifive Abstration; or if I think of the Attration of Iron, without the express Idea of fome particular magnetick Body. But when I think of a Needle, without an Idea of its Sharpnels, this is negative Abstration; and it is the fame when I think of its Sharpnels without confidering its Length.

#### SECT. X.

# Of the extensive Conception of Things, and of ... Distribution.

A S the Completeness of an Idea refers to the feveral Parts that compose it, and the Comprebension of an Idea includes its various Properties, so the Extension of an Idea denotes the various Sorts or Kinds of Beings to which the fame Idea belongs: And if we would be fully acquainted with a Subject we must observe,

This fourth Rule to direct our Conceptions, viz. Conceive of Things in all their Extension, i. c. we must fearch out the various Species or Special Natures which are contained under it as a Genus or general Nature. If we would know the Nature of an Animal perfectly, we must take Cognizance of Beasts, Birds, Fishes and Insets, as well as Men, all which are contained under the general Nature and Name of Animal,

#### Ch. VI. 10. The right Use of Reason. 129

As an integral Whole is diffinguished into its feveral Parts by Division, so the Word Distribution is most properly used when we diffinguish an universal Whole into its feveral Kinds or Species: And perhaps it had been better if this Word had been always confined to this Signification, though it muft be confessed, that we frequently speak of the Division of an Idea into its several Kinds, as well as into feveral Parts.

The Rules of a good Distribution are much the fame with those which we have before applied to Division, which may be just repeated again in the briefest Manner, in order to give Examples to them.

I. Rule. Each Part, fingly taken must contain lefs than the Whole, but all the Parts taken colleflively or logether, must contain neither more nor less than the Whole; or as Logicians fometimes exprefs it, the Parts of the Division ought to exhaust the whole Thing which is divided. So Medicine is justly distributed into Prophylastick, or the Art of preferving Health; and Therapeutick, or the Art of restoring Health; for there is no other fort of Medicine besides these two. But Men are not well diftributed into tall or fort, for there are fome of a middle Stature.

II. Rule. In all Distributions we should first confider the larger and more immediate Kinds or Species, or Ranks of Being, and not divide a Thing at once into the more minute and remote. A Genus should not at once be divided into Individuals, or even into the lowest Species, if there be a Species Superior. Thus it would be very improper to divide Animal into Trout, Lobster, Eel, Dog, Bear, Eagle, Dove, Worm and Butterfly, for thefe

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these are inferior Kinds; whereas Animal ought first to be distributed into Man, Beast, Bird, Fish, Insect; and then Beast should be distributed into Dog, Bear, Ec. Bird into Eagle, Dove, Ec. Fish into Trout, Ees, Lobster, Ec.

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It is irregular also to join any inferior Species in the same Rank or Order with the superior; as if we would distinguish *Animals* into *Birds*, *Bears*, and *Offers*, &c. It would be a ridiculous Distribution.

III. Rule. The feveral Parts of a Diffribution ought to be opposite; that is, one Species or Clafs of Beings in the fame Rank of Division ought not to contain or include another; fo Men ought not to be divided into the Rick, the Poor, the Learned, and the Tall; for poor Men may be both learned and tall, and fo may the rick.

But it will be objected, are not animated Bodies rightly diffributed into Vegetative and Animal, or (as they are ufually called) Senfative? Now the femfative contains the vegetative Nature in it, for Animals grow as well as Plants. I anfwer, that in this and all fuch Diffributions, the Word Vegetative fignifies merely vegetative; and in this Senfe Vegetative will be fufficiently oppofite to Animal, for it cannot be faid of an Animal that it contains mere Vegetation in the Idea of it.

IV. Rule. Let not Subdivisions be too numerous without Neceffity; therefore I think Quantity is better diffinguished at once into a Line, a Surface, and a Solid, than to fay as Ramus does, that Quantity is either a Line, or a Thing lined; and a Thing lined is either a Surface or a Solid.

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V. Rule. Distribute every Subject according to the special Design you have in View, so far as is nerceffary or useful to your present Enquiry. Thus a Politician distributes Mankind according to their civil Characters into the Rulers and the Ruled; and a Physician divides them into the Sick or the Healthy; but a Divine distributes them into Turks, Healbens, Yews, or Christians.

Here note, That it is a very useles Thing to diftribute any Idea into such Kinds or Members as have no different Properties to be spoken of; as it is mere trifling to divide right Angles into such whose Legs are equal, and whose Legs are unequal, for as to the mere right Angle they have no different Properties.

VI. Rule. In all your Distributions observe the Nature of Things with great Exactness; and do not affect any particular Form of Distribution, as some Persons have done, by dividing every Genus into two Species, or into three Species; whereas Nature is infinitely various, and human Affairs and human Sciences have as great a Variety, nor is there any one Form of Distribution that will exactly fuit with all Subjects.

Note, It is to this Doctrine of Diffribution of a Genus into its feveral Species, we must alfo refer the Diffribution of a Caufe according to its feveral Effects, as fome Medicines are beating, fome are cooling; or an Effect, when it is diffinguished by its Caufes, as Faith is either built upon divine Testimony or buman. It is to this Head we refer particular artificial Bodies, when they are diffinguished according to the Matter they are made of, as a Statue is either of Brass, of Marble, or Wood, Gc. and any other Beings, when they are diffinguished \$72

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guished according to their End and Design, as the Furniture of Body or Mind is either for Ornament or Use. To this Head also we refer Subjects when they are divided according to their Modes or Accidents; as Men are either merry or grave, or sad; and Modes, when they are divided by their Subjects, as Distempers belong to the Fluids, or to the solid Parts of the Animal.

It is allo to this Place we reduce the Proposals of a Difficulty under its various Cases, whether it be in Speculation or Practice: As to shew the Reason of Sun-beams burning Wood, whether it be done by a convex Glass or a concave; or to shew the Construction and Mensuration of Triangles, whether you have two Angles and a Side given, or two Sides and an Angle, or only three Sides. Here it is necessary to distribute or divide a Difficulty into all its Cases, in order to gain a perfect Knowledge of the Subject you contemplate.

It might be observed here, that Logicians have fometimes given a Mark or Sign to diftinguish when it is an integral Whole, that is divided into its Parts or Members, or when it is a Genus, an universal Whole, that is distributed into its Species and Individuals. The Rule they give is this: Whenfoever the whole Idea can be directly and properly affirmed of each Part, as a Bird is an Animal; a Fift is an Animal, Bucephalus is a Horfe, Peter is a Man, then it is a Distribution of a Genus into its Species, or a Species into its Individuals : But when the whole cannot be thus directly affirmed concerning every Part, then it is a Divifion of an Integral into its feveral Parts or Members; as we cannot fay the Head, the Breast, the Hand, or the Foot is an Animal, but we fay, the Head is a Part of the Animal, and the Foot is another Part.

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# Ch. VI. S. 11. The right Use of Reason. 133

This Rule may hold true generally in corporeal Beings, or perhaps in all Subfrances: But when we fay the Fear of God is Wildom, and fo is buman Civility: Criticism is true Learning, and fo is Pbilosophy: To execute a Murderer is fusite, and to fave and defend the Innocent is fusite too: In these Cases it is not fo easily determined, whether an integral Whole be divided into its Parts, or an universal into its Species: For the Fear of God may be called either one Part, or one Kind of Misdom: Criticism is one Part, or one Kind of Learning: And the Execution of a Murderer may be called a Species of Justice as well as a Part of it. Nor indeed is it a Matter of great Importance to determine this Controversy.

#### SECT. XI.

# Of an orderly Conception of Things.

THE last Rule to direct our Conception is, that we should rank and place them in a proper Method and just Order. This is of neceffary Use to prevent Confusion; for as a Trader who never places his Goods in his Shop or Warehouse in a regular Order, nor keeps the Accounts of his buying and felling, paying and receiving in a just Method, is in utmost Danger of plunging all his Affairs into Confusion and Ruin; fo a Student who is in the Search of Truth, or an Author or Teacher who communicates Knowledge to others, will very much obstruct his Design, and confound his own Mind or the Mind of his Hearers, unless he range his Ideas in just Order.

If we would therefore become fuccefsful Learners or Teachers, we must not conceive of Things in a confused Heap, but dispose our Ideas in some certain Method, which may be most easy and useful

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ful both for the Understanding and Memory; and be fure as much as may be To follow the Nature of Things, for which many Rules might be given, viz.

1. Conceive as much as you can of the Effentials of any Subject, before you confider its Accidentals.

2. Survey first the general Parts and Properties of any Subject, before you extend your Thoughts to discourse of the particular Kind or Species of it.

3. Contemplate Things first in their own fimple Natures, and afterwards view them in Composition with other Things; unless it be your present Purpose to take a compound Being to pieces, in order to find out or to shew the Nature of it by fearching and discovering of what Simples it is composed.

4. Confider the *abfolute Modes* or Affections of any Being as it is in itfelf, before you proceed to confider it *relatively*, or to furvey the various *Relations* in which it ftands to other Beings, Ec.

Note, These Rules chiefly belong to the Method of Instruction which the Learned call Synthetick.

But in the Regulation of our Ideas there is feldom an abfolute Neceffity that we fhould place them in this or the other particular Method: It is poffible in fome Cafes that many Methods may be equally good, that is, may equally affift the Underftanding and the Memory: To frame a Method exquifitely accurate, according to the ftrict Nature of Things, and to maintain this Accuracy from the Beginning to the End of a Treatife, is a moft rare and difficult Thing, if not impoffible. But a larger Account of Method would be

# Ch. VI. S. 12. The right Use of Reason. 135 be very improper in this Place, left we anticipate what belongs to the fourth Part of Logick.

# SECT. XIL

# Thefe five Rules of Conception exemplified.

T may be uleful here to give a Specimen of the free *fpecial Rules to direct our Conceptions*, which have been the chief Subject of this long Chapter, and reprefent them practically in one View.

Suppose the Theme of our Discourse were the **Passions** of the Mind.

Ift. To gain a clear and diffinit Idea of Paffion, we must define both the Name and the Thing.

To begin with the Definition of the Name; we are not here to understand the Word Passion in its vulgar and most limited Sense, as it signifies merely Anger or Fury; nor do we take it in its most extenfive philosophical Sense, for the fuscing the Assion of an Agent; but in the more limited philosophical Sense, Passions fignify the various Affections of the Mind, such as Admiration, Love, or Hatred; this is the Definition of the Name.

We proceed to the Definition of the Thing, Paffion is defined a Senfation of fome special Commotion in animal Nature, occasioned by the Mind's Perception of some Object fuited to excite that Commotion. \* Here the Genus or general Nature of Passion is a Senfation

\* Since this was written I have published a flort Treatife of the Paffions, wherein I have to far varied from this Definition as to call them Sanfible Commotions of our vubole Nature, beth Soul and Body, occafioned by the Mind's Perception of fome Objects, Ge. I made this Alteration in the Defeription of the Paffions in that Book chiefly to include in a more axplicit Manmer the Paffions of Defice and Averfion which are Acts of Volition rather than Senfations. Yet fince forme Commotions of animal Nature attend all the Paffions, and fince there is always a Senfation of thefe Commetions, I shall not change the Definition I have written here: For this will agree to all the Paffions whether they include any Act of Volition or not: Nor indeed is the Matter of any great Importance. Nov. 17, 1728. fation of fome special Commotion in animal Nature; and herein it agrees with Hunger, Thirst, Pain, &c. The effential Difference of it is, that this Commotion arises from a Thought or Perception of the Mind, and hereby it is distinguished from Hunger, Thirst, or Pain.

2dly, We must conceive of it completely, or furvey the feveral Parts that compose it. These are (1.) The Mind's Perception of some Object. (2.) The consequent Ruffle or special Commotions of the Nerves, and Blood, and animal Spirits. And (3.) The Senfation of this inward Commotion.

gdly, We must confider it comprebensively in its various Properties. The most effential Attributes that make up its Nature has been already mentioned under the foregoing Heads. Some of the most confiderable Properties that remain are thefe, viz. That Paffion belongs to all Mankind in greater or leffer Degrees: It is not constantly present with us, but upon some certain Occasions: It is appointed by our Creator for various uleful Ends and Purpoles, viz. to give us Vigour in the Purfuit of what is good and agreeable to us, or in the Avoidance of what is hurtful: It is very proper for our State of Trial in this World: It is not utterly to be rooted out of our Nature, but to be moderated and governed according to Rules of Virtue and Religion, &c.

4thly, We must take Cognizance of the various Kiuds of it, which is called an extensive Conception of it. If the Object which the Mind perceives be very uncommon, it excites the Passion of Admiration: If the Object appear agreeable it raises Love: If the agreeable Object be absent and attainable it is Defire: If likely to be obtained, it excites Hope: If unattainable, Despair: If it be present and possible object be disagreeable, it excites Sorrow: If the Object be disagreeable, it

Ch. VI. S. 13. The right Use of Reason. 137 it causes in general Hatred or Aversion: If it be absent and yet we are in Danger of it, it raises our Fear: If it be present, it is Sorrow and Sadness, &cc.

5thly, All these Things and many more which go to compose a Treatise on this Subject must be placed in their proper Order: A slight Specimen of which is exhibited in this short Account of Passion, and which that admirable Author Descartes has treated of at large; though, for want of sufficient Experiments and Observations in natural Philosophy, there are some few Mistakes in his Account of animal Nature.

# SECT. XIII.

#### An Illustration of these five Rules by Similitudes.

THUS we have brought the first Part of Logick to a Conclusion: And it may not be improper here to represent its Excellencies (so far as we have gone) by general Hints of its chief Defign and Use, as well as by a various Comparison of it to those Instruments which Mankind have invented for their several Conveniencies and Improvements.

The Defign of Logick is not to furnish us with the perceiving Faculty, but only to direct and affift us in the Use of it: It doth not give us the Objects of our Ideas, but only casts such a Light on those Objects which Nature furnishes us with, that they may be the more clearly and diffinctly known: It doth not add new Parts or Properties to Things, but it discovers the various Parts, Properties, Relations and Dependencies of one Thing upon another, and by ranking all Things under gemeral and special Heads, it renders the Nature, or, any of the Properties, Powers, and Uses of a Thing

more easy to be found out, when we feek in what Rank of Being it lies, and wherein it agrees with, and wherein it differs from others.

If any Comparisons would illustrate this, it may be thus represented.

I. When Logick affifts us to attain a clear and, diffinit Conception of the Nature of Things by Definition, it is like those Glasses whereby we behold such Objects diffinctly, as by Reason of their Smallness or their great Distance appear in Confusion to the naked Eye: So the *Telescope* discovers to us distant Wonders in the Heavens, and shews the milky Way, and the bright cloudy Spots in a very dark Sky to be a Collection of little Stars, which the Eye unaffisted beholds in mingled Confúsion. So when Bodies are too small for our Sight to furvey them distinctly, then the Microscope is at Hand for our Affistance, to shew us all the Limbs and Features of the most minute Animals, with great.r Clearness and Distinction.

II. Wen we are taught by Logick to view a Thing completely in all its Parts by the Help of Division, it has the Use of an anatomical Knife, which diffects an animal Body, and separates the Veins, Arteries, Nerves, Muscles, Membranes, &c. and shews us the several Parts which go to the Composition of a complete Animal.

III. When Logick inftructs us to furvey an Object comprehensively in all the Modes, Properties, Relations, Faces, and Appearances of it, it is of the fame Use as a terrestrial Globe, which turning round on its Axis represents to us all the Variety of Lands and Seas, Kingdoms and Nations on the Surface of the Earth in a very short Succession of Time,

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Ch. VI. S. 13. The right Use of Reason. 139 Time shews the Situation and various Relation of them to each other, and gives a comprehensive View of them in Miniature.

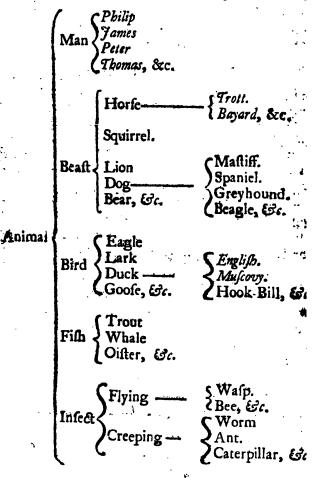
IV. When this Art teaches us to diffribute any extensive Idea into its different Kinds or Species, it may be compared to the prifmatick Glass, that receives the Sun beams or Rays of Light, which feem to be uniform when falling upon it, but it feperates and diffributes them into their different Kinds and Colours, and ranks them in their proper Succeffion.

Or if we descend to Subdivisions and fubordinate Ranks of Being, then Distribution may also be faid to form the Refemblance of a natural Tree, wherein the Genus or general Islea stands for the Root or Stock, and the feveral Kinds or Species, and Individuals, are distributed abroad, and represented in their Dependance and Connexion, like the feveral Bougbs, Branches, and lesser Shoots. For Instance, let Animal be the Root of a logical Tree, the Refemblance is seen by mere Inspection, though the Root be not placed at the Bottom of the Page.

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The fame Similitude will ferve also to illustrat the Division and Subdivision of an integral Wheel into its feveral Parts.

When Logick directs us to place all our dea in a proper Method, most convenient both for In fluction and Memory, it doth the same Servic

# - Ch. VI. S. 13. The right Use of Reason. 141

as the Cafes of well contrived Shelves in a large Library wherein Folio's, Quarto's, Okavo's and leffer Volumes, are disposed in such exact Order under the particular Heads of Divinity, History, Mathematicks, ancient and miscellaneous Learning, &c. that the Student knows where to find every Book, and has them all as it were within his Command at once, because of the exact Order wherein they are placed.

The Man who has fuch Affiftances as thefe at Hand, in order to manage his Conceptions and regulate his Ideas, is well prepared to improve his Knowledge, and to join those Ideas together in a regular Manner by Judgment, which is the fecond Operation of the Mind, and will be the Subject of the fecond Part of Logick.

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# Of Judgment and Proposition.

WW HEN the Mind has got Acquaintance with Things by framing Ideas of them, it proceeds to the next Operation, and that is, to compare these Ideas together, and to join them by Affirmation, or disjoin them by Negation, according as we find them to agree or disagree. This Act of the Mind is called Judgment; as when we have by Perception obtained the Ideas of Plato, a Philosopher, Man, Innocent, we form these Judgments; Plato was a Philosopher; no Man is innocent.

Some Writers have afferted, that Judgment confifts in a mere Perception of the Agreement or Difagreement of Ideas. But I rather think there is an Act of the Will (at leaft in most Cafes) neceffary to form a Judgment; for though we do perceive or think we perceive Ideas to agree or dilagree, yet we may iometimes refrain from judging or affenting to the Perception, for fear left the Perception should not not be fufficiently clear, and we should be mistaken : And I am well assured at other Times, that there are multitudes of *Judgments formed*, and a firm Assured to Ideas joined or disjoined, before there is any clear Perception whether they agree or disagree; and this is the Reason of fo many false *Judgments* or Mistakes among Men. Both these Practices are a Proof that *Judgment bas fometbing of* the Will in it, and does not merely consist in Perception, fince we fometimes judge (though unhappily) without perceiving, and fometimes we perceive without immediate judging.

As an Idea is the Refult of our Conception or Apprebension, so a Propertion is the Effect of Judg-Ment. The foregoing Sentences which are 'Examples of the Act of Judgment are properly called Propositions. Plato is a Philosopher, &cc.

Here let us consider,

1. The general Nature of a Proposition, and the **Parts** of which it is composed.

2. The various Divisions or Kinds of Propositions.

3. The Springs of false Judgment, or the Docirine of Prejudices.

4. General Directions to affift us in judging aright.

5. Special Rules to direct us in judging particular Objects.

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CHAP.

#### CHAP., I.

# Of the Nature of a Proposition, and its feveral Parts.

Proposition is a Sentence wherein two or more Ideas or Terms are joined or disjoined by one Affirmation or Negation, as Plate was a Philosopher: Every Angle is formed by two Linus meeting: No Man living on earth can be completely bappy. When there are ever fo many Ideas or Terms in the Sentence, yet if they are joined or disjoined merely by one fingle Affirmation or Negation, they are properly called but one Proposition, though they may be refolved into feveral Propofitions which are implied therein, as will appear hereafter.

In deferibing a *Proposition* I use the Words Terms as well as *Ideas*, because when mere Ideas are joined in the Mind without Words, it is rather called a *Judgment*, but when clothed with Words, it is called a *Proposition*, even though it be in the Mind only, as well as when it is expressed by speaking or Writing.

There are three Things which go to the Nature and Conftitution of a Proposition, (viz.) the Subject, the Predicate, and the Copula.

The Subjets of a Proposition is that concerning which any thing is affirmed or denied: So Plato, Angle, Man living on Earth, are the Subjects of the foregoing Propositions.

The Predicate is that which is affirmed or denied of the Subject; fo Philosopher is the Predicate of the first Proposition; formed by two Lines meeting, is the Predicate of the second; capable of be-

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ing completely bappy, is the proper Predicate of the third.

The Subjett and Predicate of a Proposition taken together are called the *Matter* of it; for these are the Materials of which it is made.

The Copula is the Form of a Proposition; it represents the Act of the Mind affirming or denying, and it is expressed by the Words, am, art, is, are, E.c. or, am not, art not, is not, are not, E.c.

It is not a Thing of Importance enough to create a Difpute, whether the Words no, none, not, never, &c. which disjoin the Idea or Terms in a negative Proposition, shall be called a Part of the Subject of the Copula, or of the Predicate. Sometimes perhaps they may seem most naturally to be included in one, and sometimes in another of these, though a Proposition is usually denominated affirmative or negative from its Copula, as hereaster.

Note 1. Where each of these Parts of a Propofition is not expressed diffinctly in formany Words, yet they are all understood, and implicitly contained therein; as Socrates disputed, is a complete Proposition, for it fignifies Socrates was disputing. So I die, fignifies I am dying. I can write, i, e. I am able to write. In Latin and Greek one fingle Word is many Times a complete Proposition.

Note 2. These Words, an, art, is, &c. when they are used alone without any other Predicate, fignify both the Ass of the Mind judging, which includes the Copula, and fignify also assual Existence, which is the Predicate of that Proposition. So Rome is, fignifies Rome is existent: There are some strange Monsters, that is, some strange Monsters are existent: Carthage is no more, r. c. Carthage has no Being.

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Note 3. The Subject and Predicate of a Propofition are not always to be known and diffinguilhed by the placing of the Words in the Sentence, but by reflecting duly on the Senfe of the Words, and on the Mind and Defign of the Speaker or Writer: As if I fay, in Africa there are many Lions, I mean many Lions are existent in Africa: Many Lions is the Subject, and cxistent in Africa, is the Predicate. It is proper for a Philosopher to understand Geometry; here the Word proper is the Predicate, and all the reft is the Subject, except 1s the Copula.

Note 4. The Subject and Predicate of a Propolition ought always to be two different *Ideas*, or two different Terms; for where both the *Terms* and *Ideas* are the fame, it is called an *identical Propefs*. *tion*, which is mere trifling, and cannot tend to promote Knowledge; fuch as, a Rule is a Rule, or agood Man is a good Man.

But there are fome Propositions, wherein the Terms of the Subject and Predicate seem to be the fame; yet the Ideas are not the same; nor can these be called purely Identical or triffing Propositions; such as Home is Home; that is, Home is a convenient or deligitful Place; Socrates is Socrates fill; that is, the Man Socrates is still a Philosopher: The Hero was not a Hero; that is, the Hero did not shew his Courage: What I have written, I have. written; that is, what I wrote I still approve, and will not alter it: What is done, is done; that is, it cannot be undone. It may be easily observed in these Propositions the Term is equivocal, for in the Predicate it has a different Idea from what it has in the Subject.

There are also fome Propositions wherein the Terms of the Subject and Predicate differ, but the Ideas are the fame; and these are not merely identical

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tical or trifling Propositions; as impudent is fbamelefs; a Billow is a Wave; or Fluttus (in Latin) is a Wave; a Globe is a round Body. In these Propositions either the Words are explained by a Definition of the Name, or the Ideas by a Definition of the Things, and therefore they are by no Means useles when formed for this Purpose.

#### CHAP. II.

# Of the various Kinds of Propositions.

**P**Ropositions may be distributed into various Kinds, according to their Subjett, their Copula, their Predicate, their Nature or Composition, their Sense, and their Evidence, which Distributions will be explained in the following Sections.

# SECT. L

#### Of universal, particular, indefinite, and singular Propositions.

**P**Ropositions may be divided according to their Subject into universal and particular; this is usually called a Division arising from the Quantity.

An universal Proposition is when the Subject is taken according to the whole of its Extension; fo if the Subject be a Genus, or general Nature, it concludes all its Species or Kinds: If the Subject be a Species, it concludes all its Individuals. This U iversality is usually fignified by these Words, all, every, no, none, or the like; as, all Men muss die: die : No Man is Almighty : Every Creature had a Beginning.

A particular Proposition is when the Subject is not taken according to its whole Extension; that is, when the Term is limited and reftrained to fome one or more of those Species or Individuals, whose general Nature it expresses or Individuals, whose general Nature it expresses, but reaches not to all; and this is usually denoted by the Words, some, many, a sew, there are which, &cc. as, Some Birds can sing well: Few Men are truly wise: There are Parrots which will talk a Hundred Things.

Under the general Name of universal Propositions, we may justly include those that are fingular, and for the most part those that are indefinite also.

A fingular Proposition is when the Subject is a fingular or individual Term or Idea; as Descarpes evas an ingenious Philosopher: Sir Isaac Newton has far exceeded all his Predecessors: The Palace as Hampton-Court is a pleasant Dwelling: This Day is very cold. The Subject here must be taken according to the whole of its Extension, because being an Individual it can extend only to one, and it must therefore be regulated by the Laws of universal Propositions.

An indefinite Proposition is when no Note, either of Universality or Particularity is prefixed in a Subject, which is in its own Nature general; as a Planet is ever thanging its Place : Angels are mobile Creatures. Now this Sort of Proposition, especially when it describes the Nature of Things, is usually counted universal also, and it supposes the Subject to be taken in its whole Extension : for if there were any Planet which did not change its Place, or any Angel that were not a noble Creature,

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Creature, these Propositions would not be strictly true.

Yet in order to fecure us against Mistakes in judging of universal, particular and indefinite Propositions, it is necessary to make these following Remarks.

I. Concerning universal Propositions.

Note 1. Universal Terms may either denote a metaphysical, a physical, or a moral Universality.

A metaphylical or mathematical Univerfality is when all the Particulars contained under any general Idea have the fame Predicate belonging to them without any Exception whatfoever; or when the Predicate is fo effential to the univerfal Subject, that it deftroys the very Nature of the Subject to be without it; as, all Circles have a Center and Circumference: All Spirits in their own Nature are immortal.

A physical or natural Universality is when according to the Order and common Course of Nature a Predicate agrees to all the Subjects of that Kind, though there may be some accidental and preternatural Exceptions; as, all Men use Words to express their Thoughts, yet dumb Persons are excepted, for they cannot speak. All Beass have four Feet, yet there may be some Monssers with five; or maimed, who have but three.

A moral Universality is when the Predicate agrees to the greatest Part of the Particulars which are contained under the universal Subject; as, all Negroes are stupid Creatures: All Men are governed by Affection rather than by Reason: All the old Romans loved their Country: And the Scripture uses this Language, when St. Paul tells us, The Cretes are always Liars.

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Now it is evident, that a special or singular Conclusion cannot be inferred from a moral Universality, nor always and infallibly from a physical one, though it may be always inferred from a Universality which is metaphysical, without any Danger or Possibility of a Mistake.

Let it be observed also, that usually we make little or no Distinction in common Language, between a Subject that is *physically* or *metaphysically* universal.

Note 2. An universal Term is fometimes taken collectively for all its particular Ideas united together, and fometimes *distributively*, meaning each of them fingle and alone.

Inftances of a collective Univerfal are fuch as thefe: All these Apples will fill a Bufhel: All the Hours of the Night are fufficient for Sleep: All the Rules of Grammar overload the Memory. In these Propositions it is evident, that the Predicate belongs not to the Individuals separately, but to the whole collective Idea; for we cannot affirm the fame Predicate if we change the Word all into one or into every, we cannot fay one Apple or every Apple will fill a Bufhel, &c. Now fuch a collective Idea, when it becomes the subject of a Proposition, ought to be effecemed as one fingle Thing, and this renders the Proposition fingular or indefinite, as we shall shew immediately.

A distributive Universal will allow the Word all to be changed into every, or into one, and by this Means is diffinguished from a collective.

Inftances of a distributive Universal are the moft common on every Occasion; as, all Men are mortal; Every Man is a Sinner, &cc. But in this fort of Universal there is a Distinction to be made, which follows in the next Remark.

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Note 3. When an univerfal Term is taken diftributively, fometimes it includes all the Individuals contained in its inferior Species: As when I fay every Sicknels bas a Tendency to Deatb; I mean every Individual Sicknels, as well as every Kind. But fometimes it includes no more than merely each Species or Kind; as when the Evangelift fays Chrift bealed every Difeafe, or every Difeafe was bealed by Chrift; that is, every Kind of Difeafe. The first of these, Logicians call the Diffribution of an Univerfal in fingula generum; the last is a Diffribution in genera fingulorum. But either of them joined to the Subject render a Proposition universal.

Note 4. The Universality of a Subject is often restrained by a Part of the Predicate; as when we fay all Men learn Wisdom by Experience: The universal Subject, all Men, is limited to fignify only, all those Men who learn Wisdom. The Scripture also uses this fort of Language, when it speaks of all Men being justified by the Righteousness of one, Rom. v. 18. that is, all Men who are justified obtain it this way.

Observe here, that not only a metaphysical or natural, but a moral Universality also is oftentimes to be reftrained by a Part of the Predicate; as when we fay, all the Dutch are good Seamen: All the Italians are subtle Politicians; that is, those among the Dutch that are Seamen are good Seamen; and those among the Italians who are Politicians are subtle Politicians, *i. e.* they are generally so.

Note 5. The Univerfality of a Term is many times reltrained by the particular Time, Place, Circumstance, &cc. or the Defign of the Speaker; as if we are in the City of London, and fay, all the Weavers went to prefent their Petition; we mean only

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only all the Weavers who dwell in the City. So when it is faid in the Gospel, all Men did marvel, Mark v. 20. it reaches only to all those Men who heard of the Miracles of aur Saviour.

Here also it should be observed, that a moral Univerfality is restrained by Time, Place, and other Circumstances, as well as a natural; so that by these Means the Word all sometimes does not extend to a tenth Part of those who at first might seem to be included in that Word.

One Occasion of these Difficulties and Ambiguities, that belong to universal Propositions, is the common Humour and Temper of Mankind, who generally have an Inclination to magnify their Ideas, and to talk roundly and universally concerning any thing they speak of; which has introduced universal Terms of Speech into Custom and Habit, in all Nations and all Languages, more than Nature or Reason would dictate; yet when this Custom is introduced, it is not at all improper to use this fort of Language in folemn and facred Writings, as well as in familiar Discourse.

#### II. Remarks concerning indefinite Propolitions.

Note 1. Propositions carrying in them universal Forms of Expression may sometimes drop the Note of Universality, and become indefinite, and yet retain the same Universal Sense, whether metaphysical, natural or moral, whether collective or distributive.

We may give Inflances of each of thefe.

Metaphysical; as, a Circle bas a Center and Circumference. Natural, as, Beafts bave four Feet, Moral; as, Negroes are flupid Creatures. Collective; as, the Apples will fill a Bufbel. Diffributive; as, Men are inortal.

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Note 2. There are many Cafes wherein a collettive ldea is expressed in a Proposition by an indefinite Term, and that where it describes the Nature or Quality of the Subject, as well as when it declares some past Matters of Fatt; as, Fir trees let in good Order will give a charming Prospect; this must fignify a Collection of Fir-trees, for one makes no Prospect. In Matters of Fact this is more evident and frequent; as the Romans overcame the Gauls: The Rabbers furromided the Coach: The wild Geels flew over the Thames in the Form of a Wedge. All these are collective Subjects.

Note 3. In indefinite Propositions the Subject is often reftrained by the Predicate, or by the special Time, Place, or Circumstances, as well as in Propositions which are expressly universal; as the Chineses are ingenious Silk-Weavers, i. e. those Chineses, which are Silk-Weavers are ingenious at their Work. The Stars appear to us when the Twilight is gone. This can signify no more than the Stars which are above our Horizon.

Note 4. All these Restrictions tend to reduce fome *indefinite* Propositions almost into *particular*, as will appear under the next Remarks.

#### III. Remarks concerning particular Propositions.

Note 1. A particular Propolition may fometimes be expressed indefinitely without any Note of Particularity prefixed to the Subject; as, in Times of Confusion Laws are not executed: Men of Virtue are difgraced, and Murthers escape, i. e. some Laws, fome Men of Virtue, some Murthers: Unless we should call this Language a moral Universality, though I think it can hardly extend so far.

Note 2. The Words fome, a few, &c. though they generally denote a proper Particularity, yet fometimes they express a cellestive Idea: as, fome of the Enemies

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Enemies beset the General around. A few Greeks would beat a thousand Indians.

I conclude this Settion with a few general Remarks on this Subject, (viz.)

Gen. Rem. I. Since univerfal, indefinite, and particular Terms in the plural Number may either be taken in a collective or diffributive Senfe, there is one fhort and cafy Way to find when they are collective and when diffributive, (viz.) if the Plural Number may be changed into the fingular, *i. e.* if the Predicate will agree to one fingle Subject, it is a diffributive Idea; if not, it is collective.

Gen. Rem. II. Univerfal and particular Terms in the plural Number, fuch as, all, fome, few, many, Sec. when they are taken in their diffributive Senfe, reprefent feveral fingle Ideas; and when they are thus affixed to the Subject of a Proposition, render that Proposition univerfal or particular, according to the univerfality or particularity of the Terms affixed.

<sup>1</sup> Gen. Rem. III. Universal and particular Terms in the plural Number, taken in their collective Sense, represent generally one collective Idea.

If this one collective Idea be thus represented (whether by universal or particular Terms) as the Subject of a Proposition which describes the Nature of a Thing, it properly makes either 2 singular or an indefinite Proposition; for the Words, all, fome, a few, &cc. do not then denote the Quantity of the Proposition, but are effecemed merely as Terms which connect the Individuals together in order to compose one collective Idea. Observe these Instances, all the Sycamores in the Garden would make a large Grove; i. e. this one Collection of Sycamores, which is a fingular Idea. Some

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Some of the Sycamores in the Garden would make a fine Grove. Sycamores would make a noble Grove: In these last the Subject is rather indefinite than fingular. But it is very evident, that in each of these Propositions the Predicate can only belong to a collective Idea, and therefore the Subject must be eiteemed a collective.

If this collective Idea (whether represented by universal or particular Terms) be used in describing past Matters of Fast, then it is generally to be effected a singular idea, and renders the Proposition fingular; as all the Soldsters of Alexander made but a little Army: A few Macedonians vanquished the large Ariny of Darius: Some Grenadiers in the Camp plundered all the neighbouring Towns.

Now we have shewn before, that if a Proposition describing the Nature of Things, has an indefinite Subject, it is generally to be esteemed universal in its propositional Sense: And if it has a singular Subject, in its propositional Sense it is always ranked with Universals.

After all we must be forced to confess, that the Language of Mankind, and the Idioms of Speech are fo exceeding various, that it is hard to reduce them to a few Rules; and if we would gain a just and precise Idea of every universal, particular, and indefinite Expression, we must not only conlider the particular Idiom of the Language, but the Time, the Place, the Occasion, the Circumstan tes of the Matter spoken of, and thus penetrate as far as possible into the Design of the Speaker of Writer.

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# SECT. II.

#### Of affirmative and negative Propositions.

W HEN a Proposition is confidered with Regard to its Copula, it may be divided into affirmative and negative; for it is the Copula joins or disjoins the two Ideas. Others call this a Divifion of Proposition according to their Quality.

An affirmative Proposition is when the Idea of the Predicate is supposed to agree to the Idea of the Subject, and is joined to it by the Word is, or are, which is the Copula; as, all Men are Sinners. But when the Predicate is not supposed to agree with the Subject, and is disjoined from it by the Particles is not, are not, &cc. the Proposition is negative; as, Man is not innocent; or, no Man is innocent. In an affirmative Proposition we affert one Thing to belong to another, and, as it were, unite them in Thought and Word: In negative Propositions we supposed on the superscription of the propositions we feparate one Thing from another, and deny their Agreement.

It may feem fomething odd, that two Ideas or Terms are faid to be *disjoined* as well as *joined* by a Copula: But if we can but fuppofe the negative Particles do really belong to the Copula of negative Propofitions, it takes away the Harlhnefs of the Expreffion; and to make it yet fofter, we may confider that the Predicate and Subject may be properly faid to be joined *in a Form of Words as a Propofition*, by connexive Particles in Grammar or Logick, though they are disjoined in their Senfe and Significations. Every Youth who has learned his Grammar, knows there are fuch Words as *disjunctive Conjunctions*. Ch. II. S. 2. The right Use of Reason. 157

Several Things are worthy our Notice on this Subject.

Ift Note. As there are fome Terms, or Words, and Ideas, (as I have fhewn before) concerning which it is hard to determine whether they are negative or positive, fo there are fome Propositions concerning which it may be difficult to fay, whether they affirm or deny: As, when we fay, Plato was no Fool: Cicero was no unskilful Orator: Cæfar made no Expedition to Muscovy: An Oister bas no Part like an Eel: It is not necessary for a Pbysician to speak French, and for a Physician to speak French is needles. The Sense of these Propositions is very plain and easy, though Logicians might squabble perhaps a whole Day, whether they should rank them under the Names of Negative or Affirmative.

2d Note. In Latin and Englift two Negatives joined in one Sentence make an Affirmative; as when we declare, no Man is not mortal, it is the fame as though we faid, Man is mortal. But in Greek, and oftentimes in French, two Negatives make but a ftronger Denial.

3d Note, If the mere negative Term, Not, be added to the Copula of an universal affirmative Propolition, it reduces it to a particular Negative; as, all Men are not wife, fignifies the fame as, some Men are not wife.

4th Note. In all affirmative Propositions, the Predicate is taken in its whole Comprehension; that is, every effential Part and Attribute of it is affirmed concerning the Subject; as when I fay, a true Christian is an honest Man, every Thing that belongs to Honesty is affirmed concerning a true Christian.

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5th Note. In all negative Propositions the Predicate is taken in its whole Extension; that is, every Species and Individual that is contained in the general Idea of the Predicate, is utterly denied concerning the Subject: So in this Proposition, a Spirit is not an Animal, we exclude all Sorts and Kinds, and particular Animals what foever from the Idea of a Spirit.

From these two last Remarks we may derive this Inference, that we ought to attend to the entire Comprehension of our Ideas, and to the universal Extension of them, as far as we have proper Capacity for it, before we grow too confident in our affirming or denying any Thing, which may have the least Darkness, Doubt or Difficulty attending it: It is the want of this Attention that betrays us into many Mistakes.

#### SECT. III.

# Of the Opposition and Conversion of Propositions.

A NY two Ideas being joined or disjoined in various Forms will afford us feveral Propofitions: All thefe may be diffinguished according to their *Quantity* and their *Quality* \* into four, which are marked or denoted by the Letters A, E, I, O, thus:

A E C I O denotes a O denotes a Univerfal Affirmative, Particular Affirmative, Particular Negative. Particular Negative.

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• The Reader should remember here, that a Proposition according to its Quantity is called universal or particular, and according to its Quality, it is either affirmative or negative. Afferit A, Negat E, verum generaliter Ambæ; Afferit I, Negat O, sed particulariter Ambo.

This may be exemplified by these two Ideas, a Vine and a Tree.

A Every Vine is a Tree.

E No Vine is a Tree.

I Some Vine is a Tree.

O Some Vine is not a Tree.

The Logicians of the Schools have whiten many large Trifles concerning the Opposition and Conversion of Propositions. It will be sufficient here to give a few brief Hints of these Things, that the Learner may not be utterly ignorant of them.

Propositions which are made of the fame Subject and Predicate are faid to be opposite, when that which is denied in one is affirmed in the other, either in whole or in part, without any Confideration whether the Propositions be true or no.

If they differ both in Quantity and Quality they are called *Contradictory*; as,

A Every Vine is a These can never be both Thue Tree.

O Some Vine is not a Tree. or both falle at the fame Time.

If two Universals differ in Quality, they are Contraries; as,

A Juery Vine is a These can never be both true Tree. E No Vine is a together, but they may be both false.

If two particular Propositions differ in Quality, they are Subcontraries; as,

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I Some Vine is a Tree. O Some Vine is not a Tree. Thefe may be both true together, but they can never be. both falfe.

Both particular and universal Propositions which agree in Quality but not in Quantity, are called Subaltern, though these are not properly opposite, as,

A Every Vine is a Tree.

