SERIES

OF

LECTURES

UPON

LOCKE'S ESSAY.

BY THE

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PREFACE.

THE following Work has been undertaken with considerable reluctance. I have been repeatedly applied to by Dublin publishers to furnish them with a contraction of Locke's Essay, and have received liberal offers of pecuniary remuneration. Hitherto I have uniformly declined the undertaking, and have been only induced to enter upon the present work, by having ascertained that a spurious contraction, in a catechetical form, is in circulation under my name, sold by the booksellers as mine, and bought as such by the students. Finding the defects of my own works sufficiently numerous, without being stigmatised with the errors of others, I have, in self defence, attempted these Lectures upon the Essay.

To execute what the publishers first proposed, a mere contraction of Locke's Essay, was a task to which I could not prevail upon myself to stoop. If this be considered arrogance, it is a charge to which I must honestly plead guilty. I have, however, attempted a work which I hope will be found more useful than any contraction could be.

To illustrate and explain Locke's Essay on the Understanding in a series of Lectures, to compare his opinions on disputed points with those of other modern philosophers, to show where Locke disagrees with himself, and maintains contradictions, and to embody in the same work all the parts of the Essay, which were necessary and useful, by introducing them either in substance or in the very words of the author, where these are material, appeared to me a work likely to be more beneficial than the contraction required. Such has been my design in the present lectures; how far I have succeeded, must be determined by the opinions of others.

The manner in which Locke's works are too often studied, appears to be attended with less benefit to the student than could be desired. It is the practise to "get by heart" the doctrines and sometimes little more than the words of this philosopher. Having no other works on the same subject in his hands, the student, when his academical studies are completed, frequently goes forth into the world, fully persuaded that the opinions which he has thus "committed to memory" are infallibly right, and the only doctrines, on these subjects, held by rational creatures of this age. Absurd as this may appear, I have known many examples of it. One of the great benefits to be derived from this department of science seems to be the exercise which the understanding receives in the investigations which it involves. What strength can the intellect derive from "getting by heart" the opinions of Locke? As well might we expect, by reading

a description of riding or walking, to acquire the vigour derivable from those healthful exercises.

My object therefore has been, on disputable points, to give the reader, in some degree, a view of both sides of the question, and to enable him to judge and reason for himself. Where, therefore, I have ventured to differ from Locke, it is of little moment whether I am right or wrong; it will, in either case, contribute to disenthral the mind of the student from the bondage of a particular system, in matters on which mankind is never likely to agree.

My publishers finding me determined against writing a catechetical contraction of Locke, have made a special request that I should annex a collection of questions upon the lectures. Such students as think any advantage is derivable from this, will find them in the Appendix. The questions which may be considered indispensible, and which even the most indolent student should be able to answer, are distinguished by the mark (§). Those who aspire to a more accurate knowledge of the Essay, should attend to those marked thus (†). Those who look for honors should be generally prepared in all the questions.

The answers to the questions will be readily found, by referring to the corresponding section of the Lecture. This arrangement will, I trust, accommodate all classes of readers.

LECTURES

UPON

LOCKE'S ESSAY.

LECTURE I.

INTRODUCTION.

1. LOCKE introduces the subject of his Essay by enumerating the motives which urged him, and which may therefore also be supposed to incite others to prosecute an inquiry into the nature and extent of the intellectual operations. These inducements he states to be three fold: 1°. the nobleness of the subject, 2°. the usefulness of the results, 3°. the pleasure derived from the pursuit. When we consider that the understanding is the great power by which man is elevated above other animals, or in the words of our author, that which " sets him above the rest of sensible beings, and gives him all the advantage and dominion which he has over them," it cannot but be considered one of the noblest objects of investigation. This being the power which " directs our thoughts in the search of other

things," and by the operations of which we are enabled to view the recesses of nature, which, but for its improvement, must for ever have been concealed: and what is of still greater moment, that by which a knowledge of ourselves, and of those rules by which as beings accountable to a moral governor we should regulate our actions, its extensive utility must be most striking. That a pursuit having such an object,* and such ends, should be pleasurable, is a question only to be resolved by an appeal to experience. The pleasure derived from it is illustrated by Locke, by comparing it to the pleasure which light gives to the eye.

In such an enquiry there are necessarily considerable difficulties to be overcome. The difficulties arise from the circumstance, that the objects and instruments of investigation are the same, namely, the operations of the mind. The enquiry is into the nature of these, and the only instruments by which the enquiry can be conducted, are these very operations. This difficulty Locke illustrates by the eye, which, though it is the mean whereby we see other things, can never behold itself; thus the mind finds a similar difficulty in setting itself before its own view, and making itself " its own object."

2. Having introduced the subject of his work, or as he modestly terms " his essay," our Author proceeds to develope the views he designs to take of the human mind and its capacities. His object he states to be " human knowledge" rather than the human mind, and " human knowledge" as far only as respects its " original certainty, extent and degrees." The word " original" here must be

* The object and the end in popular works are frequently confounded. The object is the subject matter of a treatise; the end, the purpose to be attained by treating of the object. Thus the objects of this essay are the operations of the mind. The end is to teach proper methods of searching after truth.

taken in a limited sense. In its most extended acceptation it might be understood to apply to an investigation which would trace our knowledge and its elements, our ideas, as far back as their " first cause." To guard against this misconception, Locke distinctly declines the " physical consideration of the mind." Under the " physical consideration of the mind" is embraced 1°. all enquiry into its essence. 2°. The peculiar organic modifications and motions by which sensation is effected. 3°. Whether ideas in their original formation depend upon matter? These he declines, not from their inutility, but as not forming a part of his design, which, as has been observed, is strictly confined to what respects human knowledge, its original (*i. e.* elements,) certainty and extent.

The necessity of fixing the limits of knowledge, and of settling distinctly the measures of its certainty must be strongly impressed upon us, when we observe the discordancy and even contradiction which exists in the opinions of mankind on various subjects. This discrepancy in judgment can only arise from men adopting wrong measures of probability, and false criterions of certainty, but is nevertheless frequently attended with the mischievous consequence of driving unreflecting minds into positive scepticism.

3. The method which our Author proposes to pursue in his inquiry is as follows:

1°. To enquire into the original of our ideas, or the ways whereby they come into the mind.

2°. To determine the knowledge derived from them, its 1°. evidence, 2°. certainty, and 3°. extent.

3°. To inquire into the nature and grounds of faith or opinion.

By faith or opinion is meant " that assent which is given to a proposition, of whose truth there is no certain knowledge."

4. An ignorance of the extent of our intellectul fa-

culties, and of the investigations to which they are proportionate, is productive of two opposite errors, scil. dogmatism and scepticism. The dogmatist overrates, the sceptic underrates our faculties. The one ascribes greater, and the other less validity to the conclusion of our reason than the grounds on which those conclusions are built would justly warrant. Of these intellectual maladies (for so we must call them) there are various degrees, and there is probably no finite being who is perfectly free from any degree of either. From the sceptic who rejects the conclusions of abstruse metaphysics, to the sceptic who will not venture to affirm his own existence, we meet in common life with all the intermediate shades of error.

Extreme begets extreme. Scepticism is the child of dogmatism. The dogmatist, confident in the fancied extent of his faculties, plunges into speculations, beyond the range of human intellect. He flounders in an ocean of error. Baffled and disgusted at his failure, and confounded with the contradictions and embarrassments in which he has involved himself, in a sort of intellectual sulkiness, he wilfully abandons all proper use of his mental energies, and concluding that, because he failed in his search into what was removed beyond the wit of man, he cannot depend with certainty on any thing, he gives himself up to absolute scepticism. The folly of this degree of scepticism is compared by Locke to that of one who would reject the use of his legs, and " sit still and perish, because he has not wings to fly." He also illustrates the folly of that indolence which is the consequence of scepticism, by one who would refuse the use of candle-light, because he had not broad sunshine, although the former were sufficient for his purposes. He that " entertains all objects in that way and proportion in which they are suited to his faculties, and capable of being presented to him," uses his understanding as he should. If probability is all that

can be attained, he rests content with it, gives the proposition its proportionate degree of assent, and governs his conduct conformably to it. He does not, like the dogmatist, attempt to reduce it to positive demonstration, nor like the sceptic, reject it altogether, because he cannot attain that demonstration.

These are manifest abuses of our finest faculty. Were it possible to do that perfectly which Locke proposes; to ascertain with distinctness the limits of our knowledge, the boundary between what may be, and what cannot be comprehended by the human mind, " the horizon which defines the enlightened and dark parts of things," these two abuses would be avoided. But though it be not possible to effect this purpose, however desirable, it is yet possible to do much towards approximating to those limits, though it be not possible, perfectly to cure the diseases, their intensity may be very much mitigated. This Locke proposed to effect by his inquiry into the human mind, and has certainly to a great degree succeeded in his design. He revolutionized the science of the mind, dashed to pieces speculations which had commanded the reverence and admiration of ages, and fixed that science upon more rational and firm foundations than the united talents of the sages who preceded him had by their continued efforts been able to effect.

