

Notes for John Locke's book: "An Essay Concerning Human Understanding"

Richard Walters, 2018

Why is this dive into human understanding important?

- From the Introduction:
 - It is useful to know the extent of our comprehension.
 - Knowing the extent of our capacities will hinder us from useless curiosity, skepticism and idleness.
 - With understanding we know:
 - How do we come to attain notions of things?
 - How do we employ our knowledge?
 - On what do we base our certainty?
 - What are our grounds and degrees of belief (faith), opinion and assent?
 - Locke (book 1, ch.1, sect.5) "For though the Comprehension of our Understandings, comes exceeding short of the vast Extent of Things; yet, we shall have Cause enough to magnify the bountiful Author of our Being, for that Portion and Degree of Knowledge, he has bestowed on us, so far above [so much more than] all the rest of the Inhabitants of this our Mansion."

Vocabulary:

- Epistemology
- Metaphysics
- Empiricism
- Demonstration
- Idea
- Sensation
- Reflection
- Innate Idea
- Complex Idea (Modes, Substances, Relations)
- Passive Power
- Active Power
- Will (Freewill, Freedom)
- Understanding
- Uneasiness
- Happiness
- Forbearance (Temperance)

Book 1, Chapter 1: Introduction

1. Justification for an inquiry into Human Understanding. In short: What are our powers of understanding and what are their limitations?
 - a. "I shall imagine I have not wholly misemployed myself in the thoughts I shall have on this occasion, if, in this historical, plain method, I can give any account of the ways, whereby our understandings come to attain those notions of things we have, and can set down any measures of the certainty of our knowledge"
 - b. "It is, therefore, worthwhile to search out the bounds between opinion and knowledge; and examine by what measures, in things, whereof we have no certain knowledge, we ought to regulate our assent, and moderate our persuasions"**
 - i. "First, I shall enquire into the origin of those ideas, notions, or whatever else you please to call them, which a man observes, and is conscious to himself he has in his mind; and the ways, whereby the understanding comes to be furnished with them."
 - ii. "Secondly, I shall endeavour to shew what knowledge the understanding hath by those ideas; and the certainty, evidence, and extent of it."
 - iii. "Thirdly, I shall make some enquiry into the nature and grounds of faith, or opinion; whereby I mean that assent, which we give to any proposition as true, of whose truth yet we have no certain knowledge: and here we shall have occasion to examine the reasons and degrees of assent."
 - c. "If, by this enquiry into the nature of the understanding, I can discover the powers thereof; how far they reach; to what things they are in any degree proportionate; and where they fail us: I suppose it may be of use to prevail with the busy mind of man, to be more cautious in meddling with things exceeding its comprehension; to stop when it is at the utmost extent of its tether; and to sit down in a quiet ignorance of those things, which, upon examination, are found to be beyond the reach of our capacities."**
 - d. "If we can find out how far the understanding can extend its view, how far it has faculties to attain certainty, and in what cases it can only judge and guess; we may learn to content ourselves with what is attainable by us in this state."
 - e. "How short soever their knowledge may come of an universal or perfect comprehension of whatsoever is, it yet secures their great concernments, that they have light enough to lead them to the knowledge of their maker, and the sight of their own duties. Men may find matter sufficient to busy their heads, and employ their hands with variety, delight and satisfaction; if they will not boldly quarrel with their own constitution, and throw away the blessings their hands are filled with, because they are not big enough to grasp everything."
 - f. "It will be no excuse to an idle and untoward servant, who would not attend his business by candle-light, to plead that he had not broad sun-shine. The candle, that is set up in us, shines bright enough for all our purposes. The discoveries we can make with this, ought to satisfy us; and we shall then use our understandings right, when we entertain all objects in that way and proportion that they are suited to our faculties, and upon those grounds they are capable of being proposed to us, and not peremptorily, or intemperately require demonstration, and demand certainty, where probability only is to be had, and which is sufficient to govern all our concernments."**

- g. "If we will disbelieve every things, because we certainly cannot know all things; we shall do much what as wisely as he, who would not use his legs, but sit still and perish, because he had no wings to fly."
- h. "It is of great use to the sailor, to know the length of his line, though he cannot with it fathom all the depths of the ocean. It is well he knows, that it is long enough to reach the bottom, at such places as are necessary to direct his voyage, and caution him against running upon shoals that may ruin him. Our business here is not to know all things, but those which concern our conduct."
- i. "This was that which gave the first rise to this essay concerning the understanding. For I thought that the first step towards satisfying several enquiries, the mind of man was very apt to run into, was to take a survey of our own understandings, examine our own powers, and see to what things they were adapted. Till that was done, I suspected we began at the wrong end, and in vain sought for satisfaction in a quiet and sure possession of truths that most concerned us, whilst we let loose our thoughts into the vast ocean of being; as if all that boundless extent were the natural and undoubted possession of our understandings, wherein there was nothing exempt from its decisions, or that escaped its comprehension. Thus men extending their enquiries beyond their capacities, and letting their thoughts wander into those depths, where they can find no sure footing; it is no wonder, that they raise questions, and multiply disputes, which, never coming to any clear resolution, are proper only to continue and increase their doubts, and to confirm them at last in perfect scepticism."

Book 1, Chapter 2: No Innate Principles of the Mind

1. Statement of Purpose
 - a. **“It is an established opinion amongst some men, that there are in the understanding certain innate principles; some primary notions, κοινὰ ἔννοιαι, characters, as it were, stamped upon the mind of man, which the soul receives in its very first being; and brings into the world with it. It would be sufficient to convince unprejudiced readers of the falseness of this supposition, if I should only shew (as I hope I shall in the following parts of this discourse) how men, barely by the use of their natural faculties, may attain to all the knowledge they have, without the help of any innate impressions; and may arrive at certainty, without any such original notions or principles.”**
2. Locke demonstrates that two ideas that men of his time consider “innate” are not innate. To Locke, ideas are not present in the mind at birth, waiting to be awakened. Rather the mind is a blank slate, which records experiences and applies reason to those experiences to come up with complex ideas.
 - a. “What is, is;” and, “it is impossible for the same thing to be, and not to be,” not universally assented to.
 - i. “... these propositions are so far from having an universal assent, that there are a great part of mankind to whom they are not so much as known.”
 - b. Ideas are not imprinted on the mind because they are not known to children and idiots
 - i. “To say a notion is imprinted on the mind, and yet at the same time to say, that the mind is ignorant of it, and never yet took notice of it, is to make this impression nothing. No proposition can be said to be in the mind, which it never yet knew, which it was never yet conscious of.”
 - c. But, what if a person must have the capacity to reason before the innate ideas can be known?
 - i. “... it must signify one of these two things; either, that, as soon as men come to the use of reason, these supposed native inscriptions come to be known, and observed by them: or else, that the use and exercise of men’s reason assists them in the discovery of these principles, and certainly makes them known to them.”
 - ii. “... But how can these men think the use of reason necessary, to discover principles that are supposed innate, when reason (if we may believe them) is nothing else but the faculty of deducing unknown truths from principles, or propositions, that are already known?”
 - iii. “For all reasoning is search, and casting about, and requires pains and application. And how can it with any tolerable sense be supposed, that what was imprinted by nature, as the foundation and guide of our reason, should need the use of reason to discover it?”
 - iv. “till after they come to the use of reason, those general abstract ideas are not framed in the mind, about which those general maxims are, which are mistaken for innate principles; but are indeed discoveries made, and verities introduced and brought into the mind by the same way, and discovered by the same steps, as several other propositions, which nobody was ever so extravagant as to suppose innate.”

- v. **"I allow therefore a necessity, that men should come to the use of reason before they get the knowledge of those general truths; but deny, that men's coming to the use of reason is the time of their discovery."**
- vi. "... the making of general abstract ideas, and the understanding of general names, being a concomitant of the rational faculty, and growing up with it, children commonly get not those general ideas, nor learn the names that stand for them, till, having for a good while exercised their reason about familiar and more particular ideas, they are, by their ordinary discourse and actions with others, acknowledged to be capable of rational conversation. If assenting to these maxims, when men come to the use of reason, can be true in any other sense, I desire it may be shewn; or at least, how in this, or any other sense, it proves them innate."
- d. If not through innate ideas, how does the mind come upon truths?
 - i. "The senses at first let in particular ideas, and furnish the yet empty cabinet; and the mind by degrees growing familiar with some of them, they are lodged in the memory, and names got to them. Afterwards the mind, proceeding farther, abstracts them, and by degrees learns the use of general names. In this manner the mind comes to be furnished with ideas and language, the [21] materials about which to exercise its discursive faculty: and the use of reason becomes daily more visible, as these materials, that give it employment, increase. "
 - ii. "But though the having of general ideas, and the use of general words and reason, usually grow together; yet, I see not, how this any way proves them innate."
 - iii. "The knowledge of some truths, I confess, is very early in the mind; but in a way that shows them not to be innate. For, if we will observe, we shall find it still to be about ideas, not innate, but acquired: It being about those first which are imprinted by external things, with which infants have earliest to do, which make the most frequent impressions on their senses. In ideas thus got, the mind discovers that some agree, and others differ, probably as soon as it has any use of memory; as soon as it is able to retain and perceive distinct ideas. But whether it be then, or no, this is certain, it does so, long before it has the use of words, or comes to that, which we commonly call 'the use of reason.' For a child knows as certainly, before it can speak, the difference between the ideas of sweet and bitter (i. e. that sweet is not bitter) as it knows afterwards (when it comes to speak) that wormwood and sugar-plums are not the same thing.
 - iv. "A child knows not that three and four are equal to seven, till he comes to be able to count seven, and has got the name and idea of equality: and then, upon explaining those words, he presently assents to, or rather perceives the truth of that proposition. But neither does he then readily assent, because it is an innate truth, nor was his assent wanting till then, because he wanted the use of reason; but the truth of it appears to him, as soon as he has settled in his mind the clear and distinct ideas, that these names stand for: and then he knows the truth of that proposition, upon the same grounds, and by the same means, that he knew before, that a rod and a cherry are not the same thing; and upon the same grounds also, that he may come to know afterwards, 'that it is impossible for the same thing to be, and not to be,' as shall be more fully shown hereafter."

- e. But what can be said about “universal maxims,” or things that everyone assents to be true once they learn of them? Aren’t these thoughts innate? Locke denies that there are any such “universally accepted maxims.”
 - i. “...men have endeavoured to secure an universal assent to those they call maxims, by saying they are generally assented to as soon as proposed, and the terms they are proposed in, understood: seeing all men, even children, as soon as they hear and understand the terms, assent to these propositions, they think it is sufficient to prove them innate. For since men never fail, after they have once understood the words, to acknowledge them for undoubted truths, they would infer, that certainly these propositions were first lodged in the understanding, which, without any teaching, the mind, at the very first proposal, immediately closes with, and assents to, and after that never doubts again.”
 - ii. “If these men will be true to their own rule, and have assent at first hearing and understanding the terms, to be a mark of innate, they must allow, not only as many innate propositions as men have distinct ideas; but as many as men can make propositions wherein different ideas are denied one of another.”
 - iii. “But since no proposition can be innate, unless the ideas about which it is, be innate; this will be, to suppose all our ideas of colours, sounds, tastes, figure, &c. innate; than which there cannot be anything more opposite to reason and experience. Universal and ready assent upon hearing and understanding the terms is (I grant) a mark of self-evidence: but self-evidence, depending not on innate impressions, but on something else (as we shall shew hereafter) belongs to several propositions, which nobody was yet so extravagant as to pretend to be innate.”
- f. Locke proposes that men should know of a thing before it is proposed if it is innate. That he should only know a thing after it has been suggested proves it was not innate. The prevailing opinion was that people instinctually knew something to be true upon hearing it because they thought that truth was already programmed into their mind beforehand.
 - i. “But we have not yet done with assenting to propositions at first hearing and understanding their terms; it is fit we first take notice, that this, instead of being a mark that they are innate, is a proof of the contrary; since it supposes, that several, who understand and know other things, are ignorant of these principles, till they are proposed to them; and that one may be unacquainted with these truths, till he hears them from others. For if they were innate, what need they be proposed in order to gaining assent, when by being in the understanding, by a natural and original impression, (if there were any such) they could not but be known before? Or doth the proposing them, print them clearer in the mind than nature did?”
 - ii. “... the consequence will be, that a man knows them better, after he has been thus taught them, than he did before. Whence it will follow, that these principles may be made more evident to us by others teaching, than nature has made them by impression; which will ill agree with the opinion of innate principles, and give but little authority to them; but, on the contrary, makes them unfit to be the foundations of all our other knowledge, as they are pretended to be.”
 - iii. **“This cannot be denied, that men grow first acquainted with many of these self-evident truths, upon their being proposed: but it is clear, that whosoever**

does so, finds in himself, that he then begins to know a proposition, which he knew not before; and which, from thenceforth, he never questions: not because it was innate, but because the consideration of the nature of the things contained in those words, would not suffer him to think otherwise, how, or whensoever he is brought to reflect on them."