I Some Vine is a Tree.

Or thus,

E No Vine is a Tree.

O Some Vine is not a Tree.

The Canons of *Jubalternate Propositions* are usually reckoned these three, (viz.)(1.) If an univerfal Proposition be true, the particular will be true also, but not on the contrary. And (2.) If a particular Proposition be false, the universal must be false too, but not on the contrary. (3.) Subaltern Propositions, whether universal or particular, may fometimes be both true, and sometimes both false.

The Conversion of Propositions is when the Subject and Predicate change their Places with Prefervation of the Truth. This may be done with constant Certainty in all universal Negatives and particular Affirmatives; as, no Spirit is an Animal, may be converted, no Animal is a Spirit; and some Tree is a Vine, may be converted, some Vine is a Tree. But there is more formal Trifling in this fort of Discourse than there is of folid Improvement, because this fort of Conversion arises merely from the Form of Words, as connected in a Proposition, rather than from the Matter.

Yet it may be useful to observe, that there are fome Propositions, which by Reason of the *Ideas* or *Matter* of which they are composed may be converted with constant Truth : Such are those PropoCh. II. S. 4. The right Use of Reason. 161

Propositions whose Predicate is a nominal or real Definition of the Subject, or the Difference of ir, or a Property of the fourth Kind, or a superlative Degree of any Property or Quality whatsoever, or in short, wheresoever the Predicate and the Subject have exactly the same Extension or the same Comprehension; as, every Vine is a Tree bearing Grapes; and every Tree bearing Grapes is a Vine: Religion is the truest Wisdom, and the truest Wisdom is Religion: Julius Cæsar was the first Emperor of Rome; and the first Emperor of Rome was Julius Cæsar. These are the Propositions which are properly convertible, and they are called reciprocal Propositions.

#### SECT: IV.

#### Of pure and modal Propositions.

A NOTHER Division of Propositions among the scholastick Writers is into *pure* and *modal.* This may be called (for Distinction fake) a Division according to the Predicate.

When a Proposition merely expresses that the Predicate is connected with the Subject, it is called a pure Proposition; as, every true Christian is an honess Man. But when it includes also the Way and Manner wherein the Predicate is connected with the Subject, it is called a modal Proposition; as when I fay, it is necessary that a true Christian should be an honess Man.

Logical Writers generally make the Modality of this Proposition to belong to the Copula, because it shews the Manner of the Connexion between Subject and Predicate. But if the Form of the Sentence as a logical Proposition be duly confidered, the Mode itself is the very Predicate

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of the Proposition, and it must run thus: That *q* true Christian should be an bonest Man is a necessary Thing, and then the whole primary Proposition is included in the Subject of the modal Proposition.

There are four Modes of Connecting the Predicate with the Subject, which are usually reckoned up on this Occasion, (viz.) Necessity and Contingency which are two Opposites, Possibility and Impossibility which are also Opposites; as it is necessary that a Globe should be round: that a Globe be made of Wood or Glass is an unnecessary or contingent Thing; It is impossible that a Globe should be square: It is posfible that a Globe may be made of Water.

With Regard to the modal Propositions which the Schools have introduced, I would make these two Remarks:

Remark 1. These Propositions in English are formed by the Resolution of the Words, must be, might not be, ean be, and cannot be, into those more explicate Forms of a logical Copula and Predicate, is necessary, is contingent, is possible, is impossible: For it is necessary that a Globe should be round, fignifies no more than that a Globe must be round.

Remark 2. Let it be noted that this quadruple Modality is only an Enumeration of the naqural Modes or Manners wherein the Predicate is connected with the Subject: We might also defcribe feveral moral and civil Modes of connecting two Ideas together (viz.) Lawfulnels and Unlawfulnels, Conveniency and Inconveniency, &c. whence we may form fuch modal Propositions as thefe. It is unlawful for any Person to kill an innocent Man: It is lawful for Christians to eas Flesh in Lent: To tell

Ch. II. S. 5. The right Use of Reason. 163 tell all that we think is inexpedient: For a Man to be affable to his Neighbour is very convenient, &c.

There are feveral other Modes of speaking whereby a Predicate is connected with a Subject: Such as, it is certain, it is doubtful, it is probable, it is improbable, it is agreed, it is granted, it is faid by the Ancients, it is written, &cc. all which will form other Kinds of modal Propositions.

But whether the Modality be natural, moral, &cc. yet in all these Propositions it is the Made is the proper Predicate, and all the rest of the Proposition, except the Copula (or Word is) belongs to the Subjest; and thus they become pure Propositions of a complex Nature, of which we shall treat in the next Session, fo that there is no great Need of making Modals a diffinct Sort.

There are many little Subtleties which the Schools acquaint us with concerning the Conversion and Opposition and Equipollence of these modal Propositions, fuited to the Latin or Greek Tongues, rather than the English, and fit to pass away the idle Time of a Student, rather than to enrich his Understanding.

#### SECT. V.

#### Of fingle Propositions, whether simple or complex.

W HEN we confider the Nature of Propositions, together with the Formation of them, and the Materials whereof they are made, we diyide them into fingle and compound.

A fingle Proposition is that which has but one Subject and one Predicate; but if it has more Subjects or more Predicates, it is called a compound Proposition, and indeed it contains two or more Propositions in it.

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A fimple Proposition (which is also called categorical) may be divided again into fimple and complex.\*

A purely fimple Proposition is that whose Subject and Predicate are made up of fingle Terms; as Virtue is desirable: Every Penitent is pardoned: No Man is innocent.

When the Subject or Predicate, or both, are made up of complex Terms, it is called a complex Proposition; as, every fincere Penitent is pardoned; Virtue is defirable for its own Sake; No Man alive is perfetily innocent.

If the Term which is added to the Subject of a complex Proposition be either effential or any Way neceffary to it, then it is called *explicative*, for it only explains the Subject; as every mortal Man is a Son of Adam. But if the Term added to make up the complex Subject does not neceffarily or constantly belong to it, then it is determinative, and limits the Subject to a particular Part of its Extension; as, every pious Man shall be bappy. In the first Proposition the Word mortal is merely explicative: In the fecond Proposition the Word pious is determinative.

Here note, that whatfoever may be affirmed or denied concerning any Subject, with an *explicative* Addition, may be also affirmed or denied of that Subject without it; as we may boldly fay, every Man is a Son of Adam, as well as every mortal Man: But it is not fo, where the Addition is determinative, for we cannot fay, every Man shall be happy, though every pious Man shall be fo.

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As fimple Ideas are opposed to complex, and fingle Ideas to compound, fo Propositions are diffinguished in the same Manner: The English Tongue in this Respect having some Advantage above the learned Languages, which have no usual Word to diffinguish fingle from simple.

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In a complex Proposition the Predicate or Subject is fometimes made complex by the Pronouns who, which, whole, to whom, &c. which make another Proposition; as every Man who is pious, shall be faved : Julius, whose Sirname was Cafar; overcame Pompey: Bodies, which are transparent. bave many Pores. Here the whole Proposition is called the primary or chief, and the additional Proposition is called an *incident Proposition*. But it is still to be effected in this Case merely as a Part of the complex Term; and the Truth or Falshood of the whole complex Proposition is not to be judged by the Truth or Falshood of the incident Proposition, but by the Connexion of the whole Subject with the Predicate. For the incident Proposition may be falfe, and abfurd, or impoffible, and yet the whole complex Proposition may be true, as, a Horle, which has Wings, might fly over the Thames.

Befide this Complexion which belongs to the Subjett or Predicate, logical Writers use to fay, there is a Complexion which may fall upon the Copula also: But this I have accounted for in the Settion concerning modal Propositions; and indeed it is not of much Importance whether it were placed there or here.

### SECT. VI.

## Of compound Propositions.

A Compound Proposition is made up of two or more Subjects or Predicates, or both; and it contains in it two or more Propositions, which are either plainly expressed, or conceased and implied.

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The first fort of compound Propositions are those wherein the Composition is expressed and evident, and they are diffinguished into these fix Kinds, (viz.) Copulative, Disjunctive, Conditional, Causal, Relative and Discretive.

I. Copulative Propositions are those which have more Subjects or Predicates connected by Affirmative or negative Conjunctions; as Riches and Hanours are Temptations to Pride: Cæsar conquered the Gauls and the Britons: Neither Gold nor Jewels will purchase Immortality. These Propositions are evidently compounded, for each of them may be refolved into two Propositions, (viz.) Riches are Temptations to Pride, and Honour is a Temptation to Pride; and fo the rest.

The Truth of *copulative* Propositions depends upon the Truth of all the Parts of them; for if *Cefar* had conquered the *Gauls*, and not the *Bri*tons, or the *Britons* and not the *Gauls*, the fecond copulative Proposition had not been true.

Here note, those Propositions, which cannot be refolved into two or more simple Propositions, are not properly copulative, though two or more Ideas be connected and coupled by such Conjunctions, either in the Subject or Predicate; as, two and three make five: Majesty and Meekness do not often meet: The Sun, Moon, and Stars are not all to be seen at once. Such Propositions are to be esteemed merely complex, because the Predicate cannot be affirmed of each fingle Subject, but only of all of them together as a collective Subject.

II. Disjunctive Propositions are when the Parts are disjoined or opposed to one another by difjunctive Particles; as, it is either Day or Night: The



Ch. II. S. 6. The right Use of Reason. 167 The Weather is either shining or rainy: Quantity is either Length, Breadth or Depth.

The Truth of Disjunctives depends on the neceffary and immediate Opposition of the Parts; therefore only the last of these Examples is true; but the two first are not strictly true, because Twolight is a Medium between Day and Night; and dry, cloudy Weather, is a Medium between sciences and raining.

III. Conditional or bypothetical Propositions are those whose Parts are united by the conditional Particle if; as, If the Sun be fixed, the Earth must move: If there be no Fire, there will be no Smoke.

Note, The first Part of these Propositions, or that wherein the Condition is contained, is called the Antecedent, the other is called the Confequent.

The Truth of these Propositions depends not at all on the Truth and Falshood of their two Parts, but on the Truth of the Connexion of them; for each Part of them may be false, and yet the whole Proposition true; as, if there be no Providence, there will be no future Punisbment.

IV. Causal Propositions are where two Propositions are joined by causal Particles; as, Houses were not built that they might be destroyed: Rehoboam was unhappy because be followed evil Counsel.

The Truth of a *caufal Proposition* arises not from the Truth of the Parts, but from the *caufal Influ*ence that the one Part of it has upon the other; for both Parts may be true, yet the Proposition faile, if one Part be not the Cause of the other.

Some Logicians refer reduplicate Propositions to this Place, as Men, confidered as Men, are rational Creatures, i. e. because they are Men.

**V.** Re-

V. Relative Propositions have their Parts joined by fuch Particles, as express a Relation or Comparison of one Thing to another; as when you are filent I will speak: As much as you are worth, so much you shall be esteemed: As is the Father, so is the Son: Where, there is no Tale-Bearer, Contention will cease.

These are very much a-kin to conditional Propofitions, and the Truth of them depends upon the Justness of their Connexion.

VI. Difcretive Propositions are fuch wherein various and feemingly opposite Judgments are made, whose Variety or Diffinction is noted by the Particles, but, though, yet, &c. as Travellers may change their Climate but not their Temper : Job was patient, though his Grief was great.

The Truth and Goodness of a difcretive Propofition depends on the Truth of both Parts, and their Contradiffunction to one another; for though both Parts should be true, yet if there be no seeming Opposition between them, it is an useless Affertion, though we cannot call it a false one; as Descartes was a Philosopher, yet be was a Frenchman: The Romans were valiant, but they spoke Latin; both which Propositions are ridiculous, for want of a seeming Opposition between the Parts.

Since we have declared wherein the *Trutb* and *Falfbood* of these compound Propositions consist, it is proper also to give fome Intimations how any of these Propositions when they are false may be opposed or contradicted.

All compound Propositions, except Cópulatives and Difcretives, are properly denied or contradicted when the Negation affects their conjunctive Particles; as, if the disjunctive Proposition afferts, Ch. II. S. 6. The right Use of Reason. 160

ferts, it is either Day or Night. The Opponent fays, It is not either Day or Night, or it is not necessary that it should be either Day or Night, fo the hypothetical Proposition is denied by faying, it does not follow that the Earth must move if the Sun be fixed.

A disjunctive Proposition may be contradicted also by denying all the Parts; as, it is neither Day nor Night.

And a cau/al Proposition may be denied or oppofed indirectly and improperly, when either part of the Proposition is denied; and it must be false if either part be false: But the Defign of the Proposition being to shew the causal Connexion of the two Parts, each Part is supposed to be true, and it is not properly contradicted as a causal Proposition, unless one Part of it be denied to be the Cause of the other.

As for Copulatives and Di/cretives, becaufe their Truth depends more on the Truth of their Parts therefore thefe may be opposed or denied as many Ways, as the Parts of which they are composed may be denied; fo this copulative Proposition, Riches and Honour are Temptations to Pride, may be denied by faying, Riches are not Temptations, though Honour may be: Or, Honour is not a Temptation, though Riches may be; or, neither Riches nor Honour are Temptations, &c.

So this difcretive Proposition, Job was patient, though his Grief was great, is denied by faying, Job was not patient, though his Grief was great: Or, Job was patient, but his Grief was not great: Or, Job was not patient, nor was his Grief great.

We proceed now to the *fecond fort* of compound Propolitions, viz. fuch whofe Composition is not expreffed, but latent or concealed, yet a fmall Attention will find two Propolitions included in them. Such are thefe that follow.

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LOGICK: Or, Part II

1. Exclusives; as, The pious Man alone is happy: It is only Sir Isaac Newton could find ont true Philos fopby.

2. Exceptives; as, None of the Ancients but Plato well defended the Soul's Immortality. The Proteftants worfhip none but God.

3. Comparatives; as, Pain is the greatest Afflice tion. No Turk was fiercer than the Spaniards at Mexico.

Here note, that the comparative Degree does not always imply the politive; as if I fay, A Fool is better than a Knave, this does not affirm that Foly is good, but that it is a less Evil than Knavery.

4. Inceptives and Defitives, which relate to the beginning or ending of any thing; as, the Latin Tongue is not yet forgotten. No Man before Orpheuis wrote Greek Ver/e. Peter Czar of Muscovy began to civilize bis Nation.

To these may be added Continuatives; as, Rome remains to this Day, which includes at least two Propositions, viz. Rome was, and Rome is.

Here let other Authors spend Time and Pains in giving the precise Definitions of all these forts of Propositions, which may as well be understood by their Names and Examples: Here let them tell what their Truth depends upon, and how they are to be opposed or contradicted; but a moderate Share of common Sense, with a Review of what is faid on the former *Compounds*, will suffice for all these Purposes without the Formality of Rules.

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#### SECT. VII.

## Of true and false Propositions.

**Ropolitions ar next to be confidered according** to their Sense or Signification, and thus they are distributed into true or falle. A true Propofition represents Things as they are in themfelves; but if Things are reprefented otherwife than they are in themfelves, the Proposition is falle.

Or we may defcribe them more particularly thus; a true Proposition joins those Ideas and Terms together whole Objects are joined and agree, or it disjoins those Ideas and Terms, whose Objects difagree or are disjoined, as, every Bird bas Wings, a Brute is not immortal.

A falle Proposition joins those Ideas or Termis whole Objects dilagree, or it disjoins thole whole Objects agree; as, Birds bave no Wings, Brutes are immortal.

Note, It is impossible that the fame Proposition fhould be both true and falle at the fame Time, in the fame Senfe and in the fame Refpect; becaufe a **Proposition** is but the Representation of the Agreement or Difagreement of Things : Now it is impoffible that the same Thing should be and not be, or that the same Thing should agree and not agree at the same Time and in the fame Respect. This is a first Principle of human Knowledge.

Yet fome Propositions may feem to contradict one another, though they may be both true, but in different Senfes or Respects or Times : as, Man was immortal in Paradije, and Man was mortal in Paradile. But these two Propositions must be referred to different Times; as, Man before bis Fall was immortal, but at the Fall he became mortal. SA

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So we may fay now, Man is mortal, or Man is immortal, if we take these Propositions in different Respects; as Man is an immortal Creature as to bis Soul, but mortal as to bis Body. A great Variety of Difficulties and seeming Contradictions, both in holy Scripture and other Writings, may be folved and explained in this Manner.

The molt important Queftion on this Subject is this, What is the Criterion, or diftinguishing Mark of Truth? How shall we know when a Proposition is really true or falle? There are for many Difguises of Truth in the World, for many falle Appearances of Truth, that fome Sects have declared there is no Possibility of diftinguishing Truth from Fallbooks, and therefore they have abandoned all Pretences to Knowledge, and maintained strenuously that mothing is to be known.

The first Men of this Humour made themfelves famous in Greece by the Name of Scepticks, this is, Seekers: They were also called Academicks, borrowing their Name from Academia, ther School or Place of Study. They taught that di Things are uncertain, though they allowed that fome are more probable than others. After these arole the Sect of Pyrrbonicks, named from Pyrrbo their Master, who would not allow one Proposition to be more probable than another; but profeffed that all Thing's were equally uncertain. Now all these Men (as an ingenious Author expresses it) were rather to be called a Sect of Liars than Philofephers, and that Cenfure is just for two Reasons: (1.) Because they determined concerning every Proposition that it was uncertain, and believed that as a certain Truth, while they profeffed there was nothing certain, and that nothing could be determined concerning Truth or Fallbood ; and thus their very Doctrine gave itleif the Lie. (2.) Becault

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Because they judged and acted as other Mer. did in the common Affairs of Life; they would neither run into Fire nor Water, though they professed Ignorance and Uncertainty, whether the one would burn, or the other drown them.

There have been fome in all Ages who have too much affected this Humour, who dispute against every Thing, under Pretence that Truth bas no certain Mark to diffinguish it. Let us therefore enquire what is the general Criterion of Truth? And in order to this, it is proper to confider what is the Reafor why we affent to those Propositions, which contain the most certain and indubitable Truths, fuch as thefe, the Whole is greater than a Part ; two and three make five.

The only Reason why we believe these Propositions to be true, is becaufe the Ideas of the Subjects and Predicates appear with fo much Clearnels and Strength of Evidence to agree to each other, that the Mind cannot help diferning the Agreement; and cannot doubt of the Truth of them, but is confirmined to judge them true. So when we compare the Ideas of a Circlé and a Triangle, or the Ideas of an Oifter and a Butterfly, we fee fuch an evident Difagreement between them, that we are fure that a Butterfly is not an Oister; not is a Triangle a Circle. There is nothing but the Evidence of the Agreement or Difagreement between two Ideas, that makes us affirm or deny the one or the other.

Now it will follow from hence that a clear and disting Perception or full Evidence of the Agreement and Difagreement of our Ideas to one another, or to Things, is a certain Criterion of Truth : For fince our Minds are of fuch a Make, that where the Evidence is exceeding plain and ftrong, we cannot withhold our Affent; we should then be necessa-111 Mź

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rily exposed to believe Falshood, if complete Evidence should be found in any Propositions that are not true. But furely the God of perfect Wildom, Truth and Goodness would never oblige his Creatures to be thus deceived ; and therefore he would never have constituted us of forth a Frame as would render it naturally impossible to guard against Error.

Part II.

Another Confequence is naturally derived from the former; and that is, that the only Reafon why we fall into a Miftake is becaufe we are impatient to form a Judgment of Things before we have a clear and evident Perception of their Agreement or Difagreement; and if we will make Hafte to judge while our Ideas are obfcure and confufed, or before we fee whether they agree or difagree, we' fhall plunge ourfelves into perpetual Errors. See more on this Subject in an Effay on the Freedom of Will in God and Man; Publified 1732. Sect. 1. p. 13. Sold by J. Roberts in Warwick-Lane, and R. Heit, in the Poultry.

Note, What is here afferted concerning the Neceflity of clear and diffinct Ideas refers chiefly to Propositions, which we form *ourfelves* by our own Powers: As for Propositions which we derive from the *Teftimony of others*, they will be accounted for in Chap. IV.

#### SECT. VIII.

### Of certain and dubious Propositions, of Knowledge and Opinion.

SINCE we have found that Evidence is the great Criterion and the fure Mark of Truth; this leads us directly to confider Propositions according to their Evidence; and here we must take Notice both of the different Degrees of Evidence, and the different Kinds of it.

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Propositions according to their different Degrees of Evidence are diffinguished into certain and dubious \*.

Where the Evidence of the Agreement or Difagreement of the Ideas is fo ftrong and plain, that we cannot forbick methods below our Affent; the Propolition is called *singlin*; as, every Circle bath a Centre; the World did not create itfelf. An Affent to fuch Propolitions is honoured with the Name of Knewledge.

But when there is any Obscurity upon the Agreement or Difagreement of the Ideas, fo that the Mind does not clearly perceive it, and is not compelled to affent or diffent, then the Proposition in a proper and philosophical Sense, is called *doubt*ful or uncertain; as, the Planets are inhabited; the Souls of Brutes are mere Matter; the World will not fland a thousand Years longer; Dido built the City of Carthage, &c. Such uncertain Propositions are called Opinions.

When we confider ourfelves as *Philosophers* or Searchers of Truth, it would be well if we always fuspended a full Judgment or Determination about any Thing, and made farther Inquiries, where this plain and perfect Evidence is wanting; but we are so prone of ourfelves to judge without full Evidence, and in some Cafes the Necessity of Action in the Affairs of Life, constrains us to judge and determine upon a tolerable Degree of Evidence, that we vulgarly call those Propositions M 3 certain,

• It may be objected, that this Certainty and Uncertainty being only is the Mind, the Division belongs to Propositions rather according to the Degrees of our Affent, than the Degrees of Evidence. But it may be well answered, that the Evidence here intended is that which appears to to the Mind, and not the mere Evidence in the Nature of Things: Besides (as we shall show immediately) the Degree of Affent ought to be exactly proportionable to the Degree of Evidence : And therefore the Deficence is not great, whether Propositions be called certain or uncertain, according to the Measure of Evidence, or of Affent. 176

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certain, where we have but very little Room of Reason to doubt of them, though the Evidence be not complete or reliftles.

Certainty, according to the Schools, is diffinguissed into Objettive and Subjettive. Objettive Cert tainty is when the Proposition is certainly true in itself; and Subjettive, when we are certain of the Truth of it. The one is in Things, the other is in our Minds.

But let it be observed here, that every Proposition in itself is certainly true or certainly falle. For though Doulafulness or Uncertainty seems to be a Medium between certain Truth and certain Fallhood in our Minds, yet there is no such Medium in Things themselves, no, not even in surre Events: For now at this Time it is certain in itself, that Midfummer-Day seven Years bence will be served, or it is certain it will be cloudy, though we are uncertain and utterly ignorant what Sort of Day it will be: This Certainty of distant Futurities is known to God only.

Uncertain or dubious Propositions, i. e. Opinions are distinguished into probable, or improbable.

When the Evidence of any Proposition is greater than the Evidence of the contrary, then it is a probable Opinion : Where the Evidence and Arguments are stronger on the contrary Side, we call it But while the Arguments on either improbable. Side feem to be equally ftrong, and the Evidence for and against any Proposition appears equal to the Mind, then in common Language we call it a doubtful Matter. We also call it a dubious or doubtful Proposition, when there is no Arguments on either Side, as next Chriftmas-Day will be a very sharp Frost. And in general all these Propolitions are doubtful, wherein we can perceive no fufficient Marks or Evidences of Truth or Fallhood. In

**Ch.** II. S. 9. The right Use of Reason. 177 In fuch a Cafe, the Mind which is fearching for Truth ought to remain in a State of Doubt or Suspence, until superior Evidence on one Side or the other incline the Balance of the Judgment, and determine the Probability or Certainty to the one Side.

A great many Propositions which we generally believe or difbelieve in human Affairs, or in the Sciences, have very various Degrees of Evidence, which yet arife not to complete *Certainty*, either of Truth or Falshood. Thus it comes to pass that there are fuch various and almost infinite Degrees of *Probability and Improbability*. To a weak Probability we should give a weak Affent; and a fironger Affent is due where the Evidence is greater, and the Matter more probable. If we proportion our Affent in all Things to the Degrees of Evidence, we do the utmost that human Nature is capable of in a rational Way to fecure itfelf from Error.

# SECT. IX.

## Of Senfe, Consciousness, Intelligence, Reason, Failb, and Inspiration.

A FTER we have confidered the Evidence of Propositions in the various Degrees of it, we come to furvey the *feveral Kinds of Evidence*, or the different Ways whereby Truth is let into the Mind, and which produce accordingly feveral Kinds of Knowledge. We thall diffribute them into these fix, (viz.) Sense, Consciousness, Intelligence, Reason, Faitb, and Inspiration, and then diitinguish the Propositions which are derived from them.

M<sub>4</sub>. I. The

I. The Evidence of Senfe is when we frame a Proposition according to the Dictate of any of our Senfes; fo we judge that Grass is green; that a Trumpet gives a pleasant Sound; the Fire burns Wood; Water is soft, and Iron is bard; for we have feen, heard or felt all thefe. It is upon this Evidence of Sense that we know and believe the daily Occurrences in human Life; and almost all the Hiftories of Mankind that are written by Eye or Ear-Witneffes are built upon this Principle.

Under the Evidence of Senfe we do not only include that Knowledge which is derived to us by our outward Senfes of Hearing, Seeing, Feeling, Tafting, and Smelling, but that also which is derived from the inward Senfations and Appetites of Hunger, Thirf, Ease, Pleasure, Pain, Weariness, Rest, &c. and all those Things which belong to the Body; as, Hunger is a painful Appetite; Light is pleasant; Rest is fraeet to the weary Limbs.

Propositions which are built on this Evidence, may be named *fensible Propositions*, or the Dictator of Sense.

II. As we learn what belongs to the Body by the Evidence of Senfe, fo we learn what belongs to the Soul by an inward Confcioufnels, which may be called a fort of internal Feeling, or fpiritual Senfation of what paffes in the Mind; as, I think before I speak; I defire large Knowledge; I suspect my own Practice; I findied bard To-day; my Confcience bears Witnels of my Sincerity; my Soul bates vain Thoughts; Fear is an unealy Paffion; long Meditation on one Thing is tirefome.

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Part'II.

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Thus it appears that we obtain the Knowledge of a Multitude of Propositions, as well as of fingle Ideas, by those two Principles which Mr. Locke calls Sensation and Reflection: One of them is a Sort of Conficientiates of what affects the Body, and the other is a Conficientiates of what passes in the Mind.

Propositions which are built on this *internal Confciousness*, have yet no particular or diffinguishing Name affigned to them.

III. Intelligence relates chiefly to those abstracted Propositions which carry their own Evidence with them, and admit no Doubt about them. Out Perception of this Self-Evidence in any Proposition is called Intelligence. It is our Knowledge of those first Principles of Truth which are (as it were) wrought into the very Nature and Make of our Mind: They are fo evident in themfelves to every Man who attends to them, that they need no Proof. It is the Prerogative and peculiar Excellence of these Propositions, that they can scarce - ever be proved or denied : They cannot eafily be proved, becaufe there is nothing fuppofed to be more clear or certain, from which an Argument may be drawn to prove them. They cannot well be denied, because their own Evidence is so bright and convincing, that as foon as the Terms are understood the Mind necessarily affents; fuch are thefe. What loever atteth bath a Being; nothing bas no Properties; a Part is less than the Whole; nothing can be the Caule of itself.

These Propositions are called Axioms, or Maxims, or first Principles; these are the very Foundations of all improved Knowledge and Reasonings, and on that Account these have been thought to be innate Propositions, or Truths born with us.

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Some fuppole that a great Part of the Knowledge of Angels and human Souls in the separate State is obtained in this Manner, (viz.) by fuch an immediate View of Things in their own Nature, which is called Intuition.

IV. Reafoning is the next Sort of Evidence, and that is when one Truth is inferred or drawn from others by natural and juft Methods of Argument; as, if there be much Light at Midnight, I infer, it proceeds from the Moon, because the Sun is under the Earth \*. If I see a Cottage in a Forest, I conclude, fome Man has been there and built it. Or when I survey the Heavens and Earth, this gives Evidence to my Reason, that there is a God whe made them.

The Propositions which I believe upon this kind of Evidence, are called *Conclusions*, or *rational* Stuths, and the Knowledge that we gain this Way is properly called *Science*.

Yet let it be noted, that the Word Science is usually applied to a whole Body of regular or methodical Observations or Propositions which learned Men have formed concerning any Subject of. Speculation, deriving one Truth from another by a Train of Arguments. If this Knowledge chiefly directs our Prastice, it is usually called an Art. And this is the most remarkable Diffinction between an Art and a Science, (viz.) the one refers chiefly to Prastice, the other to Speculation. Natural Philosophy, or Physick, and Ontology, are Scimices; Logick and Rhetorick are called Arts; but Mathematicks include both Art and Science; for they have much of Speculation, and much of Practice in them.

Observe.

• Note, Since this Book was written, we have to many Appearances of the Aurora Borealis as reduces this Inference only to a Probability.

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Observé here, that when the Evidence of a Proposition derived from Sense, Conscioussness, Intelligence, or Reason is firm and includitable, it produces such Affent as we call a nonural Containty.

V. When we derive the Evidence of any Propolition from the Teltinony of others, it is called the Evidence of Faitb; and this is a large Part of our Knowledge. Ten thousand Things there are which we believe merely upon the Authority er Credit of those who have spoken or written of them. It is by this Evidence that we know there is shab is Country as China, and there was fush a Man as Cicero who dwelt in Rome. It is by this that anost of the Tranfactions in human Life are managed a We know our Parents and our Kindred by this Means, we know the Persons and Laws of our present Governors, as well as Things that are at a vast Distance from us in foreign Nations, or in ancient Ages.

According as the Perfons that inform us of any Thing are many or few, or more or lefs wife, and faithful, and credible, fo our Faith is more or lefs firm or wavering, and the *Proposition believed* is either certain or doubtful; but in Matters of Faith, an exceeding great Probability is called a moral *Certainty*.

Faith is generally diffingulihed into Divine and Human, not with Regard to the Propositions that are believed, but with Regard to the Teltimony upon which we believe them. When God reveals any Thing to us, this gives us the Evidence of divine Faith; but what Man only acquaints us with, produces a buman Faith in us; the one being built upon the Word of Man, arifes but to poral Certainty; but the other being founded on the LOGICK: Or, Part II.

the Word of God, arifes to an abfolute and infallible Affurance, so far as we understand the Meaning of this Word. This is called *supernatural Certainty*.

Propositions which we believe upon the Evidence of human Testimony, are called Narratives, Relations, Reports, Historical Observations, &c. but such as are built on Divine Testimony, are termed Matters of Revelation; and if they are of great Importance in Religion, they are called Articles of Faitb.

There are some Propositions or Parts of Knowledge, which are said to be derived from Observation and Experience, that is, Experience in ourfelves, and the Observations we have made on other Persons or Things; but these are made up of some of the former Springs of Knowledge joined together, (viz.) Sense, Consciousness, Reason, Faitb, Sc. and therefore are not reckoned a diffinit Kind of Evidence.

• VI: Infpiration is a fort of Evidence diffinft from all the former, and that is when fuch an overpowering Impression of any Proposition is made upon the Mind by God himself, that gives a convincing and indubitable Evidence of the Truth and Divinity of it: So were the Prophets and the Apostles inspired \*.

Sometimes God may have been pleafed to make use of the outward Senses, or the inward Workings of the Imagination, of Dreams, Apparitions, Visions and Voices, or Reasoning, or perhaps human Narration, to convey divine Truths to the Mind of the Prophet; but none of these would be fufficient to deserve the Name of Infpiration, without

Note here, I freak chiefly of the higheft Kind of Infpiration.

Ch. II. S. 9. The right Use of Reason. 183, without a superior or divine Light and Power attending them.

This fort of Evidence is also very diffinct from what we usually call divine Faith; for every common Christian exercises divine Faith when he believes any Proposition which God has revealed in the Bible upon this Account, because God bas faid it, though it was by a Train of Reasonings that he was led to believe that this is the Word of God: Whereas in the Case of Inspiration, the Prophet not only exercises divine Faith, in believing what God reveals, but he is under a superior heavenly Impression, Light and Evidence, whereby he is assured that God reveals it. This is the most eminent kind of supernatural Certainty.

Though Perfons might be affured of their own Infpiration by fome *peculiar* and *inexprefible Confciou/nefs*, of this divine Infpiration and Evidence in their own Spirits, yet it is hard to make out this Infpiration to others, and to convince them of it, except by fome antecedent or confequent Prophecies or Miracles, or fome public Appearances more than human.

The Propositions which are attained by this fort of Evidence are called *in/pired Trutbs*. This is *divine Revelation* at first Hand, and the Dictates of God in an immediate Manner, of which Theological Writers discourse at large, but fince it belongs only to a few Favourites of Heaven to be inspired, and not the Bulk of Mankind, it is not neceffary to speak more of it in a Treatise of Logick, which is designed for the general Improvement of human Reason.

The various Kinds of Evidence, upon which we believe any Proposition, affords us these three Remarks.

I. Remark,

I. Remark. The fame Proposition may be known to us by different Kinds of Evidence: That the Whole is bigger than a Part is known by our Senfes, and it is known by the Self-Evidence of the Thing to our Mind. That God created the Heavens and the Earth is known to us by Reafon, and is known also by Divine Testimery or Faith.

II. Remark. Among these various Kinds of Evidence, some are generally stronger than others in their own Nature, and give a better Ground for Certainty. Inward Conscionsingle and Intelligence as well as Divine Faith and Inspiration, usually carry much more Force with them than Sense or burnet Faith, which are often fallible; though there are Instances wherein burnan Faith, Sense and Reasoning lay a Foundation also for complete Assurance, and leave no room for Doubt.

Reafon in its own Nature would always lead us into the Truth in Matters within its Compass. if it were used aright, or it would require us to sufpend our Judgment where there is want of Evidence. But it is our Sloth, Precipitancy, Senfe, Paffion, and many other Things that lead our Reason aftray in this degenerate and imperfect Effate : Hence it comes to pais that we are guilty of to many Errors in Reafoning, effectially about Divine Things, because our Reason either is busy to enquire, and refolved to determine about Matters that are above our prefent Reach; or becaufe we mingle many Prejudices and fecret Influences of Sense, Fancy, Passion, Inclination, &c. with our Exercifes of Reason, and judge and determine according to these irregular Influences.

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Divine Faith would never admit of any Controverfies or Doubtings, if we were but affured that God had fpoken, and that we rightly underflood his Meaning.

III. Remark. The greatest Evidence and Certainty of any Proposition does not depend upon the Variety of the Ways or Kinds of Evidence, whereby it is known, but rather upon the Strength and Degree of Evidence, and the Clearners of that Light in or by which it appears to the Mind. For \* Proposition that is known only one Way may be much more certain, and have ftronger Evidence than another that is supposed to be known many Ways. Therefore their Propositions, Nothing bas no Properties, Nothing can make itself, which are Known only by Intelligence, are much furer and erver than this Proposition, The Rainbow has real and inherent Colours in it, or than this, the Sun rolls round the Earth; though we feem to know both these last by our Senses, and by the common Teffimony of our Neighbours. So any Proposition that is clearly evident to our own Confcious/nels or Divine Faith, is much more certain to us than a thoufand others that have only the Evidence of feeble and obscure Sensations, of mere probable Reasonings and doubtful Arguments, or the Witness of fallible Men. or even though all these should join together.

# CHAP.

## CHAP. III.

# The Springs of falle Judgment, or the Doctrine of Prejudices.

#### INTRODUCTION.

IN the End of the foregoing Chapter we have furveyed the feveral Sorts of Evidence, on which we build our Affent to Propolitions. Thefe aft indeed the general Grounds upon which we form our Judgments concerning Things. What remains in this fecond Part of Logick is to point out the feveral Springs and Caufes of our Mistake, in judging. and to lay down fome Rules by which we should conduct ourfelves in passing a Judgment of every Thing that is proposed to us.

I confess many Things which will be mentioned in these follows ... Chapters might be as well referred to the third Part of Logick, where we shall treat of Reasoning and Argument; for most of our false Judgments seem to include a secret bad Reasoning in them; and while we fhew the Springs of Error, and the Rules of true Judgment, we do at the fame time discover which Arguments are fallacious, which Reafonings are weak, and which are just and ftrong. Yet fince this is ufually called a judging ill, or judging well, I think we may without any Impropriety treat of it here; and this will lay a furer Foundation for all Sorts of Ratiocination and Argument.

Rash Judgments are called Prejudices, and fo are the Springs of them. This Word in common Life fignifies an ill Opinion which we have conceived conceived of fome other Person, or fome Injury done to bim. But when we use the Word in Matters of Science, it fignifies a Judgment that is formed concerning any Person or Thing before sufficient Examination; and generally we suppose it to mean a falle Judgment or Mistake: At least, it is an Opinion taken up without solid Reason for it, or an Affent given to a Proposition before we have just Evidence of the Truth of it, though the Thing itself may happen to be true.

Sometimes these rash Judgments are called **Prepeffeffions**, whereby is meant, that some particular Opinion has possessed the Mind, and engaged the Affent without sufficient Search or Evidence of the Truth of it.

There is a valt Variety of these Prejudices and Prepaffeffions which attend Mankind in every Age and Condition of Life; they lay the Foundations of many an Error, and many an unhappy Practice, both in the Affairs of Religion, and in our civil Concernments; as well as in Matters of Learning. It is necessary for a Man who purfues Truth to enguire into these Springs of Error, that as far as poffible he may rid himself of old Prejudices and watch hourly against new ones.

The Number of them is fo great, and they are fo interwoven with each other, as well as with the Powers of human Nature, that it is fometimes hard to diftinguish them apart; yet for Method's Sake we shall reduce them to these four general Heads, (viz.) Prejudices arising from *Things*, or from Words, from ourfelves, or from other Persons; and after the Description of each Prejudice, we shall propose one or more Ways of curing it.

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#### SECT. I.

# Prejudices arifing from Things.

THE first fort of Prejudices are those which arife from the Things them/elves about which But here let it be observed that there is we judge. nothing in the Nature of Things that will necessarily lead us into Error, if we do but use our Reason aright, and with-hold our Judgment till there appear fufficient Evidence of Truth. But fince we are fo unhappily prone to take Advantage of every doubtful Appearance and Circumstance of Thinks to form a wrong Judgment, and plunge ourfelves into Mistake, therefore it is proper to confider what there is in the Tbings themselves that may occasion our Errors.

I. The Obscurity of some Truths, and the Difficulty of fearching them out, is one Occasion of rath and mistaken Judgment.

Some Truths are difficult because they lye remote from the first Principles of Knowledge, and want a long Chain of Argument to come at them : Such are many of the deep Things of Algebra and Geometry, and fome of the Theorems and Problems of most Parts of the Mathematicks. Many Things also in natural Philosophy are dark and intricate upon this Account, because we cannot come at any certain Knowledge of them without the Labour of many and difficult, as well as chargeable Experiments.

There are other Truths which have great Darkmess upon them, because we have no proper Means or Mediums to come at the Knowledge of them. Though in our Age we have found out many of the

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the deep Things of Nature by the Affiftance of Glaffes and other Instruments; yet we are not hitherto arrived at any fufficient Methods to difcover the Shape of those little Particles of Matter which diftinguish the several Sapours, Odours, and Colours of Bodies : nor to find what Sort of Atoms compole Liquids or Solids, and diftinguish Wood, Minerels, Metals, Gloss, Stone, &c. There is a Darknefs also lies upon the Actions of the intellectual or angelical World; their Manners of Sublittence and Agency, the Power of Spirits to move Bodies, and the Union of our Souls with this animal Body of ours, are much unknown to us on this Account. 11 a. 1 e e en per

Now in many of these Cales, a great part of Mankind is not content to be entirely ignorant; but they rather chufe to form rafh and hafty Judgments, to guess at Things without just Evidence, to believe fomething concerning them before they can know them, and thereby they fall into Error.

This fort of *Prejudice*, as well as most others, is cured by Patience and Diligence in *Enquiry* and *Resjoning*, and a *Sufpension of Judgment*, till we have attained fome proper *Mediums* of Knowledge, and till we see sufficient Evidence of the Truth.

II. The Appearance of Things in a Difguife, is another Spring of Prejudice or rafh Judgmenz. The Outlide of Things which first strikes us, is oftentimes different from their inward Nature, and we are tempted to judge fuddenly according to outward Appearances. If a Picture is daubed with many bright and glaring Colours, the vulgar Eye admires it as an excellent Piece; whereas the same Person judges very contemptuously of N 2 fome admirable Defign fketched out only with a black Pencil on a coarfe Paper, though by the Hand of Raphael. So the Scholar fpies the Name of a new Book in a publick News-Paper, he is charmed with the Title, he purchafes, he reads with huge Expectations, and finds it all Trafh and Impertinence: This is a Prejudice derived from the Appearance; we are too ready to judge that Volume valuable which had fo good a Frontifpiece. The large Heap of Encomiums and fwelling Words of Affurance that are beftowed on Quack-Medicines in publick Advertifements tempt many a Reader to judge them infallible, and to use the Pills or the Plaifter with vaft Hope and frequent Difappointment.