5. Our faculties have limits. The knowledge therefore to be attained by those faculties has corresponding limits. But this is a predicament in which we stand in common with all finite created beings. The difference between man and the highest created being lies only in the *place* of the limit. On this score we have then no cause of complaint or discontent, unless one would aspire to one of the incommunicable attributes of divinity, infinite comprehension. As to the the limitations which

have been set to our intellectual capacity, Locke contends that we should rest satisfied with them for these reasons:

1°. When we compare our own powers with those of the other occupants of the globe, we must at once perceive the immense superiority which is given to us; so great, that although far from being the first in physical power, yet such is the dominion given us by the intellect, we maintain a sway over even the strongest and most ferocious.

2°. Although the powers of mind given to us fall infinitely short of comprehending the vast extent of being floating in the universe, and even probably shrink into nothing before the comprehensions of other and superior created beings, yet we have all that is necessary for the conveniencies, comforts, and even luxuries and elegancies of this life, and what is of infinitely more consequence, we have powers fully adequate to point out the rules of conduct which will ensure a permanent felicity in the next; we have, as St. Paul says, παντα προς ζωην και ευσηβειαν, every every thing conducive to the convenience of life, and the cultivation of virtue.

3°. We have that degree of comprehension which is suited to our state. Had we more, the circumstances in which we are placed might become intolerable, and the extension of our intellect produce only an extension of misery. Had we less, our quantity of happiness would be proportionably less than our situation and circumstances would admit of.

In a word, whatever may be the limits of our faculties, they are sufficiently and more than sufficiently wide for all our purposes here, and it is perfect folly to reject the use of them because they are not more extended. The sounding line of the mariner, as our author observes, is of considerable use to him, although it be not capable of fathoming all the depths of the ocean. It is sufficient for him if it measure those parts through which his voyage

lies, and it is his own fault if he wander into regions which lie out of his way. Our faculties are perfectly adequate to investigate "all that concerns and conduct," and this is all that is absolutely necessary to be known here.

6. Previously to entering upon his proposed enquiry, Locke premises that he shall proceed upon a certain postulate. He states that he calls that thing about which the mind is occupied when the man thinks, an *idea*. His postulate is the assumption of the existence of ideas. It would appear from his definition that this is as evident as thinking itself. But from subsequent parts it appears that he means by the word idea, something more than is expressed in his definition. He speaks of *external things* as the exciting causes of *ideas*. He therefore evidently intends *ideas* and *external things* to be different beings. Suppose then it is asserted that the mind when it thinks is employed about external things, does Locke's postulate mean merely the existence of external things? Certainly not, for in one of the chapters of the fourth book, he occupies himself in the proof of this very proposition. Something more than is contained in this postulate than appears at the first view of it, and this is only to be collected from a consideration of other parts of the "essay." Locke's postulate is really this; that there exist in the minds of men certain effects produced there by certain things existing in what is called the material world. These effects are what the mind contemplates in thought, and they are the only indications or proofs which man possesses of the "existence of external objects," and they are what our author calls "ideas." The external exciting causes he denominates matter and its modifications. The existence of this latter he does not assume, but professes to prove from the former. The ideas and their exciting causes he takes to be things altogether heterogeneous, and admitting no comparison.

Locke thinks himself warranted in this assumption, as he declares that every man is conscious of the existence of ideas in his own mind, and other men's words and actions convince him that they exist in theirs.

We have dwelt at length upon the matter of the introduction, as it is of considerable consequence in forming a clear view of the subjects of investigation, as we proceed through the essay itself.

LECTURE II.

Outline of the Essay. Of sensation and reflection. The Cartesian doctrine; that of the soul combatted.

1. BEFORE we enter upon the details of the "Essay" it may be useful to take a general view of its subject, somewhat more developed than the short plan which our author has laid down in his "method" given in the introduction.

Conformably to this plan he devotes the first two books to an enquiry into the true source of our ideas. The main doctrine which he establishes is, that all our primitive ideas originate in sensation. After the mind becomes furnished with ideas by the senses, it begins to exercise its capacities of compounding, comparing, abstracting, &c. The mind contemplating these, its own operations, acquires ideas of them, which ideas form a new class wholly distinct from the former, and which he calls ideas of reflection. His principal argument to establish the doctrine that sensation and reflection are the original of all our ideas, is an induction completed *a fortiori*. As it would be impossible to enumerate *all* our ideas, and prove each separately to come from one or other of these sources, he shews, in a general way, that very comprehensive classes undoubtedly arise from them; the most obvious are the ideas peculiar to each of the five senses, the ideas of the different operations of the mind, &c.

This induction, which must, from its very nature be imperfect, he confirms, by shewing that those ideas which seem to be most abstruse in their origin, and most unlikely to proceed from the sources he assigns, do, nevertheless, actually proceed from them, and from no other. The ideas he selects for this purpose, are space, time, and infinity.

2. This inductive process, though it is the principal, is not the only argument on which he founds his theory of sensation and reflection. There are several subsidiary arguments confusedly scattered through his work, which we shall attempt to enumerate here:

1°. Those who denied sensation and reflection to be the only sources alleged many of our ideas to *innate;* that is, to be originally impressed upon the mind in the first moment of its creation, and to constitute an essential and inseparable part of the mind itself. They not only alleged that there were certain ideas thus impressed, but also maintained that there were actually some truths, the perception of which was simultaneous with the creation of the living principle. To state this more plainly; they maintained that at the moment that life is communicated to that portion of organised and hitherto inert matter designed to receive it in the womb, there are at the same time conveyed to it clear and distinct perceptions of certain ideas, and even of the truth of certain abstract propositions, and hence these ideas and propositions have been called *innate*. Locke devotes his first book to the refutation of this doctrine; and if this be the only source assigned for ideas, his own doctrine may be considered to be thus established, by reasoning from the remotion of one part to the position of the others. No idea can be considered innate, the existence of which may be accounted for by any of the ordinary ways whereby we get other ideas. For it is unphilosophical to ascribe more causes than are sufficient to solve the phenomenon. It

is contrary to the economy of nature to do by two different causes that which might have been done by one and the same.

2°. He draws an analogical argument from tracing back the state of the mind from the adult to the child, from the child to the infant, and so back to the moment of its birth, which is the first moment in which we can observe it. Through all these stages we find the stock of ideas diminishing rapidly, and find scarcely any in the newborn infant; whereas, had we proceeded in the other direction, we should have found the variety of ideas increasing in proportion to the variety of sensible objects which presented themselves, and to the attention with which they are contemplated. Arguing therefore, by analogy, we may infer, that were we able to carry our observation back from infancy to the moment of creation, we should find no ideas *then* actually existing, though probably they would immediately begin to exist.

3°. Locke frequently uses the *argumentum ad ignorantiam*. He appeals to his opponents to assign any idea not derived from these sources. Although this species of argumentation is in general not entitled to much weight, yet it is peculiarly fit in the case in which he applies it. It is on all hands admitted, that by far the greater number of our ideas arise from sensation and reflection. It is therefore much more easy to assign some of the few, which have been alleged not to arise from them, than to go through an inductive process to establish the contrary.

4°. He deduces an argument from etymology in support of this doctrine. He observes, that most of the words in use, even those expressing ideas of reflection, are derived from names expressive of sensible ideas. Such are, imagine, apprehend, adhere, conceive, instill, disgust, &c. spirit, angel, &c. And he conjectures that if we were able to trace all names back to their first origin, we should find them all ultimately implying sensible ideas.

3. In the course of his investigations respecting the original of our ideas, he enters into several inquiries which do not strictly come under that head. Thus he examines other qualities of ideas, as their clearness, distinctness, reality, adequacy, &c. These considerations conclude his second back.

According to the method laid down in the introduction he should next have proceeded to the consideration of knowledge and its attributes. In his progress, however, finding a more intimate connection between language and ideas than he at first had expected, he conceived it necessary to devote a part of his work to the consideration of language, and its influence upon our ideas and knowledge. This subject he has very fully treated in his third book. The fourth book is altogether devoted to investigations respecting knowledge and probability, and their attributes.

4. Having now stated more particularly the subjects to which we shall have to apply our attention in these lectures, we shall proceed to examine our author's reasonings respecting the original of our ideas. As the doctrine of innate ideas and principles is in a great degree exploded, we shall not at present enter into further particulars respecting the subject of the first book than those which have been already stated. Assuming then the existence of ideas in the mind, the question is, whence have they come? The mind, in the first moment of its creation, is compared by Locke to "white paper," capable of receiving various characters and impressions, but on which nothing is as yet written. "Whence comes it by that vast store, which the busy and boundless fancy of man has painted on it, with almost endless variety?" He ascribes all this in one word to EXPERIENCE. This experience is two-fold; sensation and reflection. Locke seldom gives formal and settled definitions of his terms, the

circumstances under which he describes his "Essay" to have been written may possibly account for this. His meaning is frequently to be only collected from carefully observing the manner in which he uses and applies his terms. The term sensation, is an example of this. He seems to use this term and perception nearly synonymously. When examined, however, we shall find that perception is a more general term, as it is applicable to ideas of reflection as well as those of sensation. There are several different passages in the essay which are indifferently considered as definitions of sensation, and indeed seem to be given as such by the author. Such are the following:

"This great source of most of the ideas we have depending wholly upon our senses, and derived by them to the understanding, *I call* SENSATION. B. 2. Ch. I. § 3.