- g. But what about the shapes of mathematics?
 - i. "...few mathematicians will be forward to believe, that all the diagrams they have drawn, were but copies of those innate characters which nature had engraven upon their minds."
- h. It is, however, necessary to first understand the words and their meaning before a complex idea can be understood and thought to be a truth.
 - i. "For though a child quickly assents to this proposition, "that an apple is not fire," when, by familiar acquaintance, he has got the ideas of those two different things distinctly imprinted on his mind, and has learnt that the names apple and fire stand for them; yet it will be some years after, perhaps, before the same child will assent to this proposition, 'that it is impossible for the same thing to be, and not to be:' because that, though, perhaps the words are as easy to be learnt, yet the signification of them being more large, comprehensive, and abstract, than of the names annexed to those sensible things the child hath to do with, it is longer before he learns their precise meaning, and it requires more time plainly to form in his mind those general ideas they stand for. Till that be done, you will in vain endeavour to make any child assent to a proposition made up of such general terms: but as soon as ever he has got those ideas, and learned their names, he forwardly closes with the one, as well as the other of the forementioned propositions, and with both for the same reason; viz. because he finds the ideas he has in his mind to agree or disagree, according as the words standing for them, are affirmed or denied one of another in the proposition."
- i. Again, innate ideas would be universally assented to, and widely known.
 - i. "One would think, according to these men's principles, that all these native beams of light (were there any such) should in those who have no reserves, no arts of concealment, shine out in their full lustre, and leave us in no more doubt of their being there, than we are of their love of pleasure, and abhorrence of pain. But alas, amongst children, idiots, savages, and the grossly illiterate, what general maxims are to be found? what universal principles of knowledge? Their notions are few and narrow, borrowed only from those objects they have had most to do with, and which have made upon their senses the frequentest and strongest impressions."
- j. Conclusion concerning the examples studied:
 - i. "Upon the whole matter, I cannot see any ground to think these two speculative maxims innate, since they are not universally assented to; and the assent they so generally find, is no other than what several propositions, not allowed to be innate, equally partake in with them; and since the assent that is given them, is produced another way, and comes not from natural inscription, as I doubt not but to make appear in the following discourse. And if these first principles of knowledge and science are found not to be innate, no other speculative maxims can (I suppose) with better right pretend to be so."

Book 2, Chapter 1: Of Ideas in General and their Original (origins)

1. How do we come by ideas? They come from sensation or reflection.
 - a. "... it is past doubt, that men have in their minds several ideas, such as are those expressed by the words, Whiteness, Hardness, Sweetness, Thinking, Motion, Man, Elephant, Army, Drunkenness, and others. It is in the first place then to be inquired, how he comes by them. I know it is a received doctrine, that men have native ideas, and original characters, stamped upon their minds, in their very first being. This opinion I have, at large, examined already; and, I suppose, what I have said, in the foregoing book, will be much more easily admitted, when I have shewn, whence the understanding may get all the ideas it has, and by what ways and degrees they may come into the mind; for which I shall appeal to every one's own observation and experience."
 - b. **"Let us then suppose the mind to be, as we say, white paper, void of all characters, without any ideas; how comes it to be furnished? Whence comes it by that vast store which the busy and boundless fancy of man has painted on it, with an almost endless variety? Whence has it all the materials of reason and knowledge? To this I answer, in one word, from experience; in all that our knowledge is founded, and from that it ultimately derives itself. Our observation employed either about external sensible objects, or about the internal operations of our minds, perceived and reflected on by ourselves, is that which supplies our understandings with all the materials of thinking. These two are the fountains of knowledge, from whence all the ideas we have, or can naturally have, do spring."**
 - i. "First, Our senses, conversant about particular sensible objects, do convey into the mind several distinct perceptions of things, according to those various ways wherein those objects do affect them: and thus we come by those ideas we have, of Yellow, White, Heat, Cold, Soft, Hard, Bitter, Sweet, and all those which we call sensible qualities"
 - ii. "Secondly, The other fountain, from which experience furnisheth the understanding with ideas, is the perception of the operations of our own mind within us, as it is employed about the ideas it has got; which operations, when the soul comes to reflect on and consider, do furnish the understanding with another set of ideas, which could not be had from things without; and such are Perception, Thinking, Doubting, Believing, Reasoning, Knowing, Willing, and all the different actings of our own minds; which we being conscious of and observing in ourselves, do from these receive into our understandings as distinct ideas, as we do from bodies affecting our senses."
 - c. "These two, I say, viz. external material things, as the objects of sensation; and the operations of our own minds within, as the objects of reflection; are to me the only originals from whence all our ideas take their beginnings."
 - d. "I think, it will be granted easily, that if a child were kept in a place where he never saw any other but black and white till he were a man, he would have no more ideas of scarlet or green, than he that from his childhood never tasted an oyster or a pineapple has of those particular relishes."
 - e. "And hence we see the reason why it is pretty late before most children get ideas of the operations of their own minds; and some have not any very clear or perfect ideas of the greatest part of them all their lives: because though they pass there continually, yet, like

floating visions, they make not deep impressions enough to leave in their mind clear, distinct, lasting ideas, till the understanding turns inward upon itself, reflects on its own operations, and makes them the objects of its own contemplation.”

2. What part of man does the thinking? What of the soul and our thoughts while we sleep?
 - a. “I know it is an opinion, that the soul always thinks, and that it has the actual perception of ideas in itself constantly as long as it exists; and that actual thinking is as inseparable from the soul, as actual extension is from the body: which if true, to inquire after the beginning of a man’s ideas is the same as to inquire after the beginning of his soul.”
 - b. “... to say that actual thinking is essential to the soul, and inseparable from it, is to beg what is in question, and not to prove it by reason”
 - c. “I do not say there is no soul in a man, because he is not sensible of it in his sleep: but I do say, he cannot think at any time waking or sleeping, without being sensible of it.”
 - d. “...if it be possible that the soul can, whilst the body is sleeping, have its thinking, enjoyments and concerns, its pleasure or pain, apart, which the man is not conscious of nor partakes in; it is certain that Socrates asleep and Socrates awake is not the same person”
 - e. “Thus, methinks, every drowsy nod shakes their doctrine, who teach, that the soul is always thinking. Those at least, who do at any time sleep without dreaming, can never be convinced, that their thoughts are sometimes for four hours busy without their knowing of it; and if they are taken in the very act, waked in the middle of that sleeping contemplation, can give no manner of account of it.”
 - f. “Most men, I think, pass a great part of their sleep without dreaming.”
 - g. “To think often, and never to retain it so much as one moment, is a very useless sort of thinking: and the soul, in such a state of thinking, does very little, if at all, excel that of a looking-glass, which constantly receives variety of images, or ideas, but retains none; they disappear and vanish, and there remain no footsteps of them; the looking-glass is never the better for such ideas, nor the soul for such thoughts.”
 - h. “Nature never makes excellent things for mean or no uses; and it is hardly to be conceived, that our infinitely wise Creator should make so admirable a faculty as the power of thinking, that faculty which comes nearest the excellency of his own incomprehensible being, to be so idle and uselessly employed, at least a fourth part of its time here, as to think constantly, without remembering any of those thoughts, without doing any good to itself or others, or being any way useful to any other part of the creation. If we will examine it, we shall not find, I suppose, the motion of dull and senseless matter, anywhere in the universe, made so little use of, and so wholly thrown away.”**
 - i. “It is true, we have sometimes instances of perception, whilst we are asleep; and retain the memory of those thoughts: but how extravagant and incoherent for the most part they are”
 - j. “It is strange if the soul has ideas of its own, that it derived not from sensation or reflection (as it must have, if it thought before it received any impressions from the body) that it should never, in its private thinking (so private, that the man himself perceives it not) retain any of them, the very moment it wakes out of them, and then make the man glad with new discoveries.”
 - k. “... we must from this hypothesis conclude, either that the soul remembers something that the man does not; or else that memory belongs only to such ideas as are derived from the body, or the mind’s operations about them.”

- I. "Consciousness is the perception of what passes in a man's own mind. Can another man perceive that I am conscious of anything, when I perceive it not myself? No man's knowledge here can go beyond his experience. Wake a man out of a sound sleep, and ask him, what he was that moment thinking of. If he himself be conscious of nothing he then thought on, he must be a notable diviner of thoughts that can assure him that he was thinking: may he not with more reason assure him he was not asleep? This is something beyond philosophy; and it cannot be less than revelation, that discovers to another thoughts in my mind, when I can find none there myself; and they must needs have a penetrating sight, who can certainly see that I think, when I cannot perceive it myself, and when I declare that I do not; and yet can see that dogs or elephants do not think, when they give all the demonstration of it imaginable, except only telling us that they do so. This some may suspect to be a step beyond the Rosecrucians; it seeming easier to make one's self invisible to others, than to make another's thoughts visible to me, which are not visible to himself."
- m. **"I see no reason therefore to believe, that the soul thinks before the senses have furnished it with ideas to think on"**
3. Conclusion: we form ideas from sensation and reflection.
 - a. **"In time the mind comes to reflect on its own operations about the ideas got by sensation, and thereby stores itself with a new set of ideas, which I call ideas of reflection. These are the impressions that are made on our senses by outward objects that are extrinsic to the mind, and its own operations, proceeding from powers intrinsic and proper to itself; which when reflected on by itself, becoming also objects of its contemplation, are, as I have said, the original of all knowledge. Thus the first capacity of human intellect is, that the mind is fitted to receive the impressions made on it; either through the senses by outward objects; or by its own operations when it reflects on them. This is the first step a man makes towards the discovery of anything, and the ground-work whereon to build all those notions which ever he shall have naturally in this world. All those sublime thoughts which tower above the clouds, and reach as high as heaven itself, take their rise and footing here: in all that good extent wherein the mind wanders, in those remote speculations, it may seem to be elevated with, it stirs not one jot beyond those ideas which sense or reflection have offered for its contemplation."**

Book 2, Chapter 2: Of Simple Ideas

1. How do we form simple ideas?
 - a. “For though the sight and touch often take in from the same object, at the same time, different ideas; as a man sees at once motion and colour; the hand feels softness and warmth in the same piece of wax: yet the simple ideas, thus united in the same subject, are as perfectly distinct as those that come in by different senses: the coldness and hardness which a man feels in a piece of ice being as distinct ideas in the mind, as the smell and whiteness of a lily; or as the taste of sugar, and smell of a rose.”
 - b. “These simple ideas, the materials of all our knowledge, are suggested and furnished to the mind only by those two ways above-mentioned, viz. sensation and reflection. When the understanding is once stored with these simple ideas, it has the power to repeat, compare, and unite them, even to an almost infinite variety; and so can make at pleasure new complex ideas. But it is not in the power of the most exalted wit, or enlarged understanding, by any quickness or variety of thought, to invent or frame one new simple idea in the mind, not taken in by the ways aforementioned: nor can any force of the understanding destroy those that are there.”**
 - c. “He that will not set himself proudly at the top of all things, but will consider the immensity of this fabric, and the great variety that is to be found in this little and inconsiderable part of it which he has to do with, may be apt to think, that in other mansions of it there may be other and different intelligent beings, of whose faculties he has as little knowledge or apprehension, as a worm shut up in one drawer of a cabinet hath of the senses or understanding of a man: such variety and excellency being suitable to the wisdom and power of the maker. I have here followed the common opinion of man’s having but five senses; though, perhaps, there may be justly counted more: but either supposition serves equally to my present purpose.”

Book 2, Chapter 8: Some further considerations concerning our Simple Ideas

1. Positive ideas are clear and distinct, and material.
 - a. "Thus the idea of heat and cold, light and darkness, white and black, motion and rest, are equally clear and positive ideas in the mind; though perhaps [110] some of the causes which produce them are barely privations in subjects, from whence our senses derive those ideas."
 - b. "These are two very different things, and carefully to be distinguished; it being one thing to perceive and know the idea of white or black, and quite another to examine what kind of particles they must be, and how ranged in the superficies, to make any object appear white or black."
2. Powers are qualities of objects that give them the ability to affect other things.
 - a. **"Whatsoever the mind perceives in itself, or is the immediate object of perception, thought, or understanding, that I call idea; and the power to produce any idea in our mind I call quality of the subject wherein that power is. Thus a snow-ball having the power to produce in us the ideas of white, cold, and round, the powers to produce those ideas in us, as they are in the snow-ball, I call qualities; and as they are sensations or perceptions in our understandings, I call them ideas: which ideas, if I speak of sometimes, as in the things themselves, I would be understood to mean those qualities in the objects which produce them in us."**
3. Primary Qualities
 - a. "Qualities thus considered in bodies are, first, such as are utterly inseparable from the body, in what estate soever it be; such as in all the alterations and changes it suffers, all the force can be used upon it, it constantly keeps; and such as sense constantly finds in every particle of matter which has bulk enough to be perceived, and the mind finds inseparable from every particle of matter, though less than to make itself singly be perceived by our senses, v. g. Take a grain of wheat, divide it into two parts, each part has still solidity, extension, figure, and mobility; divide it again, and it retains still the same qualities; and so divide it on till the parts become insensible, they must retain still each of them all those qualities. For division (which is all that a mill, or pestle, or any other body does upon another, in reducing it to insensible parts) can never take away either solidity, extension, figure, or mobility from anybody, but only makes two or more distinct separate masses of matter, of that which was but one before: all which distinct masses, reckoned as so many distinct bodies, after division make a certain number. These I call original or primary qualities of body, which I think we may observe to produce simple ideas in us, viz. solidity, extension, figure, motion or rest, and number."
4. Secondary Qualities
 - a. "Secondly, such qualities which in truth are nothing in the objects themselves, but powers to produce various sensations in us by their primary qualities, i. e. by the bulk, figure, texture, and motion of their insensible parts, as colours, sounds, tastes, &c. these I call secondary qualities."
5. Resemblances
 - a. "... the ideas of primary qualities of bodies are resemblances of them, and their patterns do really exist in the bodies themselves; but the ideas, produced in us by these secondary qualities, have no resemblance of them at all."
 - i. "Flame is denominated hot and light; snow, white and cold; and manna, white and sweet, from the ideas they produce in us: which qualities are commonly

thought to be the same in those bodies that those ideas are in us, the one the perfect resemblance of the other, as they are in a mirror”

ii. “... his idea of warmth, which was produced in him by the fire, is actually in [115] the fire; and his idea of pain, which the same fire produced in him the same way, is not in the fire.”

b. “Ideas being thus distinguished and understood, we may be able to give an account how the same water, at the same time, may produce the idea of cold by one hand and of heat by the other; whereas it is impossible that the same water, if those ideas were really in it, should at the same time be both hot and cold”

6. Three sorts of qualities: Primary, Sensible, and Powers

a. “First, the bulk, figure, number, situation, and motion, or rest of their solid parts; those are in them, whether we perceive them or no; and when they are of that size, that we can discover them, we have by these an idea of the thing, as it is in itself, as is plain in artificial things. These I call primary qualities.”

b. “Secondly, the power that is in any body, by reason of its insensible primary qualities, to operate after a peculiar manner on any of our senses, and thereby produce in us the different ideas of several colours, sounds, smells, tastes, &c. These are usually called sensible qualities.”

c. “Thirdly, the power that is in any body, by reason of the particular constitution of its primary qualities, to make such a change in the bulk, figure, texture, and motion of another body, as to make it operate on our senses, differently from what it did before. Thus the sun has a power to make wax white, and fire to make lead fluid. These are usually called powers.”