We are tempted to form our Judgment of Perfons as well as Things by these outward Appearances. Where there is Wealth, Equipage and Splendor we are ready to call that Man happy, but we see not the vexing Difquietudes of his Soul: And when we fpy a Perfon in ragged Garments, we form a defpicable Opinion of him too fuddenly; we can hardly think him either happy or wife, our Judgment is fo ftrangely biaffed by outward and fenfible Things. It was through the Power of this Predjudice that the Jews rejected our bleffed Saviour; they could not fuffer themselves to believe that the Man who appeared as the Son of a Carpenter was also the Son of God. And becaufe St. Paul was of a little Stature, a mean Presence, and his Voice contemptible, fome of the Corintbians were tempted to doubt whether he were infpired or no.

This Prejudice is cured by a longer Acquaintance with the World, and a just Objervation that Things are fometimes better and fometimes worfe than they appear to be. We ought therefore to reftrain our exceffive Forwardness to form our Opinion

Ch. III. S. 1. The right Use of Reason. 191 nion of Persons or Things before we have Opportunity to search into them more perfectly. Remember that a grey Beard does not make a Philosopher; all is not Gold that glisters; and a rough Diamond may be worth an immense Sum.

III. A Mixture of different Qualities in the fame Thing, is another Temptation to judge amifs. We are ready to be carried away by that Quality which ftrikes the first or the strongest Impressions upon us, and we judge of the whole Object according to that Quality, regardless of all the rest; or fometimes we colour over all the other Qualities with that one Tincture, whether it be bad or good.

When we have just Reason to admire a Man for his Virtues, we are fometimes inclined not only to neglect his Weakneffes, but even to put a good Colour upon them, and to think them amiable. When we read a Book that has many excellent Truths in it and divine Sentiments, we are tempted to approve not only that whole Book, but even all the Writings of that Author. When a Poet, an Orator, or a Painter, has performed admirably in feveral illustrious Places, we fometimes alfo admire his very Errors, we miftake his Blunders for Beauties, and are fo ignorantly fond as to copy after them.

It is this Prejudice that has rendered fo many great Scholars perfect Bigots, and inclined them to defend *Homer* or *Horace*, *Livy* or *Cicero*, in their Mistakes, and vindicate all the Follies of their favourite Author. It is this that tempts forme great Writers to fupport the Sayings of almost all the ancient Fathers of the Church, and admire them even in their very Reveries.

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On the other Hand, if an Author has profeffed beretical Sentiments in Religion, we throw our Scorn upon every Thing he writes, we defpile even his critical or mathematical Learning, and will hardly allow him common Senfe. If a Poem has fome Blemishes in it, there is a Set of false Criticks who decry it universally, and will allow no Beauties there.

This fort of Prejudice is relieved by learning to distinguish Things well, and not to judge in the Lamp. There is fcarce any Thing in the World of Nature or Art, in the World of Morality or Religion, that is perfectly uniform. There is a Mixiture of Wildom and Folly, Vice and Virtue, Good and Evil, both in Men and Things. Wé should remember that fome Perfons have great Wit and little Judgment; others are judicious, bur no Some are good bumoured without Complewitty. went; others have all the Formalities of Complain fance, but no good Humour. We ought to know that one Man may be vicious and learned, while another has Virtue without Learning. That many a Man thinks admirably well who has a poor Utterance; while others have a charming Manner of Speech, but their Thoughts are trifling and impertinent. Some are good Neighbours, and courteous and charitable toward Men who have no Piety toward God; others are truly religious, but of morofe natural Tempers. Some excellent Sayings are found in very filly Books, and fome filly Thoughts appear in Books of Value. We should neither praise ner difpraise by Wholesale, but separate the Good from the Evil, and judge of them apart : The Accuracy of a good Judgment confifts much in making fuch Distinctions. . . "£

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Yet let it be noted too, that in common Difcourfe we ufually denominate Perfons and Things according to the major Part of their Character. He is to be called a *wife Man* who has but few Follies: He is a good Pbilofopher who knows much of Nature, and for the most Part reasons well in Matters of human Science: And that Book fould be esteemed well written, which has much more of good Senfe in it than it has of Impertinence.

IV. Though a Thing be uniform in its own Nature, yet the different Lights in which it may be placed, and the different Views in which it appears to us. will be ready to excite in us miftaken Judgments concerning it. Let an erect Cone be placed in a horizontal Plane, at a great Diftance from the Eye, and it appears a plain Triangle; but we shall judge that very Cone to be nothing but a flat Circle, if its Bale be obverted towards us. Set a common round *Plate* a little *obliquely* before our Eyes afar off, and we shall think it an oval Figure : But if the very Edge of it be turned towards us, we shall take it for a firait Line. So when we view the feveral Folds of a changeable Silk, we pronounce this Part red, and that yellow, because of its different Polition to the Light, though the Silk laid fmooth in one Light appears all of one Colour.

When we furvey the Miferies of Mankind, and think of the Sorrows of Millions, both on Earth and in Hell, the Divine Government has a terrible Afgets, and we may be tempted to think hardly even of God himfelf: But if we view the Profufion of his Bounty and Grace amongst his Creatures on Earth, or the happy Spirits in Heaven, we shall have so exalted an Idea of bis Goodness as to forget his Vengeance. Some Men dwell en-N 4 tirely upon the Promifes of his Gofpel, and think him all Mercy: Others under a melancholy Frame, dwell upon his Terrors and his Threatnings, and are overwhelmed with the Thought of his Severity and Vengeance, as though there were no Mercy in him.

The true Method of delivering ourfelves from this Prejudice is to view a Thing on all Sides, to compare all the various Appearances of the fame Thing with one another, and let each of them have its full Weight in the Balance of our Judgment, before we fully determine our Opinion. It was by this Means that the modern Aftronomers came to find out that the Planet Saturn hath a flat broad Circle round its Globe, which is called its Ring, by observing the different Appearances as a narrow or a broader Oval, or as it fometimes feems to be a firait Line, in the different Parts of its twenty-nine Years Revolution through the *Ecliptic*. And if we take the fame just and religious Survey of the great and bleffed God in all the Difcoveries of his Venge. ance and his Mercy, we shall at last conclude him to be both just and good.

V. The cafual Affociation of many of our Ideat becomes the Spring of another Prejudice or rafh Judgment, to which we are fometimes expoled. If in our younger Years we have taken Medicines that have been naufeous, when any Medicine whatfoever is afterward proposed to us under Sickness, we immediately judge it naufeous : Our Fancy has fo closely joined these Ideas together that we know not how to feparate them: Then the Stomach feels the Difgust, and perhaps refuses the only Drug that can preferve Life. So a Child who has been let Blood joins the Ideas of Pain and the Surgeon together, and he hates the Sight

Ch. III. S. 2. The right Use of Reason. 195 of the Surgeon, because he thinks of his Pain: Or if he has drank a bitter Potion, he conceives a bitter Idea of the Cup which held it, and will drink nothing out of that Cup.

It is for the fame Reafon that the Bulk of the common People are fo fuperstitiously fond of the *Pfalms* translated by *Hopkins* and *Sternbold*, and think them faceed and divine, because they have been now for more than an hundred Years bound up in the fame Covers with our Bibles.

The best Relief against this Prejudice of Alfociation is to confider, whether there be any natutal and neceffary Connexion between those Ideas which Fancy, Custom, or Chance hath thus joined together: And if Nature has not joined them, let our Judgment correct the Folly of our Imagination, and separate these Ideas again.

## SECT. II.

#### Prejudices arifing from Words.

O UR Ideas and Words are fo linked together, that while we judge of Things according to Words, we are led into feveral Miftakes. Thefe may be diffributed under two general Heads, (viz.) Such as arife from fingle Words or Phrases, or fuch as arife from Words joined in Speech, and composing a Discourse.

I. The most eminent and remarkable Errors of the first Kind, are these three. (1.) When our Words are insignificant, and bave no Ideas; as when the mystical Divines talk of the Prayer of Silence, the supernatural and passive Night of the Soul, the Vacuity of Powers, the Suspension' of all Thoughts: Or (2.) When our Words are equivocal, 106

cal, and fignify two or more Ideas, as the Words Law, Light, Flefb, Spirit, Righteoufnefs, and many other Terms in Scripture: Or (3.) When two or three Words are fromrymous, and fignify one Idea, as Regeneration and new Creation in the New Teltament; both which mean only a Change of the Heari from Sin to Holinefs; or as the Elector of Cologue and the Bifloop of Cologue are two Titles of the fame Man.

These Kinds of Phrases are the Occasions of various Mistakes; but none to unhappy as those in Theology: For both Words without Ideas, as well as finonymous and equivacal Words, have been used and abused by the Humours, Passions, Interests, or by, the real Ignorance and Weakness of Men, to begge, terrible Contests among Christians.

But to relieve us under all those Dangers, and to remove these forts of Prejudices which arise from fingle Words or Phrases, I must remit the Reader to Part I. Chap. 4. where I have treated about Words, and to those Directions which I have given concerning the Definition of Names, Part I. Chap. 6, Sell. 3.

II. There is another fort of falle Judgments on Miftakes which we are exposed to by Words; and that is, when they are joined in Speech, and compose a Discourse; and here we are in Danger two, Ways.

The one is, when a Man writes good Senfe, or, fpeaks much to the Purpofe, but he has not a happy and engaging manner of Expression. Perhaps he uses coarse and vulgar Words, or old, obsolete, and unfashionable Language, or Terms, and Phrases that are foreign, latinized, scholastick, very uncommon, and hard to be understood: And, this

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this is ftill worfe, if his Sentences are long and intricate, or the Sound of them harfh and grating to the Ear. All these indeed are *Defetis in Style*, and lead fome nice and unthinking Hearers or Readers into an ill Opinion of all that fuch a Person speaks or writes. Many an excellent Discourse of our Forefathers has had abundance of Contempt caft upon it by our modern Pretenders to Sense, for Want of their distinguishing between the Language and the Ideas.

On the other Hand, when a May of Elegunce fpeaks or writes upon any Subject, we are too ready to run into his Sentiments, being fweetly and infenfibly drawn by the Smoothness of his Harangue. and the pathetick Power of his Language. Rbs. torick will varnish every Error to that it shall appear in the Drefs of Truth, and put fuch Ornaments upon Vice, as to make it look like Virtue: It is an Art of wondrous and extensive Influence ; 'it often conceals, obscures, or overwhelms the Truth, and places fometimes a grofs Falfhood in a most alluring Light. The Decency of Action, the Mulick of the Voice, the Harmony of the Periods, the Beauty of the Style, and all the engaging Airs of the Speaker, have often charmed the Hearers into Error, and perfuaded them to approve whatfoever is proposed in fo agreeable a Manner. А Jarge Affembly stands exposed at once to the Power of these Prejudices, and imbibes them all. So Cicero and Demostbenes made the Romans and the Athenians believe almost what foever they pleased.

The best Defence against both these Dangers, is to learn the Skill (as much as possible) of *fepa*rating our Thoughts and Ideas from Words and Phrofes, to judge of the Things in their own Natures, and in their natural or just Relation to one another, LOGICK: Or,

ther, abstracted from the Use of Language, and to maintain a steady and obstinate Resolution, to hearken to nothing but Truth, in whatfoever Style or Drefs it appears.

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Then we shall hear a Sermon of pious and just Sentiments with Efferm and Reverence, though the Preacher has but an unpolifhed Style, and many Defects in the Manner of his Delivery. Then we shall neglect and difregard all the flattering Infinuations whereby the Orator would make Way for his own Sentiments to take Possession of our Souls, if he has not folid and instructive Sense equal to his Language. Oratory is a happy Talent when it is rightly employed to excite the Paffions to the Practice of Virtue and Piety; but to fpeak properly, this Art has nothing to do in the Search after Truth.

#### SECT. III.

Prejudices arising from ourselves.

TEITHER Words nor Things would fo often lead us aftray from Truth, if we had not within ourfelves fuch Springs of Error as thefe that follow.

I. Many Errors are derived from our Weaknels of Reason, and Incapacity to judge of I bings in out Infant State. These are called the Prejudices of Infancy. We frame early Mistakes about the common Objects which furround us, and the common Affairs of Life: We fancy the Nurse is our best Friend, because Children receive from their Nurfes their Food and other Conveniencies of Life. We judge that Books are very unpleasant. Things, because perhaps we have been driven to them

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them by the Scourge. We judge also that the Sky touches the distant Hills, because we cannot inform ourselves better in Childhood. We believe the Stars are not risen till the Sun is set, because we never see them by Day. But some of these Errors may seem to be derived from the next Spring.

The Way to cure the *Prejudices of Infancy* is to diffinguish, as far as we can, which are those Opinions which we framed in perfect Childhood, to remember that at that Time our Reason was incapable of forming a right Judgment, and to bring these Propositions again to be examined at the Bar of mature Reason.

II. Our Senfes give us many a falfe Information of Things; and tempt us to judge amifs. This is called the Prejudice of Senfe, as when we fuppole the Sun and Moon to be flat Bodies, and to be but a few Inches broad, because they appear fo to the Eye. Senfe inclines us to judge that Air bas no Weight, because we do not feel it press heavy upon us; and we judge also by our Senfes that Cold and Heat, Sweet and Sour, Red and Blue, &c. are such real Properties in the Objects themselves, and exactly like those Senfations which they excite in us.

Note, Those Mistakes of this Sort which all Mankind drop and lose in their advancing Age are called mere *Prejudices of Infancy*, but those which abide with the vulgar Part of the World, and generally with all Men, till Learning and Philosophy cure them, more properly attain the Name of *Prejudices of Sense*.

These Prejudices are to be removed several Ways. (1.) By the Assistance of one Sense we cure the Mistakes of another, as when a Stick thrus into

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the Water Seems crooked, we are prevented from judging it to be really fo in itfelf, for when we take it out of the Water, both our Sight and our Feeling agree and determine it to be strait. (2.) The Exercise of our Reason, and an Application to mathematical and philosophical Studies, cure many other Projudices of Senfe, both with relation to the heavenly and carthly Bodies. (3.) We flould remember that our Senfes have often deceived us in various Inflances, that they give bur's confused and imperfect Representation of Things in many Cales, that they often represent fally those very Objects to which they feem to be fuited, fuch as the Shape, Motion, Size and Situation of grok Bodies, if they are but placed at a Diftance from us; and as for the minute Particles of which Bodies are compoled, our Senfes cannot dillinguist them. (4.) We should remember also, that one prime and original Delign of our Senfes, is to inform us what various Relations the Bodies that are round about us bear to our own animal Body, and to give us Notice what is pleafant and useful, or what is painful and injurious to us; but they are not fufficient of themselves to lead us into a philofophical Acquaintance with the inward Nature of Things. It must be confessed it is by the Affishance of the Eye and the Ear effectially (which are called the Senfes of Discipline) that our Minds are furnished with various Parts of Knowledge, by reading, hearing, and observing Things divine and human; yet Reafon ought always to accompany the Exercise of our Senses whenever we would form a just Judgment of Things proposed to our Enquiry.

Here it is proper to observe also, that as the Weakness of Reason in our Infancy, and the Diotates of our Senses, sometimes in advancing Years, lead



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lead the wifer Part of Mankind altray from Truth; to the meaner Parts of our Species, Perfons whole Genius is very low, whole Judgment is always weak, who are ever indulging the Distates of Senfe and Humour, are but Children of a larger Size, they ftand exposed to everlasting Mistakes in Life, and live and die in the midth of Prejudices.

III. Imagination is another fruitful Spring of falls Indements. Our Imagination is nothing elfe but the various Appearances of our fenfible Ideas in the Brain, where the Soul frequently works in uniting, disjoining, multiplying, magnifying, diminishing, and altering the feveral Shapes, Colours, Sounds, Motions, Words and Things that have been communicated to us by the outward Organs of Senfe. It is no wonder therefore if Fancy leads us into mamy Mistakes, for it is but Sense at Second hand. Whatever is strongly impressed upon the Imagination fome Perfons believe to be true. Some will choose a particular Number in a Lottery, or lay a large Wager on a fingle Chance of a Dye, and doubt not of Success, because their Fancy feels to powerful an Impression, and assures them it will be prosperous. A thousand pretended Prophecies and Inspirations, and all the Freaks of Entbufiaim have been derived from this Spring. Dreams are nothing else but the Deceptions of Fancy: A Delirium is but a short Wildness of the Imagination; and a fettled Irregularity of Fancy is Diffraction and Madne(s.

One Way to gain a Victory over this unruly Faculty, is to fet a Watch upon it perpetually, and to bridle it in all its Extravagances; never to believe any thing merely becaufe Fancy dictates it, any more than I would believe a Midnighi-Dream, nor to truft Fancy any farther than it is attended with

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with fevere Reafon. It is a very useful and entertaining Power of human Nature in Matters of Blustration, Persuasion, Oratory, Poefy, Wit, Conversation, &c. but in the calm Enquiry after Truth and final Judgment of Things, Fancy should retire and stand aside, unless it be called in to explain or illustrate a difficult Point by a Similitude.

Another Method of Deliverance from these Prejudices of Fancy, is to compare the Ideas that arise in our Imaginations with the real Nature of Things, as often as we have Occasion to judge concerning them; and let calm and sedate Reason govern and determine our Opinions, though Fancy should shew never so great a Reluctance. Fancy is the inferior Faculty, and it ought to obey:

IV. The various Passions or Affections of the Mind are numerous and endless Springs of Pre-They difguise every Object they converse judice. with, and put their own Colours upon it, and thus lead the Judgment aftray from Truth. Itia Love that makes the Mother think her own Child the fairest, and will sometimes perfuade us that a Blemiss is a Beauty. Hope and Desire make an Hour of Delay feem as long as two or three Hours; Hope inclines us to think there is nothing too difficult to be attempted; Despair tells us, that a brave Attempt is mere Rashness, and that every Difficulty is unfurmountable. *Fear* makes us imagine that a Bush shaken with the Wind has fome favage Beaft in it, and multiplies the Dangers that attend our Path: But still there is a more unhappy Effect of Fear when it keeps Millions of Souls in Slavery to the Errors of an establifhed Religion : What could perfuade the wife Men and Philosophers of a Popifh Country to believø

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lieve the groß Abfurdities of the Roman Church, but the Fear of Torture or Death, the Galleys or the Inquifition? Sorrow and Melancholy tempt us to think our Circumftances much more difmal than they are, that we may have fome Excufe for Mourning: And Envy reprefents the Condition of our Neighbour better than it is, that there might be fome Pretence for her own Vexation and Uneafinefs. Anger and Wrath and Revenge, and all those hateful Passions excite in us far worfe Ideas of Men than they deferve, and persuade us to believe all that is ill of them. A Detail of the evil Influence of the Affettions of the Mind upon our Judgment would thake a large Volume.

The Cure of these Prejudices is attained by a constant Jealousy of ourselves, and Watchfulness over our Palhons, that they may never interpose when we are called to pais a Judgment of any Thing : And when our Affections are warmly engaged, let us abstain from judging. It would be also of great Use to us to form our deliberate Judgments of Perfons and Things in the calmeft and ferenest Hours of Life, when the Palions of Nature are all filent, and the Mind enjoys its most perfect Composure : And these Judgments to formed should be treasured up in the Mind, that we might have Recourse to them in Hours of Need. See many more Sentiments and Directions relating to this Subject in my Dostrine of the Paffions. 2d Edition enlarged.

V. The Fondness we have for SELF, and the Relations which other Persons and Things have to surfelves, furnish us with another long Rank of Prejudices. This indeed might be reduced to the Passion of Self-Love, but it is so copious in Head that I chose to name it as a diffice O Spring LOGICK: Or,

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Spring of falle Judgments. We are generally ready to fancy every Thing of our own has fomething peculiarly valuable in it, when indeed there is no other Reason, but because it is our our Were we born among the Gardens of Italy, the Rocks of Switzerland, or the Ice and Snows of Ruffia and Sweden, still we should imagine peguliar Excellencies in our native Land. We conceive a good Idea of the Town and Village where me first breathed, and think the better of a Man for being born near us. We entertain the best Opinion of the Persons of our own Party, and calily believe evil Reports of Persons of a different Sett or Fattim. Our own Sex, our Kindred, our Houfes, and our wry Names, feem to have fomething good and definable in them. We are ready to mingle all these min surferves, and cannot bear to have others, think meanly of them. n e elon

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So good an Opinion have we of our own Settiments and Practices, that it is very difficult to believe what a Reprover fays of our Conduct a and we are as ready to affent to all the Language of We fet up our own Opinions in Religion Flattery. and Philosophy as the Tests of Orthodoxy and Truth; and we are prone to judge every Practice of other Men, either a Duty or a Crime, which we think would be a Crime or a Duty in us, though their Circumstances are vastly different from our, own, This Humour prevails fometimes to fuch a Degree, that we would make our own Tafte and Inclination the Standard by which to judge of every Difh of Meat that is fet upon the Table, every Book in a Library, every Employment, Study and Buliness of Life, at well as every Recreation.

It is from this evil Principle of fetting up Self for a Model what other Men ought to be, that the Antichriftian Spirit of Imposition and Perfection had

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had its Original: though there is no more Reafon for it than there was for the Practice of that Tyrant, who having a Bed fit for his own Size was reported to ftretch Men of low Stature upon the Rack till they were drawn out to the Length of his Bed ; and fome add alfo, that he cut off the Legs, of any whom he found too long for it.

• ? It is also from a Principle near a-kin to this that we pervert and strain the Writings of any venerable Authors, and especially the facred Books of Scripture to make them speak our own Sense. Through " the Influence which our own Schemes or Hypothefis "have upon the Mind, we fometimes become fo Tharp fighted as to find these Schemes in those Places of Scripture where the holy Writers never thought of them, nor the Holy Spirit intended them. "At other Times this Prejudice brings fuch a Dimnefs upon the Sight that we cannot read any Thing that oppofes our own Scheme, though it be written as with Sun-beams, and in the plainest Language; and perhaps we are in Danger in fuch a Cafe of winking a little against the Light.

We ought to bring our Minds free, unbiaffed and teachable to learn our Religion from the Word of God; but we have generally formed all the effer as well as the greater Points of our Religion before-hand, and then we read the Prophets and Apostles only to pervert them to confirm our own Opinions. Were it not for this Influence of Self. and a Bigotry to our own Tenets, we could hardly imagine that fo many strange, abfurd, inconfistent, wicked, mischievous, and bloody Principles should pretend to fupport and defend themselves by the Golpel of Cbrift.

Every learned Critick has bis own Hpothefis; and if the common Text be not favourable to his · Opinion, a various Lection shall be made authen-: 21 tick. **O**<sub>2</sub>

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tick. The Text must be supposed to be defestive or redundant, and the Senfe of it shall be literal, or metaphorical, according as it best supports his own Scheme. Whole Chapters or Books shall be added or left out of the facred Canon, or be turned into Parables by this Influence. Luiber knew not well how to reconcile the Epiftle of St. James to the Doctrine of Justification by Faith alone, and fo he could not allow it to be Divine. The Papists bring all the Apocrypha into their Bible, and stamp Divinity upon it; for they can fancy Purgatory is there, and they find Prayers for the Dead. But they leave out the fecond Commandment becaufe it forbids the Worship of linages. Others suppose the Mosaick History of the Creation and the Fall of Man to be oriental Ornaments, or a mere Allegory, becaufe the literal Senfe of those three Chapters of Genefis do not agree with their Theories. Even an honeft plain-hearted and unlearned Christian is ready to find fomething in every Chapter of the Bible to countenance his own private Sentiments; but he loves those Chapters beft which speak his own Opinions plainest: This is a Prejudice that flicks very close to our Natures; the Scholar is infelted with it daily, and the Mechanick is not free.

Self has yet a farther and a pernicious Influence upon our Understandings, and is an unhappy Guide in the Search after Truth. When our own Inclination or our Ease, our Honour or our Profit tempts us to the Practice of any Thing of suspected Lawfulness, how do we strain our Thoughts to find Arguments for it, and persuade ourselves it is lawful? We colour over Iniquity and finful Compliance with the Names of Virtue and Innocence, or at least of Constraint and Necessity. Att the different and opposite Sentiments and Practices

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Ch.III. S. 3. The right Use of Reason. 207 tices of Mankind are too much influenced by this mean Bribery, and give too just Occasion for fatyrical Writers to fay that Self-Interest governs all Mankind.

When the *Judge* had awarded due Damages to a Perfon into whofe Field a Neighbour's Oxen had broke, it is reported that he reverfed his own Sentence, when he heard that the Oxen which had done this Mifchief were *bis own*. Whether this be a *Hiftory* or a *Parable*, it is ftill a juft Reprefentation of the wretched Influence of *Self* to corrupt the Judgment.

One Way to amend this *Prejudice* is to thruft Self fo far out of the Queftion that it may have no Manner of Influence whenfoever we are called to judge and confider of the naked Nature, Truth and Juftice of Things. In Matters of Fquity between Man and Man, our Saviour has taught us an effectual Means of guarding against this Prejudice, and that is to put my Neighbour in the Place of myfelf, and myfelf in the Place of my Neighbour, rather than be bribed by this corrupt Principle of Self-Love to do Injury to our Neighbours. Thence arifes that Golden Rule of dealing with others as we would have others deal with us.

In the Judgment of Truth and Fallhood, Right and Wrong, Good and Evil, we ought to confider that every Man has a SELF as well as we; and that the Taftes, Paffions, Inclinations and Interefts of different Men are very different, and often contrary, and that they dictate contrary Things: Unlefs therefore all Manner of different and contrary Propolitions could be true at once, Self can never be a just Test or Standard of Truth and Fallhood, Good and Evil.

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VI. The

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VI. The Tempers, Humours, and peculiar Terms of the Mind, whether they be natural or acquired, have a great Influence upon our Judgment, and become the Occasion of many Mistakes. Let us furvey few of them.

(1.) Some Perfons are of an eafy and credulous Temper, while others are perpetually discovering a Spirit of Contradiction.

The credulous Man is ready to receive every Thing for Truth, that has but a Shadow of Evidence; every new Book that he reads, and every ingenious Man with whom he converses, has Power enough to draw him into the Sentiments of the Speaker or Writer. He has fo much Complaifance in him, or Weakness of Soul, that he is ready to refign his own Opinion to the first Objection which he hears, and to receive any Sentiments of another that are afferted with a politive Air and much Af-Thus he is under a kind of Necessity forance. through the Indulgence of his credulous Humour, either to be often changing his Opinions, or to believe Inconfiftencies.

The Man of Contradizion is of a contrary-Homour, for he stands ready to oppose every Thing that is fald: he gives a flight Attention to the Reasons of other Men, for an inward scornful Prefumption that they have no Strength in them. When he reads or hears a Discourse different from his own Sentiments, he does not give himfelf Leave to confider whether that Discourse may be true's but employs all his Powers immediately to confute it. Your great Di/puters and your Men of Controverly are in continual Danger of this fort of Prejudice; they contend often for Victory, and will maintain whatfoever they have afferted, while Truth is lost in the Noise and Tumult of reci-÷ procal Ch. IH. S. 3. The right Use of Reason. 209

procal Contradictions; and it frequently happens, that a Debate about Opinions is turned into a mutual Reproach of Perfons.

The Projudice of Credulity may in fome Meafure becured, by learning to fet a high Value on Truth, and by taking more Pains to attain it; remembering that Truth oftentimes lies dark and deep, and requires us to dig for it as hid Trezfure; and that Fallhood often puts on a fair Difguife, and therefore we fhould not yield up our Judgment to every plaufible Appearance. It is no Part of Civility or good Breeding to part with Truth, but to maintain it with Decency and Candour.

A Spirit of Contradition is fo pedantick and hateful, that a Man fhould take much Pains with himfelf to watch againft every Inftance of it: He fhould learn fo much good Humour, at leaft, as never to oppose any Thing without just and folid Reason for it: He should abate fome Degrees of Pride and Morofenels, which are never-failing Ingredients in this fort of Temper, and should sek after fo much Honefty and Confisence as never to contend for Conquest or Triumph; but to review his own Reason, and to read the Arguments of his Opponents (if possible) with an equal Indifferency, and be glad to spy Truth and to submit to it, though it appear on the opposite Side.

(2.) There is another Pair of Prejudices derived from two Tempers of Mind, near a kin to those I have just mentioned; and these are the dogmatical and the *sceptical Humour*; i. e. always positive, or always doubting.

By what Means foever the Degmatift came by his Opinions, whether by his Senfes, or by his Fancy, his Education, or his own Reading, yet he believes them all with the fame Affurance that

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he does a mathematical Truth; he has fcarce any mere Probabilities that belong to him; every thing with him is certain and infallible; every Puncilio in Religion is an Article of his Faith, and he anfwers all Manner of Objections by a Sovereign Contempt.

Perfons of this Temper are feldom to be convinced of any Miftake: A full Affurance of their own Notions makes all the Difficulties of their own Side vanish fo entirely, that they think every Point of their Belief is written as with Sun-beams, and wonder any one should find a Difficulty in it. They are amazed that learned Men should make a Controversy of what is to them so perspicuous and indubitable. The lowest Rank of People both in learned and in vulgar Life, is very subject to this Obstinacy.

Scepticism is a contrary Prejudice. The Dogmatift is fure of every Thing, and the Sceptick believes Nothing. Perhaps he has found himfelf often miftaken in Matters of which he thought himfelf we'l affured in his younger Days, and therefore he isafraid to give Affent to any Thing again. He fees fo much Shew of Reason for every Opinion, and fo many Objections also arifing against every Doctrine, that he is ready to throw off the Belief of every Thing: He renounces at once the Purfuit of Truth, and contents himself to fay, There is no. thing certain. It is well, if through the Influence of fuch a Temper, he does not cast away his Religion as well as his Philosophy, and abandon himfelf to a profane Courfe of Life, regardless of Hell and Heaven.

Both these Prejudices last mentioned, though they are to opposite to each other, yet they arise from the same Spring, and that **S**, Impatience of Study, and Want of diligent Attention in the Search of Truth. Ch. III. S. 3. The right Use of Reason. 212

**Trutb.** The Dogmatift is in hafte to believe fomething; he cannot keep himfelf long enough in Sufpence, till fome bright and convincing Evidence appear on one Side, but throws himfelf cafually into the Sentiments of one Party or another, and then he will hear no Argument to the contrary. The Sceptick will not take Pains to fearch Things to the Bottom, but when he fees Difficulties on both Sides, refolves to believe neither of them. Humility of Soul; Patience in Study, Diligence in Enquiry, with an boneft Zeal for Trutb, would go a great Way towards the Cure of both thefe Follies.

(3.) Another fort of Temper that is very injurious to a right Judgment of Things, is an inconstant, fickle, changeable Spirit, and a very uneven Temper of Mind. When fuch Persons are in one Humour, they pass a Judgment of Things agreeable to it; when their Humour changes, they reverse their first Judgment, and embrace a new Opinion. They have no Steadine (s of Soul; they want Firmness of Mind, sufficient to establish themselves in any Truth, and are ready to change it for the next alluring Falshood that is agreeable to their Change of Humour. This Ficklene's is fometimes fo mingled with their very Conftitution by Nature, or by Diftemper of Body, that a cloudy Day and a lowring Sky shall strongly incline them to form an Opinion both of themselves, and of Perfons and Things round about them, quite different from what they believe when the Sun fbines, and the Heavens are ferene.

This fort of People ought to judge of Things and Perfons in their most fedate, peaceful, and composed Hours of Life, and referve these Judgments for their Conduct at more unhappy Seasons.

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(4.) Some Perfons have a violent and targid Manner of Talking and Tbinking; whatfoever they judge of, it is always with a Tincture of this Vanity. They are always in Extremes, and pronounce concerning every thing in the fuperlative. If they think a Man to be learned, be is the chief Schelar of the Age: If another has low Parts, be is the greateft Blockhead in Nature: If they approve any Book on divine Subjects, it is the beft Book in the World next to the Bible: If they fpeak of a Storm of Rain or Hail, it is the most terrible Storm that fell fince the Creation: And a cold Winter Day is the coldeft that ever was known.

But the Men of this swelling Language ought to remember, that Nature has ten thousand moderate Things in it, and does not always deal in Extremel as they do.

(5.) I think it may be called another fort of Prejudices derived from Humour, when fome Men believe a Dotsrine merely becaufe it is ancient, and has been long believed; others are fo fond of Novely, that nothing prevails upon their Affent fo much as new Thoughts and new Notions. Again, there are fome who fet a high Efteem upon every Thing that is foreign and far-fetched; therefore Chins Pietures are admired, how aukward foever: Others value Things the more for being of our own native Growth, Invention, or Manufatture, and thefe at much defpife foreign Things.

Some Men of Letters and Theology will not believe a Proposition even concerning a sublime Subject, till every thing mysterious, deep and difficult is cut off from it, though the Scripture afferts it never so plainly; others are so fond of a Myflery and Things incomprebensible, that they would scarce believe the Doctrine of the Trinity, if it could be explained; they incline to that foolish Rant

Rant of one of the Ancients, Credo quia impossibile est; I believe it because it is impossible.

To cure these Miltakes remember that neither antique nor novel, foreign nor native, mysterious nor plain, are certain Characters either of Truth or Falshood.

I might mention various other Humours of Mon that 'excite in them various Prejudices, "and lead them into rafh and mistaken Judgments; but these are fufficient for a Specimen.

... VII. There are feveral other Weakneffes which belong to human Nature, whereby we are led into Mistakes, and indeed are rendered almost uncapable of paffing a folid Judgment in Matters of great Depth and Difficulty. Some have a native Obscurity of Perception, (or shall I call it a want of natural Sagacity?) whereby they are hindered from attaining clear and diffinct Ideas. Their Thoughts always feem to have fomething confused and cloudy in them, and therefore they judge in the Dark. Some have a Defect in Memory, and then they are not capable of comparing their prefent Ideas with a great Variety of others, in order to fecure themfelves from Inconfiftency in Judgment. Others may have a Memory large enough. yet they are fubject to the fame Errors from a Narrownels of Soul, and fuch a Fixation and Confinement of Thought to a few Objetts, that they scarce ever take a Survey of Things wide enough to judge. wifely and well, and to fecure themfelves from all Inconfiftencies.

Though these are natural Defects and Weakness, yet they may in some Measure be relieved by Labour, Diligence, and a due Attention to proper Rules.

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But among all the Caufes of falje Judgment which are within ourselves, I ought by no Means to leave out that universal and original Spring of Error, which we are informed of by the Word of God, and that is, the Sin and Defection of our first Parents, whereby all our best natural Powers both of Mind and Body are impaired, and rendered very much inferior to what they were in a State of Innocence. Our Understanding is darkened, our Memory contracted, our corrupt Humours and Paffions are grown predominant, our Reafon enfeebled, and various Diforders attend our Conflictution and animal Nature, whereby the Mind is strangely imposed upon in its Judgment of Nor is there any perfect Relief to be Things. expected on Earth. There is no hope of ever recovering from these Maladies, but by a forcere Return to God in the Ways of his own Appointment, whereby we shall be kept fafe from all dangerous and pernicious Errors in the Matters of Religion; and though Imperfections and Mistakes will hang about us in this prefent Life as the Effects of our original Apostaly from God, yet we hope for a full Deliverance from them when we arrive at Heaven.

#### SECT. IV.

# Prejudices arising from other Persons.

ERE it not for the Springs of Prejudice that are lurking in ourfelves, we should not be subject to so many Mistakes from the Influence of others: But since our Nature is so sufficient of of Errors on all Sides, it is fit we should have Hints and Notices given us, how far other Perlons may have Power over us, and become the Causes Ch. III. S. 4. The right Use of Reason. 215 Causes of our false Judgments. This might all be cass into one Heap, for they are all near a-kin, and mingle with each other; but for Distinction fake let them be called the Prejudices of Education, of Custom, of Authority, and such as arise from the Manner of Proposal.

I. Those with whom our Education is entrusted may lay the first Foundation of many Mistakes in our younger Years. How many Fooleries and Errors are inftilled into us by our Nurfes, our Fellow-Children, by Servants or unskilful Teachers, which are not only maintained through the following Parts of Life, but fometimes have a very unhappy Influence upon us! We are taught that There are Goblings and Bugbears in the Dark; our young Minds are crowded with the terrible Ideas of Gbosts appearing upon every Occasion, or with the pleafanter Tales of Fairies dancing at Midnight. We learn to prophecy betimes, to foretel Futurities by good or evil Omens, and to presage approaching Death in a Family by Ravens and little Worms, which we therefore call a Death-Watch. We are taught to know before hand, for a Twelve-month together, which Days of the Week will be fair or foul, which will be lucky or unlucky; nor is there any thing fo filly, but may be imposed upon our Understandings in that early Part of Life , and these ridiculous Stories abide with us too long and too far influence the weaker Part of Man kind.

We choose our particular Set and Party in the civil, the religious and the learned Life, by the Influence of Education. In the Colleges of Learning, some are for the Nominals, and some for the Realists in the Science of Metaphysicks, because their Tutors were devoted to these Parties. The old 216

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old Philosophy and the new have gained thousands of Partizans the fame way: And every Religion has its Infant Votaries, who are born, live and die in the fame Faith without Examination of any Article. The Turks are taught early to believe in Mabomet ; the Jews in Mofes ; the Heatbens withthin a Multitude of Gods under the Force of their Education. And it would be well if there were not Millions of Christians, who have little more to fay for their Religion, than that they were born and bred up in it. The greatest Part of the Christian World can hardly give any Reason why they believe the Bible to be the Word of God, but because they have always believed it, and they were taught to from their Infancy. As 7ews and Turks, and American Heatbens believe the most monftrous and incredible Stories, because they have been trained up amongst them, as Articles of Faith; fo the Papifts believe their Transubftantiasion, and make no Difficulty of affenting to Impoffibilities, fince it is the current Doctrine of their Catechilms. By the fame Means the feveral Sects and Parties in Christianity believe all the firatued Interpretations of Scripture by which they have been taught to support their own Tenets : They find nothing difficult in all the abfurd Gloffes and farfetched Senfes that are fometimes put upon the Words of their facred Writers, because their Ears have been always accustomed to these Glosses and therefore they fet to fmooth and eafy upon their Understandings, that they know not how to admit the most natural and easy Interpretation in Oppofition to them.

In the fame Manner we are nurfed up in many felly and grois Miftakes about *domestick* Affairs as well as in Matters of *political* Concernment. It is upon the fame Ground that Children are trained

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up to be Whigs and Tories betimes; and every one learns the diffinguishing Terms of his own Party, as the Papilsclears to fay their Prayers in Latin; without any Meaning, Reason, or Devotion.

This fort of Prejudice must be cured by calling all the Principles of our young Years to the Bar of more mature Reason, that we may judge of the Things of Nature and political Affairs by juster Rules of Philosophy and Observation: And even the Matters of Religion must be first inquired into by Reason and Conscience, and when these have led us to believe Scripture to be the Word of God, then that becomes our sovereign Guide, and Reafon and Conscience must submit to receive its Dictates.

II. The next Prejudice which I shall mention is, that which arises from the Custom or Fashion of shole among it whom we live. Suppose we have freed ourselves from the younger Prejudices of our Education, yet we are in Danger of having our Mind turned aside from Truth by the Influence of general Custom.

Our Opinion of Meats and Drinks, of Garments and Forms of Salutation are influenced much more by Cuftom, than by the Eye, the Ear, or the Taste. Cuftom prevails even over Senfe infelf, and therefore no Wonder if it prevail over Realen too. What is it but Callons that renders many of the Mixtures of Food and Sauces elegant in Britain. which would be aukward and naufeous to the Hhabitants of China, and indeed were mauseous to us when we first tasted them? What but Guffein could make those Salutations polite in Muscouy, which are ridiculous in France or England? We call ourselves indeed the politer Nations, but it is we who judge thus of ourfelves; and that fancied cied Politenefs is oftentimes more owing to Cuftom than Reafon. Why are the Forms of our prefent Garments counted beautiful, and those Fashions of our Ancestors the Matter of Scoff and Contempt, which in their Day were all decent and genteel? It is Cuftom that forms our Opinion of Drefs, and reconciles us by Degrees to those Habits which

It is Cuftom that forms our Opinion of Drefs, and reconciles us by Degrees to thole Habits which at first feemed very odd and monstrous. It must be granted there are fome Garments and Habits which have a natural Congruity or Incongruity, Modesty or Immodesty, Decency or Indecency, Gaudery or Gravity; though for the most part there is but little of Reason in these Affairs: But what little there is of Reason or natural Decency, Custom triumphs over it all. It is almost impossible to persuade a gay Lady that any thing can be decent which is out of Fashion: And it were well if Fashion stretched its Powers no farther than the Busine's of Drapery and the fair Sex.