——— Sensation; *which is* such an impression or motion made in some part of the body, as produces some perception in the understanding. B. 2. Ch. I. § 23.

——— Sensation; *which is* the actual entrance of an idea into the understanding by the senses. B. 2. Ch. XIX. § 1."

From a comparison of the last two definitions, one might suppose that by the word perception, our author meant an idea. If he does not mean by the word perception, in the first of these definitions, an idea, the two definitions are not alike, and therefore he uses the word sensation unsteadily. If, on the other hand, perception means, as would appear from B. 2. Ch. IX. the *actual production* of an idea, the last definition applies to perception as well as to sensation; and in this case the second definition becomes absurd, only defining by a synonymous term. As to the first definition it is also objectionable, as we are ignorant (as far as respects any thing contained in it) what "that great source" is. These little inaccuracies are every where observable through our author,

who seems better qualified to prescribe rules to others how to avoid the unsteady use of words, than to avoid that abuse himself.

5. His definition of reflection is " the notice which the mind takes of its own operations, and the manner of them." This definition is perfectly adequate. The term " operations" might indeed be better replaced by powers, or still better by faculties, which implies either active or passive capacity. This objection, however, Locke guards against a little after by observing, that the term operation is used " in a large sense, as comprehending not barely the actions of the mind about its ideas, but some sort of passions arising sometimes from them, such as is the satisfaction or uneasiness arising from any thought."— This use of the word operation countenances a similar use of the same word in the definition of simple apprehension, in the Compendium of Logic by Murray. Judging by the example which our author here gives of the passive sense in which he uses the word operation, he does not seem altogether aware of the scope of the objection to it, as it occurs in the definition of reflection. That objection is simply this, that " the notice which the mind takes" of certain passive faculties, as for example, perception, strictly speaking, does not come under the definition of an idea of reflection, and yet our author plainly intends it should, for he declares that perception is the first faculty of the mind about its ideas, and *therefore* the first simple idea of reflection. (Ch. IX. § 1.) The suppressed premise in this enthymeme is evidently the definition of reflection; and it may be observed that he tacitly supposes the word " faculty" substituted for " operation." This, and such like examples, are properly the objections to the word " operation" in the definition of reflection; which objection is however removed if the word operation be taken as synonymous with faculty.

6. Whatever confusion or inacuracy there may be found

in Locke's definitions of the terms sensation and reflection, when subjected to a rigorous verbal scrutiny, no great difficulty can be presented to a candid enquirer after truth, who is not disposed to cavil in taking up the general tenor of our author's meaning. He supposes, as has been before observed, the existence of external objects, which, by affecting our organs, produce ideas in our minds. This, it is true, is an hypothesis; but that is no objection to founding upon it a definition. The impression which thus produces an idea in the mind is called sensation; and the ideas produced are called *ideas of sensation* or *sensible ideas*, and sometimes *sensible qualities*. The mind being furnished with these ideas, and being also endued with certain powers capable of being exerted upon ideas, the exertion of those powers and operations effected upon the ideas of sensation, follow. The mind being conscious of these operations, and *feeling* them going forward, turns its view inwards upon itself, and attentively observes the processes, and thus acquires ideas of these operations. This is called reflection. To give an example; let us suppose that yesterday a tulip had fallen under our view, and we thus acquired by the senses an idea of it. To-day we wish to describe it to another, and endeavour to reproduce the same idea without the presence of the object itself. Succeeding in doing so, we observe the process of mind necessary for that purpose, we acquire a distinct idea of it, and we call that idea by the name *recollection*. The acquisition of our idea, whether of sensation or reflection, is called *perception*.

7. The perception of ideas of reflection necessarily occurs later than those of sensation, for two reasons; 1°. because ideas of sensation must have been perceived before the mind could have had any operations, and therefore before it could have had ideas of reflection. 2°. Ideas of reflection require an observation of the operation of our minds, and an abstraction from external objects, which

cannot be looked for but in persons somewhat advanced in life.

8. Having explained the nature of sensation and reflection, Locke combats the principle of Des Cartes, that the quality of thinking is the essence of the soul. This Philosopher held the doctrine, that nothing exists but substances. Substances he divided into two classes, *thinking* substances, and *extended* substances; thus making thought the essential quality of the one class, and extension that of the other. The essence of spirit being thus fixed in thinking, he concluded that thinking is absolutely inseparable from spirit, and thence, that the supposition that the soul, at any moment was free from thought, involved a positive contradiction. In virtue of the other principle, that the essence of matter consisted in extension, he concluded that there was no vacuum, nor even a possibility of it, and that therefore the universe is absolutely full. By this principle, space, void of body, is totally excluded, for extension being implied in the idea of space, matter is so too, as he makes it the distinguishing property of matter. Locke attacks both these principles; we shall however for the present confine ourselves to the first.

9. Locke considers thinking the action of the soul, and conceives it to be no more essential to the soul than motion is to the body. The body having the power to move may or may not exert that power, as the will may dictate. So the soul having the power to think, the will possesses a certain power over the thoughts, though not to the same extent as in the former case. The action of the mind in thinking cannot be suspended by the dictate of the will. The attention may be increased or relaxed, the current of the thought may be in some degree regulated and directed by the will, but that current *cannot be stopped.* It ceases only in sleep or in death. This perhaps it was which led Des Cartes to his principle. Perceiving the

inability of the will to suspend the process of thought while awake, and not conceiving how that could be considered as an action over which the will had no power, he concluded, that it must be an essential quality of the soul, and that it must subsist in sleep, although from some physical cause, depending on the state of the body, we are not conscious of it. Locke considers Des Cartes to have been guilty of sophistry, in establishing this position by a *petitio principii.* He supposes him to have first *defined* the soul to be a thinking being, and then *inferred* that it always thinks. But Des Cartes was too acute to impose on himself, and too prudent, as well as too honest to attempt to impose on others by such a flimsy sophism. The truth is, Des Cartes never designed it as an *inference.* It was one of his *hypotheses;* for the philosophy of that day proceeded entirely on hypotheses. Des Cartes invented this as that which was most adequate to solve the phenomenon. The objection which may with truth and effect be brought against the Cartesian principle is, 1°. That it is a mere hypothesis; and 2°. That it is inadequate to account for the phenomenon of sleep, in which all men agree that they are not conscious of thought.

We shall now follow our author through the different absurdities which he shews that the Cartesian doctrine will lead to:

1°. Granting that the soul thinks while the man sleeps, we can scarcely deny that it has the usual concomitants of thought, pleasure or pain, happiness or misery, according to the nature of its speculations. If we look further, and consider it as a moral agent, it has its duties and sins, and its merits and demerits, and is entitled to rewards, and obnoxious to punishment. Of all this the sleeping man is perfectly unconscious, and therefore is not answerable for it. Thus, to all intents and purposes, the

soul and the man are two distinct beings, the soul as a moral agent to be disposed of, and judged by circumstances, which the man has no more consciousness of, nor responsibility for, than Socrates had of or for the thoughts or deeds of Des Cartes himself. Thus personal identity is confounded.

The answer, that men are conscious of the process of thought during sleep, but immediately forget it, Locke rejects as a gratuitous assumption, and which in itself is in the highest degree improbable.

2°. Granting that the soul thinks while man sleeps, the thoughts ought to be more rational than while the man wakes, for then the thinking being is, as it were, disengaged from, and disencumbered of the material being, and therefore the thoughts should be more clear and elevated, and the conclusions and reasonings more valid. But whenever our sleeping thoughts (dreams) are remembered, they are always on the contrary found to be incoherent, absurd and extravagant.

3°. Granting that the soul thinks while the man sleeps, and yet totally forgets its thoughts, such thinking is utterly useless. This contradicts that economy of nature by which she does nothing in vain, much less does she create one of the noblest faculties to be expended for no purpose.

4°. Granting that the soul thinks while the man sleeps, if it be answered, that the ideas are forgotten, because the bodily organs not being employed in this thinking, no impressions are left, and consequently no memory of such thoughts; it may be replied, that it is quite as easy to suppose the soul to retain its ideas without the help of the organs, as to receive and contemplate them.

5°. Granting that the soul thinks from the first moment of its creation, and before it has received ideas from the senses, it must have ideas not derived from sensation or reflection: of such ideas we find no trace.

LECTURE III.

Ideas, simple and complex.—Division of simple Ideas.

1. HAVING first divided our ideas as they enter the mind, into those of sensation and reflection, Locke next viewing them in another respect, divides them into *simple* and *complex*.

He defines a simple idea to be "one uniform and uncompounded appearance or conception in the mind, which is not distinguishable into DIFFERENT ideas."

We have rendered the word "different" here emphatical, because the definition has been frequently misconceived, by substituting the word "several" in its place. Our author extends the name "simple idea" to certain classes of ideas which are separable into "several" ideas, provided all those ideas be of the "same kind." Thus, for example, the idea of a straight line of the length one foot, is a simple idea, although it may be resolved into twelve ideas, or rather into twelve repetitions of the same idea of a straight line of the length one inch. This should be the more particularly observed, as some who wrote against the Essay shortly after its publication, fell into the same error, and were refuted by Locke merely by shewing that he used the word "different," and not "several," in his definition. Complex ideas are those which are made up of several ideas.