Book 2, Chapter 9: Of Perception

1. Perception is passive, and we cannot avoid perceiving. Thinking is active.
 - a. "... thinking, in the propriety of the English tongue, signifies that sort of operation in the mind about its ideas, wherein the mind is active; where it, with some degree of voluntary attention, considers anything. For in bare naked perception, the mind is, for the most part, only passive: and what it perceives, it cannot avoid perceiving."
2. Sensation is colored by Judgement.
 - a. "We are further to consider concerning perception, that the ideas we receive by sensation are often in grown people altered by the judgment, without our taking notice of it. When we set before our eyes a round globe, of any uniform colour, v. g. gold, alabaster, or jet; it is certain that the idea thereby imprinted in our mind, is of a flat circle variously shadowed, with several degrees of light and brightness coming to our eyes. But we having by use been accustomed to perceive what kind of appearance convex bodies are wont to make in us, what alterations are made in the reflections of light by the difference of the sensible figures of bodies; the judgment presently, by an habitual custom, alters the appearances into their causes; so that from that which is truly variety of shadow or colour, collecting the figure, it makes it pass for a mark of figure, and frames to itself the perception of a convex figure and an uniform colour; when the idea we receive from thence is only a plane variously coloured, as is evident in painting."
 - b. "Mr. Molineaux... was pleased to send me in a letter some months since; and it is this: **Suppose a man born blind, and now adult, and taught by his touch to distinguish between a cube and a sphere of the same metal, and nighly of the same bigness, so as to tell, when he felt one and the other, which is the cube, which the sphere. Suppose then the cube and sphere placed on a table, and the blind man be made to see: quære, "whether by his sight, before he touched them, he could now distinguish and tell, which is the globe, which the cube?" to which the acute and judicious proposer answers: Not. For though he has obtained the experience of how a globe, how a cube affects his touch; yet he has not yet obtained the experience, that what affects his touch so or so, must affect his sight so or so: or that a protuberant angle in the cube, that pressed his hand unequally, shall appear to his eye as it does in the cube. I agree with this thinking gentleman, whom I am proud to call my friend, in his answer to this his problem; and am of opinion, that the blind man at first sight, would not be able with certainty to say which was the globe, which the cube, whilst he only saw them: though he could unerringly name them by his touch, and certainly distinguish them by the difference of their figures felt.** This I have set down, and leave with my reader, as an occasion for him to consider how much he may be beholden to experience, improvement, and acquired notions, where he thinks he had not the least use of, or help from them: and the rather, because this observing gentleman further adds, that having upon the occasion of my book, proposed this to divers very ingenious men, he hardly ever met with one, that at first gave the answer to it which he thinks true, till by hearing his reasons they were convinced."
3. Differences between man and "inferior forms of life"
 - a. "This faculty of perception seems to me to be that, which puts the distinction betwixt the animal kingdom and the inferior parts of nature."

- b. "Take one, in whom decrepid old age has blotted out the memory of his past knowledge, and clearly wiped out the ideas his mind was formerly stored with; and has, by destroying his sight, hearing, and smell quite, and his taste to a great degree, stopped up almost all the passages for new ones to enter; or, if there be some of the inlets yet half open, the impressions made are scarce perceived, or not at all retained. How far such an one (notwithstanding all that is boasted of innate principles) is in his knowledge, and intellectual faculties, above the condition of a cockle or an oyster, I leave to be considered. And if a man had passed sixty years in such a state, as it is possible he might, as well as three days; I wonder what difference there would have been, in any intellectual perfections, between him and the lowest degree of animals."
- 4. Perception is the first stage of our intellect
 - a. "It suffices me only to have remarked here, that perception is the first operation of all our intellectual faculties, and the inlet of all knowledge in our minds."

Book 2, Chapter 12: Of Complex Ideas

1. Complex ideas are made by the mind out of simple ones
 - a. "But as the mind is wholly passive in the reception of all its simple ideas, so it exerts several acts of its own, whereby out of its simple ideas as the materials and foundations of the rest, the other are framed."
 - b. "The acts of the mind, wherein it exerts its power over its simple ideas, are chiefly these three:
 - i. "Combining several simple ideas into one compound one, and thus all complex ideas are made.
 - ii. "The second is bringing two ideas, whether simple or complex, together, and setting them by one another, so as to take a view of them at once, without uniting them into one; by which way it gets all its ideas of relations.
 - iii. "The third is separating them from all other ideas that accompany them in their real existence; this is called abstraction: and thus all its general ideas are made."
 - c. "Ideas thus made up of several simple ones put together, I call complex; such as are beauty, gratitude, a man, an army, the universe; which though complicated of various simple ideas, or complex ideas made up of simple ones, yet are, when the mind pleases, considered each by itself as one entire thing, and signified by one name."
 - d. "In this faculty of repeating and joining together its ideas, the mind has great power in varying and multiplying the objects of its thoughts, infinitely beyond what sensation or reflection furnishes it with; but all this still confined to those simple ideas which it received from those two sources, and which are the ultimate materials of all its compositions: for simple ideas are all from things themselves, and of these the mind can have no more, nor other than what are suggested to it. It can have no other ideas of sensible qualities than what come from without by the senses; nor any ideas of other kind of operations of a thinking substance than what it finds in itself; but when it has once got these simple ideas, it is not confined barely to observation, and what offers itself from without: it can, by its own power, put together those ideas it has, and make new complex ones, which it never received so united."
2. Modes, Substances and Relations
 - a. **"Complex ideas, however compounded and decomposed, though their number be infinite, and the variety endless, wherewith they fill and entertain the thoughts of men; yet, I think, they may be all reduced under these three heads: 1. Modes. 2. Substances. 3. Relations."**
 - i. "First, Modes I call such complex ideas, which, however compounded, contain not in them the supposition of subsisting by themselves, but are considered as dependencies on or affections of substances; such as are ideas signified by the words triangle, gratitude, murder, &c.... Of these modes, there are two sorts which deserve distinct consideration."
 1. "First, there are some which are only variations, or different combinations of the same simple idea, without the mixture of any other; as a dozen or score; which are nothing but the ideas of so many distinct units added together: and these I call simple modes, as being contained within the bounds of one simple idea."
 2. "Secondly, there are others compounded of simple ideas of several kinds, put together to make one complex one; v. g. beauty, consisting of

a certain composition of colour and figure, causing delight in the beholder; theft, which being the concealed change of the possession of any thing, without the consent of the proprietor, contains, as is visible, a combination of several ideas of several kinds: and these I call mixed modes.”

- ii. “Secondly, the ideas of substances are such combinations of simple ideas, as are taken to represent distinct particular things subsisting by themselves; in which the supposed or confused idea of substance, such as it is, is always the first and chief.”
 - iii. “Thirdly, the last sort of complex ideas, is that we call relation, which consists in the consideration and comparing one idea with another.”
- b. Ideas from two sources
- i. “... even the most abstruse ideas, how remote soever they may seem from sense, or from any operations of our own minds, are yet only such as the understanding frames to itself, by repeating and joining together ideas, that it had either from objects of sense, or from its own operations about them”

Book 2, Chapter 21: Of Power

1. Power Defined (poorly, I think)
 - a. "The mind being every day informed, by the senses, of the alteration of those simple ideas it observes in things without, and taking notice how one comes to an end, and ceases to be, and another begins to exist which was not before... considers in one thing the possibility of having any of its simple ideas changed, and in another the possibility of making that change: and so comes by that idea which we call power. Thus we say, fire has a power to melt gold, i. e. to destroy the consistency of its insensible parts, and consequently its hardness, and make it fluid; and gold has a power to be melted: that the sun has a power to blanch wax, and wax a power to be blanched by the sun, whereby the yellowness is destroyed, and whiteness made to exist in its room."
 - i. Basically what is being suggested here is that our idea of a thing changes as our perception gives us evidence that the thing has changed. And, the thing presumably causing that change, has power. And another thing presumably also has the ability to change. We should try to be mindful that this description was written around 1690.
2. Active and Passive Power
 - a. "Power, thus considered, is two-fold, viz. as able to make, or able to receive, any change: the one may be called active, and the other passive power."
 - b. "Whether matter be not wholly destitute of active power, as its author God is truly above all passive power; and whether the intermediate state of created spirits be not that alone which is capable of both active and passive power, may be worth consideration. I shall not now enter into that inquiry: my present business being not to search into the original of power, but how we come by the idea of it."
3. Powers are simple ideas whose relations help construct our complex ideas of substance
 - a. "I confess power includes in it some kind of relation, (a relation to action or change) as indeed which of our ideas, of what kind soever, when attentively considered, does not? For our ideas of extension, duration, and number, do they not all contain in them a secret relation of the parts? Figure and motion have something relative in them much more visibly: and sensible qualities, as colours and smells, &c. what are they but the powers of different bodies, in relation to our perception? &c. And if considered in the things themselves, do they not depend on the bulk, figure, texture, and motion of the parts?"
 - b. "Our idea therefore of power, I think may well have a place amongst other simple ideas, and be considered as one of them, being one of those that make a principal ingredient in our complex ideas of substances"
4. Passion
 - a. "For all power relating to action, and there being but two sorts of action, whereof we have any idea, viz. thinking and motion; let us consider whence we have the clearest ideas of the powers which produce these actions. "
 - i. "Of thinking body affords us no idea at all, it is only from reflection that we have that."
 - ii. "Neither have we from body any idea of the beginning of motion. A body at rest affords us no idea of any active power to move; and when it is set in motion itself, that motion is rather a passion, than an action in it."

- ii. “We have instances enough, and often more than enough, in our own bodies. A man’s heart beats, and the blood circulates, which it is not in his power by any thought or volition to stop; and therefore in respect to these motions, where rest depends not on his choice, nor would follow the determination of his mind, if it should prefer it, he is not a free agent.”
 - iii. “Wherever thought is wholly wanting, or the power to act or forbear according to the direction of thought; there necessity takes place. This in an agent capable of volition, when the beginning or continuation of any action is contrary to that preference of his mind, is called compulsion: when the hindering or stopping any action is contrary to his volition, it is called restraint. **Agents that have no thought, no volition, at all, are in everything necessary agents.**”
- d. Freedom does not “belong” to the will. It belongs to the agent of the will.
 - i. “... it is as insignificant to ask whether man’s will be free, as to ask whether his sleep be swift, or his virtue square; liberty being as little applicable to the will, as swiftness of motion is to sleep, or squareness to virtue. Everyone would laugh at the absurdity of such a question, as either of these; because it is obvious, that the modifications of motion belong not to sleep, nor the difference of figure to virtue: and when any one well considers it, **I think he will as plainly perceive, that liberty, which is but a power, belongs only to agents, and cannot be an attribute or modification of the will, which is also but a power.**”
- e. Definition of Freewill
 - i. **“Will then is nothing but such a power. Liberty, on the other side, is the power a man has to do or forbear doing any particular action, according as its doing or forbearance has the actual preference in the mind; which is the same thing as to say, according as he himself wills it.”**
- f. This is proof that “powers belong to agents”
 - i. “It is plain then, that the will is nothing but one power or ability; and freedom another power or ability: so that to ask, whether the will has freedom, is to ask whether one power has another power, one ability another ability; a question at first sight too grossly absurd to make a dispute or need an answer. For who is it that sees not that powers belong only to agents, and are attributes only of substances, and not of powers themselves? So that this way of putting the question, viz. Whether the will be free? is in effect to ask, Whether the will be a substance, an agent? or at least to suppose it, since freedom can properly be attributed to nothing else.”
 - ii. “...it is the man that does the action, it is the agent that has power, or is able to do. For powers are relations, not agents: and that which has the power, or not the power to operate, is that alone which is or is not free, and not the power itself. For freedom, or not freedom, can belong to nothing, but what has or has not a power to act.”
 - 1. NOTE: All of this seems like equivocation, and maybe it is. Locke even points out that he goes into so much detail with this distinction because: “This way of talking, nevertheless, has prevailed, and, as I guess, produced great confusion.”
- g. Willing alone does not indicate “Freedom”
 - i. “To return then to the inquiry about liberty, I think the question is not proper, whether the will be free, but whether a man be free. Thus, I think... That so far as anyone can, by the direction or choice of his mind, preferring the existence of

any action to the non-existence of that action, and vice versa, make it to exist or not exist; so far he is free.”