The Methods of our Education are governed by Cuftom. It is Cuftom and not Reafon that fends every Boy to learn the Roman Poets, and begin a little Acquaintance with Greek, before he is bound an Apprentice to a Soap-boiler or Leather-feller. It is Cuftom alone that teaches us Latin by the Rules of a Latin Grammar: a tedious and abfurd Method! And what is it but Cuftom that has for past Centuries confined the brightest Genus's even of the high Rank in the Female World to the only Bufinefs of the Needle, and fecluded them most unmercifully from the Pleafures of Knowledge, and the divine Improvements of Reafon? But we begin to break all these Chains, and Reason begins to dictate the Education of Youth. May the growing Age be learned and wife !

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It is by the Prejudice arifing from our own Cutoms, that we judge of all other civil and religious Forms and Prairices. The Rites and Ceremonies of War and Peace in other Nations, the Forms of Weddings and Funerals, the leveral Ranks of Magistracy, the Trades and Employments of both Sexes, the publicit and the domestick Affairs of Life, and almost every thing of foreign Customs, is judged irregular. It is all imagined to be unreasonable or unnatural, by those who have no other Rule to judge of Nature and Reason, but the Customs of their own Country, or the little Town where they dwell. Custom is called a second Nature, but we often miltake it for Nature itself.

Besides all this, there is a Fashion in Opinions, there is a Fashion in Writing and Printing, in Style and Language. In our Day it is the Vogue of the Nation, that Parliaments may fettle the Succession of the Crown, and that a People can make a King; in the last Age this was a Doctrine a kin to Treason. Citations from the Latin Poets were an Embellifhment of Style in the last Century, and whole Pages In that Day were covered with them; it is now forbidden by Cuftom, and exposed by the Name of Pedantry; whereas in Truth both these are Extremes. Sometimes our printed Books shall abound in Capitals, and fometimes reject them all. Now we deal much in E/fays; and most unreasonably despile systematic Learning, whereas our Fathers had a just Value for Regularity and Systems; then Folio's and Quarto's were the fashionable Sizes, as Volumes in Oslavo are now. We are ever ready to run into Extremes, and yet Cuftom still perfuades us that Reason and Nature are on our Side.

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This Business of the Falbion has a most powerful Influence on our Judgment: for it employs those two strong Engines of Fear and Shame to operate upon our Understandings with unhappy Success. We are assumed to believe or profess an unfashionable Opinion in Philosophy, and a cowardly Soul dares not fo much as indulge a Thought contrary to the established or fashionable Faith, not act in Opposition to Custom, though it be according to the Dictates of Reason.

I confeis, there is a Respect due to Mankind which should incline even the wifest of Men to. follow the *innocent Customs* of their Country in outward Practices of the Civil Life, and in some Measure to submit to Fashion in all different Affairs, where Reason and Scripture make no Remonstrances against it. But the Judgments of the Mind ought to be for ever free, and not biassed by the Customs and Fashions of any Age or Nation whatfoever.

To deliver our Understandings from this Danger and Slavery we should confider these three Things.

1. That the greatest Part of the civil Customs of any particular Nation or Age spring from Humour rather than Reason. Sometimes the Humour of the Prince prevails, and sometimes the Humour of the People. It is either the Great or the Many who dictate the Fashion, and these have not always the highest Reason on their Side.

2. Confider alfa, that the *Cuftoms* of the fame Nation in different Ages, the *Cuftoms* of different Nations in the fame Age, and the *Cuftoms* of different Towns and Villages in the fame Nation, are very various and contrary to each other. The *fashionable* Learning, Language, Sentiments, and Rules of Politenets differ greatly in *different Com*trive

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tries and Ages of Mankind; but Truth and Reafon are of a more uniform and steady Nature, and do not change with the Fashion. Upon this Account, to cure the Prepossefiens which arise from Custom, it is of excellent Use to travel, and see the Cuftoms of various Countries, and to read the Travels of other Men, and the Hiftory of paft Ages, that every thing may not feem strange and uncouth, which is not practiled within the Limits of our own Parish, or in the narrow Space of our own Life-time.

3. Confider yet again, how often we ourfelves have changed our own Opinions concerning the Decency, Propriety, or Congruity of ieveral Modes or Practices in the World, especially if we have lived to the Age of thirty or forty. Custom or Fashion, even in all its Changes, has been ready to have fome Degree of Afcendency over our Understandings, and what at one time feemed decent appears obsolete and disagreeable afterward, when the Fashion changes. Let us learn therefore to abstract as much as possible from Custom and Fashion, when we would pass a Judgment concerning the real Value and intrinsic Nature of Things.

III. The Authority of Men is the Spring of another . **Rank** of **Prejudices**.

Among these the Authority of our Forefathers and ancient Authors is most remarkable. We pay Deference to the Opinions of others, merely becaufe they lived a thousand Years before us; and even the Trifles and Impertinencies that have a Mark of Antiquity upon them are reverenced for this Reason, because they came from the Ancients. It is granted, that the Ancients had many wife and great Men among them, and fome of P 2 their

their Writings, which Time hath delivered down to us, are truly valuable: but those Writers lived rather in the Infant-State of the World; and the *Philosophers*, as well as the *polite Authors* of our Age, are properly the *Elders*, who have seen the Mistakes of the *younger Ages* of Mankind, and corrected them by Observation and Experience.

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Some borrow all their Religion from the Fathers of the Christian Church, or from their Synods or Councils; but he that will read Monfieur Daille on the Use of the Fathers, will find many Reasons why they are by no means fit to dictate our Faith, fince we have the Gospel of Christ, and the Writings of the Apostles and Prophets in our owa Hands.

Some Perfons believe every Thing that their Kindred, their Parents, and their Tutors believe." The Veneration and the Love which they have for their Ancestors incline them to swallow down all their Opinions at once, without examining what Truth or Falshood there is in them. Men take up their Principles by Inheritance, and defend them as they would their Estates, because they are born Heirs to them. I freely grant, that Parents are appointed by God and Nature to teach us all the Sentiments and Practices of our younger Years; and happy are those whose Parents lead them into the Paths of Wildom and Truth! I grant farther, that when Persons come to Years of Difcretion, and judge for themfelves, they ought to examine the Opinions of their Parents with the greatest Modesty, and with an humble Deference to their fuperior Character; they ought in Matters perfectly dubious to give the Preference to their Parents Advice; and always to pay them the first Respect, nor ever depart from their Opinions and Practice, till Reason and Confcience make

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Ch. III. S. 4. The right Use of Reason. 223 make it neceffary. But after all, it is possible that Parents may be miltaken, and therefore Reafon and Scripture ought to be our final Rites of Determination in Matters that relate to this World, and that which is to come.

Sometimes a favourite Author, or a Writer of great Name, drags a thousand Followers after him into his own Mistakes, merely by the Authority of his Name and Character. The Sentiments of Aristotle were imbibed and maintained by all the Schools in Europe for feveral Centuries; and a Citation from his Writings was thought a fufficient Proof of any Proposition. The great Descartes had also too many implicit Believers in the last Age, though he himfelf, in his Philosophy, difclaims all fuch Influence over the Minds of his Readers. Calvin and Luther, in the Days of Reformation from Popery, were learned and pious Men, and there have been a Succession of their Disciples even to this Day, who pay too much Reverence to the Words of their Mafters. There are others who renounce their Authority, but give themfelves up in too fervile a Manner to the Opinion and Authority of other Masters, and follow as bad or worse Guides in Religion.

If only learned, and wife, and good Men had Influence on the Sentiments of others, it would be at least a more excusable fort of Prejudice, and there would be fome Colour and Shadow of Reafon for it : But that Riches, Honours, and outward Splendour should set up Persons for Dictators to all the reft of Mankind; this is a most shameful Invation of the Right of our Understandings on the one Hand, and as shameful a Slavery of the Soul on the other. The poor Man, or the Labourer, too often believes such a Principle in Politics, or in Morality, and judges concerning the Rights of the P 3 King

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King and the People, juft as his mealthy Neighbour does. Half the Parifh follows the Opinion of the Esquire, and the Tenants of a Manor fall into the Sentiments of their Lord, especially if he lives amongst them. How unreasonable and yet how common is this!

As for Principles of Religion, we frequently find how they are taken up and forfaken, changed and refumed by the Influence of Princes. In all Nations the Priefts have much Power also in dictating the Religion of the People, but the Princes dictate to them: And where there is a great Pomp and Grandeur attending the Priefthood in- any Religion whatfoever, with fo much the more Reverence and ftronger Faith 'do the People believe whatever they teach them : Yet it is too often evident that Riches, and Dominions, and bigb Titles in Church or State have no Manner of Pretence to Truth and Certainty, Wisdom and Goodness, above the rest of Mortals, because their Superiorities in this World are not always conferred according to Merit.

I confess, where a Man of Wildom and Years of Observation and Experience, gives us his Opinion and Advice in Matters of the civil or the moral Life, Reafon tells us we should pay a great Attention to him, and it is probable he may be in the Right. Where a Man of long Exercise in Piery speaks of practical Religion, there is a due Deference to be paid to his Sentiments : And the fame we may fay concerning an ingenious Man long verfed in any Art or Science, he may justly expect due Regard when he fpeaks of his own Affairs and proper Bulinefs. But in other Things each of these may be ignorant enough, notwith ftanding all their Piety and Years, and particular Skill: Nor even in their own proper Province are they to be believed in

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in every thing without Referve, and without Examination.

To free ourselves from these Prejudices, it is fufficient to remember, that there is no Rank nor Character among Mankind, which has any just Pretence to fway the Judgments of other Men by their Authority: For there have been Perfons of the fame Rank and Character who have maintained different and contrary Sentiments; but all thefe can never be true, and therefore the mere Name or Reputation that any of them possessies, is not sufficient Evidence for Truth.

Shall we believe the Ancients in Philosophy ? But fome of the Ancients were Stoics, fome Peripatetics, fome Platonics, and fome Epicureans, fome Cynics, and fome Sceptics. Shall we judge of Matters of the Christian Faith by the Fathers or Primitive Writers for three or four hundred Years after Christ? But they often contradicted one another, and themselves too; and, what is worse, they fometimes contradicted the Scripture itself. Now among all these different and contrary Sentiments in Philosophy and Religion, which of the Ancients must we believe, for we cannot believe them all ?

Again, To believe in all Things as our Predeceffors did, is the ready Way to keep Mankind in an everlatting State of Infancy, and to lay an eternal Bar against all the Improvements of our Reason and our Happines. Had the present Age of Philosophers fatisfied themselves with the substantial Forms and occult Qualities of Aristotle, with the folid Spheres, Eccentrics, and Epicycles of Ptolomy, and the ancient Aftronomers; then the great Lord Bacon, Copernicus, and Descartes, with the great Sir Ifaac Newton, Mr. Locke, and Mr. Boyle, had rifen in our World in vain, We muft

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have blundered on still in fuccessive Generations amongst Absurdities and thick Darkness, and a hundred useful Inventions for the Happiness of human Life had never been known.

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Thus it is in Matters of Philosophy and Science. But, you will fay, Shall not our cwn Ancestors desermine our Judgments in Matters of civil or religious Concernment? If they must, then the Child of a Heatben must believe that Heatbenism is Truth ; the Son of a Papift must affent to believe all the Absurdities of Popery; the Posterity of the Jews and Socia nians must for ever be Socinians and Jews; and a Man whofe Father was of Republican Principles, must make a Succession of *Republicans* in his Family to the End of the World. If we ought always to believe whatfoever our Parents, or our Priefts, or our Princes believe, the Inhabitants of China ought to worship their own Idols, and the Savages of Africa ought to believe all the Nonfenfe, and practife the Idolatry of their Negro Fathers. and Kings. The British Nation, when it was Hegthen, could never have become Christian; and when it was a Slave to Rome, it could never have been reformed.

Besides, let us confider that the great God, our common Maker, has never given one Man's Understanding a legal and rightful Sovereignty to determine Truths for others, at least after they are past the State of Childhood or Minority. No fingle Person, how learned and wife, and great foever, or whatfoever natural, or civil, or ecclesiaftical Relation he may have to us, can claim this Dominion over our Faith. St. Paul the Apostle, in his private Capacity, would not do it; nor hath an inspired Man any such Authority, until he makes his divine Commission appear. Our Saviour himself tells the Jews, that if be bad not done fuch wondroug

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drous Works among them, they had not finned in difbelieving his Doctrines, and refusing him for the Melhab. No Bishop or Presbyter, no Synod or Council, no Church or Affembly of Men. (fince the Days of Infpiration) hath Power derived to them from God to make Creeds or Articles of Faith for us, and impose them upon our Underflandings. We must all act according to the best of our own Light, and the Judgment of our own Confciences, using the best Advantages which Providence hath given us, with an honeft and impartial Diligence to enquire and fearch out the Truth: For every one of us must give an Account of bimself to God. To believe as the Church, or the Court believes, is but a forry and a dangerous Faith: This Principle would make more Heathens than Christians, and more Papists than Protestants; and perhaps lead more Souls to Hell than to Heaven : for our Saviour himfelf has plainly told us, that if the Blind will be led by the Blind, they must both fall into the Ditch.

Though there be fo much Danger of Error arifing from the three Prejudices last mentioned, yet before I difmiss this Head, I think it proper to take. Notice, that as Education, Cuftom and Authority, are no fure Evidences of Truth, fo neither are they, certain Marks of Falfbood; for Reafon and Scriprure may join to dictate the fame Things which our Parents, our Nurses, our Tutors, our Friends, and our Country believe and profess. Yet there appears fometimes in our Age a Pride and Petulancy in Youth, zealous to cast off the Sentiments of their Fathers and Teachers, on Purpose to shew that they carry none of the Prejudices of Educa-tion and Authority about them. They indulge all Manner of licentious Opinions and Practices, from a vain Pretence of afferting their Liberty. But alas!

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alas! This is but changing one *Prejudice* for another; and fometimes it happens by this Means, that they make a Sacrifice both of Truth and Virtue to the vile *Prejudices* of their *Pride* and *Senfuality*.

IV. There is another Tribe of *Prejudices* which are near a-kin to those of *Authority*, and that is, when we receive a Detrine because of the *Manner* in which it is proposed to us by others. I have already mentioned the powerful Influence that Oratory and fine Words have to infinuate a falle Opinion, and fometimes Truth is refused, and suffers Contempt in the Lips of a wife Man, for Want of the Charms of Language: But there are several other Manners of Proposals whereby mistaken Sentiments are powerfully conveyed into the Mind.

Some Perfons are cafily perfuaded to believe what another dictates with a *pofuive Air*, and a great Degree of Affurance: They feel the overbearing Force of a confident Dictator, especially if he be of a fuperior Rank or Character to themfelves.

Some are quickly convinced of the Truth of any Doctrine, when he that proposes it puts on all the Airs of Piety, and makes folemn Appeals to Heaven, and Protestations of the Truth of it: The pious Mind of a weaker Christian is ready to receive any thing that is pronounced with such an awful Solemnity.

It is a *Prejudice* near a-kin to this, when a humble Soul is frighted into any particular Sentiments of Religion, because a Man of great Name or Character pronounces *Herefy* upon the contrary Sentiments, cafts the Disbeliever out of the Church, and forbids him the Gates of Heaven.

Others .

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Others are allured into particular Opinions by gentler Practices on the Understanding: Not only the fost Tempers of Mankind, but even hardy and rugged Souls are fometimes led away Captives to Error by the fost Airs of Addrefs, and the fweet and engaging Methods of Persuafion and Kindnes.

I grant, where natural or revealed Religion plainly dictate to us the infinite and everlafting Importance of any facred Doctrine, it cannot be improper to use any of these Methods to perfuade Men to receive and obey the Truth, after we have given fufficient Reafon and Argument to convince their Understandings. Yet all these Methods, confidered in themfelves, have been often used to convey Falshood into the Soul as well as Truth; and if we build our Faith merely upon these Foundations, without Regard to the Evidence of Truth and the Strength of Argument, our Belief is but the Effect of Prejudice : For neither the politive, the awful or folemn, the terrible or the gentle Methods of Address, carry any certain Evidence with them that Truth lies on that Side.

There is another Manner of propofing our own Opinion, or rather opposing the Opinion of others, which demands a Mention here, and that is when Perfons make a Jest ferve instead of an Argument : when they refute what they call an Error by a Turn of Wit, and answer every Objection against their own Sentiments, by cafting a Sneer upon the Objector. These Scoffers practife with Success upon weak and cowardly Spirits: Such as have not been well established in Religion or Morality have been laughed out of the beft Principles by a confident Buffoon; they have yielded up their Opinions to a witty Banter, and fold their Faith and Religion for 11 123 a Jef.

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There is no Way to cure these Evils in such a degenerate World as we live in, but by learning to diftinguish well between the Substance of any Dostrine, and the Manner of Address either in proposing, attacking, or defending it; and then by fetting a just and severe Guard of Reason and Conficience over all the Exercises of our Judgment, resolving to yield to nothing but the convincing Evidence of Truth, religiously obeying the Light of Reason in Matters of pure Reason, and the Dictates of Revelation in Things that relate to our Faitb.

Thus we have taken a brief Survey of fome of the *infinite Varieties* of *Prejudice* that attend Mankind on every Side in the prefent State, and the *Dangers* of *Error* or of *rafb Judgment*, we are perpetually exposed to in this Life: This Chapter fhall conclude with one *Remark*, and one Piece of *Advice*.

The Remark is this, This fame Opinion, whether false or true, may be dictated by many Prejudices at the fame Time; for as I hinted before, Prejudice may happen to dictate Truth fometimes as well as Error. But where two or more Prejudices oppose one another, as it often happens, the ftronger prevails and gains the Affent: Yet how feldom does Reason interpose with fufficient Power to get the Afcendant of them all as it ought to do!

The Advice follows, (viz.) Since we find fuch a fwarm of Prejudices attending us both within and without; fince we feel the Weaknefs of our Reafon, the Frailty of our Natures, and our Infufficiency to guard ourfelves from Error upon this Account, it is not at all unbecoming the Character of a Logician or a Philosopher (together with the Advice already given) to direct every Person in his Search after Truth to make his daily Addreffes to Heaven,

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**Ch. IV.** The right Use of Reason. 231 Heaven, and implore the God of Truth to lead him into all Truth, and to ask Wisdom of him who gives biberally to them that ask it, and upbraideth is not with our own Follies.

Such a devout Practice will be an excellent Preparative for the best Improvement of all the *Di*restions and *Rules* proposed in the two following Chapters.

#### CHAP. IV.

# General Directions to affift us in judging aright.

THE chief Design of the Art of Logick is to affist us in forming a true Judgment of Things; a few proper Observations for this End have been dropt occasionally in some of the foregoing Chapters. Yet it is necessary to mention them again in this Place, that we may have a more complete and simultaneous View of the general Directions, which are necessary in order to judge aright. A Multitude of Advices may be framed for this Purpose; the chief of them may, for Order fake, be reduced to the following Heads.

I. Direct. When we confider ourfelves as Pbilosophers, or Searchers after Truth, we should examine all our old Opinions as fresh, and enquire what was the Ground of them, and whether our Assent were built on just Evidence; and then we should cast off all those Judgments which were formed beretofore without due Examination. A Man in pursuit of Knowledge should throw off all those Prejudices

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dices which he had imbibed in Times paft, and guard against all the Springs of Error mentioned in the preceding Chapter, with the utmost Watchfulness for Time to come.

Observe here, that this Rule of casting away all our former prejudicate Opinions and Sentiments, in not proposed to any of us to be practifed at once, confidered as Men of Bufme (s, or Religion, as Friends or Neighbours, as Fathers or Sons, as Magistrates, Subjects or Christians; but merely as Philosophers and Searchers after, Truth: And though it may be well prefumed that many of our Judgments, both true and falle, together with the Practices built thereon in the natural, the civil and the religious Life, were formed without sufficient Evidence; yet an universal Rejection of all these might deftroy at once our prefent Senfe and Practice of Duty with Regard to God, our felves, and our Fellow-Creatures. Mankind would be hereby thrown into fuch a State of Doubling and Indifference, that it would be too long e'er they recovered any Principles of Virtue or Religion by a Train of Reafonings.

Befides, the common Affairs of human Life often demand a much speedier Determination, and we must many Times act upon present Probabilities: The Bulk of Mankind have not Time and Leifure, and Advantages sufficient to begin all their Knowledge anew, and to build up every single Opinion and Practice as fresh upon the just of Grounds of Evidence.

Yet let it be observed also, that so far as any Person is capable of forming and correcting his Notions and his Rules of Conduct in the natural, civil and religious Life, by the strict Rules of Logick; and so far as he hath Time and Capacity to review his old Opinions, to re-examine all those which which are any Way doubtful, and to determine nothing without juft Evidence, he is likely to become fo much the wifer, and the happier Man, and (if Divine Grace affift him) fo much the better Chriftian. And though this cannot be done all at once, yet it may be done by prudent Steps and Degrees, till our whole Sett of Opinions and Principles be in time corrected and reformed, or at least established upon juster Foundations.

II. Direct. Endeavour that all your Ideas of those Objects, concerning which you pals any Judgment, be clear and distinct, complete, comprehensive, extensive and orderly, as far as you have Occasion to judge concerning them. This is the Substance of the last Chapter of the first Part of Logick. The Rules which direct our Conceptions must be reviewed, if we would form our Judgments aright. But if we will make hafte to judge at all Adventures, while our Ideas are dark and confused, and very imperfest, we shall be in Danger of running into many Mistakes. This is like a Person who would pretend to give the Sum total of a large Account in Arithmetick, without furveying all the Particulars; or as a Painter, who profess to draw a fair and diftinct Landskip in the Twilight, when he can hardly diftinguish a House from a Tree.

Observe here, that this Direction does not require us to gain clear, diffinct, compleat Ideas of Things in all their Parts, Powers, and Qualities in an absolute Sense, for this belongs to God alone, and is impossible for us to attain: But it is expressed in a relative or limited Sense: that is, our Ideas should be clear, diffinct, and comprehensive, &c. at least so far as we have Occasion at that Time to judge concerning them. We may form many true and certain Judgments concerning God, Angels, Animals,

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Animals, Men, Heaven, Hell, &c. by those partial and very imperfect Conceptions of them to which we have attained, if we judge no farther concerning them than our Conceptions reach.

We may have a clear and diftince idea of the Existence of many. Things in Nature, and affirth that they do exist, though our ideas of their Instant Essences and Causes, their Relations and Manner's of Action are very confused and obscure. We have judge well concerning several Properties of any Being, though other Properties are unknown, for perhaps we know not all the Properties of any Being whatfoever.

Sometimes we have clear Ideas of the upplicate Properties of an Object; and we may judge of them with Certainty, while the relative Properties are very obfcure and unknown to us. So we may have a clear and just Idea of the Area of a Pand lelogram, without knowing what Relation is being to the Area of a Triangle or a Polygon. 1 may know the Length of the Diameter of a Circle; with out knowing what Proportion it has to the Circuit ference.

There are other Things, whole external Felation Properties, with respect to each other, or whole Relation to us we know better than their own inward and absolute Properties, or their effentiul diftinguishing Attributes. We perceive clearly that Fire will warm or burn us, and will evaporate Water; and that Water will allay our Thirff, of quench the Fire, though we know not the inward diftinguishing Particles or prime effential Properties of Fire or Water. We may know the King .... Lord Chancellor, and affirm many Things of them in their legal Charafters, though we can have but w confused Idea of their Persons or natural Features, if we have never feen their Faces. So the Scripand the second ÷.,

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ture has revealed God himself to us, as our Creasor, Preserver, Redeemer; and Sansilister, and as the Object of our Worfbip in clearer Ideas than it has revealed many other abstruct Questions which may be railed about his own Divine Essence or Substante; Immensity or Omnipresence.

This therefore is the general Observation in order to guide our Judgments, that we should not allow burselves to form a fudgment concerning Things farther than bur tlear and diffinit Ideas reach, and then we are not in Danger of Error.

But there is one confiderable Objection against this Rule which is necessary to be answered; and there is one just and reasonable *Exception*, which is as needful to be mentioned.

The Objection is this: May we not judge fafely concerning fome total et complete Ideas, when we have a clear Perception only of fome Parts or Properties of them? May we not affirm, that All that is in Ged is eternal, or that all his unknown Attributes are infinite, though we have fo very imperfect an Idea of: God, Eternity and Infinity? Again, May we not fafely judge of particular Objects whole Idea is obfeure by a clear Idea of the general? May I not affirm, that every imknown Species of Animals has inward Springs of Motion, because I have a clear Idea that these inward Springs belong to an Animal in general:

Anfwer. All those supposed unknown Parts Properties or Species, are clearly and diffinctly perceived to be connected with, or contained in the known Parts, Properties: or general Ideas; which we suppose to be clear and diffinct as far as we judge of them: And as we have no particular Idea of those antnown divine Attributes; or unknown Species of Animals; for there is nothing particular affirmed concerning, them beyond what belongs to Q.

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the general Idea of Divine Attributes or Animals, with which I clearly and distinctly perceive them to be connected.

It may be illustrated in this Manner. Suppose a long Chain lies before me, whose nearest Links I fee are Iron Rings, and I see them fastened to a Post near me, but the most distant Links lie beyond the Reach of my Sight, so that I know not whether they are oval or round, Brass or Iron: Now I may boldly affirm the whole Length of this Chain is fastened to the Post, for I have a clear Idea, that the nearest Links are thus fastened, and a clear Idea that the distant Links are connected with the nearest, if I can draw the whole Chain by one Link.

Or thus: If two known Ideas, A and B are evidently joined, or agree, and if C unknown be included in A, and also D unknown be included in B, then I may affirm that C and D are joined and agree: For I have a clear Perception of the Union of the two known Ideas A and B; and also a clear Perception of the Connexion of the unknown Ideas with the known. So that clear and diffined Ideas must ftill abide as a general neceffary Qualification in order to form right Judgments: And indeed it is upon this Foot, that all Ratiocination is built, and the Conclusions are thus formed, which deduce Things unknown from Things known,

Yet it feems to me, that there is one just Limitation or Exception to this general Rule of Judgment, as built on clear and distinct Ideas, and it is this:

Exception. In Matters of mere Testimony, whether burnan or divine, there is not always a Necessity of clear and distinct Ideas of the Things which are believed. Though the Evidence of Propositions, which are entirely Ch. IV. The right Use of Reafon.

entirely formed by ourfelves, depends on the Clearnefs and Diffinctnefs of those Ideas of which they are composed, and on our own clear Perception of their Agreement or Difagreement, yet we may justly affent to Propositions formed by others, when we have neither a very clear Conception in ourfelves of the two Ideas contained in the Words, nor how they agree or difagree; provided always that we have a clear and fufficient Evidence of the Credibility of the Perfons who inform us.

Thus when we read in Scripture the great Doctrines of the Deity of Cbrift, of the Union of the divine and buman Natures in bim, of the divine Agency of the bleffed Spirit, that the Son is the Brightmefs of his Father's Glory, that all Things were created by him, and for him, that the Son fhall give up his Kingdom to the Father, and that God fhall be all in fall, we may fafely believe them: For though our Ideas of these Objects themfelves are not fufficiently clear, diffinct, and perfect, for our own Minds to form these Judgments or Propositions concerning them, yet we have a clear and diffinct Perception of God's revealing them, or that they are contained in Scripture; and this is fufficient Evidence to determine our Affent.

The fame Thing holds true in fome Measure, where credible buman Testimony affures us of fome Propositions, while we have no fufficient Ideas of the Subject and Predicate of them to determine our Affent. So when an honeft and learned Mathematician affures a Ploughman that the three Angles of a Triangle are equal to two right Angles, or that the Square of the Hypotenuse of a right-angled Triangle is equal to the Sum of the Squares of the two Sides; the Ploughman, who has but confused Ideas of these Things, may firmly and fafely believe these Propositions upon the fame Ground, Q 2

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because he has Evidence of the Skill and Faithfulhess of his Informer \*.

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Perhaps fonts may object against this Representation of Things, and fay, that "" we cannot properly be faid to believe a Proposition any farther " than we ourfelves have Ideas under the Terms: Therefore if we have me " Ideas under the Terms, we believe hothing but the Connexion of Works " to Sounds; and if we have but obfers and inadequate Ideas under the " Terms, then we pertly believe a Connexion of Things, and partly a " Consession of Sounds." But that we cannot properly be faid to believe div " Proposition, for our Faith can never go beyond our Ideas." Now to fet this Matter in a clear Light, I fuppole that every Propositions " Terms we for the set of the

Now to fet this Matter in a clear Light, I fuppole that every Proposition which is proposed to my Affant, is a Sentence made up of Terms which have fome Ideas under them known or unknown to me. I confeis, if I believe there are no Ideas at all under the Terms, and there is nothing meant by there are no Ideas at all under the Terms, and there is nothing meant by there, then indead (with Regard to me) it is the mere joining of Soundr : But if (for Inflance) a Ploughman has credible Information from an board and fkilful Mathematician, that an *Ellipfis is made by the Section of a Cone*, he believes the Proposition, or he believes the Sentence is true, as it is made up of Terms which his Informant underflands, though the Ideas be unknown to him : that is, he believes there are fome Ideas which his Informant has under these Words which are really connected. And, I think this may juffly be called believing the Proposition; for it is a Belief of fomething more than the mere joining of Sounds; it is a Belief of the real Connexion of form up Known Ideas belonging to those Sounds, and in this Senfe a Man may be fail to believe the Truth of a Proposition, which he doth not underfland at all.

With more Reason fill may we be faid to believe a Proposition upon credible Tertimony, if we have four Sort of Ideas under the Terms, though they are but partial or indequate, and obscure; i fuch as divine Answers were given by Urim and Thummin i For fince it is purely upon Tellipsony, we believe the known Parts of the Ideas fignified by those Words to be connected, upon the fame Tellimony we may also believe all the unknown Parts of the Ideas ignified by those Words to be connected, (viz.) because our Informant is knowing and faithful. And in this Senfe we may juffly be faid to believe a Proposition of Scripture entirely, which we underfand but very imperfectly, because Cod who reveals it is knowing and faithful in Perfection.

And indeed, unlefs this Repreferation of the Matter be allowed, there are but very few Propositions in the World, even in buman Things, to which we can give an entire Affent, or which we may be faid either to have, or is believe, becaufe there is fearce any Thing on Earth of which we have an adequate, and most perfect Idea. And it is evident that in divine Things there is fearce any Thing which we could either know or believe without this Allowance: For though Reafon and Revelation join to inform me, that Cold is bely, how exceeding inadequate size my Ideas of God, and of his Ha-Hawfs? Yet I may boldly and entirely affent to this whole Proposition, fince I am fure that every known and unknown Idea fignified by the Term God is connected with the Idea of the Term Holings, becaufe Reafon gartly informs me, but efpecially becaufe the Divine Teitimony which has connected dhem, is certainly credible.

I might argue upon this Head perhaps more forcibly from the DoChrine of God's Incomprehensive following. If we could believe nothing but what we have Meas of, it would be impossible for us to believe that God is incomprehensive For this implies in it is Belief; that there are forme unknown Ideas belonging to the Measure of God. Therefore we do both believe and profess that formething III. Direction. When you have obtained as chear and comprehensive Ideas as is needful, both of the Subject and Predicate of a Proposition, then compare those Ideas of the Subjets and Predicate together with the utmost Attention, and observe how far they agree, and wherein they differ : Whether the Proposition may be affirmed Absolutely or Relatively, whether in Whole or in Part, whether Universally or Particularly, and then under what particular Limitations. Turn these Ideas about in your Mind, and take a View of them on all Sides, just as a Mason would do to see whether two hewn Srones exactly fuit each other in every Part, and are

thing concerning unknown Ideas, when we believe and profess that God is incomprehensible. I perioade mydelf that most of those very Perions who object sgainst my

I perfuade myfelf that most of those very Performs who object against my Representation of Things, will yet readily confess, they believe all the Propofitions in Scripture, rather than declare They do not believe foreral of them, though they must acknowledge that leveral of them are far above their Unaderstanding, or that they have fearce any Ideas of the true Sense of them, And therefore where Propositions derived from credible Testimony are made up of dark or inadequate Ideas, I think it is much more proper to fay, We believe them, that the do not believe them, left we cut off a Multitude of the Propositions of the Bible from our Affent of Faith. "Yet let it be observed here, that when we believe a Proposition on mere "Bredieness of mich we have a call we are all to faith the the sense."

"Yet let it be observed here, that when we believe a Proposition on mere Tedimony, of which we have no ldeas at all, we can only be faile to give. a preserval implicit Affent to the Track of that Proposition, without any particular Knowledge of, or explicit Affent to the fossial Track contained in that Proposision : And this our implicit Affent is of very little Use, unless it he to testify our Belief of the Knowledge and Verseity of him that informs us.

As our Ideas of a Proposition are more or lefa clear and adequate, as well as just and proper, fo we do explicitly affent more or lefa to the *particular Trueb* contained in that Proposition. And our Affent hereby becomes more or lefa useful for the Encrease of our Knowledge, or the Direction of our Practice.

When Divine Teflimony plainly proposes to our Faith fuch a Proposition whereof we have but obleure, doubtful and inadequate Ideas, we are bound implicitly to believe the Truth of it, as expressed in thole Terms, in orders to fibew our Submittion to God who revealed it, as a God of parfect Knowledge and Veracity; But it is our Duty to use all proper Methods to obtain a fatther and explicit Knowledge of the particular Trath contained in the Proposition, if we would improve by it either in Knowledge or Virtue. All necettary Rules of Grammar and Critician fhould be employed to find out the very Ideas that belong to thole Words, and which were defigned by the Divise Speaker ar Writer. Though we may believe the Truth of a Proposition which we do not underfland, yet we should emeasure to underfland every Proposition which we believe to be true.

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are fit to be joined in erecting a carved or fluted Pillar.

Compare the whole Subject with the whole Predicate in their feveral Parts: Take heed in this Matter that you neither add to, nor diminish the Idean contained in the Subject or, in the Predicate; stor fuch an Inadvertence or Mistake will expose you to great Error in Judgment.

IV. Direct. Search for Evidence of Truth with Diligence and Honefty, and be beartily ready to receive Evidence, whether for the Agreement or Difagreement of Ideas.

Search with Diligence; fpare no Labour in fearching for the Truth in due Proportion to the Importance of the Proposition. Read the best Authors who have writ on that Subject; confult year wife and learned Friends in Conversation; and be not unwilling to borrow Hints toward your Improvement, from the meanest Person, nor to receive any Climple of Light from the most unlearned. Diligence and Humility is the Way to thrive in the Riches of the Understanding, an well as in Gold or Silver. Search carefully for the Evidence of Truth, and dig for Wildom as for bid Treasure.

Search with a steady Honesty of Soul, and a fincere impartiality to find the Truth. Watch against every Temptation that might bribe your Judgment, or warp it aside from Truth. Do not indulge yourself to wish any unexamined Proposition were true or false. A Wish often perverts the Judgment, and tempts the Mind strangely to be: lieve upon flight Evidence whatsoever we wish to be true or false.

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Since the Evidence of the Agree-V. Direa. ment or Difagreement of two Ideas is the Ground of our Affent to any Proposition, or the great Criterion of Truth; therefore we should faspend our Judgment, and neither affirm nor deny till this Evidence appear.

This Direction is different from the fecend; for though the Evidence of the Agreement or Disagreement of two Ideas most times depends on the Clearnefs and Distinctness of the Ideas them felves, yet it does not always arife thence. Teflimony may be a fufficient Evidence of the Agreement or Dilagreement of two obscure ideas, as we have seen just before in the Exception under the fecond Direction. Therefore, though we are not univerfally and in all Cases bound to fuspend our Judgment till our Ideas of the Objects themselves are clear and diffinel, yev we mult always fufpend our Judgment, and withhold our Affent to, or Denial of any Proposition, till some just Evidence appear of its Truth or Fallbood. It is an Impatience of Doubt and Sufpence, a Rafhnefs and Precipitance of Judgment, and Haftinefs to believe fomething on one fide or the other, that plunges us into many Errors.

This Direction to delay and fuspend our Assent is more particularly neceffary to be observed when fuch Propositions offer themselves to us as are fupported by Education, Authority, Cuftom, Inclination, Interest, or other powerful Prejudices; for our Judgment is led away infenfibly to, believe all that they dictate; and where Prejudices and Dangers of Error are multiplied, we should fet the stricter Guard upon Affent.

Yet remember the Caution or Limitation here which I gave under the first Direction, (viz.) that this is not to be too ftrictly applied to Matters of daily

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daily Pratice, either in human Life or Religion; but when we confider ourfelves as Philafophers, or Searchers after Truth, we should always with-hold our Affent where there is not just Evidence: And as far and as fast as we san in a due Sonfistence with our daily necessary Duties, we should also reform and adjust all our Principles and Brace, tices both in Religion and the civil Life by these Rules.

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VI. Direct We must judge of every Propassion by those proper and peculiar Madiums or Means wherein the Equipper of it is to be abunned, whether it be Sanfe, Confeioufnels, Intelligence, Reason, or Telsinony. All our Faculties and Powers are to be employed in judging of their proper Objects.

If we judge of Sounds, Colours, Odours, Sapars, the Smoathuels, Roughnels, Softwels, or Hardnals of Bodies, it must be done by the Life of our Scafes of But then we must take heed that our Senses are well disposed; as fault be thewn afterward.

And fince our Senfes in their various Exercises are in fome Cafes liable to be deceived, and, more especially when by our Eyes or Ears we judge of the Figure, Quantity, Differice, and Position of Objects that are afar off, we ought to call our Reasons in to the Afflitance of our Senfee, and correct the Errors of one Senfe by the Help of another.

It is by the Powers of Senfe and Reason joined together, that we must judge philosophically of the inward Nature, the secret Properties and Powers, the Caufes and Effests, the Relations and Proportions of a thousand corporeal Objects which furround us on Earth, or are placed at a Distance in the Heavens. If a Man on the one Hand confines himself only to sensible Experiments, and does not exercise. Reason upon them, he may surprise himself. Ch. IV. The right U/e of Reafon.

himfelf and others with strange Appearances, and learn to entertain the World with Sights and Shews, but will/never become a Philosopher: And on the other Hand, if a Man imprifon himfelf in his Clofer, and employ the most exquisite Powers of Realon to find out the Nature of Things in the corporeal World, without the Ufe of his Senfes, and the Practice of Experiments, he will frame to himfelf a Scheme of Chimeras inflead of Hence came the Invention of true Philosophy. substantial Forms and Quelities, of Materia prima and Privation, with all the infignificant Names used by the Peripatetick Writers , and it was for Want of more Experiments that the great Defcartes failed in feveral Parts of his philosophical Writings. . . . . 11

In the abstracted and speculative Parts of the Mathematicks, which treat of Quantity and Number, the Faculty of Reeson must be chiefly employed to perceive the Relation of various Quantities, and draw certain and useful Conclusions; but it wants the Affittance of Sense also to be acquainted with Lines, Angles and Figures. And in prastical Mathematicks our Sense have ftill greater Employment.

If we would judge of the pure Properties, and Attions of the Mind, of the Nature of Spirits, their various Perceptions and Powers, we must not enquire of our Eyes and our Ears, nor the Images or Shapes laid up in the Brain, but we must have Recourse to our own Comfciou/mess of what passes within our own Mind,

If we are to pais a Judgment upon any thing that relates to Spirits in a State of Union with animal Nature, and the mixt Propettics of Sinfation, Fancy, Appetite, Paffion, Pleafure and Pain, which arife thence, we mult confute our own Sinfations, and the other Powers which we find in ourselves confidered as Men or

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or Creatures made up of a Mind and an Animal; and by juft Reafonings deduce proper Confequences, and improve our Knowledge in these Subjects.

If we have Occasion to judge concerning Matters done in pass Ages, or in distant Countries, and where we ourfelves cannot be present, the Powers of Sanje and Reason (for the most part) are not sufficient to inform us, and we must therefore have Recourse to the Testimony of others: And this is either droins or burnan.

In Matters of sucre burney Predence, we shall find the greatest Advantage by making wife Observations on our own Conduct; and the Conduct of others, and a Survey of the Events attending such Conduct. Experience in this Cale is equal to a noteral Sagacity, or rather superior. A Treasure of Gifervations and Experiences collected by wife Men; is of admirable Service here. And perhaps there is nothing in the World of this kind equal to the facred Book of Proverbs, even if we look on it as a mere human Writing.

In Queftions of Natural Religion, we must exercife the Faculty of Reason which God has given us; and fince he has been pleased to afford us bis Work, we should confirm and improve, or correct our Reasonings on this Subject by the Divine Affistance of the Bible.