2. We have before observed that Locke uses his words loosely and unsteadily, and certainly without that exact attention to correctness which the nature of his subject required. This defect is doubly objectionable in one who promulges *new* doctrines, as his readers have no other guide in that case than his own definitions and reasonings. The use of the terms simple and complex ideas, is an instance of an apparent vacillation in the mind of our author, as to the exact signification of his terms. By his definition of simple ideas, he expressly includes those ideas which are compounded of the same idea; as in the instance already cited; and in Ch. XII. of the second book he makes "simple modes" one of the classes of complex ideas. His definition of "simple modes" is "those complex ideas which are only variations or different combinations of the same simple idea, without the mixture of any other." Here these ideas are expressly made *complex* ideas; and they are *simple* ideas according to his own definition. Again he changes his meaning in Chap. XV. Book 2d, when speaking of the simple modes of duration and space, "their parts being all of the same kind, and without the mixture of any other idea, hinder them not from having a place amongst our simple ideas." It will be observed that the very words of his definition of the class of *complex* ideas, called simple modes, are here used to prove that simple modes are *simple* ideas. On the whole, our author's meaning seems to be this:—

1°. Ideas which have no manner of composition whatever, whether of ideas of the same, or different kinds, come decidedly under the class of simple ideas, and no other.

2°. Ideas which are compounded of the same simple idea (simple modes), though in a strictly literal sense they are complex ideas, yet our author generally refers them to the class of simple ideas, and speaks of them as such. In doing so, however, he does not set

aside all notice of their composition, but on the other hand has occasion frequently to introduce it into his reasoning.

3°. Ideas which are compounded of different simple ideas, come decidedly under the class of complex ideas, and no other.

3. The power of the mind over its ideas is compared by Locke to that which we possess over the elements of matter. In this comparison the elementary parts of matter are considered analogous to our *simple* ideas, and masses of matter of various figures, &c. are analogous to our *complex* ideas. He compares them in five respects:

1°. As we possess the power of uniting together the parts of matter so as to form combinations in endless variety, so also we possess the power of uniting, in ways infinitely various, our simple ideas, so as to form complex ones.

2°. As we possess the power of comparing together collections of matter in various respects, so also we possess the power of comparing our ideas from which arises that class of ideas called relations.

3°. As we possess the power of dividing the parts of bodies so as to obtain any proposed part separately from the others, so also we possess the power of resolving our complex ideas into parts, so as to be able to consider any part separately from the others, from which arises abstract ideas.

4°. As we do *not* possess the power of creating a particle of matter, so neither do we possess the power of creating a simple idea not derived from sensation or reflection.

5°. As we do *not* possess the power of destroying a particle of matter, so neither do we possess the power of destroying any simple idea.

4. In the perception of simple ideas of sensation, the mind is perfectly passive, and cannot refuse to have, nor

can it alter the simple idea derived from any sensible object affecting the proper organ. This passiveness Locke illustrates by the images of objects placed before a mirror. There is, however, this difference, as we shall see hereafter. The " images" or ideas in the mind, and the objects which produce them, have no resemblance whatever. With respect to the ideas of reflection, it may be questioned whether the mind is passive in the reception of these. Locke declares that they require *attention*, and attention is not a passive faculty.

5. One of the peculiarities of simple ideas is, that their names do not admit of definition. A definition is the explanation of a word by several others not synonymous with the word defined, nor with each other. A simple idea not being compounded of *different* ideas, cannot be expressed by several words *not synonymous*, and therefore cannot, properly speaking, be defined. There are, however, three ways whereby the significations of the names of simple ideas may be communicated.

1°. By a synonymous word.

2°. By *naming* the subject in which the quality subsists.

3°. By *shewing* the subject in which the quality subsists.

Thus if the object of the colour we wish to express be not present, we say peach-colour, slate-colour, violet-colour, &c.

Though these observations properly respect words rather than ideas, yet, as in discoursing of simple ideas, we shall have occasion to allude to this peculiarity of their names, we thought it necessary to premise this previously.

6. The original conduits, therefore, and the only ones of simple ideas, are the senses. Language can never *communicate* a *new* simple idea. It may *recall* one formerly had by sensation, but here its power over simple ideas terminates. Without the senses we should have no ideas whatever; for, as we have already shown, sensation

must precede reflection. Although *we* cannot have any other ideas than those conveyed by our senses, it does not however follow that other beings may not have ideas for which we have no conduits. To suppose so would be just as unreasonable as for the blind or the deaf to suppose no ideas to enter by the senses of which they are respectively deprived. Of the number of our senses Locke declines giving any opinion, but seems to think that " they may be justly accounted more than the five which are commonly enumerated."

7. Our author next proceeds to a more particular division of our simple ideas " with reference to the ways whereby they make their approaches to our minds." He inadvertently professes here to divide only our " ideas of sensation," whereas the division includes all ideas. This division is sometimes considered therefore inadequate, " the parts containing more than the whole." This however is mere cavilling, and treating as an error what is really only a verbal oversight.

The classes of our simple ideas, divided with respect to their entrance into the mind, are four:

1°. The ideas which enter by one sense only.

2°. The ideas which enter by more than one sense (*i. e.* by sight and touch).

3°. The ideas which enter by reflection only.

4°. The ideas which enter by both reflection and sensation.

The ideas which chiefly compose the first class may be enumerated as follows:

1°. Light and colours.

2°. Tastes.

3°. Sounds.

4°. Odours.

5°. Solidity, temperature, configuration, adhesion, and such like.

8. To enumerate all the simple ideas peculiar to each

sense, would, even were it of any material utility, be impossible; for they have not all names. Were all the varieties of ideas coming under the several classes above mentioned, to be distinctly denominated, names would be endless. One word signifies generally several modes and degrees of the same idea, as sweet and bitter. Instead of attempting to enumerate our simple ideas, and bring them successively under examination, our author selects one of these which he considers most material to his purpose, and which, though a frequent ingredient of complex ideas, is not apt to be particularly noticed. He selects the simple idea, "solidity," probably because it is connected with one of those principles of the Cartesian philosophy, which he proposes to refute.

LECTURE IV.

Solidity.

I. SOLIDITY is one of the most familiar of those simple ideas peculiar to the sense of *touch*. The same idea is sometimes expressed by the term, impenetrability. Locke however prefers the former term, and grounds his preference on three reasons:

1°. Because Solidity is the term in most common use.

2°. Because Solidity is a positive, and impenetrability a negative term. The idea to be expressed being a positive quality, he thinks it improperly denominated by a negative term.

3°. He considers that impenetrability is rather a *consequence* of solidity than solidity itself.

2. We have already observed that the names of simple ideas do not admit of definition. Solidity is an instance of this. Locke consequently declines defining it, and the *description* he gives of it, is nothing more than an appeal to the senses. Let us bring together under our view the different attempts at describing this idea, which are scattered throughout this part of his Essay.

"It *arises* from the resistance which we find in body to the entrance of any other body into the place it possesses, till it has left it." Chap. IV. § 1.

"That which thus hinders the approach of two bodies,

when they are moved one towards another, *I call* solidity." ib. ib.

———" The idea the most intimately connected with, and essential to body, so as no where to be found or imagined but only in matter." ib. ib.

It is that property by which a body " will for ever hinder any other two bodies that move towards one another in a straight line, from coming to touch one another, unless it moves from between them in a line not parallel to that which they move in." § 2.

" If any one ask me, what this solidity is? I send him to his senses to inform him: let him put a flint or a foot-ball between his hands, and then endeavour to join them, and he will know." § 6.

3. Any, or all of these may be received as a description to help the mind of the student to the meaning of the author, but none of them can for a moment stand the test of examination as a definition. We shall not here enter into any metaphysical discussion on the subject, farther than to compare the statement made in the third passage quoted above, with another of our author's statements. In this passage it will be observed, that something beyond mere explanation is contained. It contains a very important metaphysical theorem, scil: That the property by which a body refuses admission to another body into its place until it quits it, is a quality *exclusively* belonging to matter. " It is no where else to be found," nor even possible to be " imagined." We are strongly inclined to think that in writing some parts of the Essay, Locke forgot statements which he had made in other parts. We beg to call the attention of the student to the following passages:—

* * * " We never finding, nor conceiving it possible, that two things of the same kind should exist in the same place at the same time, we rightly conclude that whatever exists any where, at any time, excludes all of the same kind, and is there itself alone." Ch. XXVII. § 1.

" For though these three sorts of substances (God, spirits and bodies), as we term them, do not exclude one another out of the same place, yet *we cannot conceive* but that they must necessarily, *each of them* exclude any of the same kind out of the same place;" ib. § 2.

Speaking of the mind he says,

* * * As itself is thought to take up no space, to have no extension, so its actions seem to require, &c. &c. B. 2. Ch. IX. § 10.

Speaking of spirits he says,

* * * Each has its determinate time and *place* of existence, &c. B. 2. Ch. XXVII.