- ii. “But the inquisitive mind of man, willing to shift off from himself, as far as he can, all thoughts of guilt, though it be by putting himself into a worse state than that of fatal necessity, is not content with this; freedom, unless it reaches farther than this, will not serve the turn: and it passes for a good plea, that a man is not free at all, if he be not as free to will, as he is to act what he wills.”
- iii. “Concerning a man’s liberty, there yet therefore is raised this farther question, Whether a man be free to will? which I think is what is meant, when it is disputed whether the will be free.”
- iv. “That willing, or volition, being an action, and freedom consisting in a power of acting or not acting, a man in respect of willing or the act of volition, when any action in his power is once proposed to his thoughts, as presently to be done, cannot be free. The reason whereof is very manifest: for it being unavoidable that the action depending on his will should exist, or not exist: and its existence, or not existence, following perfectly the determination and preference of his will; he cannot avoid willing the existence, or not existence of that action; it is absolutely necessary that he will the one, or the other; i. e. prefer the one to the other; since one of them must necessarily follow; and that which does follow, follows by the choice and determination of his mind, that is, by his willing it; for if he did not will it, it would not be. So that in respect of the act of willing, a man in such a case is not free: liberty consisting in a power to act, or not to act; which, in regard of volition, a man, upon such a proposal, has not.”
- v. **“For it is unavoidably necessary to prefer the doing or forbearance of an action in a man’s power, which is once so proposed to his thoughts: a man must necessarily will the one or the other of them, upon which preference or volition, the action or its forbearance certainly follows, and is truly voluntary. But the act of volition, or preferring one of the two, being that which he cannot avoid, a man in respect of that act of willing is under a necessity, and so cannot be free; unless necessity and freedom can consist together, and a man can be free and bound at once.”**
- vi. “This then is evident, that in all proposals of present action, a man is not at liberty to will or not to will, because he cannot forbear willing: liberty consisting in a power to act or to forbear acting, and in that only. For a man that sits still is said yet to be at liberty, because he can walk if he wills it.”
 - i. “But if a man sitting still has not a power to remove himself, he is not at liberty; so likewise a man falling down a precipice, though in motion, is not at liberty, because he cannot stop that motion if he would.”
 - ii. “If the ideas of liberty and volition were well fixed in the understandings, and carried along with us in our minds, as they ought, through all the questions that are raised about them, I suppose a great part of the difficulties that perplex men’s thoughts, and entangle their understandings, would be much easier resolved; and we should perceive where the confused signification of terms, or where the nature of the thing caused the obscurity.”

2. Freedom

- a. “First then, it is carefully to be remembered, that freedom consists in the dependence of the existence, or not existence of any action, upon our volition of it; and not in the dependence of any action, or its contrary, on our preference. A man standing on a cliff,

is at liberty to leap twenty yards downwards into the sea, not because he has a power to do the contrary action, which is to leap twenty yards upwards, for that he cannot do: but he is therefore free because he has a power to leap or not to leap.”

- i. “In this then consists freedom, viz. in our being able to act or not to act, according as we shall choose or will.”
 - b. “Secondly, we must remember, that volition or willing is an act of the mind directing its thought to the production of any action, and thereby exerting its power to produce it.”
 - c. “Thirdly, The will being nothing but a power in the mind to direct the operative faculties of a man to motion or rest, as far as they depend on such direction: to the question, What is it determines the will? the true and proper answer is, The mind.”
 - i. **“... the motive for continuing in the same state or action, is only the present satisfaction in it; the motive to change, is always some uneasiness; nothing setting us upon the change of state, or upon any new action, but some uneasiness. This is the great motive that works on the mind to put it upon action”**
3. The Will and Desire are not the same things.
- a. “This caution of being careful not to be misled by expressions that do not enough keep up the difference between the will and several acts of the mind that are quite distinct from it, I think the more necessary; because I find the will often confounded with several of the affections, especially desire, and one put for the other; and that by men, who would not willingly be thought not to have had very distinct notions of things, and not to have writ very clearly about them.”
 - b. **“For he that shall turn his thoughts inwards upon what passes in his mind when he wills, shall see that the will or power of volition is conversant about nothing, but that particular determination of the mind, whereby barely by a thought the mind endeavours to give rise, continuation, or stop, to any action which it takes to be in its power. This well considered, plainly shows that the will is perfectly distinguished from desire; which in the very same action may have a quite contrary tendency from that which our will sets us upon.”**
 - c. “Whence it is evident that desiring and willing are two distinct acts of the mind; and consequently that the will, which is but the power of volition, is much more distinct from desire.”
4. Our sense of “uneasiness” determines our will.
- a. **“All pain of the body, of what sort soever, and disquiet of the mind, is uneasiness: and with this is always joined desire, equal to the pain or uneasiness felt, and is scarce distinguishable from it. For desire being nothing but an uneasiness in the want of an absent good, in reference to any pain felt, ease is that absent good”**
 - b. “That desire is a state of uneasiness, everyone who reflects on himself will quickly find. Who is there, that has not felt in desire what the wise man says of hope, (which is not much different from it) ‘that it being deferred makes the heart sick?’”
 - c. “... that which immediately determines the will, from time to time, to every voluntary action, is the uneasiness of desire, fixed on some absent good: either negative, as indolence to one in pain; or positive, as enjoyment of pleasure.”
 - d. **“When a man is perfectly content with the state he is in, which is, when he is perfectly without any uneasiness, what industry, what action, what will is there left, but to continue in it? of this every man’s observation will satisfy him. And thus we see our All-wise Maker, suitably to our constitution and frame, and knowing what it is that determines the will, has put into man the uneasiness of hunger and thirst, and other**

natural desires, that return at their seasons, to move and determine their wills, for the preservation of themselves, and the continuation of their species.”

- i. NOTE: Isn't the above statement alluding to a type of programming by God, which would suggest innate ideas?
5. Greater Good, or reason does not appear to direct the Will.
 - a. “But yet upon a stricter inquiry, I am forced to conclude, that good, the greater good, though apprehended and acknowledged to be so, does not determine the will, until our desire, raised proportionably to it, makes us uneasy in the want of it.”
 - b. “Let a man be ever so well persuaded of the advantages of virtue, that it is as necessary to a man who has any great aims in this world, or hopes in the next, as food to life: yet, till he hungers or thirsts after righteousness, till he feels an uneasiness in the want of it, his will will not be determined to any action in pursuit of this confessed greater good; but any other uneasiness he feels in himself shall take place, and carry his will to other actions.”**
6. The pathway to Happiness is to “remove uneasiness”
 - a. “Pain and uneasiness being, by everyone, concluded and felt to be inconsistent with happiness, spoiling the relish even of those good things which we have; a little pain serving to mar all the pleasure we rejoiced in. And therefore that which of course determines the choice of our will to the next action, will always be the removing of pain, as long as we have any left, as the first and necessary step towards happiness.”
 - b. “It may be said, that absent good may by contemplation be brought home to the mind, and made present. The idea of it indeed may be in the mind, and viewed as present there; but nothing will be in the mind as a present good, able to counter-balance the removal of any uneasiness which we are under, till it raises our desire; and the uneasiness of that has the prevalency in determining the will.”
 - c. “How many are to be found, that have had lively representations set before their minds of the unspeakable joys of heaven, which they acknowledge both possible and probable too, who yet would be content to take up with their happiness here?”
7. People ignore the great rewards and promise of eternal happiness of heaven, and heed to the relief of uneasiness of the present (desire).
 - a. “... I do not see how it could ever get loose from the infinite eternal joys of heaven, once proposed and considered as possible. For all absent good, by which alone, barely proposed, and coming in view, the will is thought to be determined, and so to set us on action, being only possible, but not infallibly certain; it is unavoidable, that the infinitely greater possible good should regularly and constantly determine the will in all the successive actions it directs: and then we should keep constantly and steadily in our course towards heaven, without ever standing still, or directing our actions to any other end.”**
 - b. “... but that it is not so, is visible in experience: the infinitely greatest confessed good being often neglected, to satisfy the successive uneasiness of our desires pursuing trifles.”
 - c. “Thus any vehement pain of the body, the ungovernable passion of a man violently in love, or the impatient desire of revenge, keeps the will steady and intent; and the will, thus determined, never lets the understanding lay by the object, but all the thoughts of the mind and powers of the body are uninterruptedly employed that way, by the determination of the will, influenced by that topping uneasiness as long as it lasts; whereby it seems to me evident, that the will or power of setting us upon one action in

preference to all other, is determined in us by uneasiness. And whether this be not so, I desire everyone to observe in himself."

- d. "Aversion, fear, anger, envy, shame, &c. have each their uneasiness too, and thereby influence the will. These passions are scarce any of them in life and practice simple and alone, and wholly unmixed with others: though usually in discourse and contemplation, that carries the name which operates strongest, and appears most in the present state of the mind: nay there is, I think, scarce any of the passions to be found without desire joined with it."
 - e. "... the will being the power of directing our operative faculties to some action, for some end, cannot at any time be moved towards what is judged at that time unattainable: that would be to suppose an intelligent being designedly to act for an end, only to lose its labour, for so it is to act for what is judged not attainable; and therefore very great uneasinesses move not the will, when they are judged not capable of a cure"
8. Desire is created by the want for Happiness.
- a. "If it be farther asked, what it is moves desire? I answer, Happiness, and that alone."
 - b. "Happiness then in its full extent is the utmost pleasure we are capable of, and misery the utmost pain: and the lowest degree of what can be called happiness is so much ease from all pain, and so much present pleasure, as without which any one cannot be content."
 - c. **"Now because pleasure and pain are produced in us by the operation of certain objects, either on our minds or our bodies, and in different degrees; therefore what has an aptness to produce pleasure in us is that we call good, and what is apt to produce pain in us we call evil, for no other reason, but for its aptness to produce pleasure and pain in us, wherein consists our happiness and misery."**
9. Why is the Greatest Good not always desired? Why doesn't it inspire the Will?
- a. "This, I think, any one may observe in himself and others, that the greater visible good does not always raise men's desires, in proportion to the greatness it appears, and is acknowledged to have: though every little trouble moves us, and sets us on work to get rid of it."
 - b. "All uneasiness therefore being removed, a moderate portion of good serves at present to content men; and some few degrees of pleasure in a succession of ordinary enjoyments make up a happiness, wherein they can be satisfied. If this were not so, there could be no room for those indifferent and visibly trifling actions, to which our wills are so often determined, and wherein we voluntarily waste so much of our lives; which remissness could by no means consist with a constant determination of will or desire to the greatest apparent good."
 - c. **"We are seldom at ease, and free enough from the solicitation of our natural or adopted desires, but a constant succession of uneasinesses out of that stock, which natural wants or acquired habits have heaped up, take the will in their turns: and no sooner is one action dispatched, which by such a determination of the will we are set upon, but another uneasiness is ready to set us on work."**
 - d. "Whereby comes to pass, that as long as any uneasiness, any desire remains in our mind, there is no room for good, barely as such, to come at the will, or at all to determine it."
10. Suspension of the prosecution of Desire: the source of all Liberty!
- a. **"There being in us a great many uneasinesses always soliciting, and ready to determine the will, it is natural, as I have said, that the greatest and most pressing should determine the will to the next action; and so it does for the most part, but not**

always. For the mind having in most cases, as is evident in experience, a power to suspend the execution and satisfaction of any of its desires, and so all, one after another; is at liberty to consider the objects of [250] them, examine them on all sides, and weigh them with others. In this lies the liberty man has; and from the not using of it right comes all that variety of mistakes, errors, and faults which we run into in the conduct of our lives, and our endeavours after happiness”

b. **“To prevent this, we have a power to suspend the prosecution of this or that desire, as everyone daily may experiment in himself. This seems to me the source of all liberty; in this seems to consist that which is (as I think improperly) called free-will.”**

11. But, isn't the Pursuit of Happiness the definition of Freedom?

a. “If we look upon those superior beings above us, who enjoy perfect happiness, we shall have reason to judge that they are more steadily determined in their choice of good than we; and yet we have no reason to think they are less happy, or less free than we are. And if it were fit for such poor finite creatures as we are to pronounce what infinite wisdom and goodness could do, I think we might say, that God himself cannot choose what is not good; the freedom of the Almighty hinders not his being determined by what is best.”

b. **“If to break loose from the conduct of reason, and to want that restraint of examination and judgment, which keeps us from choosing or doing the worse, be liberty, true liberty, madmen and fools are the only freemen: but yet, I think, nobody would choose to be mad for the sake of such liberty, but he that is mad already. The constant desire of happiness, and the constraint it puts upon us to act for it, nobody, I think, accounts an abridgment of liberty, or at least an abridgment of liberty to be complained of.”**

12. Real vs. Imaginary Happiness (Temperance)

a. “As therefore the highest perfection of intellectual nature lies in a careful and constant pursuit of true and solid happiness, so the care of ourselves, that we mistake not imaginary for real happiness, is the necessary foundation of our liberty.”

b. “... till we are as much informed upon this inquiry, as the weight of the matter, and the nature of the case demands; we are, by the necessity of preferring and pursuing true happiness as our greatest good, obliged to suspend the satisfaction of our desires in particular cases.”

c. “... they can suspend their desires, and stop them from determining their wills to any action, till they have duly and fairly examined the good and evil of it, as far forth as the weight of the thing requires.”

d. **“But if any extreme disturbance (as sometimes it happens) possesses our whole mind, as when the pain of the rack, an impetuous uneasiness, as of love, anger, or any other violent passion, running away with us, allows us not the liberty of thought, and we are not masters enough of our own minds to consider thoroughly and examine fairly; God, who knows our frailty, pities our weakness, and requires of us no more than we are able to do, and sees what was and what was not in our power, will judge as a kind and merciful father.”**

13. How is it that people have different ideas about what is Good, or choose Evil?

a. “From what has been said, it is easy to give an account how it comes to pass, that though all men desire happiness, yet their wills carry them so contrarily, and consequently some of them to what is evil.”