In Matters of revealed Religion, that is, Chrifianity, Judaism, &c. which we could never have known by the Light of Nature, the Word of Gad is our only Foundation and chief Light; though here our Reason must be used both to find out the true Meaning of God in his Word, and to derive just Inferences from what God has written, as well as to judge of the Credentials whereby divine Testimony is diffinguished from mere buman Testimony, or from Imposture.

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As Divine Revelation can never contradict right Reason, (for they are two great Lights given us by our Creator for our Conduct) so Reason ought by no Means to assume to itself a Power to contradict Divine Revelation.

Though Revelation be not contrary to Reason, yet there are four Classes wherein Matters of Revelation may be faid to rise above, or go beyond our Reason.

1. When Revelation afferts two Things of which we have clear Ideas, to be joined, whole Connenion on Agreement is not discoverable by Reason; as when Scripture informs us that the Dead shall rife, that The Earth shall be burnt up, and the Man Chrift Jefus shall return from Heaven, none of these Things could ever be found out or proved by Reason.

2. When Revelation affirms any Proposition, while Reason has no clear and diffinit Ideas of the Subject, or of the Predicate; as God created all Things by Jesus Christ: By the Urim and Thummim God gave forth divine Oracles. The Predicate of each of these Propositions is to us an obfcure Idea, for we know not what was the peculiar Agency of Jesus Christ when God the Father created the World by him; nor have we any clear and certain Conception what the Urim and Thummim were, nor how God gave Answers to his People by them.

3. When Revelation, in plain and express Language, declares some Dostrine which our Reason at present knows not with Evidence and Certainty how or in what Sense to reconcile to some of its own Principles; as, that the Child Jesus is the mighty God, Isa: ix. 6. which Proposition carries a seeming Opposition to the Unity and Spirituality of the Godbead, which are Principles of Reason.

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4. When two Propositions or Dottrines are plainly afferted by divine Revelation, which our Reason at prefent knows not how or in what Sense with Evidence and Certainty to reconcile with one another; as, The Father is the only true God, John xvii. 3. and yet Chrift is over all, God bleffed for ever. Rom. ix. 5.

Now divine Revelation having declared all these Propositions, Reason is bound to receive them, because it cannot prove them to be utterly inconsistent or impossible, though the Ideas of them may be obscure, though we ourselves see not the rational Connexion of them, and though we know not certainly how to reconcile them. In these Cases Reason must submit to Faith: That is, we are bound to believe what God asserts, and wait till he shall clear up that which seems dark and difficult, and till the Mysses ries of Faith shall be farther explained to us either in this World or in the World to come , and Reason itself dictates this Submission.

VIIth Direct. It is very useful to have fome general Principles of Truth fettled in the Mind, whose Evidence is great and obvious, that they may be ulways ready at hand to affift us in judging of the great Variety of Things which occur. These may be called first Notions, or fundamental Principles; for though many of them are deduced from each other, yet most or all of them may be called Principles when compared with a thousand other Judgments which we form under the Regulation and Influence of these primary Propositions.

Every Art and Science, as well as the Affairs of civil Life and Religion, have peculiar Principles of this Kind belonging to them. There are Metaphylical, Phylical, Mathematical, Political, Oceanomical, Medicinal, Theological, Moral and Prudential

\* See fomething more on this Subject, Direct, II. preced, and Chap. V. Sect. 6.

Ch. IV. The right Use of Reason.

dential Principles of Judgment. It would be too tedious to give a Specimen of them all in this Place. Those, which are of the most universal Use to us both as Men and as Christians, may be found in the following Chapter among the Rules of Judgment about particular Objects.

.: VIIIth Direct. Let the Degrees of your Affent to every Proposition bear an exact Proportion to the different Degrees of Evidence. Remember this is one of the greatest Principles of Wildom that Man can arrive at in this World, and the best human Security against dangerous Mistakes in Speculation or Practice.

The The Nature of Things of which our Knowledge is made up there is infinite Variety in their Degrees of Evidence. And as God hath given our Minds a Power to fulpend their Affent till the Evidence be plain, fo we have a Power to receive Things which are proposed to us with a stronger or weaker Belief in infinite Variety of Degrees proportionable to their Evidence. I believe that the Planets are inhabited, and I believe that the Earth rolls among them yearly round the Sun; but I do not believe both these Propositions with an equal Firmnefs of Affent, because the Arguments for the latter are drawn from mathematical Observations; but the Arguments for the former are but probable Conjettures and moral Reafonings. Yet neither do I believe either of these Propositions to firmly, as I do that the Earth is about twenty-four thousand Miles round, because the mathematical Proof of this is much eafier, plainer and stronger. And yet farther, when I fay that the Earth was created by the Power of God, I have still a more infallible Assurance of this than of all the reft, because Reason and Scripture join to affure me of it. · • •

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IXth Di-

IXth Direst. Keep your Mind always open to receive Truth, and never fet Limits to your own Improvements. Be ready always to hear what may be objected even againft your favourite Opinions, and those which have had longest Possessin of your Assessing there should be any new and uncontroulable Evidence brought against these old or beloved Sentiments, do not wink your Eyes fast against the Light, but part with any Thing for the Sake of Truth: Remember when you overcome an Error you gain Truth; the Victory is on your Side, and the Advantage is all your own.

I confess those grand Principles of Belief and Practice, which univerfally influence our Conduct, both with Regard to this Life and the Life to come. fhould be supposed to be well settled in the first Years of our Studies, fuch as, the Existence and Previdence of God, the Truth of Christianity, the Auther rity of Scripture, the great Rules of Morality, Sc. We should avoid a light fluttering Genius, ever ready to change our Foundations, and to be carried about with every Wind of Doctrine. To guard against which Inconvenience, we fhould labour with earneft Diligence and fervent Prayer, that our most fundamental and important Points of Belief and Practice may be established upon just Grounds of Reafon and Scripture when we come to Years of Difcretion, and fit to judge for ourfelves in fuch important Points. Yet fince it is possible that the Folly or Prejudices of younger Years may have cstablished Persons in some mistaken Sentiments. even in very important Matters, we should always hold ourfelves ready to receive any new Advantage toward the Correction or Improvement even of our established Principles, as well as Opinions of leffer Moment.

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# CHAP. V.

# Special Rules to direct us in judging of particular Objects.

T would be endless to run through all those particular Objects concerning which we have Occasion to pass a Judgment at one Time or another. Things of the most frequent Occurrence, of the widest Extent, and of the greatest Importance, are the Objects and Exercises of Sense, of Reason, and Speculation, the Matters of Morality, Religion, and Prudence, of buman and divine Testimony, together with the Esson of Reasoning upon Things past and future. Special Rules relating to all these will be the Subject of the following Sections.

### SECT. I.

# Principles and Rules of Judgment concerning the Objects of Sense.

THOUGH our Senfes are fometimes liable to be deceived, yet when they are rightly disposed, and fitly exercised about their proper Objess, with the just Affistance of Reasons, they give us sufficient Evidence of Truth.

This may be proved by an Argument drawn from the Wildom, Goodnels, and Faithfulnels of God our Creator. It was He gave us our Senles, and He would not make us of fuch a Conftitution as to be liable to perpetual Deception and unavoidable Error in uting these Faculties of Senle in the best Manner we are capable of, about these very

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very Things which are the proper Objects of them.

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This may be proved also by the ill Confequences that would follow from the Supposition of the constrary. If we could have no Certainty of the Dictates of our Senfes, we could never be fure of any of the common Affairs and Occurrences of Life. Men could not transact any of their civil or moral Concerns with any Certainty or Justice; nor indeed could we eat or drink, walk or move with Safety. Our Senfes direct us in all these.

Again, the Matters of Religion depend in fome Measure upon the Certainty of the Dictates of Senfe; for Faith comes by Hearing; and it is to our Senfe; that God appeals in working Miracles to prove his own Revelation. Now if when our Eyes and Ears, and other Organs of Senfe are rightly disposed and exercised about their proper Objects, they were always liable to be deceived, there could be no Knowledge of the Gospel, no Proof of divine Revelation by Visions, Voices, or Miracles.

Our Senfes will difcover Things near us and round about us, which are necessary for our prefent State with sufficient Exactness, and Things diftant also, so far as they relate to our necessary Use of them.

Nor is there Need of any more accurate Rules for the Use of our Senses in the Judgment of all the common Affairs of Life, or even of miraculous and divine Operations, than the vulgar Part of Mankind are sufficiently acquainted with by Nature, and by their own daily Observations.

But if we would express these Rules in a more exact Manner, bow to judge by the Distates of our Senses, they should be represented thus:

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# Ch. V. S. I. The right Use of Reason. 251

I. We mult take Care that the Organs of our Senfe be rightly disposed, and not under the Power of any Distemper or confiderable Decay; as for Instance, that our Eyes are not tinctured with the Jaundice, when we would judge of Colours, left we pronounce them all yellow: That our Hands are not burning in a Fever; nor benumbed with Fraft or the Pally, when we would judge of the Hear or Coldness of any Object: That our Palate be not vitiated by any Disease, or by some other improper Taste, when we would judge of the true Faste of any Solid or Liquid. This Direction relates to all our Sense, but the following Rules chiefly refer to our Sight.

2. We must observe whether the Objest be at a proper Diffance, for if it be too near or too far off, our Eyes will not fufficiently diftinguish many Things which are properly the Objects of Sight; and therefore (if possible) we must make nearer Approaches to the Object, or remove farther from it, till we have obtained that due Distance which gives us the clearest Perception.

3. We mult not employ our Sight to take a full Survey at once of Objects that are too large for it, but we mult view them by Parts, and then judge of the Whole: Nor mult our Senfes judge of Objects too fmall, for fome Things which appear through Glasses to be really and difficulty existent are either utterly invisible, or greatly confused when we would judge of them by the naked Eye.

4. We mult place ourfelves in fuch a Position toward the Object, or place the Object in fuch a Position toward our Eye, as may give us the cleareft Representation of it; for a different Position greatly alters the Appearance of the Shape of Bodies. And for this Reason we should change the

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**Pofition** both of the Eye and the Object in fome Cafes, that by viewing the Object in feveral Appearances we may pass a more complete and certain Judgment concerning it.

5. We must confider what the Medium is by which Objects are represented to our Senfes; whether it be thinner or thicker; whether it be Air, or Vapour, or Water, or Glass, &c. whether it be duly enlightened or dusky; whether it reflect or refract, or only transmit the Appearance of the Object; and whether it be tinctured with any particular Colour; whether it be moving or at Rest.

6. We must fometimes use other Helps to affift our Senfes; and if we make use of Glasses, we must make all just Allowances for the Thickness or Thinness of them, for the Clearness or Dulness, for the Smoothness or Roughness, for the Plainness, the Convexity or Concavity of them, and for the Diftance at which these Glasses are placed from the Eye, or from the Object, (or from one another, if there be two or more Glasses used) and all this according to the Rules of Art. The fame fort of Caution should be used also in Mediums which affift the Hearing, such as Speaking-Trumpets, Hearing-Trumpets, &c.

7. If the Object may be proposed to more Senfes than one, let us call in the Affistance of some other Senfes to examine it, and this will encrease the Evidence of what one Senfe dictates. Ex. gr. Our Ear may affist our Eye in judging of the Distance of Bodies, which are both visible and sonorous, as an exploded Cannon, or a Cloud charged with Thunder. Our Feeling may affist our Sight in judging of the Kind, the Shape, Situation, or Distance of Bodies that are near at Hand, as whether a Garment be Silk or Stuff, Ec. So if I both jee,

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Ch. V. S. 2. The right Use of Reason. 253 fee. hear, and embrace my Friend, I am sure he is present.

8. We should also make *feveral Trials*, at some distant Times, and in different Circumstances, comparing former Experiments with later, and our own Observations with those of other Persons.

It is by fuch Methods as these that modern Pbilosophy has been so greatly improved by the use of sensible Experiments.

#### SECT. II.

#### Principles and Rules of Judgment in Matters of Reason and Speculation.

**I** T is by *Reafon* we judge both in Matters of Speculation and Prattice; there are peculiar Rules which relate to Things practical, whether they be Matters of *Religion*, Morality, or Prudence, yet many Things in this Section may be applied to prattical Enquiries and Matters of Faitb, though it chiefly relates to Knowledge or Speculations of Reafon.

1. Whatfoever clear Ideas we can join together without Inconfiftency, are to be counted *Polfible*; becaufe Almighty Power can make whatfoever we can conceive.

2. From the mere *Polfibility* of a Thing we cannot infer its *actual Existence*; nor from the *Non-Existence* of it can we infer its *Impolfibility*.

Note, The Idea of God feems to claim an Exemption from this general Rule; for if he be poffible, he certainly exifts, becaufe the very Idea includes *Eternity*, and he cannot begin to be: If he exift not, he is impoffible for the very fame Reafon.

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3. Whatfoever is evidently contained in the Idea of any Thing, may be affirmed of that Thing with Certainty. *Reafon* is contained in the Idea of a Man; and *Existence* is contained in the Idea of *God*; and therefore we may affirm *God exists*, and *Man is reafonable*.

4 It is impossible that the fame Thing should be, and not be at the fame Time, and in the fame Respect. Thence it follows, that two contradictory Ideas cannot be joined in the fame Part of the fame Subject, at the fame Time, and in the fame Respects: Or, that two contradictory Propositions can never be both true.

5. The more we converse with any Subject in its various Properties, the better Knowledge of it we are likely to attain; and by frequent and repeated Enquiries and Experiments, Reasonings and Conversations about it, we confirm our true Judgments of that Thing, and correct our former Mistakes.

6. Yet after our utmost Enquiries, we can never be assured by Reason, that we know all the *Powers* and *Properties* of any *finite Being*.

7. If finite Beings are not adequately known by us, much lefs the Things infinite: For it is of the Nature of a finite Mind not to be able to comprehend what is infinite.

8. We may judge and argue very juftly and cerainly concerning *Infinites*, in fome Parts of them, or fo far as our Ideas reach, though the *Infinity* of them hath fomething incomprehensible in it. And this is built on the general Rule following, viz.

9. Whatfoever is fufficiently clear and evident ought not to be denied, though there are other Things belonging to the fame Subject, which cannot be comprehended. I may affirm many Things with Certainty

# Ch. V. S. 2. The right Use of Reason. 255

Certainty concerning buman Souls, their Union with Bodies, concerning the Divisibility of Matter, and the Attributes of God, though many other Things relating to them are all Darknefs to us.

10. If any Opinion proposed has either no Auguments, or equal Arguments for and against it, we must remain in perfect Suspence about it, till convincing Evidence appear on one fide.

11. Where prefent Necessity of Action does not constrain us to determine, we should not immediately yield up our Affent to mere probable Arguments, without a due Referve, if we have any reasonable Hope of obtaining greater Light and Evidence on one fide or the other: For when the Balance of the Judgment once refigns its Equilibrium or Neutrality to a mere probable Argument, it is too ready to fettle itfelf on that fide, fo that the Mind will not eafily change that Judgment, though bright and ftrong Evidence appear afterwards on the other fide.

12. Of two Opinions, if one has unanswerable Difficulties attending it, we must not reject it immediately, till we examine whether the contrary Opinion has not Difficulties as unanfwerable.

13. If each Opinion has Objections against it which we cannot answer, or reconcile, we should rather embrace that which has the least Difficulties in it, and which has the best Arguments to support it: And let our Affent bear Proportion to the fuperior Evidence.

14. If any Doctrine hath very ftrong and fufficient Light and Evidence to command our Affent, we should not reject it because there is an Objection or two against it which we are not able to answer: For upon this Foot a common Christian would be baffled out of every Article of bis Faith, and must renounce even the Dictates of his Rea-[on 256

fon and bis Senfes; and the most learned Man perhaps would hold but very few of them fast r For fome Objections which attend the facred Doctrine of the *Eternity* and the Omniprefence of God, and the philosophical Doctrines of Light, Atoms, Space, Motion, &c. are hardly folvable to this Day.

15. Where two Extremes are proposed, either in Matters of Speculation or Practice, and neither of them has certain and convincing Evidence, it is generally fafest to take the middle Way. Moderation is more likely to come near the Truth than doubtful Extremes. This is an excellent Rule to judge of the Characters and Value of the greatest Part of Perfons and Things; for Nature feldom deals in Superlatives. It is a good Rule also by which to form our Judgment in many fpeculative Controversies; a reconciling Medium in fuch Cafes does often best fecure Truth as well as Peace.

16. When two different Propositions have each a very firong and cogent Evidence, and do not plainly appear inconfistent, we may believe both of them, though we cannot at prefent fee the Way to reconcile them. *Reason*, as well as our own *Confciousines*, affures us, that the *Will of Man is free*, and that *Multitudes of buman Assistant are in that Respect contingent*; and yet *Reason* and *Scripture* affure us, that *God foreknows them all*, and this implies a *certain Fatality*. Now though learned Men have not to this Day hit on any fo clear and happy Method as is defired to reconcile these Propositions, yet fince we do not fee a plain Inconfistency in them, we justly believe them both, because their Evidence is great.

17. Let us not therefore too fuddenly determine in difficult Matters, that two Things are utterly inconfiguent: For there are many Propositions which may

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may appear inconfiftent at first, and yet afterwards we find their Confistency, and the Way of reconciling them may be made plain and eafy : As alfo there are other Propositions which may appear confistent at first, but after due Examination we find their Inconfiftency.

18. For the fame Reafon we should not call those Difficulties utterly infolvable, or those Objections unanswerable, which we are not prefently able to answer: Time and Diligence may give farther Light.

19. In fhort, if we will fecure ourfelves from Error, we should not be too frequent or hasty in afferting the certain Confiftency or Inconfiftency, the absolute Universality, Necessity, or Impossibility of Things, where there is not the brightest Evidence. He is but a young and raw Philosopher, who when he fees two particular Ideas evidently agree, immediately afferts them to agree universally, to agree necessarily, and that it is impossible it should be otherwise: Or when he fees evidently that two particular Ideas happen to difagree, he prefently afferts their conftant and natural Inconfistency, their utter Impoffibility of Agreement, and calls every thing contrary to his Opinion Absurdity and Nonsense. A true Philosopher will affirm or deny with much Caution or Modesty, unless he has thoroughly examined and found the Evidence of every Part of his Affertion exceeding plain.

20. Let us have a Care of building our Affurance of any important Point of Doctrine upon one fingle Argument, if there are more to be obtained. We should not slight and reject all other Arguments which fupport the fame Doctrine, left if our favourite Argument should be refuted, and fail us, we should be tempted to abandon that important Principle of Truth. I think this was a very culpable R'4

culpable Practice in Defcartes, and fome of his Followers, who when he had found out the Argument for the Existence of God, derived from the Idea of a most perfect and self-existent Being, he feemed to defpife and abandon all other Arguments against Atbeiss.

21. If we happen to have our *chief Arguments* for any *Opinion* refuted, we fhould not immediately give up the *Opinion* itfelf; for perhaps it may be a Truth ftill, and we may find it to be juftly fupported by other Arguments, which we might once think weaker, or perhaps by new Arguments which we knew not before.

22. We ought to effeem that to be fufficient Evidence of a Proposition, where both the Kind and the Force of the Arguments or Proofs are as great as the Nature of the Thing admits, and as the Neceffity or Exigence of the Case requires. So if we have a credible and certain Testimony that Cbrist role from the Dead, it is enough; we are not to expect mathematical or ocular Demonstration for it, at least in our Day.

23. Though we fhould feek what Proofs may be attained of any Proposition, and we should receive any Number of Arguments which are just and evident for the Confirmation of the fame Truth, yet we must not judge of the Truth of any Proposition by the Number of Arguments which are brought to support it, but by the Strength and Weight of them: A Building will stand firmer and longer on four large Pillars of Marble than on ten of Sand, or Earth, or Timber.

24. Yet where certain Evidence is not to be found or expected, a confiderable Number of probable Arguments carry great Weight with them even in Matters of Speculation. That is a probable Hypothefis in Philosophy or in Theology, which goes Ch. V. S. 3. The right Use of Reason. 259 goes farthest toward the Solution of many difficult Questions arising on any Subject.

# SECT. III.

#### Principles and Rules of Judgment in Matters of Morality and Religion.

H ERE it may be proper in the first Place to mention a few Definitions of Words or Terms.

By Matters of *Morality* and *Religion* I mean those Things which relate to our Duty to God, our Selves, or our Fellow-Creatures.

Moral Good, or Virtue, or Holine/s, is an Action or Temper conformable to the Rule of our Duty. Moral Evil, or Vice, or Sin, is an Action or Temper unconformable to the Rule of our Duty, or a Neglect to fulfil it.

Note, The Words Vice or Virtue chiefly imply the Relation of our Actions to Men and this World: Sin and Holinefs rather imply their Relation to God and the other World.

Natural Good is that which gives us Pleasure or Satisfaction. Natural Evil is that which gives us Pain or Grief.

Happinels confifts in the Attainment of the higheft and most lasting natural Good. Milery confists in fuffering the highest and most lasting natural Evil: that is, in short, Heaven or Hell.

Though this be a just Account of perfett Happinefs and perfett Misery, yet wheresoever Pain overbalances Pleasure, there is a Degree of Misery; and wheresoever Pleasure overbalances Pain, there is a Degree of Happines.

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I proceed now to lay down fome Principles and Rules of Judgment in Matters of Morality and Religion.

1. The Will of our Maker, whether difcovered by Reafon or Revelation, carries the higheft Authority with it, and is therefore the *bigbeft Rule of Duty* to intelligent Creatures; a Conformity or Non-conformity to it determines their Actions to be morally good or evil.

2. Whatfoever is really an *immediate* Duty toward ounfelves, or toward our Fellow-Creatures, is more *remotely* a Duty to God; and therefore in the Practice of it we fhould have an Eye to the *Will* of God as our *Rule*, and to his *Glory* as our *End*.

3. Our wife and gracious Creator has closely united our Duty and our Happine/s together; and has connected Sin, or Vice, and Puni/bment; that is, he has ordained that the bigb ft natural Good and Evil fhould have a close Connexion with moral Good and Evil, and that both in the Nature of Things, and by his own politive Appointment.

4. Conficience should feek all due Information in order to determine what is *Duty*, and what is Sin, because *Happines* and *Misery* depend upon it.

5. On this Account our Inclination to prefent temporal Good, and our Aversion to present temporal Evil, must be wisely overbalanced by the Confideration of future and eternal Good or Evil, that is, Happiness or Misery. And for this Reason we should not omit a Duty, or commit a Sin, to gain any temporal Good, or to avoid any temporal Evil.

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# Ch. V. S. 3. The right Use of Reason. 261

6. Though our natural Reason in a State of Innocence might be fufficient to find out those Duties which were neceffary for an innocent Creature, in order to abide in the Favour of his Maker, yet in a fallen State our natural Reason is by no means fufficient to find out all that is neceffary to reftore a finful Creature to the Divine Favour.

7. Therefore God has condeficended in various Ages of Mankind to reveal to finful Men what he requires of them in order to their *Refluration*, and has appointed in his Word fome peculiar Matters of Faith and Practice, in order to their Salvation. This is called *revealed Religion*, as the Things knowable concerning God, and our Duty by the Light of Nature are called *natural Religion*.

There are also many Parts of *Morality*, and *natural Religion*, or many natural Duties relating to God, to ourfelves, and to our Neighbours, which would be exceeding difficult and tedious for the Bulk of Mankind to find out and determine by *natural Reason*; therefore it has pleased God in this facred Book of *Divine Revelation* to express the most necessary Duties of this kind in a very plain and easy Manner, and made them intelligible to Souls of the lowest Capacity; or they may be very easily derived thence by the Use of Reason.

9. As there are fome Duties much more neceffary and more important than others are, fo every Duty requires our Application to understand and practife it in Proportion to its Necessity and Importance.

10. Where two Duties feem to ftand in Oppolition to each other, and we cannot practife both, the *lefs* mult give Way to the greater, and the Omiffion of the lefs is not finful. So ceremo-

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mial Laws give Way to moral: God will have Mercy and not Sacrifice.

11. In Duties of *natural Religion*, we may judge of the different Degrees of their Neceffity and Inportance by *Reason*, according to their greater or more apparent Tendency to the Honour of God and the Good of Men: But in Matters of *revealed* Religion, it is only divine Revelation can certainly inform us what is most neceffary and most important; yet we may be affisted also in that Search by the Exercises of Reason.

12. In Actions wherein there may be *fome Scruple* about the Duty or Lawfulnefs of them, we fhould chufe always the fafeft Side, and abstain as far as we can from the Practice of Things whole Lawfulnefs we fulpect.

13. Points of the greateft Importance in human Life, or in Religion, are generally the most evident, both in the Nature of Things, and in the Word of God; and where Points of Faith or Practice are exceeding difficult to find out, they cannot be exceeding important. This Proposition may be proved by the Goodnefs and Faithfulnefs of God, as well as by Experience and Observation.

14. In fome of the outward Practices and Forms of Religion, as well as human Affairs, there is frequently a prefent Necessity of speedy Action one Way or another: In fuch a Cafe, having furveyed Arguments on both Sides, as far as our Time and Circumstances admit, we must guide our Practice by those Reasons which appear most probable, and feem at that Time to overbalance the reft; yet always referving room to admit farther Light and Evidence, when such Occurrences return again. It is a Preponderation of circumstantial Argu-

Ch. V. S. 4. The right Use of Reason. 263 Arguments that must determine our Actions in a thousand Occurrences.

15. We may also determine upon probable Arguments where the Matter is of *small Consequence*, and would not answer the Trouble of feeking after *Certainty*. Life and Time are more precious than to have a large Share of them laid out in fcrupulous Enquiries, whether *smoaking Tobacco*, or wearing a Periwig be lawful or no.

16. In Affairs of greater Importance, and which may have a long, lasting, and extensive Influence on our future Conduct or Happines, we should not take up with Probabilities, if Certainty may be attained. Where there is any Doubt on the Mind, in fuch Cases we should call in the Affistance of all Manner of Circumstances, Reasons, Motives, Confequences on all Sides: We must wait longer and with earnest Request seek human and divine Advice before we fully determine our Judgment and our Practice, according to the old Roman Sentence, Quod statuendum est semel, deliberandum est diu. We should be long in confidering what we must determine once for all.

## SECT. IV.

# Principles and Rules of Judgment in Matters of buman Prudence.

THE great Defign of *Prudence*, as diftinct from *Morality* and *Religion*, is to determine and manage every Affair with Decency, and to the beft Advantage.

This is decent, which is agreeable to our State, Condition, or Circumstances, whether it be in Behaviour, Difcourse, or Action.

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That is *advantageous* which attains the most and best Purposes, and avoids the most and greatest Inconveniences.

As there is infinite Variety in the Circumstances of Perfons, Things, Attions, Times and Places, fo we must be furnished with such general Rules as are accommodable to all this Variety by a wise Judgment and Discretion: For what is an Act of confummate Prudence in some Times, Places and Circumstances, would be confummate Folly in others. Now these Rules may be ranged in the following Manner.

1. Our Regard to Perfons or Things should be governed by the Degrees of Concernment we have with them, the Relation we have to them, or the Expetiation we have from them. These should be the Measures by which we should proportion our Diligence and Application in any thing that relates to them.

2. We should always confider whether the Thing we pursue be attainable, whether it be worthy our Pursuit; whether it be worthy the Degree of Pursuit; whether it be worthy of the Means used in order to attain it. This Rule is neceffary both in Matters of Knowledge and Matters of Prastice.

3. When the Advantages and Difadvantages, Conveniencies and Inconveniencies of any Action are balanced together, we must finally determine on that Side which has the fuperior Weight; and the fooner in Things which are neceffarily and fpeedily to be done or determined.

4. If Advantages and Difadvantages in their own Nature are equal, then those which are most certain or likely as to the Event should turn the Scale of our Judgment, and determine our Practice.

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### Ch. V. S. 4. The right Use of Reason. 265

5. Where the Improbabilities of Success or Advantage are greater than the Probabilities, it is not Prudence to act or venture, if the Action may be attended with Danger or Loss equal to the proposed Gain. It is proper to enquire whether this be not the Case in almost all Lotteries; for they that hold Stakes will certainly secure Part to themselves; and only the Remainder being divided into Prizes must render the Improbability of Gain to each Adventurer greater than the Probability.

6. We should not despise or neglect any real Advantage, and abandon the Pursuit of it, though we cannot attain all the Advantages that we defire. This would be to act like *Children*, who are fond of something which strikes their Fancy most, and fullen and regardless of every Thing else, if they are not humoured in that Fancy.

7. Though a general Knowledge of Things be ufeful in Science and in human Life, yet we fhould content ourfelves with a more fuperficial Knowledge of those Things which have the least Relation to our chief End and Defign.

8. This Rule holds good alfo in Matters of Bufiness and Prastice, as well as in Matters of Knowledge; and therefore we should not grasp at every Thing, less in the End we attain nothing. Perfons that either by an Inconstancy of Temper, or by a vain Ambition, will purfue every Sort of Art and Science, Study and Business, feldom grow excellent in any one of them: And Projectors who form twenty Schemes feldom use fufficient Application to finish one of them, or make it turn to good Account.

9. Take heed of delaying and trifling amongft the Means inftead of reaching at the End. Take heed of wasting a Life in mere speculative Studies, which is called to Action and Employment: Dwell not 266

Part II.

not too long in *pbilofopbical*, mathematical, or grammatical Parts of Learning, when your chief Defign is Law, Phyfick, or Divinity. Do not fpend the Day in gathering Flowers by the Way Side, left Night come upon you before you arrive at your Journey's End, and then you will not reach it.

10. Where the Cafe and Circumstances of wife and good Men refemble our own Cafe and Circumstances; we may borrow a great deal of Instruction toward our prudent Conduct from their Example, as well as in all Cafes we may learn much from their Conversation and Advice.

11. After all other Rules remember this, that mere Speculation in Matters of buman Prudence can never be a perfect Director without Experience and Observation. We may be content therefore in our younger Years to commit fome unavoidable Mistakes in Point of Prudence, and we shall fee Mistakes enough in the Conduct of others, both which ought to be treasured up among our useful Observations, in order to teach us better Judgment for Time to come. Sometimes the Mistakes, Imprudences and Follies, which ourfelves or others have been guilty of, give us brighter and more effectual Lesson of Prudence, than the wisest Councils, and the fairest Examples could ever have done.

#### SECT. V.

#### Principles and Rules of Judgment in Matters of buman Testimony.

THE Evidence of buman Testimony is not fo proper to lead us into the Knowledge of the Essence and inward Nature of Things, as to acquaint us with the Existence of Things, and to inform

# Ch. V. S. 5. The right Use of Reason. 267

inform us of *Matters of Fast* both paft and prefent. And though there be a great deal of Fallibility in the Testimony of Men, yet there are some Things we may be almost as certain of, as that the Sun *Joines*, or that five Twenties make an Hundred. Who is there at London that knows any Thing of the World, but believes there is such a City as Paris in France; that the Pope dwells at Rome; that Julius Cæsar was an Emperor; or that Luther bad a great Hand in the Reformation?

If we observe the following Rules, we may arrive at such a *Certainty* in many Things of human Testimony, as that it is *morally* impossible we should be deceived, *i. e.* we may obtain a *moral Certainty*.

1. Let us confider whether the Thing reported be in itfelf *poljible*; if not, it can never be *credible*, whofoever relates it.

2. Confider farther whether it be probable, whether there are any concurring Circumstances to prove it, befide the mere Testimony of the Person that relates it. I confess if these last Conditions are wanting the Thing may be true, but then it ought to have the stronger Testimony to support it.

3. Confider whether the Perfon who relates it be capable of knowing the Truth: Whether he be a *fkilful* Judge in fuch Matters, if it be a Bufinefs of Art, or a nice Appearance in Nature, or fome curious Experiment in Philosophy. But if it be a mere Occurrence in Life, a plain, fensible Matter of Fact, it is enough to enquire whether he who relates it were an Eye or Ear-Witnefs, or whether he himself had it only by Hear-fay, or can trace it up to the Original.

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4. Confider whether the Narrator be bonest and faithful, as well as skilful: Whether he hath no Bias upon his Mind, no peculiar Gain or Profit by believing or reporting it, no Interest or Principle which might warp his own Belief aside from Truth, or which might tempt him to prevaricate, to speak falsly, or to give a Representation a little different from the naked Truth of Things. In short, whether there be no Occasion of Suspicion concerning his Report.

5. Confider whether *feveral Perfons agree* together in the Report of this Matter; and if fo, then whether these Perfons who joined together in their Testimony might not be supposed to *combine together in a Falfbood*. Whether they are Perfons of *fufficient Skill*, *Probity* and *Credit*. It might be also enquired, whether they are of different Nations, Sects, Parties, Opinions, or Interests. For the more divided they are in all these, the more likely is their Report to be true, if they agree together in their Account of the fame Thing; and especially if they persist in it without wavering.

6. Confider farther, whether the Report were capable of being eafily refuted at first if it had not been true; if fo, this confirms the Testimony.

7 Enquire yet again, whether there has been a conftant, uniform Tradition and Belief of this Matter from the very first Age or Time when the Thing was transacted, without any reasonable Doubts or Contradictions. Or,

8. If any Part of it hath been doubted by any confiderable Perfons, whether it has been *fearched* out and afterwards confirmed, by having all the Scruples and Doubts removed. In either of these Cafes the Teftimony becomes more firm and credible.

# Ch. V. S. 5. The right Use of Reason. 260

9. Enquire on the other Hand, whether there are any confiderable Objections remaining against the Belief of that Proposition fo attested. Whether there be any Thing very improbable in the Thing itself. Whether any concurrent Circumstances feem to oppose it. Whether any Person or Persons give a positive and plain Testimony against it. Whether they are equally skilful, and equally faithful as those who affert it. Whether there be as many or more in Number, and whether they might have any fecret Biass or Influence on them to contradict it.

10. Sometimes the entire Silence of a Thing may have fomething of Weight towards the Decilion of a doubtful Point of Hiftory, or a Matter of human Faith, (viz.) where the Fact is pretended to be publick, if the Perfons who are filent about it were fkilful to obferve, and could not but know fuch an Occurrence; if they were engaged by Principle or by Intereft to have declared it: If they had fair Opportunity to fpeak of it: And these Things may tend to make the Matter fuspicious, if it be not very well attested by positive Proof.

11. Remember that in fome Reports there are more Marks of Falfbood than of Truth, and in others there are more Marks of Truth than of Falfbood. By a Comparifon of all these Things together, and putting every Argument on one Side and the other into the Balance, we must form as good a Judgment as we can which Side preponderates; and give a strong or feeble Assent or Diffent, or withhold our Judgment entirely, according to greater or less Evidence, according to more plain or dubious Marks of Truth or Falfebood.

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12. Observe that in Matters of human Testimony there is sometimes a great Mixture of Truth and Fallbood in the Report itself: Some Parts of the Story may be perfectly true, and some utterly falls; and some may have such a blended Confusion of Circumstances which are a little warped asside from the Truth, and missepresented, that there is Need of good Skill and Accuracy to form a Judgment concerning them, and determine which Part is true, and which is false. The whole Report is not to be believed, because some Parts are indubitably true, nor the whole to be rejected, because some Parts are as evident Fallboods.

We may draw two remarkable Observations from this Section.

Observ. I. How certain is the Truth of the Christian Religion, and particularly of the Refurrection of Christ, which is a Matter of Fact on "which Christianity is built! We have almost all the concurrent Evidences that can be derived from kuman Teftimony joining to confirm this glorious Truth. The Fact is not impossible; concurrent Circumstances cast a favourable Aspect on it; it was forecold by one, who wrought Miracles, and therefore not unlikely, nor unexpected : The Apostles and first Disciples were Eye and Ear-Witneffes, for they conversed with their rifen Lord: they were the most plain, honest Men in themfelves; the Temptations of worldly Interests did rather discourage their Belief and Report of it: They all agree in this Matter, though they were Men of different Characters; Pharifees and Fiftermen, and Publicans, Men of Judza and Galille, and perhaps fome Heathens, who were early con verted : The Thing might eafily have been di proved if it were false; it hath been conveyed t conftan

**Ch.** V. S. 6. The right Use of Reason. 27I conftant Tradition and Writing down to our Times; those who at first doubted were afterwards convinced by certain Proofs; nor have any pretended to give any Proof of the contrary, but merely denied the Fact with Impudence in Opposition to all these Evidences.

Observ. II. How weak is the Faith which is due to a Multitude of Things in ancient human Hiftory! For though many of these Criteria, or Marks of Credibility are found plainly in the more general and publick Fatts, yet as to a Multitude of particular Fasts and Circumstances, how deficient are they in fuch Evidence as should demand our Assent! Perhaps there is nothing that ever was done in all past Ages, and which was not a publick Fact, fo well attested as the Refurrection of Christ.

# SECT. VI.

#### Principles and Rules of Judgment in Matters of divine Testimony.

A S buman 4 estimony acquaitions of Fast, both past and present, which lie be-S buman Testimony acquaints us with Matters , yond the Reach of our own perfonal Notice; fo divine Teftimony is fuited to inform us both of the Nature of Things, as well as Matters of Fast, and of Things future, as well as present or past.

Whatfoever is dictated to us by God himfelf, or by Men who are divinely inspired, must be believed with full Assurance. Reason demands us to believe whatfoever divine Revelation dictates: For God is perfectly wife, and cannot be deceived; he is faithful and good, and will not deceive his Creatures: And when Reason has found out the certain Marks or Credentials of divine Testimony to belong S 3

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belong to any Proposition, there remains then no farther Enquiry to be made, but only to find out the true Sense and Meaning of that which God has revealed, for *Reason* itself demands the Belief of it.

Now divine Testimony or Revelation requires these following Credentials.

1. That the Propositions or Doctrines revealed be not inconfistent with Reason; for intelligent Creatures can never be bound to believe real Inconfistencies. Therefore we are fure the Popish Doctrine of Transfubstantiation is not a Matter of divine Revelation, because it is contrary to all our Senses and our Reason, even in their proper Exercises.

God can dictate nothing but what is worthy of himfelf, and agreeable to his own Nature and divine Perfections. Now many of these Perfections are discoverable by the Light of Reason, and whatfoever is inconsistent with these Perfections, cannot be a *divine Revelation*.

But let it be noted, that in Matters of Prasitie towards our Fellow-Creatures, God may command us to act in a Manner contrary to what Reafon would direct antecedent to that Command, So Abraham was commanded to offer up bis Son a Sacrifice : The Ifraelites were ordered to borrow of the Egyptians without paying them, and to plunder and flay the Inhabitants of Canaan : Becaufe God has a fovercign Right to all Things, and can with Equity disposses his Creatures of Life, and every Thing which he has given them, and efpecially fuch finful Creatures as Mankind; and he can appoint whom he pleafes to be the Inftruments of this just Dispossession or Depriva-So that these divine Commands are not tion. really inconfistent with right Realon; for whatfoever

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Ch. V. S. 6. The right Use of Reason. 273

is fo cannot be believed where that *Inconfiftency* appears.

2. Upon the fame Account the *volole Dostrine of Revelation* mult be *confiftent with welf*; every Part of it mult be confiftent with each other: And though in Points of *Prastice* latter Revelation may repeal or cancel former divine Laws, yet in Matters of *Belief* no latter Revelation can be inconfiftent with what has been heretofore revealed.

3. Divine Revelation must be confirmed by fome divine and fupernatural Appearances, fome extraordinary Signs or Tokens, Visions, Voices, or Miracles wrought, or Prophecies fulfilled. There must be fome Demonstrations of the Prefence and Power of God, superior to all the Powers of Nature, or the fettled Connexion which God as Creator has established among his Creatures in this visible World.

4. If there are any fuch extraordinary and wonderful Appearances and Operations brought to conteft with, or to oppofe divine Revelation, there muft and always will be fuch a Superiority on the Side of that Revelation which is truly divine, as to manifeft that God is there. This was the Cafe when the Egyptian Sorcerers contended with Moles. But the Wonders which Moles wrought did fo far transcend the Power of the Magicians, as made them confefs It was the Finger of God.

5. These divine Appearances or Attestations to Revelation must be either known to ourselves, by our own personal Observation of them, or they must be sufficiently attested by others, according to the Principles and Rules by which Matters of buman Faith are to be judged in the foregoing Section.

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Some of thofe, who lived in the Nations and Ages where Miracles were wrought, were Eye and Ear-Witneffes of the Truth and Divinity of the Revelation; but we, who live in these distant Ages must have them derived down to us by just and incontestable History and Tradition. We also even in these distant Times may see the Accomplishments of some ancient Predictions, and thereby obtain that Advantage toward the Confirmation of our Faith in divine Revelation beyond what those Perfons enjoyed who lived when the Predictions were pronounced.