It must appear evident that Locke here ascribes to spirit that quality which is defined " the occupation of space to the exclusion of things of the same kind," and which when found in body is called solidity. And yet he denies to the human mind the same quality, for he says " it takes up no space," that is, it occupies no space. I confess that I cannot understand any thing by " mind," but a spirit; that Being which we have altogether independently of our body, which perceives, remembers, reflects, &c. and Locke declares that this spirit " takes up no space," although in another place he declares that finite spirits *do take up space*, to the actual exclusion of other finite spirits. Besides this, it may be a fair subject of enquiry, what difference does Locke acknowledge between spirits and bodies? Body occupies space, so does spirit. Body excludes body from its place, until it quits it, so also spirit excludes spirit from its place till it quits it. Can the occupation of space belong to a thing which is unextended? If not, then extension is a common attribute of both body and spirit. Body is moveable, so is spirit. Thus he ascribes to spirit a collection of attributes, which differ from the primary attributes of body only in being ascribed to a different being. We are thus driven to the necessity of either acknowledging that spirit

differs from body only in having the attributes of thinking, &c. superinduced upon the primary qualities of body, or of denying to spirit those attributes, which I cannot persuade myself would ever have been ascribed to it, had the absurd consequences to which they lead been detected.

4. Thus by following the reasoning of Locke upon this point, we are driven from absurdity to absurdity. This might easily, however, have been anticipated, as the hypotheses on which he proceeds are actually contradictory. He declares in the clearest and most explicit terms, in one place, that the quality of excluding other things of the same kind from the place it possesses, &c. is exclusively confined to body, and in another states, that it is " impossible to conceive" the same property not to belong to all substances of the same kind, having previously made the *kinds* of substances to be " God, finite spirits and bodies."

5. It is very probable that many of the difficulties in which the subject is thus involved, have arisen from the imperfect definitions given by Locke of the term solidity. It will however be more useful to guard the student against certain senses of that word in which our author does *not* use it, than to enter into any further disquisition as to that sense in which he does use it. There are three commonly received uses of this word, which we may call its popular, physical and mathematical senses.

1°. In a popular sense *solid* is used to a certain degree synonymously with *hard*. Thus a body is said to be more or less solid than another, according as its parts hold together with a more or less firm cohesion. This differs from the quality intended to be expressed by Locke by the term " solidity," in this respect, that the one quality admits of degreees, the other of none. The one is relative, the other positive. A body of any given species is said to be more or less hard as its parts adhere with a greater or less force or tenacity than those of bodies of that species usually do. Thus if we speak of stones, we

say diamond is hard, sandstone soft; speaking of woods, box is hard, lime soft. Solidity, on the other hand, in that sense in which it is used in the Essay admits of no degrees; the softest body in the universe is not less solid than the hardest. When a body, after impinging upon another, occupies its place, the other body must either have quitted it or not; if it has quitted the place, it is solid, otherwise not. In such a quality it is impossible even to imagine *degrees*.

6. The compressibility of bodies is a phenomenon, which to a first view might appear to evert the hypothesis that all bodies are solid. Compressibility, however, when properly explained, so far from being the opposite of solidity is in some degree a consequence of it. Bodies of finite bulk are composed of small elementary particles of matter, which, though very close in their position, are not in absolute contact; the interstitial spaces, which constitute a part of the bulk or magnitude or volume of the whole body, are called *pores*. Substances are said to be more or less dense as their pores bear a lesser or greater proportion to their volume. The mass of a body is the quantity of particles of matter included in its volume. Compressibility is the effect which is produced, when the volume of a body is diminished without changing its mass. It follows then, admitting the quality of solidity, that the pores must be diminished by exactly the same quantity as the volume. Thus, in the Florentine experiment, if it be admitted that the change of figure of the globe instantly produced the dew upon its surface, and that the quantity of the water which thus forced its way out was exactly equal in volume to the diminution of volume produced by the change of figure, it would then follow that the water was not capable of being compressed by a force equal to that which produced the change of figure in the globe. But whatever might have been the result of this experiment it could neither establish nor subvert the hypothesis that all

bodies are solid, nor was the experiment ever designed for such a purpose. In this respect a student is extremely apt to fall into misconception from certain expressions used by Locke. His words are as follow:

" *The* experiment, I have been told, was made at Florence, with a hollow globe of gold filled with water and exactly closed, *which further shews the solidity of so soft a body as water.* For the golden globe thus filled being put into a press, which was driven by the extreme force of screws, the water made itself way through the pores of that very close metal." Chap. IV. § 4.

In these expressions, and especially those printed in Italic, it is certainly implied, if not directly affirmed, that the experiment was intended to be a criterion to establish the *solidity* of water, and that had the experiment produced a result different from that which followed, the conclusion would have been that water *was not solid.* This however Locke could never have meant, and we must ascribe his expressions to that negligence and inaccuracy which is observable throughout the works of this great man. He must have been perfectly aware, that all elastic fluids were compressible, and that if one of these had been enclosed in the globe the result would have been different, and yet the fluid so compressed would not be less solid (in his own sense of the word) than adamant. Air is capable of being reduced in its bulk in proportion to the compressing force, and Locke, knowing this, declares air to be as solid as water.

7. Although the physical investigation connected with the Florentine experiment has no relation to the object of our present lecture, yet as Locke has alluded to it, and as his allusion is calculated to mislead the student on this subject, we shall here digress so far from our subject as to put him in possession of a correct account of the matter.

An experiment was instituted at the Academy del Cimento, such as Locke describes, to try the compressibility

of water. The vessel containing the fluid was made spherical, because a sphere is the figure which possesses the quality of including the greatest possible volume within a given surface, and consequently any alteration of the figure which would produce no encrease of surface, would necessarily diminish the volume; whereas had the vessel been of any other figure, an alteration might have encreased the volume, and therefore nothing relative to the compressibility could have been inferred. Gold was selected as the material, being the least porous metal then known. Since this experiment, Platina has been discovered, which is still more dense than gold. The result was, that upon compression, the water first forced its way as described, and the outside of the globe was found wet. When further compressed, it actually made a cleft in the metal, and spouted out with considerable force. This experiment, properly considered, could not establish the fact of incompressibility. To do so it would be requisite accurately to measure the volume of the water which transuded upon the first compression, next to measure the diminution of the volume of the vessel consequent upon the alteration of the figure. All this never could be done with sufficient delicacy to estimate so very small a quantity, as it must have been obvious the compressibility of water was. Since the time of Locke, Canton, an English philosopher, has, by some very ingenious experiments, shewn that water and other liquids are not only compressible but elastic.

8. 2°. In physics, solidity is taken to mean that quality which is the opposite of fluidity. " It means that quality by which the minute parts are connected together, so as not to give way or slip from each other on the least impression."—(Hutton Dict. SOLID.)

9. 3°. In mathematics, solidity means that quantity of space occupied by a body. In this science *solid* is used in contradistinction to *line* and *surface*. Line is length with-

out breadth or thickness. Surface, length and breadth without thickness. Solidity is space, having all three qualities, length, breadth, and thickness. Line is technically called space of one dimension, surface, space of two dimensions, and solidity, space of three dimensions.

10. It will readily be perceived that the sense in which Locke uses the term solidity, is different from all these. It is built upon the hypothesis that extension or space is an existence distinct from body, and not merely one of its qualities. In the Cartesian philosophy, extension is merely considered an attribute of matter, and as incapable of any existence independently of matter, as solidity or colour. It was before observed, that it was the Cartesian principle that all *being* must be either body or spirit, the leading attribute of the one being extension, and the other thinking. The Cartesians would feel as much difficulty in admitting an extended spirit, as a disciple of Locke's philosophy in admitting a solid spirit. The doctrine of Locke seems to be, that there are three classes of existence, spirit, body and space. He expressly and repeatedly insists upon the existence of the last independently of either of the former, although in his formal enumeration of substances, he confines himself to spirits and bodies. (Book 2. Chap. XXVII. § 2.) Hence we may infer that his division of *being* is into substances and space; and his subdivision of substances as abovementioned.

Although he speaks of extension not merely as a quality, but as an independent being, yet he certainly also speaks of it as a quality. Thus he says, " the extension of body consists of the cohesion or continuity of solid, separable and moveable parts." It is not easy exactly to shew his sense of the word extension. In many parts of his work he uses this term synonymously with space; examples of this occur every where; thus in Chap. V. he says, space *or* extension is one of those ideas which come by " divers senses." On the other hand,

in Chap. IV. § 5. he says, that " the extension of space consists of unsolid, inseparable and immoveable parts." Here he plainly makes extension a quality of space, and not space itself, otherwise the sentence would be absurd, " the space of space consists, &c. &c."

11. Locke contends, in opposition to Des Cartes, that extension or space is not inseparable from body, nor merely one of its attributes. He appeals to the imagination whether one body may not be conceived to move while every other body in existence is quiescent, and if so, the place from which it has moved gives us the idea of pure space void of body, and so enable us to imagine the existence of space as a being.