- b. "... why one chose luxury and debauchery, and another sobriety and riches; would not be, because every one of these did not aim at his own happiness, but because their happiness was placed in different things."
- c. **"The mind has a different relish, as well as the palate; and you will as fruitlessly endeavour to delight all men with riches or glory (which yet some men place their happiness in) as you would to satisfy all men's hunger with cheese or lobsters"**
- d. "Hence it was, I think, that the philosophers of old did in vain enquire, whether summum bonum consisted in riches or bodily delights, or virtue, or contemplation."
- e. "... if there be no prospect beyond the grave, the inference is certainly right, 'let us eat and drink,' let us enjoy what we delight in, 'for to-morrow we shall die.'"
- f. "But yet there is a case wherein a man is at liberty in respect of willing, and that is, the choosing of a remote good, as an end to be pursued. Here a man may suspect the act of his choice from being determined for or against the thing [257] proposed, till he has examined whether it be really of a nature in itself and consequences to make him happy, or no. For when he has once chosen it, and thereby it is become a part of his happiness, it raises desire, and that proportionably gives him uneasiness, which determines his will, and sets him at work in pursuit of his choice on all occasions that offer. And here we may see how it comes to pass, that a man may justly incur punishment, though it be certain that in all the particular actions that he wills, he does, and necessarily does will that which he then judges to be good. For, though his will be always determined by that which is judged good by his understanding, yet it excuses him not: because, by a too hasty choice of his own making, he has imposed on himself wrong measures of good and evil"
- g. **"The eternal law and nature of things must not be altered, to comply with his ill-ordered choice. If the neglect, or abuse, of the liberty he had to examine what would really and truly make for his happiness, misleads him, the miscarriages that follow on it must be imputed to his own election. He had a power to suspend his determination: it was given him, that he might examine, and take care of his own happiness, and look that he were not deceived."**
- h. "... were every action of ours concluded within itself, and drew no consequences after it, we should undoubtedly never err in our choice of good; we should always infallibly prefer the best. Were the pains of honest industry, and of starving with hunger and cold, set together before us, nobody would be in doubt which to choose; were the satisfaction of a lust, and the joys of heaven offered at once to any one's present possession, he would not balance, or err in the determination of his choice."
- i. But remember that: "... we are not moved by absent good."
- j. **"Because the indolency and enjoyment we have, sufficing for our present happiness, we desire not to venture the change; since we judge that we are happy already, being content, and that is enough. For who is content is happy. But as soon as any new uneasiness comes in, this happiness is disturbed, and we are set afresh on work in the pursuit of happiness."**
- k. **"Change but a man's view of these things; let him see, that virtue and religion are necessary to his happiness; let him look into the future state of bliss or misery, and see there God, the righteous judge, ready to "render to every man according to his deeds; to them who by patient continuance in well-doing seek for glory, and honour, and immortality, eternal life; but unto every soul that doth evil, indignation and wrath, tribulation and anguish:" to him, I say, who hath a prospect of the different state of perfect happiness, or misery, that attends all men after this life, depending on**

their behaviour here, the measures of good and evil, that govern his choice, are mightily changed."

14. What are the causes of Wrong Judgement?

- a. "To see how far this reaches, and what are the causes of wrong judgment, we must remember that things are judged good or bad in a double sense."
 - i. "First, that which is properly good or bad, is nothing but barely pleasure or pain."
 - ii. "Secondly, But because not only present pleasure and pain, but that also which is apt by its efficacy or consequences to bring it upon us at a distance, is a proper object of our desires, and apt to move a creature that has foresight; therefore things also that draw after them pleasure and pain, are considered as good and evil."
- b. "... since I lay it for a certain ground, that every intelligent being really seeks happiness, which consists in the enjoyment of pleasure, without any considerable mixture of uneasiness; it is impossible any one should willingly put into his own draught any bitter ingredient, or leave out anything in his power, that would tend to his satisfaction, and the completing of his happiness, but only by wrong judgment."
- c. Failure to distinguish what is of greater importance:
 - i. "... the mind, as has been said, never mistakes that which is really good or evil; that which is the greater pleasure, or the greater pain, is really just as it appears."
 - ii. "Objects, near our view, are apt to be thought greater than those of a larger size, that are more remote; and so it is with pleasures and pains"
 - iii. "... most men, like spendthrift heirs, are apt to judge a little in hand better than a great deal to come"
 - iv. **"Were the pleasure of drinking accompanied, the very moment a man takes off his glass, with that sick stomach and aching head, which, in some men, are sure to follow not many hours after; I think nobody, whatever pleasure he had in his cups, would, on these conditions, ever let wine touch his lips; which yet he daily swallows; and the evil side comes to be chosen only by the fallacy of a little difference in time. But if pleasure or pain can be so lessened only by a few hours' removal, how much more will it be so by a farther distance"**
- d. "The cause of our judging amiss, when we compare our present pleasure or pain with future, seems to me to be the weak and narrow constitution of our minds. We cannot well enjoy two pleasures at once, much less any pleasure almost, whilst pain possesses us. The present pleasure, if it be not very languid, and almost none at all, fills our narrow souls, and so takes up the whole mind"

15. Summary

- a. **"All men desire happiness, that is past doubt; but, as has been already observed, when they are rid of pain, they are apt to take up with any pleasure at hand, or that custom has endeared to them, to rest satisfied in that; and so being happy, till some new desire, by making them uneasy, disturbs that happiness, and shows them that they are not so, they look no farther; nor is the will determined to any action, in pursuit of any other known or apparent good. For since we find, that we cannot enjoy all sorts of good, but one excludes another; we do not fix our desires on every apparent greater good, unless it be judged to be necessary to our happiness; if we think we can be happy without it, it moves us not. This is another occasion to men of judging wrong, when they take not that to be necessary to their happiness, which**

really is so. This mistake misleads us both in the choice of the good we aim at, and very often in the means to it, when it is a remote good. But which way ever it be, either by placing it where really it is not, or by neglecting the means as not necessary to it; when a man misses his great end happiness, he will acknowledge he judged not right. That which contributes to this mistake, is the real or supposed unpleasantness of the actions, which are the way to this end; it seeming so preposterous a thing to men, to make themselves unhappy in order to happiness, that they do not easily bring themselves to it."

- b. "Liberty is a power to act or not to act, according as the mind directs."
- c. **"Desire is always moved by evil, to fly it: because a total freedom from pain always makes a necessary part of our happiness: but every good, nay every greater good, does not constantly move desire, because it may not make, or may not be taken to make any necessary part of our happiness. For all that we desire, is only to be happy. But though this general desire of happiness operates constantly and invariably, yet the satisfaction of any particular desire can be suspended from determining the will to any subservient action, till we have maturely examined, whether the particular apparent good, which we then desire, makes a part of our real happiness, or be consistent or inconsistent with it. The result of our judgment upon that examination is what ultimately determines the man, who could not be free if his will were determined by anything but his own desire, guided by his own judgment. I know that liberty by some is placed in an indifferency of the man, antecedent to the determination of his will."**

16. A Rare moment of candor in a Philosophical Treatise

- a. "True notions concerning the nature and extent of liberty are of so great importance, that I hope I shall be pardoned this digression, which my attempt to explain it has led me into. The idea of will, volition, liberty and necessity, in this chapter of power, came naturally in my way. In a former edition of this treatise, I gave an account of my thoughts concerning them, according to the light I then had; and now, as a lover of truth, and not a worshipper of my own doctrines, I own some change of my opinion, which I think I have discovered ground for. In what I first writ, I with an unbiassed indifferency followed truth, whither I thought she led me. But neither being so vain as to fancy infallibility, nor so disingenuous as to dissemble my mistakes, for fear of blemishing my reputation, I have, with the same sincere design for truth [272] only, not been ashamed to publish what a severer inquiry has suggested. It is not impossible but that some may think my former notions right, and some (as I have already found) these latter, and some neither."

17. A final few thoughts about "Powers"

- a. "... it may perhaps be to our purpose, and help to give us clearer conceptions about power, if we make our thoughts take a little more exact survey of action. I have said above, that we have ideas but of two sorts of action, viz. motion and thinking."
- b. "... the substance that hath motion or thought receives the impression, where it is put into that action purely from without, and so acts merely by the capacity it has to receive such an impression from some external agent; and such a power is not properly an active power, but a mere passive capacity in the subject. Sometimes the substance or agent puts itself into action by its own power; and this is properly active power."

18. A final summary of thoughts for this chapter:

- a. **"And thus I have, in a short draught, given a view of our original ideas, from whence all the rest are derived, and of which they are made up; which if I would consider, as a**

philosopher, and examine on what causes they depend, and of what they are made, I believe they all might be reduced to these very few primary and original ones, viz. Extension, Solidity, Mobility, or the power of being moved; which by our senses we receive from body; Perceptivity, or the power of perception, or thinking; Motivity, or the power of moving; which by reflection we receive from our minds. I crave leave to make use of these two new words, to avoid the danger of being mistaken in the use of those which are equivocal. To which if we add Existence, Duration, Number; which belong both to the one and the other; we have, perhaps, all the original ideas, on which the rest depend. For by these, I imagine, might be explained the nature of colours, sounds, tastes, smells, and all other ideas we have, if we had but faculties acute enough to perceive the severally modified extensions and motions of these minute bodies, which produce those several sensations in us."

Book 2, Chapter 23: Of Our Complex Ideas of Substances

1. Substance
 - a. "The mind being, as I have declared, furnished with a great number of the simple ideas, conveyed in by the senses, as they are found in exterior things, or by reflection on its own operations, takes notice also, that a certain number of these simple ideas go constantly together; which being presumed to belong to one thing, and words being suited to common apprehensions, and made use of for quick dispatch, are called, so united in one subject, by one name: which, by inadvertency, we are apt afterward to talk of, and consider as one simple idea, which indeed is a complication of many ideas together; because, as I have said, not imagining how these simple ideas can subsist by themselves, we accustom ourselves to suppose some substratum wherein they do subsist, and from which they do result; which therefore we call substance."
 - b. "And therefore, when we speak of any sort of substance, we say it is a thing having such or such qualities: as body is a thing that is extended, figured, and capable of motion; spirit, a thing capable of thinking"
2. Substance is not clearly understood
 - a. "... when we talk or think of any particular sort of corporeal substances, as horse, stone, &c. though the idea we have of either of them be but the complication or collection of those several simple ideas of sensible qualities, which we used to find united in the thing called horse or stone; yet because we cannot conceive how they should subsist alone, or one in another, we suppose them existing in and supported by some common subject; which support we denote by the name substance, though it be certain we have no clear or distinct idea of that thing we suppose a support."
3. Spirit is even less well understood
 - a. "The same thing happens concerning the operations of the mind, viz. thinking, reasoning, fearing, &c. which we concluding [291] not to subsist of themselves, nor apprehending how they can belong to any body, or be produced by it, we are apt to think these the actions of some other substance, which we call spirit"
 - b. **"It is plain then, that the idea of corporeal substance in matter is as remote from our conceptions and apprehensions, as that of spiritual substance or spirit; and therefore from our not having any notion of the substance of spirit, we can no more conclude its non-existence, than we can for the same reason deny the existence of body; it being as rational to affirm there is no body, because we have no clear and distinct idea of the substance of matter, as to say there is no spirit, because we have no clear and distinct idea of the substance of a spirit."**
4. Categorizing Complex Ideas
 - a. "The ideas that make our complex ones of corporeal substances, are of these three sorts."
 - i. "First, the ideas of the primary qualities of things which are discovered by our senses, and are in them even when we perceive them not; such are the bulk, figure, number, situation, and motion of the parts of bodies, which are really in them, whether we take notice of them or no."
 - ii. "Secondly, the sensible secondary qualities, which depending on these, are nothing but the powers those substances have to produce several ideas in us by our senses; which ideas are not in the things themselves, otherwise than as anything is in its cause."

- iii. “Thirdly, the aptness we consider in any substance to give or receive such alterations of primary qualities, as that the substance so altered should produce in us different ideas from what it did before; these are called active and passive powers: all which powers, as far as we have any notice or notion of them, terminate only in sensible simple ideas.”
- 5. Powers make up the majority of our Complex Ideas
 - a. “Powers therefore justly make a great part of our complex ideas of substances. He that will examine his complex idea of gold, will find several of its ideas that make it up to be only powers: as the power of being melted, but of not spending itself in the fire; of being dissolved in aqua regia; are ideas as necessary to make up our complex idea of gold, as its colour and weight: which, if duly considered, are also nothing but different powers.”
- 6. Amazing Statement #1: “Let’s prove the point that when we know our own limitations, we can make statements that endure the test of time.”
 - a. **“Had we senses acute enough to discern the minute particles of bodies, and the real constitution on which their sensible qualities depend, I doubt not but they would produce quite different ideas in us; and that which is now the yellow colour of gold, would then disappear, and instead of it we should see an admirable texture of parts of a certain size and figure. This microscopes plainly discover to us; for what to our naked eyes produces a certain colour, is, by thus augmenting the acuteness of our senses, discovered to be quite a different thing; and the thus altering, as it were, the proportion of the bulk of the minute parts of a coloured object to our usual sight, produces different ideas from what it did before. Thus sand or pounded glass, which is opaque, and white to the naked eye, is pellucid in a microscope; and a hair seen this way, loses its former colour, and is in a great measure pellucid, with a mixture of some bright sparkling colours, such as appear from the refraction of diamonds, and other pellucid bodies. Blood to the naked eye appears all red; but by a good microscope, wherein its lesser parts appear, shows only some few globules of red, swimming in a pellucid liquor: and how these red globules would appear, if glasses could be found that could yet magnify them a thousand or ten thousand times more, is uncertain.”**
 - b. “But it appears not, that God intended we should have a perfect, clear, and adequate knowledge of them: that perhaps is not in the comprehension of any finite being. We are furnished with faculties (dull and weak as they are) to discover enough in the creatures, to lead us to the knowledge of the Creator, and the knowledge of our duty: and we are fitted well enough with abilities to provide for the conveniences of living: these are our business in this world.”
- 7. More knowledge/depth is not always helpful to understanding.
 - a. “... if, by the help of such microscopical eyes (if I may so call them), a man could penetrate farther than ordinary into the secret composition and radical texture of bodies, he would not make any great advantage by the change, if such an acute sight would not serve to conduct him to the market and exchange; if he could not see things he was to avoid, at a convenient distance; nor distinguish things he had to do with, by those sensible qualities others do. He that was sharp-sighted enough to see the configuration of the minute particles of the spring of a clock, and observe upon what peculiar structure and impulse its elastic motion depends, would no doubt discover something very admirable: but if eyes so framed could not view at once the hand, and the characters of the hour-plate, and thereby at a distance see what o’clock it was, their

owner could not be much benefited by that acuteness; which, whilst it discovered the secret contrivance of the parts of the machine, made him lose its use.”