6. There is another very confiderable Confirmation of divine Testimony; and that is, when the Doctrines themselves either on the Publication or the Belief of them produce supernatural Effects. Such were the miraculous Powers which were communicated to Believers in the first Ages of Christianity, the Conversion of Jews or Gentiles, the amazing Success of the Gospel of Christ without human Aid, and in Opposition to a thousand Impediments, its Power in changing the Hearts and Lives of ignorant and vicious Heathens, and wicked and profane Creatures in all Nations, and filling them with a Spirit of Virtue, Piety and Goodneis. Wherefoever Perfons have found this Effect in their own Hearts, wrought by a Belief of the Gofpel of Cbrift, they have a Witness in themselves of the Truth of it, and abundant Reason to believe it divine.

Of the Difference between Reason and Revelation, and in what Sense the latter is superior, see more in Chap. II. Set. 9. and Chap. IV. Direct. 6.

#### SECT.

#### SECT. VII.

Principles and Rules of judging, concerning Things past, present, and to come, by the mere Use of Reason.

T HOUGH we attain the greateft Affurance of Things pass and future by divine Faith, and learn many Matters of Fact, both pass and present, by buman Faith, yet Reason also may in a good Degree affist us to judge of Matters of Fact both pass, present, and to come, by the following Principles.

1. There is a System of Beings round about us, of which we our felves are a Part, which we call the World; and in this World there is a Course of Nature, or a settled Order of Causes, Effects, Antecedents, Concomitants, Consequences, &c. from which the Author of Nature doth not vary but upon very important Occasions.

2. Where Antecedents, Concomitants, and Confequents, Causes and Effects, Signs and Things fignified, Subjects and Adjuncts, are necessarily connected with each other, we may infer the Caufes from the Effects, and Effects from Caules, the Antecedents from the Confequents, as well as Confequents from Antecedents, &c. and thereby be pretty certain of many Things both paft, prefent, and to come. It is by this Principle that Afronomers can tell what Day and Hour the Sun and Moon while eclipfed five bundred Years ago, and predict all future Eclipses as long as the World shall stand. They can tell precifely at what Minute the Sun rifes or fets this Day at Pequin in China, or what Altitude the Dog-star had at Midnight or Midnoon in Rome, on the Day when Julius Cæsar was flain. Gardeners

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Gardeners upon the fame Principle can foretel the Months when every Plant will be in Bloom, and the Ploughman knows the Weeks of Harvest: We are fure, if there be a Chicken, there was an Egg: If there be a Rainbow, we are certain it rains not far off: If we behold a Tree growing on the Earth, we know it has naturally a Root under Ground.

3. Where there is a neceffary Connexion between Caufes and Effetts, Antecedents and Confequents, Signs and Things fignified, we know also that like Caufes will have like Effects, and proportionable Caufes will have proportionable Effects; contrary Caufes will have contrary Effects; and observing Men may form many Judgments by the Rules of Similitude and Proportion, where the Caufes, Effects, Ec. are not entirely the fame.

4. Where there is but a probable and uncertain Connexion between Antecedents, Concomitants and Confequents, we can give but a Conjecture, or a probable Determination. If the Clouds gather, or the Weather-glass finks, we fuppofe it will rain: If a Man spit Blood frequently with Coughing, we fuppofe his Lungs are hurt: If very dangerous Symptoms appear, we expect his Death.

5. Where Caufes operate freely, with a Liberty of Indifference to this or the contrary, there we cannot certainly know what the Effect will be: For it feems to be contingent, and the certain Knowledge of it belongs only to God. This is the Cafe in the greateft Part of human Actions.

6. Yet wife Men by a just Observation of human Nature, will give very probable Conjectures in this Matter, also concerning Things past, or Things future, because human Nature in all Ages and Nations has such a Conformity to itself. By a Knowledge of the Tempers of Men and their present Circumstances, we may be able to give a happy

# Ch. V. S. 7. The right Use of Reason.

happy Guels what their Conduct will be, and what will be the Event, by an Observation of the like Cales in former Times. This made the Emperor Marcus Antoninus to fay, "By looking butk into "History, and confidering the Fale and Revolutions of Governments, you will be able to form a Guels, and almost prophety upon the future. For Thinks past, prefent, and to come, are firdingely uniform, and of a Colour, and are commonly tast in the fame Mould. So that upon the Mutter, forty Tears of buman Life may ferve for a Sample of ten thouland." Collier's Antoninus, Book VII. Sect. 50.

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7. There are also fome other Principles of judging concerning the past Actions of Men in former Ages, befides Books, Histories and Traditions, which are the Mediums of conveying human Teftimony; as we may infer the Skill and Magnificence of the Ancients, by fome Fragments of their Statues, and Ruins of their Buildings. We know what Roman Legions came into Great Britain by Numbers of Bricks dug out of the Earth in fome Parts of the Illand, with the Marks of fome particular Legion upon them, which must have been employed there in Brick-making. We rectify fome Miftakes in History by Statues, Coins, old Altars, Utenfils of War, &c. We confirm or disprove some pretended Traditions and historical Writings, by Medals, Images, Pittures, Urns, &c.

Thus I have gone through all those particular Objects of our Judgment which I first proposed, and have laid down Principles and Rules by which we may fafely conduct ourselves therein. There is a Variety of other Objects concerning which we are occasionally called to pass a Judgment, (viz.) The Characters of Persons, the Value and Worth of Things, the Sense and Meaning of particular Writers, Matters

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Matters of Wit, Oratory, Poely, Matters of Equity in judicial Courts, Matters of Traffick and Commerce between Man and Man, which would be endlefs to enumerate. But if the general and fpecial Rules of Judgment which have been mentioned in these two last Chapters are treasured up in the Mind, and wrought into the very Temper of our Souls in our younger Years, they will lay a Foundation for just and regular Judgment concerning a thousand special Occurrences in the religious civil and learned Life.

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# THIRD PART

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# Of Reason and Syllogism.

A S the first Work of the Mind is Perception, whereby our Ideas are framed, and the second is Judgment, which joins or disjoins our Ideas, and forms a Proposition, so the third Operation of the Mind is Reasoning, which joins several Propositions together, and makes a Syllogism, that is, an Argument whereby we are wont to infer something that is less known, from Truths which are more evident.

In treating of this Subject, let us confider more particularly.

1. The Nature of a Syllogifm, and the Parts of which it is composed.

2. The several Kinds of Syllogisms, with particular Rules relating to them.

3. The

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3. The Doctrine of Sophifms, or falle Reasoning, together with the Means of avoiding them, and the Manner of folving or answering them.

4. Some general Rules to direct our Reasoning.

# CHAP. I.

# Of the Nature of a Syllogism, and the Parts of which it is composed.

F the mere *Perception* and *Comparifon* of two Ideas would always fhew us whether they agree or difagree; then all rational Propositions would be Matters of Intelligence, or first Principles, and there would be no Ufe of Reasoning, or drawing any Confequences. It is the Narrownefs of the human Mind which introduces the Neceffity of Reasoning. When we are, unable to judge of the Truth or Falshood of a Proposition in an immediate Manner, by the mere Contemplation of its Subject and Predicate, we are then conftrained to use a Medium, and to compare each of them with fome third Idea, that by feeing how far they agree or difagree with it, we may be able to judge how far they agree or difagree among themfelves : As if there are two Lines A and B, and I know not whether they are equal or no, I take a third Line C, or an Inch, and apply it to each of them; if it agree with them both, then I infer that A and Bare equal; but if it agree with one and not with the other, then I conclude A and B are unequal: If it agree with neither of them, there can be no Comparison.

So

#### Ch. I. The right Use of Reason.

So if the Question be whether God must be worshipped, we seek a third Idea, suppose the Idea of a Creator, and fay,

Our Creator must be worshipped.

God is our Creator.

Therefore God must be worshipped.

The Comparison of this *third Idea*, with the two diffinct Parts of the Question, usually requires two Propositions which are called the *Premises*: The third Proposition which is drawn from them is the *Conclusion*, wherein the *Question* itself is answered, and the Subject and Predicate joined either in the *Negative* or the *Affirmative*.

The Foundation of all Affirmative Conclusions is laid in this general Truth, that fo far as two proposed Ideas agree to any third Idea, they agree also among themselves. The Character of Creator agrees to God, and Worfbip agrees to a Creator, therefore Worfbip agrees to God.

The Foundations of all Negative Conclusions is this, that where one of the two proposed Ideas agrees with the third Idea, and the other difagrees with it, they must needs difagree fo far also with one another; as, if no Sinners are bappy, and if Angels are bappy, then Angels are not Sinners.

Thus it appears what is the ftrict and juft Notion of a Syllogifm: It is a Sentence or Argument made up of three Propositions fo disposed, as that the last is necessarily inferred from those which go before, as in the Instances which have been just mentioned.

In the Constitution of a Syllogism two Things may be confidered, (viz.) the Matter and the Form of it.

The Matter of which a Syllogifm is made up, is three Propositions; and these three Propositions are made up of three Ideas or Terms variously joined. The The three Terms are called the remote Matter of a Syllogifm; and the three Propositions the proxime of immediate Matter of it.

The three Terms are named the Major, the Misnor, and the Middle.

The Predicate of the Conclusion is called the major Term because it is generally of a larger Extension than the minor Term, or the Subject. The major and minor Terms are called the Extremes.

The middle Term is the third Idea invented and difposed in two Propositions in such a Manner as to shew the Connexion between the major and minor Term in the Conclusion; for which Reason the middle Term itself is sometimes called the Argument.

That Proposition which contains the Predicate of the Conclusion, connected with the middle Term, is usually called the *major Proposition*, whereas the *minor Proposition* connects the middle Term with the Subject of the Conclusion, and is fometimes called the Affumption.

Note, this exact Diffinction of the feveral Parts of a Syllogifm, and of the major and minor Terms connected with the middle Term, in the major and minor Propositions, does chiefly belong to *fimple* or *categorical Syllogifms*, of which we shall speak in the next Chapter, though all Syllogifms what foever have fomething analogical to it.

Note farther, that the major Propolition is generally placed first, and the minor second, and the Conclusion in the last Place, where the Syllogism is regularly composed and represented.

The Form of a Syllogism is the framing and difpoling of the Premifes according to Art, or just Principles of Reasoning, and the regular Inference of the Conclusion from them.

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The All of Reafoning, or inferring one Thing from another, is generally expressed and known by the Particle Therefore, when the Argument is formed according to the Rules of Art; though in common Discourse or Writing, such causal Particles as For, Because, manifest the Act of Reasoning as well as the illative Particles Then and Therefore: And wherefoever any of these Words are used, there is a perfect Syllogism expressed or implied, though perhaps the three Propositions do not appear, or are not placed in regular Form.

#### CHAP. II.

#### Of the various Kinds of Syllogifms, with paraticular Rules relating to them.

SYLLOGISMS are divided into various Kinds, either according to the *Queftion* which is proved by them, according to the *Nature* and *Composition* of them, or according to the *middle Term*, which is used to prove the Quettion.

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#### Of universal and particular Syllogisms, both negative and affirmative.

A CCORDING to the Question which is to be proved, so Syllogisms are divided into universal Affirmative, universal Negative, particular Affirmative, and particular Negative. This is often called a Division of Syllogisms drawn from the T Cenelusion 5

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Conclusion; for for many Sorts of Conclusions there may be which are marked with the Letter A,  $E_{i}$ , I, O.

In an universal affirmative Syllogism, one Idea is proved universally to agree with another, and may be universally affirmed of it, as every Sin deserva Death, every unlawful Wish is a Sin; therefore every unlawful Wish deserves Death.

In an universal negative Syllogism, one Idea is proved to difagree with another Idea universally, and may be thus denied of it, as no Injustice can be pleasing to God; all Persecution for the sake of Conscience is Injustice; therefore no Persecution for Conscience Sake can be pleasing to God.

Particular affirmative, and particular negative Syllogisms may be easily understood by what is faid of Universals, and there will be fufficient Examples given of all these in the next Section.

The general Principle upon which these universal and particular Syllogisms are founded is this, Whatfoever is affirmed or denied universally of any Idea, may be affirmed or denied of all the particular Kinds or Beings, which are contained in the Extension of that universal Idea. So the Desers of Death is affirmed universally of Sin, and an unlawful Wish is one particular Kind of Sin, which is contained in the universal Idea of Sin, therefore the Desert of Death may be affirmed concerning an unlawful Wish. And so of the rest.

Note, In the Doctrine of Syllogifms, a fingular and an *indefinite* Proposition are ranked among Universals, as was before observed in the Doctrine of Propositions.

SECT.

#### SECT. II.

#### Of plain, fimple Syllogisms, and their Rules.

THE next Division of Syllogisms is into fingle and compound. This is drawn from the Nature and Composition of them.

Single Syllogifms are made up of three Propositions: Compound Syllogifms contain more than three Propositions, and may be formed into two of more Syllogifms.

Single Syllogisms, for Distinction's Sake, may be divided into \* Simple, Complex, and Conjunctive.

Those are properly called *fimple* or categorical Syllogifms, which are made up of three plain fingle, or categorical Propositions, wherein the middle Term is evidently and regularly joined with one Part of the Question in the major Proposition, and with the other in the minor, whence there follows a plain fingle Conclusion; as, every buman Virtue is to be fought with Diligence: Prudence is a buman Virtue; therefore Prudence is to be fought diligently.

Note, Though the Terms of Propositions may be complex; yet where the Composition of the whole Argument is thus plain, fimple, and regular, it is properly called a fimple Syllogifm, fince the Complexion does not belong to the fyllogistic Form of it.

Simple Syllogifms have feveral Rales belonging to them, which being obferved, will generally fecure us from falfe Inferences: But these Rales being T 2 founded

• As Ideas and Propositions are divided into *fingle* and *compound*, and *fingle* are fubdivided into *fimple* and *complex*; to there are the fame Divisions and Subdivisions applied to Syllogisms.

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founded on four general Axioms, it is neceffary to mention these Axioms beforehand, for the Use of those who will enter into the speculative Reason of all these Rules.

Axiom 1. Particular Propositions are contained in Universals, and may be inferred from them; but Universals are not contained in Particulars, nor can be inferred from them.

Axiom 2. In all universal Propositions, the Subject is universal : In all particular Propositions, the Subject is particular.

Axiom 3. In all affirmative Propositions, the Predicate has no greater Extension than the Subject; for its Extension is restrained by the Subject, and therefore it is always to be esteemed as a particular Idea. It is by mere Accident, if it ever be taken univerfally, and cannot happen but in such universal or singular Propositions as are reciprocal.

Axiom 4. The Predicate of a negative Proposition is always taken univerfally, for in its whole Extension it is denied of the Subject. If we fay no Stone is vegetable, we deny all Sorts of Vegetation concerning Stones.

# The Rules of *fimple*, regular Syllogifms are thefe.

Rule I. The middle Term must not be taken twice particularly, but once at least universally. For if the middle Term be taken for two different Parts or Kinds of the fame universal Idea, then the Subject of the Conclusion is compared with one of these Parts, and the Predicate with another Part, and this will never shew whether that Subject and 'Predicate agree or difagree: There will then be four

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four distinct Terms in the Syllogism, and the two Parts of the Question will not be compared with the fame third Idea; as if I fay, fome Men are pious, and some Men are Robbers, I can never infer that fome Robbers are pious, for the middle Term Men being taken twice particularly, it is not the fame Men who are spoken of in the major and minor Proposition.

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Rule II. The Terms in the Conclusion must never be taken more universally than they are in the Premises. The Reason is derived from the first Axiom, that Generals can never be inferred from Particulars.

Rule III. A negative Conclusion cannot be proved by Ywo affirmative Premises. For when the two Terms of the Conclusion are united or agree to the middle Term, it does not follow by any Means that they difagree with one another.

Rule IV. If one of the Premises be negative, the Conclusion must be negative. For if the middle Term be denied of either Part of the Conclusion, it may thew that the Terms of the Conclusion difagree, but it can never shew that they agree.

Rule V. If either of the Premises be particular, the Conclusion must be particular. This may be proved for the most part from the first Axiom.

These two last Rules are sometimes united in this fingle Sentence, The Conclusion always follows the weaker Part of the Premises. Now Negatives and Particulars are counted inferior to Affirmatives and Universals.

Rule VI. From two negative Premifes nothing can For they separate the middle Term. be concluded. T 3 porp

both from the Subject and Predicate of the Conclusion, and when two Ideas difagree to a third, we cannot infer that they either agree or difagree with each other.

Yet where the Negation is a Part of the middle Term, the two Premifes may look like Negatives, according to the Words, but one of them is affirmative in Senfe; as, What has no Thought cannot reason; but a Worm has no Thought; therefore a Worm cannot reason The minor Proposition does really affirm the middle Term concerning the Subject, (viz.) a Worm is what has no Thought, and thus it is properly in this Syllogism an affirmative Proposition.

Rule VII. From two particular Premises nothing tan be concluded. This Rule depends chiefly on the first Axiom.

A more laborious and accurate Proof of these Rules, and the Derivation of every Part of them in all poffible Cafes, from the foregoing Axloms, require fo much Time, and are of fo little Importance to affift the right Ufe of Reason, that it is needless to infift longer upon them here. See all this done ingeniously in the Logick called, the Art of Thinking, Part III. Chap. III. &cc.

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#### SECT. III.

#### Of the Moods and Figures of simple Syllogisms.

SIMPLE Syllogisms are adorned and furrounded in the common Books of Logick with a Variety. of Inventions about Moods and Figures, wherein by the artificial Contexture of the Letters A, E, I, and O, Men have endeavoured to transform Logick, or the Art of Reasoning, into a fort of Mechanifm, and to teach Boys to fyllogize, or frame Arguments and refute them, without any real inward Knowledge of the Question. This is almost in the fame Manner as School-boys have been taught perhaps in their trifling Years to compole Latin Verses; i. e. by certain Tables and Squares, with a Variety of Letters in them, wherein by counting every fixth, feventh, or eighth Letter, certain Latin Words should be framed in the Form of Hexameters or Pentameters; and this may be done by those who know nothing of Latin or of Verles.

I confefs fome of these logical Subtilities have much more Use than those versitying Tables, and there is much Ingenuity discovered in determining the precise Number of Syllogisms that may be formed in every Figure, and giving the Reasons of them; yet the Light of Nature, a good Judgment, and due Consideration of Things, tend more to true Reasoning than all the Trappings of Moods and Figures.

But left this Book be charged with too great Defects and Imperfections, it may be proper to give thort Hints of that which fome *Logicians* have spent fo much Time and Paper upon.

All

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All the possible Compositions of three of the Letters, A, E, I, O, to make three Propositions amount to fixty four; but fifty four of them are excluded from forming true Syllogisms by the feven Rules in the foregoing Section: The remaining Ten are variously diversified by Figures and Moods into fourteen Syllogisms.

The Figure of a Syllogism is the proper Difpofition of the middle Term with the Parts of the Queftion.

A Mood is the regular Determination of Propolitions according to their Quantity and Quality, *i. e.* their universal or particular Affirmation or Negation; which are fignified by certain artificial Words wherein the Confonants are neglected, and these four Vowels A, E, I, O, are only regarded.

There are generally counted three Figures.

In the first of them the middle Term is the Subject of the major Proposition, and the Predicate of the minor. This contains four Moods, (viz.) Barbara, Celarent, Darii, Ferio. And it is the Excellency of this Figure that all Sorts of Queftions or Conclusions may be proved by it, whether A, E, I, or O, i. e. universal or particular, affirmative or negative, as,

Bar- Every wicked Man is truly miferable.

ba- All Tyrants are wicked Men;

ra. Therefore all Tyrants are truly miserable.

Ce- He that's always in Fear is not happy;

la- Covetous Men are always in Fear;

rent. Therefore Covetous Men are not happy.

Dai

#### Ch. II. S. 3. The right Use of Reason. 201

- Da. Whatfoever furthers our Salvation is good for us;
  - ri- Some Afflictions further our Salvation;
    - i. Therefore fome Afflictions are good for us.
- Fe- Nothing that must be repented of is truly defirable;
- ri- Some Pleasures must be repented of;
- o. Therefore there are fome Pleasures which are not truly defirable.

In the *fecond* Figure the middle Term is the Predicate of both the Premises; this contains four Moods, (viz.) Cefare, Cameftres, Festino, Baroco, and it admits only of negative Conclusions; as,

.:

Ce- No Liar is fit to be believed;

fa- Every good Christian is fit to be believed;

re. Therefore no good Christian is a Liar.

The Reader may eafily form Examples of the reft.

The third Figure requires that the middle Term be the Subject of both the Premises. It has fix Moods, (viz.) Darapti, Felapton, Difamis, Datifi, Boeardo, Ferifon: And it admits only of particular Conclusions; as,

Da- Whofoever loves God fhall be faved ;

- rap- All the Lovers of God have their Imperfections :
  - ti. Therefore fome who have Imperfections fhall be faved.

I leave the Reader to form Examples of the reft. 1.11

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The Moods of these three Figures are comprized in four Latin Verses.

Barbara, Celarent, Darii, Ferio quoque primæ; Cefare, Cameftres, Festino, Baroco, secundæ. Tertia Darapti sibi vindicat, atque Felapton, Adjungens Disamis, Datis, Bocardo, Ferison.

The special Rules of the three Figures are thefe.

In the *firft Figure* the major Proposition must always be universal, and the minor affirmative.

. In the *fecond Figure* also the major must be universal, and one of the Premises, together with the Conclusion, must be negative.

In the *third Figure* the minor must be affirmstive, and the Conclusion always particular.

There is also a *fourth Figure*, wherein the middle Term is predicated in the major Proposition, and fubjected in the minor: But this is a very indirect and oblique Manner of concluding, and is never used in the Sciences, nor in human Life, and therefore I call it usels. —— Some Logicians will allow it to be nothing elfe but a mere Inversion of the first Figure; the Moods of it, (viz.) Baralipton, or Barbari, Calentes, Dibatis, Fespamo, Fression, are not worthy to be explained by one Example.

#### SECT: IV.

#### Of Complex Syllogifms.

I T is not the mere Use of complex Terms in a Syllogism that gives it this Name, though one of the Terms is usually complex; but those are properly called complex Syllogisms, in which the middle Term is not connected with the whole Subject,

### Ch. H. S. 4. The right Use of Reason. 203

Subject, or the whole Prodicate in two diffinct Propositions, but is intermingled and compared with them by Parts, or in a more confused Manper, in different Forms of Speech; us,

The Sun is a senseles Being ;

The Perlians worfbipped the Sun;

Therefore the Persians worshipped a senseles Being.

Here the Predicate of the Conclusion is, wor *hipped a fenfelefs Being*, part of which is joined with the middle Term Sun in the major Proposition, and the other part in the minor.

Though this fort of Argument is confeffed to be entangled, or confuled, and irregular, if examined by the Rules of fimple Syllogifus; yet there is a great Variety of Arguments used in Books of Learning, and in common Life, whose Confequence is strong and evident, and which must be ranked under this Head; as,

I. Exclusive Propositions will form a complex Argument; as, pious Men are the only Favourites of Heaven; true Christians are Favourites of Heaven; therefore true Christians are pious Men. Or thus, Hypocrites are not pious Men; therefore Hypocrites are no Favourites of Heaven.

II. Exceptive Propositions will make such complex Syllogisms; as, Nane but Physicians came to the Confultation; the Nurse is no Physician; therefore the Nurse came not to the Consultation.

III. Or, Comparative Propositions; as, Knowledge is better than Riches; Virtue is better ihan Knowledge; therefore Virtue is better than Riches. Or thus, a Dove will fly a Mile in a Minute; a Swallow 294 LOGICK: Or, Part III.' Swallow flies furifier than a Dove: Therefore a Swallow will fy more than a Mile in a Minute.

IV. Or Inceptive and Defitive Propositions; as; the Fogs vanish as the Sun rises; but the Fogs have not yet begun to vanish; therefore the Sun is not yet risen.

V. Or Modal Propositions; as, It is necessary that a General understand the Art of War; but Caius does not understand the Art of War; therefore it is necessary Caius should not be a General, Or thus, A total Eclipse of the Sun would cause Darkness at Noon; it is possible that the Moon at that Time may totally eclipse the Sun; therefore it is possible that the Moon may cause Darkness at Noon.

Befide all thefe, there is a great Number of complex Syllogifms which can hardly be reduced under any particular Titles, because the Forms of human Language are fo exceeding various; as,

Christianity requires us to believe what the Apostles wrote; St. Paul is an Apostle; therefore Christianity requires us to believe what St. Paul wrote.

No buman Artift can make an Animal; a Fly or a Worm is an Animal; therefore no buman Artift can make a Fly or a Worm.

The Father always lived in London; the Son always lived with the Father; therefore the Son always lived in London.

The Blosson follows the full Bud; this Pear-Tree bath many full Buds; therefore it will shortly bave many Blossons.

One Hailstone never falls alone; but a Hailstone fell just now; therefore others fell with it.

Thunder

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Thunder feldom comes without Lightning; but it thundered Yesterday; therefore probably it lightened also.

Moles wrote before the Trojan War; the first Greek Historians wrote after the Trojan War; therefore the first Greek Historians wrote after Moles •.

Now the Force of all these Arguments is so evident and conclusive, that though the Form of the Syllogism be never so irregular, yet we are fure the Inferences are just and true; for the Premises, according to the Reason of Things, do really contain the Conclusion that is deduced from them, which is a never failing Test of true Syllogism, as shall be shewn hereafter.

The Truth of most of these complex Syllogifms may also be made to appear (if needful) by reducing them either to regular, fimple Syllogifms, or to fome of the conjunctive Syllogifms, which are described in the next Section. I will give an Instance only in the first, and leave the rest to exercise the Ingenuity of the Reader.

The first Argument may be reduced to a Syllogifm in Barbara, thus,

The Sun is a fenfeles Being;

What the Persians worshipped is the Sun;

Therefore what the Persians worshipped is a Senseless Being. Though the conclusive Force of this Argument is evident without this Reduction.

• Perhaps fome of these Syllogisms may be reduced to those which I call Connexive afterward; but it is of little Moment to what Species they belong; for it is not any formal Set of Rules fo much as the Evidence and These of Reason that must determine the Truth or Fatthood of all such Syllogism.

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#### SECT. V.

#### Of Conjantive Syllogi/ms.

HOSE are called conjunctive Syllogifus wherein one of the Premises, namely the mar jor, has diffinct Parts, which are joined by a Conjunction, or some such Particle of Speech. Most Times the major or minor, or both, are explicitaly compound Propositions: And generally the major Proposition is made up of two diffinet Parts or Propolitions, in fuch a Manner, as that by the Affertion of one in the minor, the other is either afferted or denied in the Conclusion : Or by the Denial of one in the minor, the other is either afferted or denied in the Conclusion. It is hardly poffible indeed to fit any short Definition to include all the Kinds of them; but the chief amongst them are the conditional Syllogifm, the disjunctive, the relative, and the connexive.

I. The conditional or bypothetical Syllogifm is whole major or minor, or both, are conditional Propositions; as, If there be a God, the World is governed by Providence; but there is a God; therefore the World is governed by Providence.

Thefe Syllogifms admit two Sorts of true Argumentation, where the major is conditional.

I. When the Antecedent is afferted in the minor that the Confequent may be afferted in the Conclufight fuch is the preceding Example: This is called arguing from the Position of the Antecedent to the Position of the Consequent.

2. When the confequent is contradicted in \* the minor Proposition, that the Antecedent may be contradicted in the Conclusion; as, If Atbeifts art

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are in the right, then the World exifts without a Caufe; but the World does not exift without a Caufe; therefore Atheifts are not in the right. This is called arguing from the removing of the Confequent to the removing of the Antecedent.

To remove the Antecedent or Confequent here, does not merely fignify the Denial of it, but the Contradiction of it; for the mere Denial of it by a contrary Proposition will not make a true Syllogifm, as appears thus: If every Creature be reafonable, every Brute is reasonable: But no Brute is veasonable; therefore no Creature is reasonable. Whereas if you fay in the minor, but every Brute is not reasonable, then it would follow truly in the Conclusion, therefore every Creature is not reafonable.

When the Antecedent or Confequent are negative Propositions, they are removed by an Affirmative; as, If there be no God, then the World does not discover creating Wisdom; but the World does discover creating Wisdom; therefore there is a God. In this Instance the Confequent is removed or contradicted in the minor, that the Antecedent may be contradicted in the Conclusion. So in this Argument of St. Paul, 1 Cor. xv. If the Dead rise not, Christ died in vain; but Christ did not die in vain; therefore the Dead shall rise.

There are also two Sorts of falle Arguing, (viz.) (1.) From the removing of the Antecedent to the removing of the Confequent; or (2.) From the Position of the Confequent to the Position of the Antecedent. Examples of these are easily framed; as,

(1.) If a Minister were a Prince be must be onoured; but a Minister is not a Prince; Therefore be must not be bonoured.

(2.) If

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(2.) If a Minister were a Prince, be must be benoured; but a Minister must be bonoured; Therefore be is a Prince.

Who fees not the ridiculous Falshood of both these Syllogisms?

Observ. I. If the Subject of the Antecedent and the Confequent be the fame, then the bypothesical Syllogifm may be turned into a categorical one; and If Cæstar be a King be must be bonoured; but Cæstar is a King; therefore, &c. This may be changed thus, Every King. must be bonoured; but Cæstar is a King; therefore, &c.

Observ. II. If the major Proposition only be conditional, the Conclusion is categorical: But if the minor or both be conditional, the Conclusion is also conditional; as, The Worshippers of Images are Idelaters; If the Papists worship a Crucifix, they are Worshippers of an Image; therefore, If the Papists worship a Crucifix, they are Idolaters. But this fort of Syllogisms should be avoided as much as possible in Disputation, because they greatly embarrais a Cause: The Syllogisms, whole Major only is hypothetical, are very frequent, and used with great Advantage.

II. A disjunctive Syllogifm is when the major Propolition is disjunctive; as, The Earth moves in a Circle or an Ellipfis; but it does not move in a Circle; therefore it moves in an Ellipfis.

disjunctive Syllogifm may have many Members of arts thus; it is either Spring, Summer, Autumn, or Winter; but it is not Spring, Autumn, or Winter; therefore it is Summer.

The true Method of arguing here is from the Affertion of one, to the Denial of the reft, or from the

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Ch. II. S. 5. The right Use of Reason. 299 the Denial of one or more, to the Assertion of what remains; but the Major should be so framed, that the several Parts of it cannot be true together, though one of them is evidently true.

III. A relative Syllogism requires the major Propolition to be relative; as, Where Christ is, there shall his Servants be : But Christ is in Heaven; therefore his Servants shall be there also, Or, As is the Captain, so are his Soldiers; but the Captain is a Coward; therefore his Soldiers are so too.

Arguments that relate to the Doctrine of Proportion, must be referred to this Head; as, As two are to four, fo are three to fix; but two make the half of four; therefore three make the half of fix.

Befides thefe, there is another Sort of Syllogifm which is very natural and common, and yet Authors take very little Notice of it, call it by an improper Name, and defcribe it very defectively, and that is,

IV. A connexive Syllogifm. This fome have called copulative; but it does by no Means require the major to be a copulative nor a compound Propolition, (according to the Definition given of it; Part II. Chap. II. Sett. 6.) but it requires that two or more Ideas be to connected either in the complex Subject or Predicate of the major, that if one of them be affirmed or denied in the minor, common Senfe will naturally flew us what will be the Confequence. It would be very ted and ufeles to frame particular Rules about them, as will appear by the following Examples, which are very various, and yet may be farther multiplied. (1.) Meèkness and Humility always go together; Moses was a Man of Meekness, therefore Moses was also bumble. Or we may form this Minor, Pharaoh was no bumble Man; therefore he was not meek.

(2.) No Man can ferve God and Mammon; the tovetous Man ferves Mammon; therefore he cannot ferve God. Or the Minor may run thus, the true Christian ferves God; therefore he does not ferve Mammon.

(3.) Genius must join with Study to make a great Man; Florino bas Genius but he cannot study; therefore Florino will never be a great Man. Or thus, Quintus studies bard but has no Genius; therefore Quintus will never be a great Man.

(4.) Gulo cannot make a Dinner without Flefb and Fifb; there was no Fifb to be gotten Io-day; therefore Gulo this Day cannot make a Dinner.

(5.) London and Paris are in different Latitudes; the Latitude of London is 51 ½ Degrees; therefore this cannot be the Latitude of Paris.

(6.) Joseph and Benjamin bad one Mother; Rachael was the Mother of Joseph; therefore *fhe* was Benjamin's Mother too.

(7.) The Father and the Son are of equal Stature: The Father is fix Feet high; therefore the Son is fix Feet high also.

(8.) Pride is inconfistent with Innocence; Angels bave Innocence; therefore they have no Pride. Or thus; Devils have Pride; therefore they have not Innocence.

I might multiply other Inftances of these contive Syllogisms, by bringing in all forts of exceptive, exclusive, comparative, and modal Propofitions into the Composition of them; for all these may be wrought into conjunctive, as well as into fimple Syllogisms, and thereby we may render them

The right Use of Reason. **Ch. II. S. 6.** 201 them complex. But it would wafte Time and Paper without equal Profit.

Concerning these various Kinds of conjunctive Syllogifms, take thefe two Observations.

Observ. I. Most of them may be transformed into categorical Syllogisms by those who have a mind to prove the Truth of them that Way; or they may be eafily converted into each other by changing the Forms of Speech.

Observ. II. These conjunctive Syllogisms are feldom deficient or faulty in the Form of them; for fuch a Deficience would be discovered at first Glance generally by common Reafon, without any artificial Rules of Logick: The chief Care therefore is to fee that the major Proposition be true, upon which the whole Force of the Argument ufually depend.

#### SECT. VI.

#### Of Compound Syllogisms.

W E properly call those compound Syllogifms which are made of two or more fingle Syl-logifms, and may be refolved into them. The chief Kinds are thefe, Epicbirema, Dilemma, Profyllogifmus, and Sorites.

I. Epichirema is a Syllogifm which contains, Proof of the major or minor, or both, before draws the Conclusion. This is often used in Winting, in publick Speeches, and in common Conversation, that so each Part of the Discourse may be confirmed and put out of Doubt, as it moves on

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on toward the Conclusion, which was chiefly defigned. Take this Instance;

Sickness may be good for us; for it weans us from the Pleasures of Life, and makes us think of dying;

But we are uneafy under Sicknefs, which appears by our Impatience, Complaints, Groanings, &c.

Therefore we are uneafy fometimes under that which is good for us.

Another Inftance you may fee in Cicero's Oration in Defence of Milo who had flain Clodius. His major Proposition is, that it is lawful for one Man to kill another who lies in wait to kill him; which he proves from the Custom of Nations, from natural Equity, Examples, &c. his minor is, that Clodius laid wait for Milo; which he proves by his Arms, Guards, &c. and then infers the Conclusion, that it was lawful for Milo to kill Clodius.

II. A Dilemma is an Argument which divides the whole into all its Parts or Members by a disjunctive Proposition, and then infers formething concerning each Part which is finally inferred concerning the whole. Instances of this are frequent; as, In this Life we must either obey our vicious Inclinations or result them : To obey them will bring Sin and Sorrow, to result them is laborious and painful; therefore we cannot be perfectly free from Sorrow or Pain in this Life.

A Dilemma becomes faulty or ineffectual three bys: First, When the Members of the Division are not well opposed, or not fully enumerated; for then the major is false. Secondly, When what is afferted concerning each Part is not just; for then the minor is not true. Thirdly, When it may be retorted Ch. II. S. 6. The right Use of Reason. 303 retorted with equal Force upon him who utters it.

There was a famous ancient Instance of this Case wherein a Dilemma was retorted. Euathlus promifed Protagoras a Reward when he had taught him the Art of Pleading, and it was to be paid the first Day that he gained any Cause in the Court. After a confiderable Time, Protagoras goes to Law with Euathlus for the Reward, and uses this Dilemma; Either the Caufe will go on my Side or on yours; if the Cause goes on my Side, you must pay me according to the Sentence of the Judge: If the Caufe goes on your Side, you must pay me according to your Bargain: Therefore whether the Caufe goes for me or against me you must pay me the Reward. But Eucliblus retorted this Dilemma thus: Either I shall gain the Caufe or lose it : If I gain the Caufe, then nothing will be due to you according to the Sentence of the Judge : But if I lose the Cause, nothing will be due to you according to my Bargain: Therefore whether I lose or gain the Cause I will not pay you, for nothing will be due to you.

Note 1. A Dilemma is ufually defcribed as though it always proved the Abfurdity, Inconvenience, or Unreafonableness of some Opinion or Practice; and this is the most common Design of it; but it is plain, that it may also be used to prove the Truth or Advantage of any thing propesed; as, In Heaven we shall either have Desires or not: If we have no Desires, then we have full Satisfaction; if we have Desires, they shall be satisfied as fast as they arise; therefore in Heaven we shall be compared

Note 2. This Sort of Argument may be composed of three or more Members, and may be called a Trilemma.

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III. A

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III. A Profyllogism is when two or more Syllogisms are so connected together, that the Conclusion of the former is the major or the minor of the following; as, Blood cannot think, but the Soul of Man thinks; therefore the Soul of Man is not Blood; but the Soul of a Brute is his Blood, according to the Scripture; therefore the Soul of Man is different from the Soul of a Brute. See another Instance in the Introduction to this Treatile, p. 5.

IV. A Sorites is when feveral middle Terms are chosen to connect one another fucceffively in feveral Propositions, till the last Proposition connects its Predicate with the first Subject. Thus, All Men of Revenge bave their Souls often uneasy; uneasy Souls are a Plague to themsfelves; now to be one's own Plague is Folly in the Extreme; therefore all Men of Revenge are extreme Fools.

The Apostle, Rom. viii. 29. gives us an Instance of this fort of Argument if it were reduced to exact Form: Whom he foreknew those he predestinated; whom he predestinated he called; whom he called he justified; whom he justified he glorified; therefore whom he foreknew he glorified.

To these Syllogisms it may not be improper to add Industion, which is, when from several particular Propositions we infer one general; as, The Dostrine of the Social cannot be proved from the Gospels, it cannot be proved from the Asts of the Apostles, it cannot be proved from the Epistles, nor the Book of Revelations; therefore it cannot be proved from the New Testament.

Wote, This Sort of Argument is often defective, because there is not due Care taken to enumerate all the Particulars on which the Conclusion should depend.

All

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All these four Kinds of Syllogisms in this Section may be called *redundant*, because they have more than three Propositions. But there is one Sort of Syllogism which is defective, and is called an *Enthymem*, because only the Conclusion with one of the Premises is expressed, while the other is supposed and referved in the Mind: Thus, *There is no true Religion without good Morals*; therefore a *Knave* cannot be truly religious: Or thus, *It is our Duty to* love our Neighbours as ourselves; therefore there are but few who perform their Duty.

Note, This is the most common Sort of Argument amongst Mankind both in Writing and in Speaking; for it would take up too much Time and too much retard the Discourse to draw out all our Arguments in Mood and Figure. Besides, Mankind love to have so much Compliment paid to their Understandings as to suppose that they know the Major or Minor, which is suppressed and implied, when you pronounce the other Premise and the Conclusion.

If there be any Debate about this Argument, the Syllogifm must be completed in order to try its Force and Goodness, by adding the absent Propositions.

#### SECT. VII.

#### Of the middle Terms, of common Places or Topics, and Invention of Arguments.

THE next Division of Syllogisms is according to the middle Term, which is made use of in the Proof of any Proposition. Now the middle Term (as we have hinted before) is often called Argument, because the Force of the Syllogism depends upon it: We must make a little Delay here

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to treat briefly of the Doctrine of Topics, or Places subence middle Terms or Arguments are drawn.

All Arts and Sciences have fome general Subjects which belong to them, which are called Topics or common Places; because middle Terms are borrowed, and Arguments derived from them for the Proof of their various Propositions which we have Occasion to discourse of. The Topics of Grammar, are Etymology, Noun, Verb, Construction, Signification, &c. The Topics of Logic are Genus, Species, Difference, Property, Definition, Division, &c. The Topics of Ontology or Metaphylick, are Caule, Effest, Allion, Pallion, Identity, Oppolition, Subject, Adjunt, Sign, &c. The Topic of Morality, or Etbicks, are Law, Sin, Duly, Authority, Freedom of Will, Command, Threatning, Reward, Punishment, The Topics of Theology, are God, Chrift, &c. Faith, Hope, Worship, Salvation, &c.

To thefe feveral Topics there belong particular Obfervations, Axioms, Canons, or Rules, \* which are laid down in their proper Sciences; as,

Grammar hath fuch Canons, (viz) Words in a different Confirution obtain a different Senfe. Words derived from the fame Primitive may probably have fome Affinity in their original Meaning, &c.

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Canons in Logic, are such as these, Every Part of a Division singly taken must contain less than the Whole. A Definition must be peculiar and proper to the Thing defined. Whatever is affirmed or denied of the Genus, may be affirmed or denied of the Species, &c.