He anticipates an objection of the Cartesians, that motion could not take place in one body without producing motion in those which are contiguous to it; and answers by stating that the necessity of such a motion is built upon a gratuitous hypothesis, " that the universe is a plenum," or that all space is filled with body. Besides that when the question is merely confined to the possibility of having *the idea* of pure space, the fact, if admitted, that pure space has no existence is irrelevant, in as much as its non-existence does not argue the non-existence of an idea of it. Our author thinks that *the idea* of motion in one body no more infers the idea of motion in others than the idea of a square figure in one body infers the idea of a square figure in others. He further declares, that the very fact of the existence of disputes about a vacuum proves that whatever may be determined with regard to its existence, there can be no doubt of the existence of the idea of it.

12. To this a disciple of the philosopher of France may be supposed to reply, that in order to imagine one body to move, all others being quiescent, it is necessary previously to have an idea of space into which it may move, and this space must be void of body, otherwise the

body occupying it would be displaced, contrary to the hypothesis, and therefore this process presupposes the idea of pure space, and therefore is a *petitio principii*. This is an objection of a more decided character than Locke seems to have anticipated. Besides, it may be replied, that to suppose the universe *not* a plenum is as much hypothetical as the reverse, and such a supposition as before presupposes the idea of a vacuum. Also as to the proof afforded by the existence of disputes about a vacuum, Locke should remember what he states himself in his third book on the abuse of words, where he condemns the schools for the constant use of terms, which never had any meaning, &c. These the student may suppose to be the replies of a Cartesian. They are not given here in refutation of the English philosopher, but to shew the student fairly both sides of the question.

The mobility of body, its resistance, impulse and protrusion, are qualities of body arising immediately from its solidity.

LECTURE V.

Of Ideas which enter the mind in several ways.

1. THE ideas which enter the mind by the senses of sight and touch are, according to our author,

1. Space or extension.
2. Figure.
3. Motion or rest.

When these ideas are said to enter by sight, the assertion must be understood with some modification. The eye, the organ of sight, is not capable of receiving any impression, except that of light. It is true, as will appear in the next lecture, that from the exertion of judgment on the impression made by light upon the eye, the mind arrives at the abovementioned ideas. But it may fairly be questioned how far those ideas can, upon these grounds, be properly said to enter by the sense of sight. As we shall have occasion to enlarge upon this subject hereafter, we shall not insist upon it further at present.

2. The ideas which enter by reflection alone, are those of the powers and operations of the mind. The actions of the mind are as various, if not more so, than those of the body. All the various modes of thinking, willing, memory, discernment, reasoning, judgment, knowledge, belief, &c. &c. are ideas of reflection.

The two principal faculties or powers of the mind, are

called the understanding and the will. The understanding is the power of thinking, and the will is the power of willing. In the use of the word perception, Locke vacillates. In B. 2. Ch. VI. he uses it synonymously with thinking; and in Ch. IX. he makes a marked distinction between these terms. When we come to treat of perception, we shall speak more fully of this distinction. It is sufficient at present to observe that the word thinking, in the definition of the understanding, is to be received as a general term, of which all the different intellectual faculties and operations are species or modes. This is evidently Locke's meaning, as may be seen by reference to B. 2. Ch. XIX. where he treats of the modes of thinking, under which he brings all operations of the mind.

3. The fourth class of ideas, divided as they enter the mind, is that of the ideas which enter by all the senses, and by reflection. This class Locke reduces to these five:

1. Pleasure.
2. Pain.
3. Power.
4. Existence.
5. Unity.

4. Under each of these it is understood that all the various modes and degrees of the respective ideas are included. That pleasure and pain are excited by objects affecting all the senses, every one's experience must prove. Those who, withdrawing their attention from external things, note the operations of their minds, and the feelings connected with them, must be sensible also that perceptions of enjoyment, and uneasiness, frequently accompany them. A *painful exertion of memory* is a common phrase; and there are few who have entered into scientific speculations, who have not felt the pleasure arising from the exercise of the discursive faculty. We must not, however, confound the pleasure which arises from the ideas excited with the pleasure arising from the operation which excites them. These are totally distinct, though frequently so mingled in the mind that it is not easy to separate them. The ideas concerned in any speculation may themselves be pleasurable, either on account of their beauty, or grandeur, or sublimity; the ingenuity of the reasoning about them, the contrivances by which proper means are interposed, the mental artifices which are devised to exhibit the relation of the ideas, may also strike the mind with pleasure and admiration. In such a case, therefore, there are two sources of pleasure, one from the ideas themselves; the other from the operations of the mind, whereby the relations between these ideas are made apparent; in the one the pleasure arises from sensation, in the other from reflection. Although in the first case there may be no sensible object exhibited, yet the ideas excited must be sensible ideas formerly received from sensible objects.

The discoveries of Newton in Physics are remarkable instances of the two species of enjoyment blended together. It is difficulty to say whether the magnificent speculations brought before the mind in his investigation of the motions and attractions of the bodies of the universe, or the wonderful powers of mind displayed in the process of reasoning by which he leads to these results, strike us with more admiration. Who can say whether his optical discoveries, or the reasonings used to establish them are the more beautiful?

5. The uses of pleasure Locke states to be twofold:

1°. To excite us to action both mental and bodily. Ch. VII. § 3.

2°. To assist the memory. Ch. X. § 3.

The uses of pain are fourfold:

1°. To excite us to action. Ch. VII. § 4.

2°. To preserve our organs from injury, *ib. ib.*

3°. To induce us to look forward to a future state of greater felicity, " in the enjoyment of him with whom there is fullness of joy, and at whose right hand are pleasures for evermore." Ib. § 5.

4°. To assist the memory.—In this it is more efficacious than attention, as it acts quicker in grown persons, and supplies its place in children. Ch. X. § 3. It would probably be more correct to say that it *excites* attention in both grown persons and children.

6. Pleasure and pain are the springs of action. The will, whether it directs the actions of the body, or regulates the current of our thoughts, is *always* determined by a prospect of pleasure or pain, either immediate or remote. It is true, we see men not unfrequently, voluntarily undergo what produces immediate pain, and sometimes death itself. But in these cases there is always a previous calculation made in the mind, the result of which is, that though the course determined upon is productive of immediate pain, yet that ultimately there will be more happiness or less misery than in any other course of action which can be pursued. At this conclusion the mind must always arrive before the will can dictate the action. The reasoning by which we arrive at this conclusion, however, may be, and very frequently is fallacious and sophistical, founded on false principles, taken up hastily and inconsiderately. In such determinations also, immediate pleasure operates much more powerfully than that which is remote, even though the latter should be equally certain and much more considerable. The reason of which is, that there is a repugnancy of the mind to the desire, *i. e.* uneasiness with which the intervening time must be occupied. So completely is the will decided by the *present view* which the mind has of the pleasure or pain arising from this or that action, that were these feelings not annexed to our actions and thoughts, our lives would be " a lazy, lethargic dream;" we should have no incitement to prefer one action to another, motion to rest, waking to sleeping, active thought to passive reverie, and we should dream away an useless, unproductive existence, more resembling the growth of a vegetable than the state of an intellectual being.

7. The second use of pain is the preservation of our organs of sense, not only from destruction, but even from the slightest injury. It is a principle of the medical science that bodily pain is a necessary indication of some bodily disorder. An animal, with all its organs in their natural and healthful state, regularly fulfilling their various functions, cannot be sensible of bodily pain. Should any derangement take place pain is produced, which warns us of the danger, and prompts us to guard against it. Bodily pain and bodily injury being found generally concomitant, we are justified therefore in the assumption that one of the uses of pain is to give us notice of existing danger. Light and heat are instances of this. So long as these qualities are attended with no injurious effect, so long no pain is produced; but the moment the injury commences, pain commences with it. Those extremes, on the other hand, which are innocent, produce no pain. Darkness is an example of this.

8. Existence and unity are two ideas necessarily suggested by every idea both of sensation and reflection. An idea itself is an existence, and is *one*.

9. Power is two-fold, active and passive. Active power is the capability of producing, passive of receiving a change. It will hereafter appear, that active power is an idea purely of reflection. The changes which external objects continually undergo, as well as the effects constantly produced upon our own minds, are the sources of our idea of passive power. The power we possess of thinking and motion is the only source of our idea of active power. We shall enlarge upon this subject when we come to consider these ideas separately. The idea of suc-

cession, although specified amongst the ideas entering by sensation and reflection, is an idea purely of reflection. We have it from the contemplation of the train of ideas in the mind. Of this also we shall speak more fully when we come to speak of *time*.

10. We have now, in a general way, enumerated the principal of the simple ideas which the mind perceives, and which constitute the elements of our knowledge. It will possibly appear wonderful that so narrow a basis should allow of such a stupendous superstructure as human knowledge, and that such boundless variety as we find the fancy of man can produce from our stock of ideas, should proceed from such confined sources as THE SENSES. Let it be however considered that the modifications of one of our simplest ideas, *extension*, has occupied the learned of the world for more than three thousand years, and seems even still to furnish inexhaustible sources of speculation to the geometers of this and future ages. The endless variety of number shews what may be done by modifying an idea so simple as ONE; and language, what may be produced from the combinations of twenty-four symbols.

11. This lecture brings us to the conclusion of one stage of our progress. Our next object will be to enter upon a more minute inspection and careful examination of several of those simple ideas which have been already enumerated. Having first considered our simple ideas of sensation relatively to the things which produce them or their exciting causes, Locke applies himself to a particular consideration of the principal simple ideas of reflection, namely, perception, retention, discerning, comparing, compounding and abstracting. These will constitute the subject of the succeeding lectures, and will terminate the second stage of our course.