- b. Locke goes out on a limb, and apologizes for conjecturing: “What wonders would he discover, who could so fit his eyes to all sorts of objects, as to see, when he pleased, the figure and motion of the minute particles in the blood, and other juices of animals, as distinctly as he does, at other times, the shape and motion of the animals themselves? But to us, in our present state, unalterable organs so contrived, as to discover the figure and motion of the minute parts of bodies, whereon depend those sensible qualities we now observe in them, would perhaps be of no advantage. God has, no doubt, made them so, as is best for us in our present condition. He hath fitted us for the neighbourhood of the bodies that surround us, and we have to do with: and though we cannot, by the faculties we have, attain to a perfect knowledge of things, yet they will serve us well enough for those ends above-mentioned, which are our great concernment.”
 - c. **“And though we cannot but allow that the infinite power and wisdom of God may frame creatures with a thousand other faculties and ways of perceiving things without them, than what we have: yet our thoughts can go no farther than our own: so impossible it is for us to enlarge our very guesses beyond the ideas received from our own sensation and reflection.”**
8. See here how he has moved back from the idea of microscopic vision, and used it as a metaphor to see why we need to group simple ideas together in order to understand "substances."
- a. “But to return to the matter in hand, the ideas we have of substances, and the ways we come by them; I say, our specific ideas of substances are nothing else but a collection of a certain number of simple ideas, considered as united in one thing. These ideas of substances, though they are commonly simple apprehensions, and the names of them simple terms; yet in effect are complex and compounded. Thus the idea which an Englishman signifies by the name Swan, is white colour, long neck, red beak, black legs, and whole feet, and all these of a certain size, with a power of swimming in the water, and making a certain kind of noise: and perhaps, to a man who has long observed this kind of birds, some other properties which all terminate in sensible simple ideas, all united in one common subject.”
9. Now that we have been reminded to be humble and not speculate past what our senses and reflection tell us, Locke is going to make a leap and talk about spirits and the soul.
- a. “The supposition at least, that angels do sometimes assume bodies, needs not startle us; since some of the most ancient and most learned fathers of the church seemed to believe, that they had bodies: and this is certain, that their state and way of existence is unknown to us.”
 - b. **“Besides the complex ideas we have of material sensible substances, of which I have last spoken, by the simple ideas we have taken from those operations of our own minds, which we experiment daily in ourselves, as thinking, understanding, willing, knowing, and power of beginning motion, &c. co-existing in some substance: we are able to frame the complex idea of an immaterial spirit.”**
 - c. **“It is for want of reflection that we are apt to think, that our senses show us nothing but material things. Every act of sensation, when duly considered, gives us an equal view of both parts of nature, the corporeal and spiritual. For whilst I know, by seeing or hearing, &c. that there is some corporeal being without me, the object of that sensation; I do more certainly know, that there is some spiritual being within me, that**

sees and hears. This, I must be convinced, cannot be the action of bare insensible matter; nor ever could be, without an immaterial thinking being.”

10. Spirits are capable of motion

- a. “Every one finds in himself, that his soul can think, will, and operate on his body in the place where that is; but cannot operate on a body, or in a place an hundred miles distant from it. Nobody can imagine that his soul can think, or move a body at Oxford, whilst he is at London; and cannot but know, that, being united to his body, it constantly changes place all the whole journey between Oxford and London, as the coach or horse does that carries him, and I think may be said to be truly all that while in motion; or if that will not be allowed to afford us a clear idea enough of its motion, its being separated from the body in death, I think, will; for to consider it as going out of the body, or leaving it, and yet to have no idea of its motion, seems to me impossible.”

11. Locke compares the Soul to the Body

- a. “Let us compare then our complex idea of an immaterial spirit with our complex idea of body, and see whether there be any more obscurity in one than in the other, and in which most. Our idea of body, as I think, is an extended solid substance, capable of communicating motion by impulse: and our idea of soul, as an immaterial spirit, is of a substance that thinks, and has a power of exciting motion in body, by willing or thought.”

- b. “...it appears, that this primary and supposed obvious quality of body will be found, when examined, to be as incomprehensible as anything belonging to our minds, and a solid extended substance as hard to be conceived as a thinking immaterial one, whatever difficulties some would raise against it.”**

12. Entering the realm of speculation again, Locke talks about what force might hold matter together.

- a. “But, in truth, the pressure of any ambient fluid, how great soever, can be no intelligible cause of the cohesion of the solid parts of matter. For though such a pressure may hinder the avulsion of two polished superficies, one from another, in a line perpendicular to them, as in the experiment of two polished marbles; yet it can never, in the least, hinder the separation by a motion, in a line parallel to those surfaces.”

- b. “The matter of fact is clear, I confess; but when we would a little nearer look into it, and consider how it is done, there I think we are at a loss, both in the one, and the other; and can as little understand how the parts of body cohere, as how we ourselves perceive, or move. I would have any one intelligibly explain to me, how the parts of gold, or brass, (that but now in fusion were as loose from one another, as the particles of water, or the sands of an hour-glass) come in a few moments to be so united, and adhere so strongly one to another, that the utmost force of men’s arms cannot separate them: a considering man will, I suppose, be here at a loss, to satisfy his own, or another man’s understanding.”**

13. Locke Predicts the Conclusions of the future science of Chemistry

- a. “The little bodies that compose that fluid we call water, are so extremely small, that I have never heard of any one, who by a microscope (and yet I have heard of some that have magnified to ten thousand; nay, to much above a hundred thousand times) pretended to perceive their distinct bulk, figure, or motion: and the particles of water are also so perfectly loose one from another, that the least force sensibly [306] separates them. Nay, if we consider their perpetual motion, we must allow them to have no cohesion one with another; and yet let but a sharp cold come, they unite, they consolidate, these little atoms cohere, and are not, without great force, separable. He

that could find the bonds that tie these heaps of loose little bodies together so firmly; he that could make known the cement that makes them stick so fast one to another; would discover a great, and yet unknown secret: and yet when that was done, would he be far enough from making the extension of body (which is the cohesion of its solid parts) intelligible, till he could show wherein consisted the union, or consolidation of the parts of those bonds, or of that cement, or of the least particle of matter that exists.

14. More speculation

- a. "... it is worth our consideration, whether active power be not the proper attribute of spirits, and passive power of matter. Hence may be conjectured, that created spirits are not totally separate from matter, because they are both active and passive. Pure spirit, viz. God, is only active; pure matter is only passive; those beings that are both active and passive, we may judge to partake of both."

15. More comparisons of the Mind to the Body: Locke's Metaphysics

- a. **"So that, in short, the idea we have of spirit, compared with the idea we have of body, stands thus: the substance of spirit is unknown to us; and so is the substance of body equally unknown to us. Two primary qualities or properties of body, viz. solid coherent parts and impulse, we have distinct clear ideas of: so likewise we know, and have distinct clear ideas of two primary qualities or properties of spirit, viz. thinking and a power of action; i. e. a power of beginning or stopping several thoughts or motions. We have also the ideas of several qualities inherent in bodies, and have the clear distinct ideas of them; which qualities are but the various modifications of the extension of cohering solid parts, and their motion. We have likewise the ideas of the several modes of thinking, viz. believing, doubting, intending, fearing, hoping; all which are but the several modes of thinking. We have also the ideas of willing and moving the body consequent to it, and with the body itself too; for, as has been shown, spirit is capable of motion."**
- b. "Lastly, if this notion of immaterial spirit may have perhaps some difficulties in it not easy to be explained, we have therefore no more reason to deny or doubt the existence of such spirits than we have to deny or doubt the existence of body; because the notion of body is cumbered with some difficulties very hard, and perhaps impossible to be explained or understood by us."
- c. "Which we are not at all to wonder at, since we having but some few superficial ideas of things, discovered to us only by the senses from without, or by the mind, reflecting on what it experiments in itself within, [310] have no knowledge beyond that, much less of the internal constitution, and true nature of things, being destitute of faculties to attain it. And therefore experimenting and discovering in ourselves knowledge, and the power of voluntary motion, as certainly as we experiment, or discover in things without us, the cohesion and separation of solid parts, which is the extension and motion of bodies; we have as much reason to be satisfied with our notion of immaterial spirit, as with our notion of body, and the existence of the one as well as the other. For it being no more a contradiction that thinking should exist, separate and independent from solidity, than it is a contradiction that solidity should exist, separate and independent from thinking, they being both but simple ideas, independent one from another; and having as clear and distinct ideas in us of thinking, as of solidity; I know not why we may not as well allow a thinking thing without solidity, i. e. immaterial, to exist; as a solid thing without thinking, i. e. matter, to exist; especially since it is not harder to conceive how thinking should exist without matter, than how matter should think."

- d. **“For whensoever we would proceed beyond these simple ideas we have from sensation and reflection, and dive farther into the nature of things, we fall presently into darkness and obscurity, perplexedness and difficulties; and can discover nothing farther but our own blindness and ignorance. But whichever of these complex ideas be clearest, that of body, or immaterial spirit, this is evident, that the simple ideas that make them up are no other than what we have received from sensation or reflection: and so is it of all our other ideas of substances, even of God himself.”**

16. Our complex idea of God

- a. “For if we examine the idea we have of the incomprehensible supreme being, we shall find, that we come by it the same way; and that the complex ideas we have both of God and separate spirits are made up of the simple ideas we receive from reflection: v. g. having, from what we experiment in ourselves, got the ideas of existence and duration; of knowledge and power; of pleasure and happiness; and of several other qualities and powers, which it is better to have than to be without: when we would frame an idea the most suitable we can to the supreme being, we enlarge every one of these with our idea of infinity; and so putting them together, make our complex idea of God. For that the mind has such a power of enlarging some of its ideas, received from sensation and reflection, has been already shown.”
- b. “For it is infinity, which joined to our ideas of existence, power, knowledge, &c. makes that complex idea, whereby we represent to ourselves, the best we can, the supreme being. For though in his own essence (which certainly we do not know, not knowing the real essence of a pebble, or a fly, or of our own selves) God be simple and uncompounded; yet, I think, I may say we have no other idea of him but a complex one of existence, knowledge, [312] power, happiness, &c. infinite and eternal: which are all distinct ideas, and some of them, being relative, are again compounded of others; all which being, as has been shown, originally got from sensation and reflection, go to make up the idea or notion we have of God.”

17. Chapter Conclusions

- a. “And thus we have seen, what kind of ideas we have of substances of all kinds, [313] wherein they consist, and how we came by them. From whence, I think, it is very evident,
 - i. **First, That all our ideas of the several sorts of substances are nothing but collections of simple ideas, with a supposition of something to which they belong, and in which they subsist; though of this supposed something we have no clear distinct idea at all.**
 - ii. **Secondly, That all the simple ideas, that thus united in one common substratum make up our complex ideas of several sorts of substances, are no other but such as we have received from sensation or reflection. So that even in those which we think we are most intimately acquainted with, and that come nearest the comprehension of our most enlarged conceptions, we cannot go beyond those simple ideas. And even in those which seem most remote from all we have to do with, and do infinitely surpass anything we can perceive in ourselves by reflection, or discover by sensation in other things, we can attain to nothing but those simple ideas, which we originally received from sensation or reflection; as is evident in the complex ideas we have of angels, and particularly of God himself.**
 - iii. **Thirdly, That most of the simple ideas, that make up our complex ideas of substances, when truly considered, are only powers, however we are apt to**

take them for positive qualities; v. g. the greatest part of the ideas that make our complex idea of gold are yellowness, great weight, ductility, fusibility and solubility in aqua regia, &c. all united together in an unknown substratum: all which ideas are nothing else but so many relations to other substances, and are not really in the gold, considered barely in itself, though they depend on those real and primary qualities of its internal constitution, whereby it has a fitness differently to operate, and be operated on by several other substances.”

Book 4, Chapter 2: Of the Degrees of our Knowledge

1. Intuitive Knowledge

- a. "All our knowledge consisting, as I have said, in the view the mind has of its own ideas, which is the utmost light and greatest certainty we, with our faculties, and in our way of knowledge, are capable of; it may not be amiss to consider a little the degrees of its evidence. The different clearness of our knowledge seems to me to lie in the different way of perception the mind has of the agreement or disagreement of any of its ideas. For **if we reflect on our own ways of thinking, we shall find that sometimes the mind perceives the agreement or disagreement of two ideas immediately by themselves, without the intervention of any other: and this, I think, we may call intuitive knowledge.**"
- b. "Thus the mind perceives, that white is not black, that a circle is not a triangle, that three are more than two, and equal to one and two. **Such kind of truths the mind perceives at the first sight of the ideas together, by bare intuition, without the intervention of any other idea; and this kind of knowledge is the clearest and most certain, that human frailty is capable of.** This part of knowledge is irresistible, and like bright sunshine forces itself immediately to be perceived, as soon as ever the mind turns its view that way; [70] and leaves no room for hesitation, doubt, or examination, but the mind is presently filled with the clear light of it."
- c. "It is on this intuition that depends all the certainty and evidence of all our knowledge; which certainty every one finds to be so great, that he cannot imagine, and therefore not require a greater: for a man cannot conceive himself capable of a greater certainty, than to know that any idea in his mind is such as he perceives it to be; and that two ideas wherein he perceives a difference, are different and not precisely the same."