Metaphyfical Canons are fuch as these; final Caufes belong only to intelligent Agents. If a natural and neceffary Caufe operate, the Effect will follow, Sc. and

A Canon is a Proposition declaring some Property of the Subject, which is not capted in the Definition or Division of it.

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and there are large Catalogues of many more in each diftinct Science.

Now it has been the Cuftom of those who teach Logick or Rbetorick, to direct their Disciples, when they want an Argument, to confult the several Topics which are fuited to their Subject of Discourse, and to rummage over the Definitions, Divisions and Canons that belong to each Topic. This is called the Invention of an Argument; and it is taught with much Solemnity in for e Schools.

I grant there may be good Use of this Practice for Perfons of a lower Genius, when they are to compose any Discourse for the Publick; or for those of superior Parts to refresh their Memory, and revive their Acquaintance with a Subject which has been long absent from their Thoughts, or when their natural Spirits labour under Indifpolition and Languor; but when a Man of moderate Sagacity has made himfelf Master of his Theme by just Diligence and Enquiry, he has feldom need to run knocking at the Doors of all the Topics that he may furnish himself with Argument or Matter of Speaking: And indeed it is only a Man of Senfe and Judgment that can use common Places or Topics well; for amongst this Variety he only knows what is fit to be left out, as well as what is fit to be spoken.

By fome logical Writers this Business of Topics and Invention, is treated of in such a Manner with Mathematical Figures and Diagrams, filled with the barbarous technical Words, Napcas, Nipcis, Ropcos, Nosrop, &c. as though an ignorant Lad were to be led mechanically in certain artificial Harneffes and Trammels to find out Arguments to prove or refute any Proposition whatsoever, without any rational Knowledge of the Ideas. Now there is no Need to throw Words of Contempt on such a Practice

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Practice; the very Description of it carries Reproof and Ridicule in Abundance.

#### SECT: VIII.

#### Of several Kinds of Arguments and Demonstrations.

W E proceed now to the Division of Syllogistims according to the middle Term; and in this Part of our Treatile the Syllogistms themfelves are properly called Arguments, and are thus distributed.

I. Arguments are called Grammatical, Logical, Metaphyfical, Phyfical, Moral, Mechanical, Theological, &c. according to the Art, Science, or Subject, whence the middle Term or Topic is borrowed. Thus if we prove that no Man fould fieal from bis Neighbour, because the Scripture forbids it, this is a theological Argument: If we prove it from the Laws of the Land, it is political; but if we prove it from the Principles of Reason and Equity, the Argument is moral.

II. Arguments are either certain and evident, or doubtful and merely probable.

Probable Arguments are those whose Conclusions are proved by some probable Medium; as, This Hill was once a Church-Yard, or a Field of Battle, because there are many human Bones found here. This is not a certain Argument, for human Bones might have been conveyed there some other Way.

*Évident* and *certain* Arguments are called *Demonfirations*; for they prove their Conclutions by clear Mediums and undoubted Principles; and they are generally divided into these two Sorts.

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1. Demonstrations à Priori, which prove the Effect by its necessary Cause; as, I prove the Scripture is infallibly true, because it is the Word of God, who cannot lie.

2. Demonstrations à Posteriori, which infer the Cause from its necessary Effect; as, I infer there hath been the Hand of fome Artificer bere, because I find a curious Engine. Or, I infer, there is a God, from the Works of his Wisdom in the visibl World.

The laft of thefe is called Demonstratio  $\tau \tilde{s} \tilde{o} \tau_i$ , because it proves only the Existence of a Thing; the first is named Demonstratio  $\tau \tilde{s} \delta i \sigma \tau_i$ , because it shews also the Cause of its Existence.

But Note, That though these two Sorts of Arguments are most peculiarly called Demonstrations, yet generally any strong and convincing Argument obtains that Name; and it is the Custom of Mathematicians to call all their Arguments Demonstrations, from what Medium soever they derive them.

III. Arguments are divided into artificial and inartificial.

An artificial Argument is taken from the Nature and Circumstances of the Things; and if the Argument be strong, it produces a natural Certainty; as The World was first created by God, because nothing can create itself.

An *inartificial* Argument is the Testimony of another, and this is called *original*, when our Information proceeds immediately from the Persons concerned, or from Eye or Ear-Witnesses of a Fact: it is called *Tradition* when it is delivered by the Report of others.

We have taken Notice before, that Teffimony is either divine or human. If the human Teffiamony be ftrong, it produces a moral Certainty;

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but divine Testimony produces a *fupernatural Cer*tainty, which is far fuperior.

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Note, Arguments taken from buman Testimony, as well as from Laws and Rules of Equity, are called moral; and indeed the fame Name is also applied to every Sort of Argument which is drawn from the free Assions of God, or the contingent Assions of Men, wherein we cannot arise to a natural Certainiy, but content ourselves with an bigb Degre of Probability, which in many Cases is scarce inferior to natural Certainty.

IV. Arguments are either direct or indirect. It is a direct Argument where the middle Term is fuch as proves the Queffion itfelf, and infers that very Proposition which was the Matter of Enquiry. An indirect or oblique Argument proves or refutes fome other Proposition, and thereby makes the Thing enquired appear to be true by plain Confequence.

Several Arguments are called *indireti*; as, (1.) When fome contradictory Proposition is proved to be false, improbable or impossible: Or when upon Supposition of the Falshood, or Denial of the original Proposition, fome Absurdity is inferred. This is called a Proof per impossible, or a Redution ad absurdum. (2.) When fome other Proposition is proved to be true which is less probable, and thence it follows that the original Proposition is true, because it is more probable. This is an Argument ex minus probabili ad magis. (3.) When any other Proposition is proved upon which it was before agreed to yield the original Question. This is an Argument ex Concesso

V. There is yet another Rank of Arguments which have Latin Names; their true Diffinction

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is derived from the Topics or middle Terms which are used in them, though they are called an Address to our *Judgment*, our *Faitb*, our *Ignorance*, our *Profession*, our *Modess*, and our *Passions*.

1. If an Argument be taken from the Nature or Existence of Things, and addressed to the Reafon of Mankind, it is called Argumentum ad Judicium.

2. When it is borrowed from fome convincing Testimony, it is Argumentum ad Fidem, an Address to our Faith.

3. When it is drawn from any infufficient Medium whatfoever, and yet the Oppofer has not Skill to refute or anfwer it, this is Argumentum ad Ignorantiam, an Addrefs to our Ignorance.

4. When it is built upon the profeffed Principles or Opinions of the Perfon with whom we argue, whether the Opinions be true or false, it is named Argumentum ad bominem, an Addrefs to our profeffed Principles. St. Paul often uses this Argument when he reasons with the Jews, and when he fays, I speak as a Man.

5. When the Argument is fetched from the Sentiments of fome wife, great, or good Men, whofe Authority we reverence and hardly dare oppofe, it is called Argumentum ad Verecundium, an Addrefs to our Modefty.

6 I add finally, when an Argument is borrowed from any Topics which are fuited to engage the Inclinations and Paffions of the Hearers on the Side of the Speaker, rather than to convince the Judgment, this is Argumentum ad Paffiones, an Address to the Paffions; or if it be made publickly, it is called ad Populum, or an Appeal to the People.

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After all these Divisions of Syllogism or Argument arising from the middle Term, there is one Distinction proper to be mentioned which arises from the Premises. An Argument is called uniform when both the Premises are derived from the same Springs of Knowledge, whether it be Sense, Reason, Consciousses, buman Faitb, or divine Faitb: But when the two Premises are derived from different Springs of Knowledge, it is called a mixt Argument.

Whether the Conclusion must be called Human or Divine, when one or both Premises are Matters of Divine Faith, but the Conclusion is drawn by buman Reason, I leave to be disputed and determined in the Schools of Theology.

Thus the *fecond Chapter* is finished, and a particular Account given of all the *chief Kinds of Syllogifms* or Arguments which are made use of among Men, or treated of in *Logick*, together with *special* Rules for the Formation of them, as far as is neceffary.

If a Syllogism agree with the Rules which are given for the Construction and Regulation of it, it is called a *true Argument*: If it disagree with these Rules, it is a *Paralogism*, or *false Argument*: But when a false Argument puts on the Face and Appearance of a true one, then it is properly called a *Sophism* or *Fallacy*, which shall be the Subject of the next Chapter.

#### CHAP.

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# CHAP. III.

# The Doctrine of Sophisms.

**F**ROM Truth nothing can really follow but what is *true*: Whenfoever therefore we find a falle Conclusion drawn from Premises which seem to be true, there must be fome Fault in the Deduction or Inference; or elfe one of the Premifes is not true in the Senfe in which it is used in that Argument.

When an Argument carries the Face of Truth with it, and yet leads us into Mistake, it is a Sopbi/m; and there is fome Need of a particular Description of these fallacious Arguments, that we may with more Eafe and Readiness detect and solve them.

#### SECT. I.

#### Of several Kinds of Sophisms, and their Solution.

A S the Rules of right Judgment and of good Ratiocination often coincide with each other, fo the Doctrine of Prejudices, which was treated of in the Second Part of Logick, has anticipated a great deal of what might be faid on the Subject of Sophifms; yet I thall mention the most remarkable Springs of falle Argumentation, which are reduced by Logicians to fome of the following Heads.

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I. The first fort of Sophism is called Ignoration Elenchi, or a Mistake of the Question; that is, when fomething elfe is proved which has neither any necessary Connexion nor Inconsistency with the Thing enquired, and confequently gives no Determination to the Enquiry, though it may feem at first Sight to determine the Question; as, if any should conclude that St. Paul was not a native Jew, by proving that he was born a Roman; or if they should pretend to determine that he was neither Roman nor Jew, by proving that he was born at Tarfus in Cilicia: These Sophisms are refuted by fhewing that all thefe three may be true; for he was born of Jewish Parents in the City of Tarfus, and by fome peculiar Privilege granted to his Parents, or his native City, he was born a Denizen of Rome. Thus there is neither of these three Characters of the Apostle inconfistent with each other. and therefore the proving one of them true does not refute the others.

Or if the Question be proposed, Whether Excess of Wine can be burtful to him that drinks it, and the Sophister should prove that it revives his Spirits, it exhilerates his Soul, it gives a Man Courage, and makes him firong and assive, and then he takes it for granted that he has proved his Point.

But the Refpondent may eafily flew, that though Wine may do all this, yet it may be *finally burtful* both to the Soul and Body of bim that drinks it to Exce/s.

Difputers when they grow warm, are ready to run into this Fallacy: They drefs up the Opinion of their Adverfary as they pleafe, and afcribe Sentiments to him which he doth not acknowledge; and when they have with a great deal of Pomp attacked and confounded thefe Images of Straw

# Ch. III. S. 1. The right Use of Reason. 315 of their own making, they triumph over their Ad-

verfary as though they had utterly confuted his Opinion. It is a Fallacy of the fame Kind which a Difputant is guilty of, when he finds that his Adverfary is too hard for him, and that he cannot fairly prove

the Queftion first proposed; he then with Slyness and Subtlety turns the Discourse aside to some other kindred Point which he can prove, and exults in that new Argument wherein his Opponent never contradicted him.

The Way to prevent this *Fallacy* is by keeping the Eye fixed on the precife Point of Dispute, and neither wandering from it ourselves, nor fuffering our Antagonist to wander from it, or substitute any Thing else in its Room.

II. The next Sophifm is called Petitio Principit. or a Supposition of what is not granted; that is, when any Proposition is proved by the same Proposition in other Words, or by fomething that is equally uncertain and disputed : As if any one undertake to prove that the buman Soul is extended through all the Parts of the Body, because it resides in every Member, which is but the fame Thing in other Or, if a Papift should pretend to prove Words. that bis Religion is the only Catholick Religion, and is derived from Christ and his Apostles, because it agrees with the Dostrine of all the Fathers of the Church, all the boly Martyrs, and all the Christian World throughout all Ages: Whereas this is a great Point in Contest, whether their Religion does agree with that of all the Ancients, and the primitive Chriftians, or no.

III. That Sort of Fallacy which is called a Circle, is very near a-kin to the Petitio Principii; as X when 316 LOGICK: Or, Part III.

when one of the Premifes in a Syllogifm is queftioned and oppofed, and we intend to prove it by the Conclusion: Or, when in a Train of Syllogifms we prove the last by recurring to what was the Conclusion of the first. The Papists are famous at this Sort of Fallacy, when they prove the Scripture to be the Word of God by the Authority or infallible Testimony of their Church, and when they are called to shew the infallible Authority of their Church, they pretend to prove it by the Scripture.

IV. The next kind of Sophifm is called non Caufa pro Caufa, or the Affighation of a falfe Caufe. This the Peripatetic Philosophers were guilty of continually, when they told us that certain Beings, which they call fubfiantial Forms, were the Springs of Colour, Motion, Vegetation, and the various Operations of natural Beings in the animate and inanimate World; when they informed us that Nature was terribly afraid of Vacuum, and that this was the Caufe why the Water would not fall out of a long Tube if it was turned upfide down: The Moderns as well as the Ancients fall often into this Fallacy when they politively affign the Reafons of natural Appearances, without fufficient Experiments to prove them.

Aftrologers are over-run with this Sort of Fallacies, and they cheat the People grofly by pretending to tell Fortunes, and to deduce the Caufe of the various Occurrences in the Lives of Men from the various Politions of the Stars and Planets, which they call Afpetts.

When Comets and Eclipfes of the Sun and Moon are confirued to fignify the Fate of Princes, the Revolution of States, Famine, Wars and Calami-

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Ch. 111. S. i. The right Use of Realon. 317 ties of all Kinds, it is a Fallacy that belongs to this Rank of Sophisms.

There is fcarce any Thing more common in human Life than this Sort of deceitful Argument, If any two accidental Events happen to concur, one is prefently made the Caufe of the other. If Titius wronged bis Neighbour of a Guinea, and in fix Months after be fell down and broke bis Leg, weak Men will impute it to the divine Vengeance on Titius for his former Injustice. This Sophism was found also in the early Days of the World : For when holy job was surrounded with uncommon Miseries, his own Friends inferred, that be was a most beinous Criminal, and charged him with aggravated Guilt as the Caufe of his Calamities; though God himfelf by a Voice from Heaven folved this uncharitable Sophifm, and cleared his Servant Job of that Charge.

How frequent is it among Men to impute Crimes to wrong Perfons? We too often charge that upon the wicked Contrivance and premeditated Malice of a Neighbour, which arole merely from Ignorance, or from unguarded Temper. And on the other Hand, when we have a Mind to excufe ourfelves, we practife the fame Sophifm, and charge that upon our Inadvertence or our Ignorance, which perhaps was defigned Wickednefs. What is really done by a Neceffity of Circumstances, we fometimes impute to Choice. And again, we charge that upon Neceffity, which was really defired and chofen.

Sometimes a Perfon acts out of Judgment in Opposition to his Inclination; another Perfon pethaps acts the fame Thing out of Inclination, and against his Judgment. It is hard for us to determine with Affurance what are the inward X 2 Springs

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Springs and fecret Caufes of every Man's Conduct; and therefore we fhould be cautious and flow in paffing a Judgment, where the Cafe is not exceeding evident: And if we fhould miftake, let it rather be on the charitable than on the cenforious Side.

It is the fame Sopbism that charges mathematical Learning with leading the Minds of Men to Scepticism and Infidelity, and as unjustly accuses the new Philosophy of paving the Way to Herefy and Schifm. Thus the Reformation from Popery has been charged with the Murder and Blood of Millions, which in Truth is to be imputed to the Tyranny of the Princes and the Priefts, who would not fuffer the People to reform their Sentiments and their Practices according to the Word of Thus Christianity in the primitive Ages God. was charged by the Heatbens with all the Calamities which befel the Roman Empire, because the Christians renounced the Heathen Gods and Idols.

The Way to relieve ourfelves from those Sophisms, and to secure ourfelves from the Danger of falling into them, is an honeft and diligent Enquiry into the real Nature and Causes of Things, with a constant Watchfulness against all those Prejudices that might warp the Judgment aside from Truth in that Enquiry.

V. The next is called Fallacia Accidentis, or a Sophifm wherein we pronounce concerning the Nature and effential Properties of any Subject according to fomething which is merely accidental to it. This is a-kin to the former, and is alfo very frequent in human Life. So if Opium or the Peruvian Bark has been ufed imprudently or unfuccefsfully,

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fuccessfully, whereby the Patient has received Injury, fome weaker People abfolutely pronounce against the Use of the Bark or Opium upon all Occafions whatfoever, and are ready to call them So Wine has been the accidental Occa-Poilon. fion of Drunkenness and Quarrels; Learning and **Printing** may have been the accidental Caule of Sedition in a State; the Reading of the Bible by Accident has been abused to promote Herefies or destructive Errors; and for these Reasons they have been all pronounced evil Things. Mahomet forbad his Followers the Use of Wine; the Turks difcourage Learning in their Dominions; and the Papifts forbid the Scripture to be read by the Laity. But how very unreasonable are these Inferences, and these Prohibitions which are built upon them I

VI. The next Sophifm borders upon the former; and that is, when we argue from that which is true in particular Circumstances to prove the fame thing true absolutely, simply, and abstratied from all Circumstances; this is called in the Schools a Sophifm à dieto fecundum quid ad dietum simpliciter; as, That which is bought in the Shambles is eaten for Dinner; raw Meat is bought in the Shambles; therefore raw Meat is eaten for Dinner. Or thus, Livy writes Fables and Improbabilities when he describes Prodigies and Omens; therefore Livy's Roman History is never to be believed in any thing. Or thus, There may be some Mistake of Transcribers in some Part of Scripture; therefore Scripture alone is not a safe Guide for our Faith.

This Sort of Sophifm has its Reverse also; as when we argue from that which is true *simply* and *absolutely* to prove the fame Thing true in all parti-<sup>2</sup>

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cular Circumstances vobatsoever \*; as if a Traytor should argue from the fixth Commandment, Thou shalt not kill a Man, to prove that be bimself ought not to be banged: Or if a Madman should tell me, I ought not to with-bold the Sword from him, because no Man ought to with-bold the Property of another.

These two last Species of Sophisms are easily folved by shewing the Difference betwixt Things in their absolute Nature, and the same Things surrounded with peculiar Circumstances, and confidered in Regard to special Times, Places, Persons and Occasions; or by shewing the Difference between a moral and a metaphysical Universality, and that the Proposition will hold good in one Case, but not in the other.

VII. The Sophifms of Composition and Divisions come next to be mentioned.

The Sophifm of Composition is when we infer any thing concerning Ideas in a compounded Sense, which is only true in a divided Sense. And when it is faid in the Gospel that Christ made the Blind to fee, and the Deaf to bear, and the Lame to walk, we ought not to infer hence that Christ performed Contradictions; but those who were blind before were made to see, and those who were deaf before were made to hear, Sc. So when the Scripture affures us the worst of Sinners may be faved, it fignifies only that they who have been the worst of Sinners may repent and be saved, not that they shall be saved in their Sins. Or if any one should argue thus, Two and three are even and odd; five art

• This is arguing from a moral Universality, which admits of some Exceptions, in the same Manner as may be argued from metaphysical or a natural Universality, which admits of no Exceptions,

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are two and three; therefore five are even and odd. Here that is very falfely inferred concerning two and three in Union, which is only true of them divided.

The Sophism of Division is when we infer the fame Thing concerning Ideas in a divided Senfe, which is only true in a compounded Senfe; as, if we should pretend to prove that every Soldier in the Grecian Army put an bundred thousand Persians to Flight, because the Grecian Soldiers did so. Or if a Man should argue thus; five is one Number; two and three are five; therefore two and three are one Number.

This fort of Sophifms is committed when the Word All is taken in a collective and a distributive Senfe, without a due Diftinction; as, if any one should reason thus; All the musical Instruments of the Jewish Temple made a noble Concert, the Harp was a mulical Instrument of the Jewish Temple; therefore the Harp made a noble Concert. Here the Word All in the Major is collective, whereas fuch a Conclusion requires that the Word All should be distributive.

It is the fame Fallacy when the universal Word All or No refers to Species in one Proposition, and to Individuals in another; as, All Animals were in Noah's Ark; therefore no Animals perified in the Flood: Whereas in the Premise all Animals fignifies every kind of Animals, which does not exclude or deny the drowning of a thousand Individuals.

VIII. The last fort of Sophilms arises from our Abuse of the Ambiguity of Words, which is the largest and most extensive kind of Fallacy; and indeed feveral of the former Fallacies might be reduced to this Head.

When the Words or Phrases are plainly equivocal. they are called Sophisms of Equivocation; as, if we **fho**uld

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**thould argue** thus, He that fends forth a Book into the Light, defires it to be read; He that throws a Book into the Fire, fends it into the Light; therefore be that throws a Book into the Fire defires it to be read.

This Sophifm, as well as the foregoing, and all of the like Nature are folved by fhewing the different Senfes of the Words, Terms or Phrafes. Here Light in the major Proposition fignifies the publick View of the Word; in the minor it fignifies the Brightness of Flame and Fire, and therefore the Syllogism has four Terms, or rather it has no middle Term, and proves nothing.

But where fuch gross Equivocations and Ambigutties appear in Arguments, there is little Danger of impoling upon ourfelves or others. The greatest Danger, and which we are perpetually exposed to in Reasoning, is, where the two Senses or Significations of one Term are near a-kin, and not plainly diftinguished, and yet they are really fufficiently different in their Senfe to lead us into great Miftakes, if we are not watchful. And indeed the greatest Part of Controversies in the facred or civil Life, arife from the different Senfes that are put upon Words, and the different Ideas which are included in them; as have been fhewn at large in the first Part of Logick, Chap. IV. which treats of Words and Terms.

There is after all these, another fort of Sophism which is wont to be called an *imperset Enumeration*, or a *false Industion*, when from a few Experiments or Observations Men infer general Theorems and universal Propositions. But this is sufficiently taken notice of in the foregoing Chapter, where we treated of that fort of Syllogism which is called *Industion*.

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#### SECT. II.

#### Two general Tefts of true Syllogisms, and Metbods of folving all Sophisms.

**B**ESIDES the special Description of true Syllogisms and Sophisms already given, and the Rules by which the one are framed, and the other refuted, there are these two general Methods of reducing all Syllogisms what soever to a Test of their Truth or Falshood.

I. The first is, that the Premises must (at least implicitly) contain the Conclusion; or thus, One of the Premises must contain the Conclusion, and the other must shew that the Conclusion is contained in it. The Reason of this Rule is this: When any Proposition is offered to be proved, it is necelfary to find another Proposition which confirms it, which may be called the containing Proposition; but because the second must not contain the first in an express Manner, and in the fame Words \*. therefore it is necessary that a third or oftenfive Propolition be found out to fhew that the fecond Propolition contains the first which was to be proved. Let us make an Experiment of this Syllogifm. Whofoever is a Slave to bis natural Inclinations is miferable; the wicked Man is a Slave to bis natural Inclinations; therefore the wicked Man is milerable. Here it is evident that the major Proposition contains the Conclusion; for under the general Character of a Slave to natural Inclinations, a wicked Man

<sup>•</sup> It is confessed that conditional and disjunctive major Propositions do expressly contain all that is in the Conclusion; but then it is not in a certain and conclusive Manner, but only in a dubious Form of Speech, and mingled with other Terms, and therefore it is not the fame express Proposition.

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In many affirmative Syllogifms we may fuppofe either the major or the minor to contain the Conclusion, and the other to shew it; for there is no great Difference. But in negative Syllogifms it is the negative Proposition that contains the Conclufion, and the affirmative Proposition shews it; as, every wife Man masters bis Passions; no angry Man masters bis Passions; therefore no angry Man is wife. Here it is more natural to suppose the minor to be the containing Proposition; it is the minor implicitly denies Wisdom concerning an angry Man, because mastering the Passions is included in Wisdom, and the major shews it.

Note, This Rule may be applied to complex and conjunctive, as well as *fimple* Syllogifms, and is adapted to fhew the Truth or Falfhood of any of them.

II. The fecond is this: As the Terms in every Syllogifm are u/ually repeated twice, fo they must be taken precisely in the same Sense in both Places: For the greatest Part of Mistakes, that arise in forming Syllogisms, is derived from some little Difference in the Sense of one of the Terms in the two Parts of the Syllogism wherein it is used. Let us confider the following Sophisms.

1. It is a Sin to kill a Man; a Murderer is a Man; therefore it is a Sin to kill a Murderer. Here the Word Kill in the first Proposition signifies to kill unjustly, or without a Law; in the Conclusion it is taken absolutely for putting a Man to Death in general, and therefore the Inference is not good.

2. What I am, you are not; but I am a Man; therefore you are not a Man. This is a relative Syl-

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gifm: But if it be reduced to a regular categorical Form, it will appear there is Ambiguity in the Terms, thus; What I am, is a Man; you are not what L am; therefore you are not a Man. Here what I am in the major Proposition, is taken specially for my Nature; but in the minor Proposition the fame Words are taken individually for my Perfon; therefore the Inference must be false, for the Syllogism does not take the Term what I am both times in the fame Sense.

3. He that fays you are an Animal, fays true; but be that says you are a Goose, says you are an Animal; therefore be that says you are a Goose, says true. In the major Proposition the Word Animal is the Predicate of an incidental Proposition; which incidental Proposition being affirmative, renders the Predicate of it particular, according to Chap. II. Sect. 2. Axiom. 3. and confequently the Word Animal there fignifics only buman Animality. In the minor Proposition, the Word Animal, for the fame Reafon, fignifies the Animality of a Goofe; whereby it becomes an ambiguous Term, and unfit to build the Conclusion upon. Or if you fay, the Word Animal in the minor, is taken for buman Animality, then the minor is evidently false.

It is from this last general Test of Syllogisms that we derive the Custom of the Respondent in anfwering the Arguments of the Opponent, which is to diftinguish upon the major or minor Proposition, and declare which Term is used in two Senses, and in what Sense the Proposition may be true, and in what Sense it is false.

#### CHAP. IV.

# Some general Rules to direct our Reasoning.

M OST of the general and fpecial Directions given to form our Judgments aright in the preceding Part of Logick might be rehearled here; for the Judgments which we pass upon Things are generally built on fome fecret Reasoning or Argument by which the Proposition is supposed to be proved. But there may be yet fome farther Affiftances given to our reasoning Powers in their Search after Truth, and an Observation of the following Rules will be of great Importance for that End.

I. RULE. Accustom yourselves to clear and distinut Ideas, to evident Propositions, to strong and convincing Arguments. Converse much with those Friends. and those Books, and those Parts of Learning where you meet with the greatest Clearness of Thought and Force of Reasoning. The mathematical Sciences, and particularly Arithmetick, Geometry, and Mechanicks, abound with these Advantages: And if there were nothing valuable in them for the Ules of human Life, yet the very speculative Parts of this fort of Learning are well worth our Study; for by perpetual Examples they teach us to conceive with Clearnefs, to connect our Ideas and Propositions in a Train of Dependance, to reason with Strength and Demonftration, and to diftinguish between Truth and Falshood. Something of these Sciences should be ftudied by every Man who pretends to Learning, and that (as Mr. Locke expresses it) not fo much to make Ch. IV. The right Use of Reason.

make us Mathematicians, as to make us reasonable Creatures.

We should gain such a Familiarity with Evidence of Perception and Force of Reasoning, and get such a Habit of discerning clear Truths, that the Mind may be soon offended with Obscurity and Confusion: Then we shall (as it were) naturally and with Ease restrain our Minds from rash Judgment, before we attain just Evidence of the Proposition which is offered to us; and we shall with the same Ease, and (as it were) naturally feize and embrace every Truth that is proposed with just Evidence.

This Habit of conceiving clearly, of judging juftly, and of reasoning well, is not to be attained merely by the Happiness of Constitution, the Brightness of Genius, the best natural Parts, or the best Collection of logical Precepts. It is Cuftom and Practice that must form and eftablish this Habit. We must apply ourselves to it till we perform all this readily, and without reflecting on A coberent Tinker, and a firit Reasoner, Rules. is not to be made at once by a Set of Rules, any more than a good Painter or Musician may be formed extempore by an excellent Lecture on Musick or Painting. It is of infinite Importance therefore in our younger Years to be taught both the Value and the *Practice* of conceiving clearly and reafoning right: For when we are grown up to the middle of Life, or past it, it is no Wonder that we should not learn good Reasoning, any more than that an ignorant Clown should not be able to learn fine Language, Dancing, or a courtly Behaviour, when his ruftic Airs have grown up with him till the Age of Forty.

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For want of this Care *fome Perfons* of *Rank* and *Education* dwell all their Days among obfcure Ideas; they conceive and judge always in Confufion, they take weak Arguments for Demonstration, they are led away with the Difguises and Shadows of Truth. Now if fuch Perfons happen to have a bright Imagination, a Volubility of Speech, and a Copiousness of Language, they not only impose many Errors upon their own Understandings, but they stamp the Image of their own Mistakes upon their Neigbours also, and spread their Errors abroad.

It is a Matter of just Lamentation and Pity to confider the Weakness of the common Multitude of Mankind in this Respect, how they receive any thing into their Affent upon the most trifling Grounds. True Reafoning hath very little Share in forming their Opinions. They refift the most convincing Arguments by an obstinate Adherence to their Prejudices, and believe the most improbable Things with the greatest Assurance. Thev talk of the abstrufest Mysteries, and determine upon them with the utmost Confidence, and without just Evidence either from Reason or Revela-A confused Heap of dark and inconsistent tion. Ideas make up a good Part of their Knowledge in Matters of Philosophy as well as Religion, having never been taught the Ufe and Value of clear and iust Reasoning.

Yet it must be still confessed that there are fome Mysteries in Religion, both natural and revealed, as well as fome abstrule Points in Philosophy, wherein the Wise as well as the Unwise must be content with obscure Ideas. There are feveral Things, especially relating to the invisible World, which are unfearchable in our present State, and therefore we must believe what Revelation plainly dictates

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Ch. IV. The right Use of Reason. 329 tates, though the Ideas may be obscure. Reason itself demands this of us; but we should seek for the brightest Evidence both of Ideas, and of the Connexion of them, wheresoever it is attainable.

II. RULE. Enlarge your general Acquaintance with Things daily, in order to attain a rich Furniture of Topics, or middle Terms, whereby those Propositions which occur may be either proved or disproved; but especially meditate and enquire with great Diligence and Exactness into the Nature, Properties, Circumstances and Relations of the particular Subject about which you judge or argue. Confider its Causes, Effects, Confequences, Adjuncts, Opposites, Signs, &c. so far as is needful to your present Purpose. You should survey a Question round about, and on all Sides, and extend your Views as far as possible to every Thing that has a Connexion with it. This Practice has many Advantages in it; as,

1. It will be a Means to fuggest to your Mind, proper Topics for Argument about any Proposition that relates to the same Subject.

2. It will enable you with greater Readiness and Justness of Thought to give an Answer to any sudden Question upon that Subject, whether it arises in your own Mind, or be proposed by others.

3. This will inftruct you to give a plainer and fpeedier Solution of any Difficulties that may attend the Theme of your Difcourfe, and to refute the Objections of those who have espoused a contrary Opinion.

4. By fuch a large Survey of the whole Subject in all its Properties and Relations, you will be better fecured from Inconfiftencies, *i. e.* from afferting or denying any thing in one Place, which contradicts what you have afferted or denied in another : other: And to attain these Ends, an Extensiveness of Understanding, and a large Memory, are of unspeakable Service.

One would be ready to wonder fometimes how eafily great and wife and learned Men are led into Affertions in fome Parts of the fame Treatife, which are found to be fcarce confiftent with what they have afferted in other Places: But the true Reason is the Narrowness of the Mind of Man, that it cannot take in all the innumerable Properties and Relations of one Subject with a fingle View; and therefore whilst they are intent on one particular Part of their Theme, they bend all their Force of Thought to prove or difprove fome Proposition that relates to that. Part, without a fufficient Attention to the Confequences which may flow from it, and which may unhappily affect another Part of the fame Subject, and by this Means they are fometimes led to fay things which are inconfiftent. In fuch a Cafe the great Dealers in Difpute and Controversy take Pleasure to cast Non/en/e and Self-Contradiction on their Antagonist with huge and hateful Reproaches. For my Part I rather chufe to pity human Nature, whole neceffary Narrownels of Understanding exposes us all to fome Degrees of this Frailty. But the most extensive Survey possible of our whole Subject is the beft Remedy against it. It is our judging and arguing upon a partial View of Things, that exposes us to Mistakes, and pushes us into Absurdities, or at least to the very Borders of them.

III. RULE. In fearching the Knowledge of Things, always keep the precise Point of the prefent Queftion in your Eye. Take heed that you add nothing to it while you are arguing, nor omit any part of it. Watch

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Watch carefully left any new Ideas flide in to mingle themfelves either with the Subject or the Predicate. See that the Queftion be not altered by the Ambiguity of any Word taken in different Senfes; nor let any fecret Prejudices of your own, or the fophiftical Arts of others, cheat your Understanding by changing the Queftion, or fhuffling in any thing elfe in its room.

And for this End it is ufeful to keep the precife Matter of Enquiry as *fimple* as may be, and *difen*gaged from a Complication of Ideas, which do not neceffarily belong to it. By admitting a Complication of Ideas, and taking too many Things at once into one Queftion, the Mind is fometimes dazzled and bewildered; and the Truth is loft in fuch a Variety and Confusion of Ideas; whereas by limiting and narrowing the Queftion, you take a fuller Survey of the whole of it.

By keeping the fingle Point of Enquiry in our conftant View, we fhall be fecured from fudden, rafh, and impertinent Refponfes and Determinations, which fome have obtruded inftead of Solutions and folid Anfwers, before they perfectly know the Queftions.

IV. RULE. When you have exacily confidered the precise Point of Enquiry, or what is unknown in the Question, then confider what, and how much you know already of this Question, or of the Ideas and Terms of which it is composed. It is by a Comparifon of the known and unknown Parts of the Questtion together, that you find what Reference the Part known hath unto, or what Connexion it hath with the Thing that is fought: Those Ideas, whereby the known and unknown Parts of the Question are connected, will furnish you with middle Terms

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or Arguments whereby the Thing proposed may be proved or disproved.

In this Part of your Work, (viz.) Comparing Ideas rogether, take due Time, and be not too hafty to come to a Determination, especially in Points of Importance. Some Men when they fee a little Agreement or Difagreement between Ideas, they prefume a great deal, and fo jump into the Conclufion: This is a fhort Way to Fancy, Opinion, and Conceit, but a most unfafe and uncertain Way to true Knowledge and Wisdom.

V. RULE. In chusing your middle Terms or Argu. ments to prove any Question, always take such Topics as are surest, and least fallible, and which carry the greatest Evidence and Strength with them. Be not fo folicitous about the Number, as the Weight of your Arguments, especially in proving any Proposition which admits of natural Certainty, or of complete Demonftration. Many Times we do Injury to a Caufe by dwelling upon trifling Arguments. We amufe our Hearers with Uncertainties, by multiplying the 2 Number of feeble Reafonings, before we mention those which are more substantial, conclusive and convincing. And too often we yield up our own Affent to mere probable Arguments, where certain Proofs may be obtained.

Yet it must be confessed there are many Cases, wherein the growing Number of *prohable Arguments* increases the Degree of Probability, and gives a great and sufficient Confirmation to the Truth which is fought; as,

(1.) When we are enquiring the true Senfe of any Word or Phrafe, we are more confirmed in the Signification of it, by finding the fame Exprefion

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prefiion fo used in several Authors, or in several Places of the same Author.

(2.) When we are fearching out the true Meaning or Opinion of any Writer, or enquiring into any facred Doctrine of Scripture, we come to a furer Determination of the Truth by feveral diftinct Places wherein the fame Thing is expressed or plainly implied; because it is not fo probable that an honeft skilful Reader should mistake the Meaning of the Writer in many Places, as he may in one or two.

(3.) When we would prove the Importance of any fcriptural Doctrine or Duty, the Multitude of Texts, wherein it is repeated and incalculated upon the Reader, feems naturally to inftruct that it is a Matter of greater Importance, than other Things which are but flightly or fingly mentioned in the Bible.

(4.) In fearching out Matters of Fact in Times paft or in diftant Places (in which Cafe moral Evidence is fufficient, and moral Certainty is the utmost which can be attained) here we derive a greater Affurance of the Truth of it by a Number of Perfons, or a Multitude of Circumstances concurring to bear Witnefs to it.

(5.) From many Experiments in natural Philo- \* fophy we more fafely infer a general Theorem, than we can from one or two.

(6.) In Matters which require prefent Practice, both facred and civil, we must content outfelves oftentimes with a mere Preponderation of probable Reasons or Arguments. Where there are feveral Reasons on each Side, for and against a Thing that is to be done or omitted, a small Argument added to the Heap may justly turn the Balance on one Side, and determine the Judgment, as I have noted in the Second Part of Logick.

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To conclude; a growing Acquaintance with Matters of Learning, and a daily Improvement of our Understandings in Affairs human and divine, will best teach us to judge and diffinguish in what Cafes the Number of Arguments adds to their Weight and Force: It is only Experience can fully inform us when we must be determined by probable Topics, and when we must feek and expect Demonfirations.

VI. RULE. Prove your Conclusion (as far as poffible) by fome Propositions that are in themselves more plain, evident, and certain than the Conclusion; or at least such as are more known, and more intelligible to the Person whom you would convince. If we neglect this Rule, we shall endeavour to enlighten that jwhich is obscure by something equally or more obscure, and to confirm that which is doubtful by something equally or more uncertain. Common Senfe dictates to all Men, that it is impossible to establish any Truth, and to convince others of it, but by something that is better known to them than that Truth is.

VII. RULE. Labour in all your Arguings to enlighten the Understanding, as well as to conquer and captivate the Judgment. Argue in fuch a Manner, as may give a natural, diffinct, and folid Knowledge of Things to your Hearers, as well as to force their Affent by a mere Proof of the Question. Now to attain this End, the chief Topic or Medium of your Demonstration should be fetched as much as possible, from the Nature of the Thing to be proved, or from those Things which are most naturally connected with it.

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Geometricians fometimes break this Rule without Neceffity, two Ways, (viz.)

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1. When they prove one Proposition only by shewing what Abfurdities will follow if the contradictory Proposition be supposed or admitted: This is called Reductio ad absurdum \*, or Demonstratio per impessibile; as for Instance, When they prove all the Radii of a Circle to be equal, by fuppoling one Radius to be longer or shorter than another, and then shewing what absurd Confequences will follow. This I confess, forces the Affent, but it does not enlighten the Mind by shewing the true Reason and Cause why all Radii are equal, which is derived from the very Construction of a Circle: For fince a Circle is formed by fixing one End of a strait Line in the Centre, and moving the other End round (or, which is all one, by Compasses kept open to a certain Extent) it follows evidently that every Part of the Circumference being thus defcribed must be equally distant from the Centre, and therefore the Radii, which are Lines from the Centre to the Circumference, must be all equal.

2. Geometricians forget this Rule when they heap up many far-fetched Lines, Figures and Proportions to prove fome plain, fimple, and obvious Proposition. This is called a Demonstration per aliena et remata, or an Argument from unnatural and remote Mediums: As if in order to prove the Radii of a Circle are all equal, I should make feveral Triangles and Squares about the Circle, and Y 2 then

Note, This Rule chiefly refers to the Efablifoment of fome Truth, rather than to the Refutation of Error. It is a very common and useful Way of arguing to refute a falle Proposition, by thewing what evident Fallhood or Abfurdity will follow from it: For what Proposition foever is really abfurd and falle does effectually prove that Principle to be falle from which it is derived; fo that this Way of refuting an Error is not fo usually called Reductio ad abfurdum. then from some Properties and Propositions of Squares and Triangles prove that the Radii of a Circle are equal.

Yet it must be confessed, that sometimes such Questions happen, that it is hardly possible to prove them by direct Arguments drawn from the Nature of Things, Gc. and then it may not only be lawful, but necessary to use indirect Proofs, and Arguments drawn from remote Mediums, or from the Abjurdity of the contradictory Suppositions.

Such indirect and remote Arguments may also be fometimes used to confirm a Proposition which has been before proved by Arguments more direct and immediate.

VIII. RULE. Though Arguments should give Light to the Subject, as well as constrain the Affent, yet you must learn to diffinguish well between an Explication and an Argument; and neither impose upon yourselves, nor suffer yourselves to be imposed upon by others, by mistaking a mere Illustration for a convincing Reason.

Axioms themselves, or Self-evident Propositions may want an Explication or Illustration, though they are not to be proved by Reasoning.