LECTURE VI.

Ideas of sensation considered relatively to their exciting causes.

1. NOTWITHSTANDING our author's resolution against entering upon the physical consideration of the mind, and enquiring "whether our ideas do in their formation any or all of them depend on matter or no," (Lect. I. § 2.) yet he subsequently found it necessary to change his determination. In order to discourse intelligibly of the ideas of sensation, it is necessary that the nature of sensation should be in some degree explained, and to distinguish between the qualities of bodies and the ideas produced by them. The student will observe that we assume not only the existence of certain beings in the mind, which Locke calls ideas, and which he considers as the immediate and only things about which we think, but we also assume the existence of a material world, external to, and heterogeneous with our mind and its ideas. We adopt as an hypothesis, that the beings of this external world, denominated bodies, produce certain effects upon our organs of sense, which are themselves bodies, and therefore homogeneous with them.

2. These effects are supposed to be produced either by the body immediately acting upon the organ of sense, or acting upon it through the intervention of some other body, as light or air. The organs thus affected are connected with the nerves, by which an im-

pression is immediately produced upon the brain. Various experiments have enabled us to trace the effects thus far, but here the physical part seems to end. When the brain thus receives an impression, the mind instantly becomes conscious of the presence of an idea. How the ideas are produced by the impression on the brain, we cannot tell. But we presume the relation of cause and effect to subsist between the impression and the idea. There are some circumstances which render it probable that the relation is reciprocal. The memory or imagination summoning an idea into the mind, we sometimes find that the brain, and thence the nerves, receive a corresponding impression. The effect of the imagination is well known to physicians, and every one must have observed the ravages which grief will sometimes make upon the body; this can only proceed from the impression made upon the brain and nerves by the ideas which are recalled by the memory.

If the existence of an external material world be granted, the connection between the bodies of it as causes, and the ideas of the mind as effects, must also be granted. There is however this defect in it as an hypothesis, that it will not account for all our ideas, we must invent another hypothesis to account for some of them, *e. g.* ideas of reflection, memory, imagination, &c.

3. We shall now briefly state the manner in which the ideas of each of the senses are supposed to be produced in the mind by the agency of external objects. We must here be excused for stepping a little out of the way, and trespassing on the boundaries of natural philosophy. Without doing so it would be vain to attempt making the doctrine of Locke intelligible, and we shall digress no farther than is absolutely necessary for that purpose.

1°. Light is a fluid compounded of seven simpler elements. These elements differ from each other, and from the compound in several qualities, and particularly in colour. The particles of light are so extremely minute,

that their existence is manifested only by indirect means. They move in right lines with immense speed, and entering the eye through the pupil, impinge upon the posterior surface of the inner part of the eye ball. The substance thus affected by them is a nerve, which, extending to the brain, continues to it the effect produced. When this takes place, the mind is immediately conscious of the presence of an idea, which idea we call light. The idea produced, and the substance by whose impact upon the organ this idea is produeed, are here called by the same name, although they are not only different things, but so utterly heterogeneous, as not even to allow a comparison, one being material, and the other mental. The eye, however, is not always the first body on which light impinges. It frequently impinges upon external objects, and being repelled or *reflected* from their surfaces, subsequently impinges upon the eye. Of the several component parts of the light incident upon the surfaces of bodies, all are not generally reflected. Of these component parts, some are absorbed and some reflected. Those which are reflected impinging upon the eye, produce an idea. This idea is that of *a colour*, and that colour depends upon the parts of the light reflected by the object. When therefore a certain object is said to be of a certain colour, all that should be meant is, that it is capable only of reflecting those parts of light which, when they impinge upon the eye, produce an idea in the mind called by the name of that colour. Here, as before, there is some confusion in the use of the name. It is applied as well to the idea in the mind, as to that part of light which produces the idea. But there is even still further confusion, for it is also applied to the body which reflects the light. As an example of this, the solar light is itself said to be *white;* when it impinges upon the eye, and produces an idea of a certain colour in the mind, that idea is called *white;*

when it impinges upon the paper on which I write, and thereby after reflection renders that paper visible, the paper is said to be *white*. Here the word white is made indifferently to stand for three things, differing altogether from one another. The quality in the light by which it produces the idea called white in the mind, and the idea so produced, are things of totally different kinds, and as to the paper, it has no more right to be called white, because the light reflected by it is called white, than a flat wall would have to be called round, because the tennis balls reflected by it are round. Such, however, is the imperfection of language, which imperfection has arisen from our ignorance as to the real nature of sensation.

Respecting the objects of sight, scil. colours, the student should therefore endeavour distinctly to bear in mind,

1°. That their names properly stand for certain ideas produced in the mind by light reflected from external objects affecting the eyes.

2°. That the capability of producing this effect upon the mind resides in the light and not in the object from which it is reflected, and that the name of the colour is sometimes used to express this power of the light.

3°. That the power or quality of reflecting any particular part of the light, and absorbing the remainder which exists in the body, is also sometimes called by the name of the colour.

4°. That *the ideas*, the power in the light to produce them, and the power in bodies to reflect that light, are called in general by the name *quality*.

2°. Sound is an idea produced by the vibrations of the air affecting the ear, which organ being connected with certain nerves which continue the effect to the brain, the idea called sound is produced in the mind. The vibrations in the air are usually produced by the impact of some body upon the air. Here also the name is applied to the body, which produces the effect upon the air, and the observations already made are (*mutatis mutandis*) equally applicable.

3°. The senses of smell and taste are differently circumstanced with respect to their exciting causes from those of hearing and seeing. The former are immediately affected by the object themselves, but the latter are affected by the objects through the mediums of air and light. Bodies affect the sense of smelling by continually projecting from their surfaces indefinitely small particles called *effluvia*, which affect our organs and produce the ideas in the mind. Bodies affect the taste by the minute component parts coming into contact with those parts of the palate fitted to receive impressions from them, and thence, as before, producing the corresponding ideas.

4. The sense of touch differs from the other senses in this, that it is capable of being affected by the grosser parts of bodies. This sense is also however capable of being affected by the minute particles, as in the case of heat.

Thus the senses in general are capable of being affected by particles of matter of inconceivable and intangible minuteness; it being the privilege of the sense of touch alone to be impressed by parts of gross and palpable bulk or volume. The ideas which are produced by the operation of minute particles, Locke denominates *secondary qualities*. He also however gives this name to the powers by which bodies produce these ideas. To the ideas which are produced by the grosser parts of body, as well as to the powers which produce these ideas, he gives the name *primary qualities*.

The doctrine of Locke is, that the idea produced in the sentient being and the power of producing it in the insentient, have no resemblance whatever in secondary qualities, but that they are exact copies in primary qualities.

5. I shall now endeavour, as far as I can understand

our author, to explain the arguments which he adduces in support of these two principles.

One might suppose that it would not require much argument to establish the fact, that an impact and a colour, or that a taste and friction are different things. However, it must be considered that Locke, the founder of a new doctrine, had to encounter ancient prejudices and preconceived and misconceived notions, and was obliged to select his arguments and proofs accordingly. We will here subjoin, in a summary way, his arguments that secondary qualities are not resemblances.

1°. Because it is no more absurd that there should be no resemblance between the ideas produced in our minds by external objects, and the qualities which produce them, than that there should be no resemblance between *pain* produced in us, and the thing which produces it.

2°. Because if we acknowledge the relation of cause and effect, a sufficient proof of resemblance in cases where the senses are concerned, we shall arrive at manifest contradictions, *e. g.* the same water which will produce heat in one hand, may produce cold in the other. This will happen whenever the one hand, having been previously immersed in water at a very high, and the other at a very low degree of temperature, both are plunged in water of an intermediate temperature. If then the heat be in the water because we feel it, the same water is hot and not hot at the same time, &c.

3°. An alteration in the texture and arrangement of the minute parts, will produce a corresponding change on the secondary qualities, which shews that these latter depend on the former. *E. g.* An almond pounded changes its colour.

4°. The colour of bodies change with the light in which they are seen, and yet it cannot be said that the same body has at the same time two different colours.

5. These are Locke's arguments against " secondary

qualities" being resemblances. They must be looked upon rather as the popular arguments in support of that principle: we shall take a more philosophical view of it presently.

Our author maintains that primary qualities *are* resemblances, with quite as much earnestness as he does that secondary qualities *are not* so. I have very carefully endeavoured to divest my mind of the influence of preconceived opinions, in order to select and state with their due force Locke's arguments, that primary qualities are resemblances. So little success, however, has attended my attempts that I have been unable to find a single passage in the entire chapter (Ch. VIII. B. 2.) which I can induce myself to believe that Locke seriously considered as an argument. I subjoin all the passages which relate to this principle.

" Qualities thus considered in bodies are, first, such as are utterly inseparable from the body, in whatsoever state 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 to be perceived by our senses * * * * * *. For division can never take away either solidity, extension, figure or mobility, from any body * * * *. Book 2. Ch. VIII. § 9.