2. Demonstrative Knowledge

- a. **"The next degree of knowledge is, where the mind perceives the agreement or disagreement of any ideas, but not immediately.** Though wherever the mind perceives the agreement or disagreement of any of its ideas, there be certain knowledge: yet it does not always happen, that the mind sees that agreement or disagreement which there is between them, even where it is discoverable: and in that case remains in ignorance, and at most gets no farther than a probable conjecture. The reason why the mind cannot always perceive presently the agreement or disagreement of two ideas, is, because those ideas, concerning whose agreement or disagreement the inquiry is made, cannot by the mind be so put together as to show it. In this case then, when the mind cannot so bring its ideas together, as by their immediate comparison, and as it were juxta-position or application one to another, to perceive their agreement or disagreement, it is fain, by the intervention of other ideas (one or more, as it happens) to discover the agreement or disagreement which it searches; and this is that which we call reasoning."
- b. "Those intervening ideas which serve to show the agreement of any two others, are called proofs; and where the agreement and disagreement is by this means plainly and clearly perceived, it is called demonstration"
- c. "Another difference between intuitive and demonstrative knowledge is, that though in the latter all doubt be removed, when by the intervention of the intermediate ideas the agreement or disagreement is perceived; yet before the demonstration there was a doubt, which in intuitive knowledge cannot happen to the mind"

- d. "Now, in every step reason makes in demonstrative knowledge, there is an intuitive knowledge of that agreement or disagreement it seeks with the next intermediate idea, which it uses as a proof"
 - e. "... because in long deductions, and the use of many proofs, the memory does not always so readily and exactly retain; therefore it comes to pass, that this is more imperfect than intuitive knowledge, and men embrace often falsehood for demonstrations"
 - f. "It has been generally taken for granted, that mathematicks alone are capable of demonstrative certainty"
 - g. Equality is not certain beyond mathematics.
 - i. "But in other simple ideas, whose modes and differences are made and counted by degrees, and not quantity, we have not so nice and accurate a distinction of their differences, as to perceive and find ways to measure their just equality, or the least differences."
 - ii. "Not knowing therefore what number of particles, nor what motion of them is fit to produce any precise degree of whiteness, we cannot demonstrate the certain equality of any two degrees of whiteness, because we have no certain standard to measure them by, nor means to distinguish every the least real difference, the only help we have being from our senses, which in this point fail us."
3. Beyond Intuition and Demonstration we have Faith and Opinion
- a. "These two, viz. intuition and demonstration, are the degrees of our knowledge; whatever comes short of one of these, with what assurance soever embraced, is but faith, or opinion, but not knowledge, at least in all general truths."
4. Locke responds to Sceptics who would deny all reality:
- a. "We as plainly find the difference there is between an idea revived in our minds by our own memory, and actually coming into our minds by our senses, as we do between any two distinct ideas. If any one say, a dream may do the same thing, and all these ideas may be produced in us without any external objects; he may please to dream that I make him this answer: "
 - i. "That it is no great matter, whether I remove this scruple or no: where all is but dream, reasoning and arguments are of no use, truth and knowledge nothing."
 - ii. "That I believe he will allow a very manifest difference between dreaming of being in the fire, and [77] being actually in it. But yet if he be resolved to appear so sceptical, as to maintain, that what I call being actually in the fire is nothing but a dream; and we cannot thereby certainly know, that any such thing as fire actually exists without us: I answer, that we certainly finding that pleasure or pain follows upon the application of certain objects to us, whose existence we perceive, or dream that we perceive by our senses; this certainty is as great as our happiness or misery, beyond which we have no concernment to know or to be. So that, I think, we may add to the two former sorts of knowledge this also of the existence of particular external objects, by that perception and consciousness we have of the actual entrance of ideas from them, and allow these three degrees of knowledge, viz. intuitive, demonstrative, and sensitive: in each of which there are different degrees and ways of evidence and certainty."

Book 4, Chapter 3: Of The Extent of Human Knowledge

1. Review of the Degrees of Knowledge
 - a. **“First, we can have knowledge no farther than we have ideas.”**
 - b. **“Secondly, that we have no knowledge farther than we can have perception of their agreement or disagreement.”**
 - i. **“Either by intuition, or the immediate comparing any two ideas; or,”**
 - ii. **“By reason, examining the agreement or disagreement of two ideas, by the intervention of some others; or,”**
 - iii. **“By sensation, perceiving the existence of particular things:”**
 - c. **“Thirdly, that we cannot have an intuitive knowledge, that shall extend itself to all our ideas, and all that we would know about them; because we cannot examine and perceive all the relations they have one to another by juxta-position, or an immediate comparison one with another... and therefore there is need of some intervening qualities to measure them by, which is demonstration, or rational knowledge.”**
 - d. **“Fourthly, it follows also, from what is above observed, that our rational knowledge cannot reach to the whole extent of our ideas”**
 - e. **“Fifthly, sensitive knowledge reaching no farther than the existence of things actually present to our senses, is yet much narrower than either of the former.”**
2. Based on the premises above, Locke concludes that our knowledge must be narrower than our ideas.
 - a. “From all which it is evident, that the extent of our knowledge comes not only short of the reality of things, but even of the extent of our own ideas. Though our knowledge be limited to our ideas, and cannot exceed them either in extent or perfection; and though these be very narrow bounds, in respect of the extent of all being, and far short of what we may justly imagine to be in some even created understandings, not tied down to the dull and narrow information which is to be received from some few, and not very acute ways of perception, such as are our senses; yet it would be well with us if our knowledge were but as large as our ideas, and there were not many doubts and inquiries concerning the ideas we have, whereof we are not, nor I believe ever shall be in this world resolved.”
 - b. **“I think I may, without injury to human perfection, be confident, that our knowledge would never reach to all we might desire to know concerning those ideas we have: nor be able to surmount all the difficulties, and resolve all the questions that might arise concerning any of them. We have the ideas of a square, a circle, and equality; and yet, perhaps, shall never be able to find a circle equal to a square, and certainly know that it is so.”**
 - c. “it is of use to us to discern how far our knowledge does reach; for the state we are at present in, not being that of vision, we must, in many things, content ourselves with faith and probability; and in the present question, about the immateriality of the soul, if our faculties cannot arrive at demonstrative certainty, we need not think it strange.”
3. Among things we don't understand: The Soul
 - a. “He that considers how hardly sensation is, in our thoughts, reconcileable to extended matter; or existence to anything that has no existence at all; will confess that he is very far from certainly knowing what his soul is. It is a point which seems to me to be put out of the reach of our knowledge: and he who will give himself leave to consider freely, and look into the dark and intricate part of each hypothesis, will scarce find his reason able

to determine him fixedly for or against the soul's materiality. Since on which side soever he views it, either as an unextended substance, or as a thinking extended matter; the difficulty to conceive either will, whilst either alone is in his thoughts, still drive him to the contrary side. An unfair way which some men take with themselves; who, because of the inconceivableness of something they find in one, throw themselves violently into the contrary hypothesis, though altogether as unintelligible to an unbiassed understanding. This serves not only to shew the weakness and the scantiness of our knowledge, but the insignificant triumph of such sort of arguments, which, drawn from our own views, may satisfy us that we can find no certainty on one side of the question; but do not at all thereby help us to truth by running into the opposite opinion, which, on examination, will be found clogged with equal difficulties."

4. The Extent or reach of our Understanding

- a. "The affirmations or negations we make concerning the ideas we have, may, as I have before intimated in general, be reduced to these four sorts, viz. identity, co-existence, relation, and real existence. I shall examine how far our knowledge extends in each of these."
 - i. "**FIRST**, as to identity and diversity, in this way of agreement or disagreement of our ideas, our intuitive knowledge is as far extended as our ideas themselves; and there can be no idea in the mind, which it does not presently, by an intuitive knowledge, perceive to be what it is, and to be different from any other."
 - ii. "**SECONDLY**, as to the second sort, which is the agreement or disagreement of our ideas in co-existence; in this our knowledge is very short, though in this consists the greatest and most material part of our knowledge concerning substances. For our ideas of the species of substances being, as I have showed, nothing but certain collections of simple ideas united in one subject, and so co-existing together; v. g. our idea of flame is a body hot, luminous, and moving upward; of gold, a body heavy to a certain degree, yellow, malleable, and fusible: these, or some such complex ideas as these in men's minds, do these two names of the different substances, flame and gold, stand for. When we would know any [107] thing farther concerning these, or any other sort of substances, what do we inquire, but what other qualities or power these substances have or have not? Which is nothing else but to know what other simple ideas do or do not co-exist with those that make up that complex idea."
 - iii. Third, Fourth and Fifth are spread out further below.

5. Most of our ideas concern secondary qualities of substances

- a. **"The ideas that our complex ones of substances are made up of, and about which our knowledge concerning substances is most employed, are those of their secondary qualities: which depending all (as has been shown) upon the primary qualities of their minute and insensible parts; or if not upon them, upon something yet more remote from our comprehension; it is impossible we should know which have a necessary union or inconsistency one with another: for not knowing the root they spring from, not knowing what size, figure, and texture of parts they are, on which depend, and from which result, those qualities which make our complex idea of gold; it is impossible we should know what other qualities result from, or are incompatible with, the same constitution of the insensible parts of gold, and so consequently must always co-exist with that complex idea we have of it, or else are inconsistent with it."**

6. The connection between secondary and primary qualities is undiscoverable

- a. "Besides this ignorance of the primary qualities of the insensible parts of bodies, on which depend all their secondary qualities, there is yet another and more incurable part of ignorance, which sets us more remote from a certain knowledge of the co-existence or in-co-existence (if I may so say) of different ideas in the same subject; and that is, that there is no discoverable connexion between any secondary quality and those primary qualities which it depends on."
 - b. "That the size, figure, and motion of one body should cause a change in the size, figure, and motion of another body, is not beyond our conception: the separation of the parts of one body upon the intrusion of another; and the change from rest to motion upon impulse; these and the like seem to have some connexion one with another. And if we knew these primary qualities of bodies, we might have reason to hope we might be able to know a great deal more of these operations of them one with another: **but our minds not being able to discover any connexion betwixt these primary qualities of bodies and the sensations that are produced in us by them, we can never be able to establish certain and undoubted rules of the consequences or co-existence of any secondary qualities**, though we could discover the size, figure, or motion of those invisible parts which immediately produce them. We are so far from knowing what figure, size, or motion of parts produce a yellow colour, a sweet taste, or a sharp sound, that we can by no means conceive how any size, figure, or motion of any particles, can possibly produce in us the idea of any colour, taste, or sound whatsoever; there is no conceivable connexion betwixt the one and the other."
7. Properties or Qualities can't co-exist in a thing at once.
- a. "So that let our complex idea of any species of substances be what it will, we can hardly, from the simple ideas contained in it, certainly determine the necessary co-existence of any other quality whatsoever."
 - b. "For of all the qualities that are co-existent in any subject, without this dependence and evident connexion of their ideas one with another, we cannot know certainly any two to co-exist any farther than experience, by our senses, informs us. Thus though we see the yellow colour, and upon trial find the weight, malleableness, fusibility, and fixedness, that are united in a piece of gold; yet because no one of these ideas has any evident dependence, or necessary connexion with the other, we cannot certainly know, that where any four of these are, the fifth will be there also, how highly probable soever it may be; because the highest probability amounts not to certainty, without which there can be no true knowledge. For this co-existence can be no farther known than it is perceived; and it cannot be perceived but either in particular subjects, by the observation of our senses, or in general, by the necessary connexion of the ideas themselves."
 - c. "... any subject may have of each sort of primary qualities but one particular at once; v. g. each particular extension, figure, number of parts, motion, excludes all other of each kind. The like also is certain of all sensible ideas peculiar to each sense; for whatever of each kind is present in any subject, excludes all other of that sort; v. g. no one subject can have two smells or two colours at the same time."
 - d. "Because the active and passive powers of bodies, and their ways of operating, consisting in a texture and motion of parts, which we cannot by any means come to discover"
 - e. "f we are at a loss in respect of the powers and operations of bodies, I think it is easy to conclude, we are much more in the dark in reference to the spirits; whereof we

naturally have no ideas, but what we draw from that of our own, by reflecting on the operations of our own souls within us, as far as they can come within our observation.”

8. The Extent or Reach of our Understanding (continued from above)

- a. “As to the **THIRD** sort of our knowledge, viz. the agreement or disagreement of any of our ideas in any other relation: this, as it is the largest field of our knowledge, so it is hard to determine how far it may extend: because the advances that are made in this part of knowledge, depending on our sagacity in finding intermediate ideas, that may show the relations and habitudes of ideas, whose co-existence is not considered, it is a hard matter to tell when we are at an end of such discoveries; and when reason has all the helps it is [112] capable of, for the finding of proofs, or examining the agreement or disagreement of remote ideas. They that are ignorant of algebra cannot imagine the wonders in this kind are to be done by it: and what farther improvements and helps, advantageous to other parts of knowledge, the sagacious mind of man may yet find out, it is not easy to determine.”

9. As an example of the third extent of knowledge, Locke asserts that Morality is capable of demonstration

- a. “The idea of a supreme being, infinite in power, goodness, and wisdom, whose workmanship we are, and on whom we depend; and the idea of ourselves, as understanding rational beings; being such as are clear in us, would, I suppose, if duly considered and pursued, afford such foundations of our duty and rules of action, as might place morality amongst the sciences capable of demonstration; wherein I doubt not but from self-evident propositions, by necessary consequences, as incontestable as those in mathematics, the measures of right and wrong might be made out to any one that will apply himself with the same indifferency and attention to the one, as he does to the other of these sciences.”
- b. “Where there is no property, there is no injustice, is a proposition as certain as any demonstration in Euclid: for the idea of property being a right to anything; and the idea to which the name injustice is given, being the invasion or violation of that right; it is evident, that these ideas, being thus established, and these names annexed to them, I can as certainly know this proposition to be true, as that a triangle has three angles equal to two right ones.”
- c. “One part of these disadvantages in moral ideas, which has made them be thought not capable of demonstration, may in a good measure be remedied by definitions, setting down that collection of simple ideas, which every term shall stand for, and then using the terms steadily and constantly for that precise collection.”
- d. **“Confident I am, that if men would, in the same method, and with the same indifferency, search after moral, as they do mathematical truths, they would find them have a stronger connexion one with another, and a more necessary consequence from our clear and distinct ideas, and to come nearer perfect demonstration than is commonly imagined. But much of this is not to be expected, whilst the desire of esteem, riches, or power, makes men espouse the well-endowed opinions in fashion, and then seek arguments either to make good their beauty, or varnish over and cover their deformity: nothing being so beautiful to the eye, as truth is to the mind; nothing so deformed and irreconcilable to the understanding as a lye.”**

10. The Extent or Reach of our Understanding (continued from above)

- a. “As to the **FOURTH** sort of our knowledge, viz. of the real actual existence of things, we have an intuitive knowledge of our own existence; and a demonstrative knowledge of

the existence of a God; of the existence of anything else, we have no other but a sensitive knowledge, which extends not beyond the objects present to our senses.”