Similitudes and Allufions have oftentimes a very happy Influence to explain fome difficult Truth, and to render the Idea of it familiar and eafy. Where the Refemblance is just and accurate, the Influence of a Simile may proceed fo far as to shew the Possibility of the Thing in Question r But Similitudes must not be taken as a folid Proof of the Truth or Existence of those Things to which they have a Refemblance. A too great Deference paid to Similitudes, or an utter Rejection of them seem to be two Extremes, and ought to be avoided. The late ingenious Mr. Locke, even

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even in his Enquiries after Truth, makes great Use of Similes for frequent Illustration, and is very happy in the Invention of them, though he warns us also left we mistake them for conclusive Arguments.

Yet let it be noted here, that a Parable or a Similitude used by any Author, may give a sufficient Proof of the true Sense and Meaning of that Author, provided that we draw not this Similitude beyond the Scope and Design for which it was brought; as when our Saviour affirms, Rev. iii, 3. I will come on thee as a Thief; this will plainly prove that he describes the Unexpettedness of bis Appearance, though it will by no Means be drawn to signify any Injustice in bis Design.

IX. RULE. In your whole Course of Reasoning keep your Mind fincerely intent in the Pursuit of Truth; and follow solid Argument wheresoever it leads you. Let not a Party Spirit, nor any Passion or Prejudice whatsoever, stop or avert the Current of your Reasoning in Quest of true Knowledge.

When you are enquiring therefore into any Subject, maintain a due Regard to the Arguments and Objections on both Sides of a Question: Consider, compare, and balance them well before you determine for one Side. It is a frequent, but a very faulty Practice to hunt after Arguments only to make good one Side of a Queftion, and entirely to neglect and refute those which favour the other Side. If we have not given a due Weight to Arguments on both Sides, we do but wilfully mifguide our Judgment, and abuse our Reason. by forbidding its Search after Truth. When we espouse Opinions by a secret Biass on the Mind, through the Influences of Fear, Hope, Honour, Credit, Intereft;

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Intereft, or any other Prejudice, and then feek Arguments only to fupport those Opinions, we have neither done our Duty to God nor to ourselves; and it is a Matter of mere Chance if we stumble upon Truth in our Way to Ease and Preferment. The Power of Reasoning was given us by our Maker for this very End, to purfue Truth; and we abuse one of his richest Gifts, if we basely yield it up to be led astray by any of the meaner Powers of Nature, or the perissing Interests of this Life. Reason itself, if honestly obeyed, will lead us to receive the divine Revelation of the Gospel, where it is duly proposed, and this will shew us the Path of Life everlasting.

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#### THE

# FOURTH PART

#### OF

# LOGICK.

# Of Disposition and Method.

T is not merely a clear and diftinct Idea, a wellformed Proposition, or a just Argument, that is fufficient to fearch out and communicate the Knowledge of a Subject. There must be a Variety and Series of them disposed in a due manner in order to attain this End: And therefore it is the Defign of the last Part of Logick to teach us the Art of. Method: It is that must fecure our Thoughts from that Confusion, Darkness, and Mistake which unavoidably attend the Meditations and Discourfes even of the brightest Genius who despises the Rules of it.

1. We shall here consider the Nature of Method, and the feveral Kinds of it.

2. Lay down the general Rules of Method, with a few Particulars under them.

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## CHAP. I.

#### Of the Nature of Method, and the feveral Kinds of it, (viz.) Natural and Arbitrary, Synthetic and Analytic.

METHOD, taken in the largeft Senfe, implies the placing of feveral Things, or performing feveral Operations in fuch an Order as is most convenient to attain fome End proposed: And in this Sense it is applied to all the Works of Nature and Art, to all the divine Affairs of Creation and Providence; and to the Artifices, Schemes, Contrivances and Practices of Mankind, whether in natural, civil, or facred Affairs.

Now this orderly Difpolition of Things includes the Ideas of Prior, Posterior, and Simultaneous; of Superior, Inferior, and Equal; of Beginning, End, and Middle, &c. which are defcribed more particularly among the general Affections of Being in Ontology.

But in Logick Method is ufually taken in a more limited Senfe, and the Nature of it is thus defcribed: Method is the Difposition of a Variety of Thought on any Subject in fuch Order as may beft ferve to find out unknown Truths, to explain and confirm Truths that are known, or to fix them in the Memory.

It is diffributed into two general Kinds, (viz.) Natural and Arbitrary.

Natural Method is that which observes the Order of Nature, and proceeds in such a Manner as that the Knowledge of the Things which follow depends in a great Measure on the Things which go before, and this is twofold, (viz.) Synthetic and

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and Analytic, which are fometimes called Synthefis and Analyhs \*.

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Syntbetick Method is that which begins with the Parts +, and leads onward to the Knowledge of the whole; it begins with the most simple Principles, and general Truths, and proceeds by Degrees to that which is drawn from them or compounded of them : And therefore it is called the Method of Composition.

Analytic Method takes the whole Compound as it finds it, whether it be a Species or an Individual, and leads into the Knowledge of it by refolving it into its first Principles or Parts, its generic Nature, and its special Properties; and therefore it is called the Method of Resolution.

As synthetic Method is generally used in teaching the Sciences after they are invented, fo analytic

\* The Word Analyfis has three or four Senfes, which it may not be improper to take Notice of here.

1. It fignifies the general and particular Heads of a Discourse with their mutual Connections, both co-ordinate and fubordinate, drawn out by way of Abstract into one or more Tables, which are frequently placed like an Index at the Beginning or End of a Book.

2. It fignifies the refolving of a Discourse into its various Subjects and Arguments, as when any Writing of the ancient Prophets is refolved into the prophetical, bifforical, dostrinal, and practical Parts of it; it is faid to be analysed in general. When a Sentence is diffinguished into the Nouns, the Verbs, Pronouns, Adverbs, and other Particles of Speech which compose it, then it is faid to be analyfed grammatically. When the fame Sentence is diftinguished into Subject and Predicate, Proposition, Argument, Act, Object, Cause, Effect, Adjunct, Opposite, &cc. then it is analysed logically and metaphysically. This last is what is chiefly meant in the theological Schools, when they fpeak of analyfing a Text of Scripture.

3. Analysis fignifies particularly the Science of Algebra, wherein a Queffion being proposed, one or more Letters, as, x, y, x, or Vowels, as, a, e, i, &c. are made use of to fignify the unknown Number, which being intermingled with feveral known Numbers in the Queftion, is at last by the Rules of Art Separated or released from that Entanglement, and its particular Value is found

a the second s confidered only as a physical or effential Part of the Species, though it be fometimes called an universal or logical Whole. Thus function Method maintains its own Defeription fill, for it begins with the Parts, and proceeds to the Whale which is composed of them,

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enalytic is most practifed in finding out Things unknowm. Though it must be confessed that both Methods are sometimes employed to find out Truth, and to communicate it.

If we know the Parts of any Subject easier and better than the Whole, we confider the Parts diffinctly, and by putting them together we come to the Knowledge of the Whole. So in Grammar we learn first to know Letters, we join them to make Syllables, out of Syllables we compose Words, and out of Words we make Septences and Discourses. So the Physician or Apothecary knows the Nature and Powers of his Simples, (viz.) his Drugs, his Herbs, his Minerals, &cc. and putting them together, and confidering their feveral Virtues, he finds what will be the Nature and Powers of the Bolus, or any compound Medicine: This is the fynthetic Method.

But if we are better acquainted with the Whole than we are with particular Parts, then we divide or refolve the Whole into its Parts, and thereby gain a diftinct Knowledge of them. So in vulgar Life we learn in the Grofs what *Plants* or *Minerals* are; and then by Chemistry we gain the Knowledge of Salt, Sulphur, Spirit, Water, Earth, which are the Principles of them. So we are first acquainted with the whole Body of an Animal, and then by Anatomy or Diffection, we come to learn all the inward and outward Parts of it. This is analytic Method.

According to this most general and obvious Idea of *fynthetic* and *analytic* Method they differ from each other as the Way which leads up from a Valley to a Mountain differs from itself, confidered as it leads down from the Mountain to the Valley; or as St. Matthew and St. Luke prove Chrift to be the Son of Abraham; Luke finds it out

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by Analysis, rifing from Cbrist to his Ancestors; Matthew teaches it in synthetic Method, beginning from Abraham, and shewing that Cbrist is found among his Posterity. Therefore it is a usual Thing in the Sciences, when we have by Analysis found out a Truth, we use synthetic Method to explain and deliver it, and prove it to be true.

In this eafy View of Things, these two Kinds of Method may be preferved confpicuously, and entirely diffinct: But the Subjects of Knowledge being infinite, and the Ways whereby we arrive at this Knowledge being almost infinitely various, it is very difficult, and almost impossible, always to maintain the precise Diffinction between these two Methods.

This will evidently appear in the following Obfervations.

Obf. I. Analytic Method being used chiefly to find out Things unknown, it is not limited or confined merely to begin with some whole Subject, and proceed to the Knowledge of its Parts, but it takes its Rife sometimes from any single Part or Property, or from any Thing whatsoever that belongs to a Subject which happens to be first and most easily known, and thereby enquires into the more abstrule and unknown Parts, Properties, Causes, Effects, and Modes of it, whether absolute or relative: As for Instance,

(1.) Analyfis finds out Caules by their Effects. So in the speculative Part of natural Philosophy, when we observe Light, Colours, Motions, Hardnefs, Softnefs, and other Properties and Powers of Bodies, or any of the common or uncommon Appearances of Things either on Earth, or in Heaven, we fearch out the Caufes of them. So by the

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the various Creatures we find out the Creator, and learn his Wifdom, Power and Goodnefs.

(2.) It finds out Effects by their Caufes. So the practical and mechanical Part of *natural Philosophy*, confiders fuch Powers of Motion, as the *Wind*, the *Fire*, and the *Water*, &cc. and then contrives what Uses they may be applied to, and what will be their Effects in order to make *Mills* and *Engines* of various Kinds.

(3.) It finds out the general and fpecial Nature of a Thing by confidering the various Attributes of the Individuals, and observing what is common, and what is proper, what is accidental, and what is effential. So by furveying the Colour, the Shape, Motion, Rest, Place, Solidity, Extension of Bodies, we come to find that the Nature of Body in general is folid Extension; because all other Qualities of Bodies are changeable, but this belongs to all Bodies, and it endures through all Changes; and because this is proper to Body alone, and agrees not to any thing elfe; and it is the Foundation of all other Properties.

(4.) It finds out the remaining Properties or Parts of a Thing, by having fome Parts or Properties given. So the Area of a Triangle is found by knowing the Height and the Bale. So by having two Sides, and an Angle of a Triangle given, we find the remaining Side and Angles. So when we know Cogitation is the prime Attribute of a Spirit, we infer its Immateriality, and thence its Immortality.

(5.) Analysis finds the Means neceffary to attain a proposed End by having the End first affigned. So in moral, political, acconomical Affairs, having proposed the Government of Self, a Family, a Society, or a Nation, in order to their best Interest, we confider and fearch out what are the pro-

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per Laws, Rules and Means to effect it. So in the Practices of Artificers, and the Manufactures of various Kinds, the End being proposed, as, making Cloth, Houfes, Ships, &c. we find out Ways of composing these things for the several Uses of human Life. By the putting any of these Means in Execution to attain the End, is fynthetic Method.

Many other Particulars might be represented to shew the various Forms of *analytic Meibod*, whereby Truth is found out, and some of them come very near to *fynibetic*, so as hardly to be diffinguished.

Ob/. II. Not only the Investigation of Truth. but the Communication of it also is often practifed in fuch a Method, as neither agrees precifely to fynthetic or analytic. Some Sciences, if you confider the whole of them in general, are treated in fynthetic Order; fo Phyfics or natural Philo(ophy begins ufually with an Account of the general Nature and Properties of Matter or Bodies, and by Degrees defcends to confider the particular Species of Bodies, with their Powers and Properties; yet it is very evident that when Philosophers come to particular Plants and Animals, then by Chemistry and Anatomy they analyfe or refolve those Bodies into their feveral conftituent Parts. On the other hand, Logick is begun in analytic Method; the whole is divided into its integral Parts, according to the four Operations of the Mind ; yet here and there fynthetic Method is used in the particular Branches of it, for it treats of Ideas in general first, and then defcends to the feveral Species of them; it teaches us how Propositions are made up of Ideas, and Syllogisms of Propositions, which is the Order of Composition.

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The ancient Scholaftic Writers have taken a great deal of Pains, and engaged in ufelefs Difputes about thefe two Methods, and after all have not been able to give fuch an Account of them as to keep them entirely diffinct from each other, neither in the Theory nor in the Practice. Some of the Moderns have avoided this Confufion in fome Meafure by confining themfelves to defcribe almost nothing elfe but the fyntbetic and analytic Methods of Geometricians and Algebraists, whereby they have too much narrowed the Nature and Rules of Method, as though every thing were to be treated in mathematical Forms.

Upon the whole I conclude, that neither of these two Methods should be too scrupulously and superstitionally pursued, either in the Invention or in the Communication of Knowledge. It is enough if the Order of Nature be but observed in making the Knowledge of Things following depend on the Knowledge of the Things which go before. Oftentimes a mixed Method will be found most effectual for these Purposes; and indeed a wife and judicious Prospect of our main End and Design must regulate all Method whatfoever.

Here the Rules of natural Method ought to be proposed, (whether it be analytic, or finibetic, or mixed:) but it is proper first to give some Account of arbitrary Method, left it be thrust at too great a Distance from the first Mention of it.

Arbitrary Method leaves the Order of Nature, and accommodates itfelf to many Purpofes; fuch as, to treafure up Things, and retain them in Memory; to harangue and perfuade Mankind to any Practice in the religious or the civil Life; or to delight, amufe, or entertain the Mind.

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As for the Affifance of the Memory, in most Things a natural Order has an happy Influence; for Reason itself deducing one Thing from another, greatly affifts the Memory by the natural Connection and mutual Dependence of Things. But there are vasious other Methods which Mankind have made Use of for this Purpose, and indeed there are fome Subjects that can hardly be reduced to Analysis or Synthefis.

In reading or writing *Hiftory*, fome follow the Order of the Governors of a Nation, and difpofe every Tranfaction under their particular *Reigns*: So the facred Books of *Kings* and *Chronicles* are written. Some write in *Annals* or *Journals*, and make a new Chapter of every Year. Some put all those Tranfactions together which relate to one Subjeti; that is, all the Affairs of one War, one League, one Confederacy, one Council, &cc. though it lasted many Years, and under many Rulers.

So in writing the Lives of Men, which is called Biography, fome Authors follow the Tract of their Years, and place every Thing in the precife Order of Time when it occurred: Others through the Temper and Charasser of the Perfons, their private Life, their publick Stations, their perfonal Occurrences; their domeflick Condust, their Speeches, their Books or Writings, their Sicknefs and Death, into fo many diffinct Chapters.

In Chronology fome Writers make their Epochas to begin all with one Letter: So in the Book called Ductor Hiftoricus, the Periods all begin with C; as Creation, Cataclifm, or Deluge, Chaldean Empire, Cyrus, Chrift, Conftantine, &c. Some divide their Accounts of Time according to the four great Monarchies; Affyrian, Perfian, Grecian, and Roman. Others think it ferves the Memory beft to divide Z all 348

all their Subjects into the remarkable Number of Sevens; fo Prideaux has written an Introduction to History. And there is a Book of Divinity called Fasciculus Controversiarum, by an Author of the same Name, written in the fame Method, wherein every Controverfy has *feven* Questions belonging to it; though the Order of Nature feems to be too much neglected by a Confinement to this leptenary Number.

Those Writers and Speakers, whose chief Business is to amuse or delight, to allure, terrify, or persuade Mankind, do not confine themfelves to any *natural* Order, but in a cryptical or bidden Method adapt every Thing to their defigned End. Sometimes they omit those Things which might injure their Defign, or grow tedious to their Hearers. though they feem to have a neceffary Relation to the Point in Hand: Sometimes they add those Things which have no great Reference to the Subject, but are fuited to allure or refresh the Mind and the Ear. They dilate fometimes, and flourish long upon little Incidents, and they skip over, and but lightly touch the drier Part of their Theme. They place the first Things laft, and the laft Things first, with wondrous Art, and yet fo manage it as to conceal their Artifice, and lead the Senfes and Paffions of their Hearers into a pleafing and powerful Captivity.

It is chiefly Poely and Oratory that require the Practice of this Kind of arbitrary Method: They omit Things effential which are not beautiful, they infert little needlefs Circumstances, and beautiful Digreffions, they invert Times and Actions, in order to place every Thing in the most affecting Light, and for this End in their Practice they neglect all logical Forms; yet a good Acquaintance with the Forms of Logick and natural Method is of admirable Use to those who would attain these Arts

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Arts in Perfection. Hereby they will be able to range their own Thoughts in fuch a Method and Scheme, as to make a more large and comprehenfive Survey of their Subject and Defign in all the Parts of it; and by this Means they will better judge what to choose and what to refuse; and how to drefs and manage the whole Scene before them, so as to attain their own Ends with greater Glory and Success.

CHAP. II.

#### The Rules of Method, general and particular.

THE general Requisites of true Method in the Pursuit or Communication of Knowledge, may be all comprised under the following Heads. It must be (1.) Safe. (2.) Plain and Eafy. (3.) Distinct. (4.) Full, or without Defect. (5.) Short, or without Superfluity. (6.) Proper to the Subject and the Defign. (7.) Connetted.

I. RULE. Among all the Qualifications of a good Method, there is none more necessary and important than that it should be *fase and fecure from Error*; and to this End these four *particular*, or *fpecial Directions* should be observed.

1. Use great Care and Circumspection in laying the Foundations of your Discourse, or your Scheme of Thoughts upon any Subject. Those Propositions which are to stand as first Principles, and on which the whole Argument depends, must be viewed on all Sides with the utmost Accuracy, lest an

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Error being admitted there, should diffuse itself through the whole Subject. See therefore that your general Definitions or Descriptions are as accurate as the Nature of the Thing will bear: See that your general Divisions and Distributions be just and exact, according to the Rules given in the first Part of Logick: See that your Axioms be sufficiently evident, so as to demand the Assent of those that exmine them with due Attention. See that your first and more immediate Consequences from these Principles be well drawn; and take the same Care of all other Propositions that have a powerful and spreading Influence through the several Parts of your Discourse.

For want of this Care fometimes a large Treatife has been written by a long Deduction of Confequences from one or two doubtful Principles, which Principles have been effectually refuted in a few Lines, and thus the whole Treatife has been deftroyed at once: So the largest and fairest Buildings finks and tumbles to the Ground, if the Foundations and Corner-Stones of it are feeble and infufficient.

2. It is a very adviseable Thing that your primary and fundamental Propositions be not only evident and true, but they should be made a little familiar to the Mind by dwelling upon them before you proceed farther. By this Means you will gain fo full an Acquaintance with them, that you may draw Confequences from them with much more Freedom, with greater Variety, brighter Evidence, and with a firmer Certainty, than if you have but a flight and fudden View of them.

3. As you proceed in the Connexion of your Arguments, *see that your Ground be made firm in* every Step. See that every Link of your Chain of Reafoning be firong and good: For if but one **Ch. II.** The right Use of Reason. 351 one Link be feeble and doubtful, the whole Chain of Arguments feels the Weakness of it, and lies exposed to every Objector, and the original Question remains undetermined.

4. Draw up all your Propositions and Arguments with fo much Caution, and express your Ideas with such a just . Limitation as may preclude or anticipate any Objections. Yet remember this is only to be done as far as it is possible, without too much entangling the Quession, or introducing complicated Ideas, and obscuring the Sense. But if such a cautious and limited Dress of the Quession should render the Ideas too much complicated, or the Sense obscure, then it is better to keep the Argument more simple, clear and easy to be understood, and afterwards mention the Objections diffinctly in their full Strength, and give a diffinct Answer to them.

II. RULE. Let your Method be plain and eafy, fo that your Hearers or Readers, as well as yourfelf, may run through it without Embarraffment, and may take a clear and comprehensive View of the whole Scheme. To this End the following particular Directions will be useful.

1. Begin always with those Things which are best known, and most obvious, whereby the Mind may have no Difficulty or Fatigue, and proceed by regular and easy Steps to Things that are more difficult. And as far as possible let not the Understanding or the Proof of any of our Positions depend on the Positions that follow, but always on those which go before. It is a Matter of Wonder that in fo knowing an Age as this, there should be fo many Persons offering Violence daily to this Rule, by teaching the Latin Language by a Grammar written in Latin, which Method seems to require a persect Knowledge of

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an unknown Tongue, in order to learn the first Rudiments of it.

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2. Do not affett excefive Hafte in learning or teaching any Science, nor burry at once into the midft of it, left you be too foon involved in feveral new and ftrange Ideas and Propositions, which cannot be well understood without a longer and closer Attention to those which go before. Such fort of Speed is but a waste of Time, and will constrain you to take many Steps backward again, if you would arrive at a regular and complete Knowledge of the Subject.

3. Be not fond of crowding too many Thoaghts and Reafonings into one Sentence or Paragraph, beyond the Apprehension or Capacity of your Readers or Hearers. There are fome Perfons of a good Genius, and a capacious Mind, who write and speak very obscurely upon this Account; they affect a long Train of Dependences, before they come to a Period; they imagine that they can never fill their Page with too much Senfe; but they little think how they bury their own best Ideas in the Crowd, and render them in a Manner invisible and useless to the greatest Part of Mankind. Such Men may be great Scholars, yet they are but poor Teachers.

4. For the fame Reafon, avoid too many Subdivisions. Contrive your Scheme of Thoughts in fuch a Manner as may finish your whole Argument with as few inferior Branchings as Reafon will admit; and let them be such as are obvious and open to the Understanding, that they may come within one single View of the Mind. This will not only affiss the Understanding to receive, but it will aid the Memory also to retain Truth; whereas a Discourse cut out into a vast Multitude of gradual Subordinations has many Inconveniencies Ch. II. The right Use of Reason.

encies in it; it gives Pain to the Mind and Memory, in furveying and retaining the Scheme of Difcourfe, and exposes the unfkilful Hearers to mingle the fuperior and inferior Particulars together, it leads them into a thick Wood inftead of open Day-light, and places them in a Labyrinth inftead of a plain Path.

5. Give all Diligence in your younger Years to obtain a clear and eafy Way of exprefing your Conceptions, that your Words as fast as you utter them, may stamp your own Ideas exactly on the Mind of the Hearer. This is a most happy Talent for the Conveyance of Truth, and an excellent Security against Mistakes and needless Controversies.

III. RULE. Let your Method be diffinit, and without the perplexing Mixture of Things that ought to be kept separate, and this will be easily practified by four Directions.

1. Do not bring unneceffary heterogeneous \* Matter in your Difcourfe on any Subject; that is, do not mingle an Argument on one Subject with Matters that relate entirely to another, but just fo far as is neceffary to give a clearer Knowledge of the Subject in hand. Examples in Logick may be borrowed from any of the Sciences to illustrate the Rules: But long Interpositions of natural Philosophy, of the Imagination and Passions, of Agency of Spirits united to Bodies, &c. break the Thread of Discourse, and perplex the Subject.

2. Let every complicated Theme or Idea be divided into its diffined fingle Parts, as far as the Nature of the Subject and your prefent Defign requires it. Though Z 4 you

\* Things of one Kind are called bossogeneous, Things of different K are called beterogeneous.

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you muft not abound in needlefs Subdivisions, yet fomething of this Work is very neceffary; and it is a good Judgment alone can dictate how far to proceed in it, and when to ftop.

Compound Ideas must be reduced to a simple Form in order to understand them well. You may easily master that Subject in all the Parts of it by a regular Succession, which would confound the Understanding to survey them at once. So we come to the Knowledge of a very perplexed Diagram in Geometry, or a complicated Machine in Mechanics, by having it parcelled out to us into its several Parts and Principles, according to this, and the foregoing Rule of Method.

3. Call every Idea, Proposition and Argument to ils proper Class, and keep each Part of the Subject in its own Place. Put those Things all together that belong to one Part or Property, one Confideration or View of your Subject. This will prevent needlefs Repetitions, and keep you from intermixing Things which are different. We must maintain this Diftinction of Things and Places if we would be fafe from Error. It is Confusion that leads us into endlefs Mistakes, which naturally arife from a Variety of Ideas ill-joined, forted, or ill-disposed. It is one great Use of Method, that a Multitude of Thoughts and Propositions may be fo diffinctly ranged in their proper Situations, that the Mind may not be overwhelmed with a confused Attention to them all at once, nor be diffracted with their Variety, nor be tempted to unite Things which ought to be feparated, nor to disjoin Things which fhould be united.

4. In the Partition of your Discourse into distinct Heads, take beed that your Particulars do not interfere with the General, nor with each other. Think it Ch. II. The right Use of Reason.

it is not enough that you make use of diffinet Expressions in each Particular, but take Care that the Ideas be diffinet also. It is mere Foolery to multiply diffinet Particulars in treating of *Things*, where the Difference of your Particulars lies only in Names and Words.

IV. RULE. The Method of treating a Subject fhould be *plenary* or *full*, *fo that nothing may be wanting*; nothing which is neceffary or proper fhould be omitted.

When you are called to *explain* a Subject, do not pass by, nor skip over any Thing in it which is very difficult or obscure.

When you enumerate the Parts or the Properties of any Subject, do it in a complete and comprehenfive Manner.

When you are afferting or proving any Truth, fee that every doubtful or disputable Part of the Argument be well supported and confirmed.

If you are to *illustrate or argue a Point of Diffi*eulty, be not too fcanty of Words, but rather become a little copious and diffusive in your Language: Set the Truth before the Reader in feveral Lights, turn the various Sides of it to view, in order to give a full Idea and firm Evidence of the Proposition.

When you are *drawing up a Narrative* of any Matter of Fact, fee that no important Circumstance be omitted.

When you propose the Solution of any Difficulty, confider all the various Cafes wherein it can happen, and shew how they may be solved.

In fhort, let your *Enumerations*, your *Divisions*, and *Distributions* of Things be fo accurate, that no needful Part or Idea be left out.

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This Fulnefs of Method does not require that every thing fhould be faid which can be faid upon any Subject; for this would make each fingle Science endlefs: But you fhould fay every thing which is neceffary to the Defign in View, and which has a proper and direct Tendency to this End; always proportioning the Amplitude of your Matter, and the Fulnefs of your Difcourfe to your great Defign to the Length of your Time, to the Convenience, Delight and Profit of your Hearers.

V. RULE. As your Method must be full without Deficiency, so it must be fort, or without Superfluity. The Fulnefs of a Discourse enlarges our Knowledge, and the well-concerted Brevity faves our Time. In order to observe this Rule, it will be enough to point out the chief of those Superfluities or Redundancies, which some Persons are guilty of in their Discourses, with a due Caution against them.

1. Avoid all needless Repetitions of the fame Thing in different Parts of your Discourse. It must be confessed there are several Cases wherein a Review of the same foregoing Proposition is needful to explain or prove several of the following Positions; but let your Method be so contrived, as far as posfible, that it may occasion the sewess Rehearsals of the same Thing; for it is not grateful to the Hearers without evident Necessity.

2. Have a care of tedious Prolixity, or drawing out any Part of your Discourse to an unnecessary and tiresome Length. It is much more honourable for an Instructor, an Orator, a Pleader, or a Preacher, that his Hearers should fay, I was afraid be would bave done, than that they should be tempted to show Signs of Uncasiness, and long for the Conclusion.

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Befides, there is another Inconvenience in it; when you affect to amplify on the former Branches of a Difcourfe, you will often lay a Neceffity upon yourfelf of contracting the latter and most useful Parts of it, and perhaps prevent yourfelf in the most important Part of your Defign. Many a Preacher has been guilty of this Fault in former Days, nor is the prefent Age without fome Instances of this Weakness.

3. Do not multiply Explications where there is no Difficulty, or Darkness, or Danger of Mistake. Be not fond of tracing every Word of your Theme through all the grammatical, the logical, and metaobyfical Characters and Relations of it, nor shew your critical Learning in fpreading abroad the various Senfes of a Word, and the various Origin of those Senses, the Etymology of Terms, the fynonymous and the paronymons or kindred Names, &c. where the chief Point of Difcourse does not at all require it. You would laugh at a Pedant, who professing to explain the Athanasian Creed, should acquaint you, that Athanafius is derived from a Greek Word which fignifies Immortality, and that the fame Word 'Alarasia fignifies also the Herb Tanhe.

There are fome Perfons fo fond of their learned Diffinctions, that they will flew their Subtlety by diffinguishing where there is no Difference: And the fame filly Affectation will introduce DiffinEtions upon every Occurrence, and bring three or four Negatives upon every Subject of Difcourfe; first to declare what it is not, and then what it is: Whereas fuch Negatives ought never to be mentioned where there is no apparent Danger of Miftake. How ridiculous would that Writer be, who, if he were speaking of the Nicene Creed, should declare negatively, 1. That he did not mean

mean the Doctrine which the Inhabitants of Nice believed, nor (2.) A Creed written by them, but (3.) Politively a Creed composed by several Christian Bissops met together in the City of Nice? The Positive is sufficient here, and the two Negatives are impertinent.

4. Be not fond of proving those Things which need no Proof, such as self-evident Propositions and Truths universally confessed, or such as are entirely agreed to and granted by our Opponents. It is this vain Affectation of proving every Thing that has led Geometricians to form useless and intricate Demonstrations to support fome Theorems, which are sufficiently evident to the Eye by Inspection, or to the Mind by the first Mention of them; and it is the fame Humour that reigns fometimes in the Pulpit, and spends half the Sermon in proving some general Truth which is never disputed or doubted, and thereby robs the Auditory of more useful Entertainment.

5. As there are fome Things fo evidently true that they want no Proof, fo there are others fo evidently falle that they want no Refutation. It is mere trifling, and a Wafte of our precious Moments, to invent and raife fuch Objections as no Man would ever make in earness, and that merely for the Sake of answering and folving them: This breaks in notoriously upon the due Brevity of Method.

6. Avoid in general all learned Forms, all Trappings of Art, and Ceremonies of the Schools, where there is no need of them, it is reported concerning the late Czar of Muscovy, that when he first acquainted himself with mathematical Learning, he practifed all the Rules of Circumvallation and Contravallation, at the Siege of a Town in Livonia; and

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and by the Length of those Formalities he lost the Opportunity of taking the Town.

7. Do not suffer every occasional and incidental Thought to carry you away into a long Parenthefis, and thus to stretch out your Discourse, and divert you from the Point in Hand. In the Pursuit of your Subject, if any useful Thought occur which belongs to fome other Theme, note it down for the fake of your Memory on fome other Paper, and lay it by in Referve for its proper Place and Seafon: But let it not incorporate itself with your present Theme, nor draw off your Mind from your main Business, though it should be ever fo inviting. A Man, who walks directly but flowly towards his Journey's End, will arrive thither much fooner than his Neighbour, who runs into every crooked Turning, which he meets, and wanders alide to gaze at every Thing that firikes his Eyes by the Way, or to gather every gaudy Flower that grows by the Side of the Road.

To fum up all; There is an happy Medium to be observed in our Method, so that the Brevity may not render the Sense obscure, nor the Argument seeble, nor our Knowledge merely superficial: And on the other Hand, that the Fulness and Copiousness of our Method may not waste the Time, tire the Learner, or fill the Mind with Trisles and Impertinencies.

The copious and the contrasted Way of writing, have each their peculiar Advantages. There is a proper Use to be made of large Paraphrases, and full, particular, and diffusive Explications and Arguments; these are fittest for those who design to be acquainted thoroughly with every Part of the Subject. There is also a Use of shorter Hints, Abstrasts and Compendiums to instruct those who seek only a slight and general Knowledge, as well as to refresh the Memory of those who have learned the

the Science already, and gone through a larger Scheme. But it is a grofs Abuse of these various Methods of Instruction, when a Person has read a mere Compend or Epitome of any Science, and he vainly imagines that he understands the whole Science. So one Boy may become a Philosopher by reading over the mere dry Definitions and Divisions of Scheibler's Compendium of Peripateticism: So another may boast that he understands Anatomy, because he has seen a Skeleton; and a third profess himself a learned Divine, when he can repeat the Apossibles Creed.

VI. RULE. Take Care that your Method be proper to the Subjett in Hand, proper to your present Defign, as well as proper to the Age and Place wherein you dwell.

1. Let your Method be proper to the Subject. All Sciences muft not be learned or taught in one Method. Morality and Theology, Metaphyficks and Logick will not be eafily and happily reduced to a ftrict mathematical Method: Those who have tried have found much Inconvenience therein.

Some things have more need to be explained than to be proved; as Axioms or felf-evident Propofitions; and indeed all the first great Principles, the chief and most important Doctrines both of natural and revealed Religion; for when the Sense of them is clearly explained, they appear so evident in the Light of Nature or Scripture, that they want no other Proof. There are other Things that stand in Need of Proof, as well as Explication, as many mathematical Theorems, and several deep Controversies in Morality and Divinity. There are yet other Sorts of Subjects which want rather to be warmly impressed upon the Mind by fervent Exbortations, and stand in more Need of this than they

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they do either of Proof or Explication; fuch are the most general, plain and obvious Duties of Piety towards God, and Love towards Men, with a Government of all our Inclinations and Paffions. Now these feveral Subjects ought to 'be treated in a different Manner and Method.

Again, There are fome Subjects in the fame Treatife which are more useful and neceffary than others, and fome Parts of a Subject which are eminently and chiefly defigned by a Writer or Speaker: True Method will teach us to dwell longer upon thefe Themes, and to lay out more Thought and Language upon them; whereas the fame Art of Method will teach us to cut fhort those Things which are used only to introduce our main Subject, and to stand as a Scaffolding merely to aid the Structure of our Discourse. It will teach us also to content ourselves with brief Hints of those Matters which are merely occasional and incidental.

2. Your Method must be adjusted by your Design; for if you treat of the fame Subject with two different Views and Designs, you will find it neceffary to use different Methods. Suppose the Doctrine of the facred Trinity were your Theme, and you were to read a Lecture to young Students on that Subject, or if you designed a Treatise for the Conviction of learned Men, you would pursue a very different Method from that which would be proper to regulate a practical Discourse, or a Sermon to instruct vulgar Christians merely in the pious Improvement of this Doctrine, and awaken them to their Duties which are derived thence.

In fhort, we must not first lay down certain and precise Rules of Method, and resolve to confine the Matter we discourse of to that particular Form and Order of Topics; but we must well confider

# LOGICK: Or, Part IV.

confider and ftudy the Subjett of our Difcourfe thoroughly, and take a just Survey of our prefent Defign, and these will give sufficient Hints of the particular Form and Order in which we should handle it, provided that we are moderately skilled in the general Laws of Method and Order.

Yet let it be noted here, that neither the Subject, nor Matter of a Discourse, nor the particular Defign of it, can fo precifely determine the Method, as to leave no Room for Liberty and Variety. The very fame Theme may be handled, and that also with the fame Defign, in feveral different Methods, among which it is hard to fay which is the beft. In writing a System of Divinity, some begin with the Scriptures, and thence deduce all other Doctrines and Duties. Some begin with the Being of God and his Attributes, fo far as he is known by the Light of Nature, and then proceed to the Doctrines of Revelation. Some diftinguish the whole Subject into the Credenda and Agenda, that is, Things to be believed, and Things to be done. Some think it beft to explain the whole Christian Religion by an biftorical Detail of all the Discoveries which God has made of bim felf to this lower World, beginning at the Creation in the first Chapter of Genefis, and fo proceeding onward according to the Narrative of the Old and New Testament. And there are others that endeavour to include the whole of Religion under these four Heads, (viz.) The Apostles Creed, the Lord's Prayer, the Ten Commandments, and the two Sacraments; though I cannot but think this is the least accurate of any. The same Variety may be allowed in treating other Subjects; this very Treatife of Logick, is an Inftance of it, whose Method differs very confiderably from any others which I have leen, as they differ also greatly from one another

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other, though feveral of them are confessed to be well written.

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3. Though a just View of our Subject and our Design may dictate proper Rules of natural Method, yet there must be some little Deference at least paid to the Custom of the Age wherein we dwell, and to the Humour and Genius of our Readers or Hearers, which if we utterly reject and difdain, our Performances will fail of defired Success, even though we may have followed the just Rules of Method. I will mention but this one Instance : In the former Century it was frequent with learned Men to divide their Theme or Subject into a great Multitude of co-ordinate Members or Parts, they abounded also in the Forms of Logick and Diffinition, and indulged numerous Ranks of Subordination. Now though we ought not to abandon the Rules of just Method and Division, in order to comport with the modifh Writers in our Age who have renounced them, yet it is prudent to pay fo much Respect to the Cultom of the Age, as to use these Forms of Division with due Moderation, and not affect to multiply them in fuch a Manner as to give an early and needless Difgust to the Generality of our prefent Readers. The fame may be faid concerning various other Methods of Conduct in the Affairs of Learning as well as the Affairs of Life, wherein we must indulge a little to Custom: And yet we must by no Means suffer ourselves to far to be impoled upon and governed by it, as to neglect those Rules of Method which are necessary for the *lafe*, ealy, and complete Enquiry into Truth, or the ready and effectual Communication of it to others.

The last Requisite of Method is, VII. Rule. that the Parts of a Discoutse should be well connected; and

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and these three short Directions will suffice for this Purpose.

1. Keep your main End and Defign ever in View, and let all the Parts of your Discourse bave a Tendency toward it, and as far as possible make that Tendency vifible all the Way: Otherwise the Readers or Hearers will have Reason to wonder for what End this or that Particular was introduced.

2. Let the mutual Relation and Dependence of the feveral Branches of your Discourse be so just and evident, that every Part may naturally lead onward to the next, without any buge Chasms or Breaks which interrupt and deform the Scheme. The Connexion of Truths should arise and appear in their successive Ranks and Order, as the feveral Parts of a fine Profpect afcend just behind each other, in their natural and regular Elevations and Diftances, and invite the Eye to climb onward with constant Pleasure till it reach the Sky. Whatfoever horrid Beauty a Precipice or a Cataract may add to the Profpect of a Country, yet fuch fort of hideous and abrupt Appearances in a Scene of Reafoning are real Blemifhes and not Beauties. When the Reader is paffing over fuch a Treatife, he often finds a wide Vacancy, and makes an uneafy Stop, and knows not how to transport his Thoughts over to the next Particular, for want of fome Clue or connecting Idea to lay hold of.

3. Acquaint yourfelf with all the proper and decent Forms of Transition from one Part of a Discourse to another, and prassife them as Occasion offers. Where the Ideas, Propositions and Arguments, are happily disposed, and well connected, the Truth indeed is fecure; but it renders the Discourse much more agreeable, when proper and graceful Expresfion joins the Parts of it together in fo entertaining

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# Ch. II. The right Use of Reason.

a Manner, that the Reader knows not how to leave off till he hath arrived at the End.

These are the general and most important Rules of true Method; and though they belong chiefly to the Communication of Knowledge, yet an early and thorough Acquaintance with them will be of confiderable Use toward the Pursuit and Attainment of it.

Those Persons who have never any Occasion to communicate Knowledge by Writing or by publick Discourses, may also with great Advantage peruse these Rules of Method, that they may learn to judge with Justice and Accuracy concerning the Performance of others. And besides, a good Acquaintance with Method, will greatly assist every one in ranging, disposing and managing all human Affairs.

The particular Means or Methods for a farther Improvement of the Understanding are very various, such as, Meditation, Reading, Conversing, Difputing by Speech or by Writing, Question and Answer, &c. And in each of these Practices fome special Forms may be observed, and special Rules may be given to facilitate and secure our Enquiries after Truth: But this would require a little Volume by itself, and a Treatise of Logick has always been efteemed sufficiently complete without it.

#### THE END.

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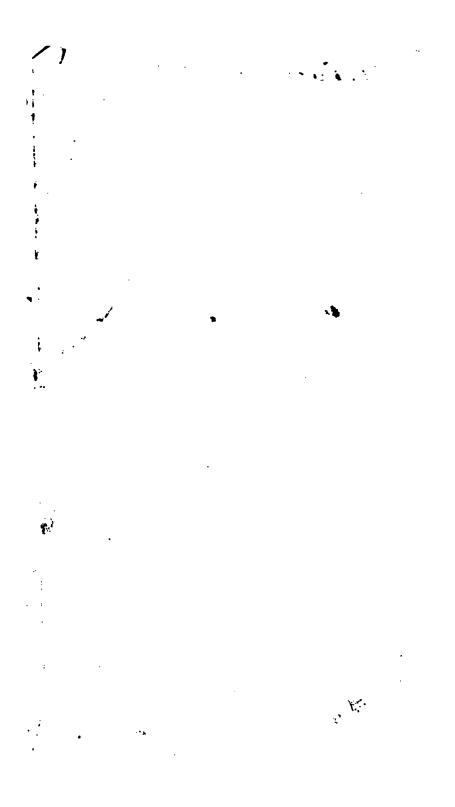
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