- b. “Our knowledge being so narrow, as I have showed, it will perhaps give us some light into the present state of our minds, if we look a little into the dark side, and take a view of our ignorance: which, being infinitely larger than our knowledge, may serve much to the quieting of disputes, and improvement of useful knowledge; if discovering how far we have clear and distinct ideas, we confine our thoughts within the contemplation of those things that are within the reach of our understandings, and launch not out into that abyss of darkness (where we have not eyes to see, nor faculties to perceive anything) out of a presumption, that nothing is beyond our comprehension. But to be satisfied of the folly of such a conceit, we need not go far. He that knows anything, knows this in the first place, that he need not seek long for instances of his ignorance. The meanest and most obvious things that come in our way, have dark sides, that the quickest sight cannot penetrate into. The clearest and most enlarged understandings of thinking men find themselves puzzled, and at a loss, in every particle of matter. We shall the less wonder to find it so, when we consider the causes of our ignorance; which, from what has been said, I suppose, will be found to be these three:”
 - i. “First, want of ideas.”
 - ii. “Secondly, want of a discoverable connexion between the ideas we have.”
 - iii. “Thirdly, want of tracing and examining our ideas.”
11. Locke’s beat-down on men’s pride in their own understanding
- a. “... to say, or think there are no such, because we conceive nothing of them, is no better an argument, than if a blind man should be positive in it, that there was no such thing as sight and colours, because he had no manner of idea of any such thing, nor could by any means frame to himself any notions about seeing.”
 - b. “He that will consider the infinite power, wisdom, and goodness of the Creator of all things, will find reason to think it was not all laid out upon so inconsiderable, mean, and impotent a creature as he will find man to be; who, in all probability, is one of the lowest of all intellectual beings. What faculties therefore other species of creatures have, to penetrate into the nature and inmost constitutions of things; what ideas they may receive of them, far different from ours; we know not.”
 - c. “Only this, I think, I may confidently say of it, that the intellectual and sensible world are in this perfectly alike; that that part, which we see of either of them, holds no proportion with what we see not; and whatsoever we can reach with our eyes, or our thoughts, of either of them, is but a point, almost nothing in comparison with the rest.”
 - d. “... another great cause of ignorance is the want of ideas we are capable of. As the want of ideas, which our faculties are not able to give us, shuts us wholly from those views of things, which it is reasonable to think other beings, perfecter than we, have, of which we know nothing; so the want of ideas I now speak of keeps us in ignorance of things we conceive capable of being known to us.”
 - e. “When we consider the vast distance of the known and visible parts of the world, and the reasons we have to think, that what lies within our ken is but a small part of the universe, we shall then discover an huge abyss of ignorance. What are the particular fabrics of the great masses of matter, which make up the whole stupendous frame of corporeal beings, how far they are extended, what is their motion, and how continued or communicated, and what influence they have one upon another, are contemplations that at first glimpse our thoughts lose themselves in.”

- f. "If a great, nay, far the greatest part of the several ranks of bodies in the universe, escape our notice by their remoteness, there are others that are no less concealed from us by their minuteness."
- g. "... how far soever human industry may advance useful and experimental philosophy in physical things, scientific will still be out of our reach; because we want perfect and adequate ideas of those very bodies which are nearest to us, and most under our command. Those which we have ranked into classes under names, and we think ourselves best acquainted with, we have but very imperfect and incomplete ideas of."
- h. "Certainty and demonstration are things we must not, in these matters, pretend to. By the colour, figure, taste, and smell, and other sensible qualities, we have as clear and distinct ideas of sage and hemlock, as we have of a circle and a triangle: but having no ideas of the particular primary qualities of the minute parts of either of these plants, nor of other bodies which we would apply them to, we cannot tell what effects they will produce; nor when we see those effects, can we so much as guess, much less know, their manner of [121] production. Thus having no ideas of the particular mechanical affections of the minute parts of bodies that are within our view and reach, we are ignorant of their constitutions, powers, and operations: and of bodies more remote we are yet more ignorant, not knowing so much as their very outward shapes, or the sensible and grosser parts of their constitutions."
- i. "This, at first, will show us how disproportionate our knowledge is to the whole extent even of material beings; to which if we add the consideration of that infinite number of spirits that may be and probably are, which are yet more remote from our knowledge, whereof we have no cognizance, nor can frame to ourselves any distinct ideas of their several ranks and sorts, we shall find this cause of ignorance conceal from us, in an impenetrable obscurity, almost the whole intellectual world; a greater certainly, and more beautiful world than the material."
- j. "Angels of all sorts are naturally beyond our discovery: and all those intelligences whereof it is likely there are more orders than of corporeal substances, are things whereof our natural faculties give us no certain account at all."
- k. "But that there are degrees of spiritual beings between us and the great God, who is there that by his own search and ability can come to know? Much less have we distinct ideas of their different natures, conditions, states, powers, and several constitutions wherein they agree or differ from one another, and from us. And therefore in what concerns their different species and properties, we are under an absolute ignorance."
- l. "In the next place, another cause of ignorance, of no less moment, is a want of a discoverable connexion between those ideas we have."
- m. "These mechanical affections of bodies having no affinity at all with those ideas they produce in us (there being no conceivable connexion between any impulse of any sort of body and any perception of a colour or smell, which we find in our minds) we can have no distinct knowledge of such operations beyond our experience; and can reason no otherwise about them, than as effects produced by the appointment of an infinitely wise agent, which perfectly surpass our comprehensions. As the ideas of sensible secondary qualities which we have in our minds, can by us be no way deduced from bodily causes, nor any correspondence or connexion be found between them and those primary qualities which (experience shows us) produce them in us; so on the other side, the operation of our minds upon our bodies is as inconceivable. How any thought should produce a motion in body is as remote from the nature of our ideas, as how any body should produce any thought in the mind."

Book 4, Chapter 10: Knowledge of the Existence of a God

1. We are certainly capable of knowing with certainty that there is a God
 - a. **“To show therefore that we are capable of knowing, i. e. being certain that there is a God, and how we may come by this certainty, I think we need go no farther than ourselves, and that undoubted knowledge we have of our own existence.”**
2. Man cannot doubt that he exists
 - a. “If any one pretends to be so sceptical, as to deny his own existence (for really to doubt of it is manifestly impossible) let him for me enjoy his beloved happiness of being nothing, until hunger, or some other pain, convince him of the contrary. This then, I think, I may take for a truth, which every one’s certain knowledge assures him of, beyond the liberty of doubting, viz. that he is something that actually exists.”
3. He knows something cannot be created by nothing
 - a. “In the next place, man knows by an intuitive certainty, that bare nothing can no more produce any real being, than it can be equal to two right angles.”
4. Only something powerful, reasonable and eternal could create something with so much power and reasonable
 - a. “This eternal source then of all being must also be the source and original of all power; and so this eternal being must be also the most powerful.”
 - b. “Again, a man finds in himself perception and knowledge. We have then got one step farther; and we are certain now, that there is not only some being, but some knowing intelligent being in the world.”
 - c. “There was a time then, when there was no knowing being, and when knowledge began to be; or else there has been also a knowing being from eternity. If it be said, there was a time when no being had any knowledge, when that eternal being was void of all understanding, I reply, that then it was impossible there should ever have been any knowledge: it being as impossible that things wholly void of knowledge, and operating blindly, and without any perception, should produce a knowing being”
5. The idea that God must be the most perfect being is not something we can prove
 - a. “How far the idea of a most perfect being, which a man may frame in his mind, does or does not prove the existence of a God, I will not here examine.”
 - b. **“Though our own being furnishes us, as I have shown, with an evident and incontestible proof of a deity; and I believe nobody can avoid the cogency of it, who will but as carefully attend to it, as to any other demonstration of so many parts: yet this being so fundamental a truth, and of that consequence, that all religion and genuine morality depend thereon, I doubt not but I shall be forgiven by my reader, if I go over some parts of this argument again, and enlarge a little more upon them.”**
6. But God must be cognitive
 - a. “If then there must be something eternal, let us see what sort of being it must be. And to that, it is very obvious to reason, that it must necessarily be a cogitative [192] being. For it is as impossible to conceive, that ever bare incogitative matter should produce a thinking intelligent being, as that nothing should of itself produce matter.”

Book 4, Chapter 18: Of Faith and Reason and their Distinct Provinces

1. Defining the boundaries
 - a. "It has been shown:"
 - i. "That we are of necessity ignorant, and want knowledge of all sorts, where we want ideas."
 - ii. "That we are ignorant, and want rational knowledge where we want proofs."
 - iii. "That we want certain knowledge and certainty, as far as we want clear and determined specific ideas. "
 - iv. "That we want probability to direct our assent in matters where we have neither knowledge of our own, nor testimony of other men, to bottom our reason upon."
 - b. "From these things thus premised, I think we may come to lay down the measures and boundaries between faith and reason; the want whereof may possibly have been the cause, if not of great disorders, yet at least of great disputes, and perhaps mistakes in the world. For till it be resolved, how far we are to be guided by reason, and how far by faith, we shall in vain dispute, and endeavour to convince one another in matters of religion."
2. Locke defines the boundary as:
 - a. **"Reason therefore here, as contradistinguished to faith, I take to be the discovery of the certainty or probability of such propositions or truths, which the mind arrives at by deduction made from such ideas, which it has got by the use of its natural faculties; viz. by sensation or reflection."**
 - b. **"Faith, on the other side, is the assent to any proposition, not thus made out by the deductions of reason; but upon the credit of the proposer, as coming from God, in some extraordinary way of communication. This way of discovering truths to men we call revelation."**
3. Experience trumps revelation:
 - a. In Simple Ideas
 - i. "First then I say, that no man inspired by God can by any revelation communicate to others any new simple ideas, which they had not before from sensation or reflection. ... For words seen or heard, recall to our thoughts those ideas only, which to us they have been wont to be signs of; but cannot introduce any perfectly new, and formerly unknown simple ideas."
 - b. Reason and experience provide more clarity than revelation
 - i. "Secondly, I say, that the same truths may be discovered, and conveyed down from revelation, which are discoverable to us by reason, and by those ideas we naturally may have. So God might, by revelation, discover the truth of any proposition in Euclid; as well as men, by the natural use of their faculties, come to make the discovery themselves."
 - ii. "For whatsoever truth we come to the clear discovery of, from the knowledge and contemplation of our own ideas, will always be certainer to us, than those which are conveyed to us by traditional revelation."
 - c. Revelation does not trump clear reason
 - i. "... no proposition can be received for divine revelation, or obtain the assent due to all such, if it be contradictory to our clear intuitive knowledge."

- b. “But yet it still belongs to reason to judge of the truth of its being a revelation, and of the signification of the words wherein it is delivered. Indeed, if anything shall be thought revelation, which is contrary to the plain principles of reason, and the evident knowledge the mind has of its own clear and distinct ideas; there reason must be hearkened to, as to a matter within its province: since a man can never have so certain a knowledge, that a proposition which contradicts the clear principles and evidence of his own knowledge, was divinely revealed, or that he understands the words rightly wherein it is delivered; as he has, that the contrary is true: and so is bound to consider and judge of it as a matter of reason, and not swallow it, without examination, as a matter of faith.”
- c. **“For men having been principled with an opinion, that they must not consult reason in the things of religion, however apparently contradictory to common sense, and the very principles of all their knowledge; have let loose their fancies and natural superstition; and have been by them led into so strange opinions, and extravagant practices in religion, that a considerate man cannot but stand amazed at their follies, and judge them so far from being acceptable to the great and wise God, that he cannot avoid thinking them ridiculous, and offensive to a sober good man.”**

Afterthoughts

1. John Locke is one of humanity's foremost thinkers on the subject of human liberty. So, is it any wonder that he would be associated with the "table rasa," or clean slate, condition of our brain when we are born into this world? If we were to start with any ideas at all, the actor of our will would arguably be less free than it would be starting from scratch.
 - a. Consider the opposite. What if in some future world, mankind develops the science to map memories in the brain and implant them into the brain of a newborn child. Sure this idea is science fiction, but consider the repercussions of such a practice on individual freedom. If knowledge is based on memories of experiences, then a child could be given the experiences of another and without any choice, and they would have ideas they did not develop on their own. At best, these memories would be benign and instructive. But, at worst, we are talking about a type of possession or even immortality of another person's consciousness -- provided consciousness relies on memories to give its thoughts structure.
2. In 1690 microscopes of any power at all (magnification of 300x being rare) were new and introducing important facts to the scientific community. At least in part, we see Locke wrestling with the new data and trying to reconcile what the world was coming to understand about matter and human knowledge. If ideas about matter were innate, then our idea about microscopic substance seems to have been confused. Locke puts forward the fictional idea of a person with microscopic vision and wonders if we would be able to conceive of larger categories if we had to take every small thing into account at all times. Maybe God limited our vision so we could focus on the scale that was important for our survival. And if so, then our understanding is limited by our senses in a practical sense. But this also underscores the larger point Locke is making about ideas originating in the senses or from reflection. Without the data that a microscope provides, we have a very uncertain understanding of substance. And even though Democritus speculated on the existence of Atoms (indivisible elements) in Ancient Greece, John Locke still doesn't understand the inner workings of substance in 1690. We will have to wait until around 1778 when Antoine Lavoisier discovers the relationships between Oxygen and Hydrogen (naming them in the process), before we will begin to understand molecular biology and elements. And even today we can only model atoms based on formulas. We still don't understand the exact structure. And so we should retain some of Locke's humility when dealing with the subject of metaphysics and human understanding.