The particular bulk, number, figure and motion of the parts of fire or snow are really in them, whether any one's senses perceive them or no; and therefore may be called real qualities, because they really exist in those bodies; but * * * * § 17.

A piece of manna, of sensible bulk, is able to produce in us the idea of a round or square figure, and by being removed from one place to another, the idea of motion. This idea of motion represents it as it really is in the manna

moving; a circle or a square are the same, whether in idea or in existence, in the mind or in the manna, and thus both motion or figure are really in the manna, whether we perceive them or no: *This every body is ready to agree to.*" § 18.

The preceding extracts will, I believe, be found to contain all that Locke offers to prove that " primary qualities are resemblances."

If these be *arguments*, then it will be no very difficult matter to refute all the doctrines of Locke. It is only to make so many assertions contradictory to them, and to maintain each assertion by repeating it, under several different forms, and sometimes under the same form, with several degrees of force of asseveration, and sometimes with the same force, and the thing is done, the refutation is complete.

6. Locke seems emphatically to distinguish primary qualities by their being in the things themselves, whether we perceive them or no. Let us consider what this of " being in the things themselves, whether we perceive them or no," means.

Locke defines an idea to be " whatsoever the mind perceives in itself, or is the immediate object of perception, thought, or understanding.

He then defines the word quality thus:

" The power to produce any idea in our mind, I call quality of the subject wherein that power is." Ch. VIII. § 8.

If this be taken as the sense of the word quality, we shall find that it is by no means peculiar to primary qualities, " to be in the things themselves, whether we perceive them or no." The *power* of producing an idea is not destroyed because it is not exerted. The secondary qualities, considered as powers, are just as real, and just as really resident in the subject as primary qualities, and are quite as independent of the subject on which they act. When Locke asserts that the primary qualities are " in

the things themselves, &c." he cannot therefore be supposed to mean that the secondary qualities are not also " in the things themselves, whether we perceive them or no." Nor can his meaning be more clearly ascertained from other parts. His first distinction between primary and secondary qualities is this:

" To discover the nature of our ideas the better, and to discourse of them intelligibly, it will be convenient to distinguish them, as they are ideas or perceptions in our minds, and as they are modifications of matter in the bodies that cause such perceptions in us." Ch. VIII. § 7.

Locke here divides ideas into two classes. The first he states to be ideas or perceptions in our minds. The second class are ideas which are not ideas, but are the modifications of matter which produce ideas. It would appear from this that he considered the first class to be mental ideas, which terminate in themselves; the other physical ideas, which terminate in the production of mental ideas. All this, however, is mere jargon.

7. The difficulties and obscurity into which Locke has fallen, have arisen from his not perceiving that the arguments which must have convinced him of the absurdity of supposing a resemblance in secondary qualities, equally extend to primary qualities. The circumstance of being produced by the operation of indefinitely small particles on the senses, may be admitted as a good reason for distinguishing these qualities into two classes; and provided the meaning be previously explained, there is no material objection to the use of the terms " primary" and " secondary," as a mark of the distinction. But unless the want of resemblance is deduced from the distinguishing marks, why should it be supposed to apply to the one species and not to the other? The philosophical proofs of no resemblance are equally applicable to all ideas.

An idea can have no resemblance to any thing but to another idea. An idea is an existence in the mind, and it is perfectly impossible when due consideration is given to it, even to conceive a resemblance between an idea in a sentient intelligent being, and another existence in an insentient mass of matter. Can an idea exist in matter? Can any thing not an idea *resemble* an idea? Can there be any thing like thought in an unthinking being? such a supposition, if properly expressed, would become a verbal contradiction.

8. The existence of an external material world, known only by its effects upon the mind, is by some philosophers considered as a very unnecessary hypothesis, and productive of the most mischievous consequences in leading men to scepticism. They maintain that an external world, of which we can have no idea, can be of no use.

For it is on all hands admitted:

1°. That the external material world answers no other purpose than that of exciting ideas.

2°. That the ideas excited cannot bear any resemblance whatever to any thing in that external world.

It is considered, therefore, that nature would never create two worlds, one of which is of no other use than to produce the other, the external material world to produce the internal immaterial world, especially when it is also acknowledged that the latter can exist independently of the former. This is considered contrary to that principle of philosophy which forbids us to assign to several causes that which may be assigned to one and the same. These were the doctrines of Berkeley, and with some modification were adopted by Hume.

Other philosophers, on the contrary, altogether deny the existence of ideas, and maintain that we think of, and conceive the things themselves and their qualities immediately, without the intervention of ideas.

Such, and so various are the opinions on these subjects

held even at this day. They are mentioned here, in order that the student may not suppose that the principles of Locke are the only ones at present received.

9. We shall not insist further upon this very obscure part of the Essay, than to state in a summary manner such parts of the doctrines promulged in it as have not been already discussed. He conceives that positive ideas may arise from privative causes, because "all sensation being produced in us only by different degrees and modes of motion in our animal spirits, variously agitated by external objects, the abatement of any former motion must as necessarily produce a new sensation, as the variation or increase of it." Here it is supposed that "a new sensation" is a "positive idea," and also that "the variation or increase of a motion in our animal spirits," must necessarily produce a positive idea.

10. The outline of the doctrine of qualities, as it would appear that Locke intended to lay it down, is, that the powers of bodies to affect the senses are three-fold. The primary qualities produce in the mind pictures of themselves, the mental idea being an exact picture of the corporeal power which produces it. The other qualities he holds to bear no resemblance to the ideas they produce. A third sort of qualities are those by which bodies produce a change in the sensible qualities of other bodies, and through them acting upon the senses. These last he calls powers, and between these and the things which produce them, no resemblance is ever supposed. Locke accounts for our never supposing a resemblance between the powers of external bodies upon each other and the effects produced by these powers; and yet that we *do* suppose a resemblance when the same bodies affect our senses instead of affecting each other, thus: When bodies affect each other the cause and effect are both external and both material, and therefore admit of a comparison by which their dissimilitude may be ascertained; but when the effect

produced is an idea, and the cause producing it an external body, the cause and effect are so totally dissimilar, of natures so entirely discrepant, that they do not even admit of a comparison, or of being brought, as it were, into juxta-position; being therefore unable to ascertain their *un*likeness, we presume a likeness, merely because the relation of cause and effect exists between them. He denominates *powers* secondary qualities mediately perceivable, the others being secondary qualities immediately perceivable.

LECTURE VII.

Perception.

1. THE method we have laid down now leads us to consider some of the simple ideas of reflection. The ideas of reflection being ideas of the operations of our minds, the first and simplest of these is perception. Perception being the name of a simple idea, is considered by Locke to be incapable of definition. (Lect. III. § 5.) "Whoever reflects on what passes in his own mind cannot miss it: and if he does not reflect, all the words in the world cannot make him have any notion of it." It may, however, be easily collected from what our author says himself, that he means by this term "the actual production of an idea in the mind." Under this definition memory would be included, and so memory would be perception. The mind may be as properly said to perceive an idea when recalled by memory, as when originally had from sensation or reflection, and thus memory may be esteemed secondary perception.

Locke uses the term perception in different senses. He sometimes expresses by it "the production of an idea," sometimes, the idea produced; thus he speaks of an idea and a perception synonymously. In another place he defines the understanding to be "the power of perception," and perception to be "the act of the understanding" and makes it threefold,

1°. The perception of ideas in the mind.

2°. The perception of the signification of signs.

3°. The perception of the agreement or disagreement of ideas.—B. 2. Ch. XXI. § 5.

2. In the present case we must be understood to confine the sense of the term perception, to the production of an idea. Locke states, that perception is distinguished in the propriety of the English language from "thinking," in this, that thinking is only applicable to those faculties in which the mind is active, whereas in perception the mind is for the most part passive. Notwithstanding this distinction, our author himself adopts the improper use of the term frequently throughout the Essay.

The passiveness of the mind in perception only applies to ideas of sensation. In the perception of the ideas of reflection the mind is certainly active, and cannot be otherwise. The reason why it is passive in the perception of ideas of sensation is, that this depends on the operation of external bodies upon the organs, the operation of the nerves of these organs upon the brain, and finally, the operation of the brain upon the mind. In this case the mind *suffers* the impression and cannot increase it nor diminish it; and is therefore, in this respect, a passive recipient. But in the perception of ideas of reflection the body and its organs have no part whatever; the process is exclusively mental. The mind, by the dictate of the will, turns its attention to one of its own operations, and from viewing it, acquires an idea of it. Here there are two actions, an act of the will and an act of the understanding. In the perception of ideas of sensation, therefore, the mind is passive, and in the perception of ideas of reflection, active.

3. Locke *implicitly* enumerates three requisites for the perception of ideas of sensation; two of them bodily, and one mental:

1. Perfect organs.
2. Sufficient impression upon the organ.
3. That the mind should be disengaged from other objects.

On the *perfection* of an organ it would not be easy, or perhaps possible to pronounce. The ears or eyes of no two human beings were ever formed with the same degree of sensibility, and even those of the same individual change their sensibility from time to time. Some standard should therefore be selected as the standard of *perfection*. Without this, however, in a general and popular sense, an organ is said to be perfect when it has no obvious defect or inferiority to those of men in general. Eyes, which can see at the distance, and with the degree of light which are sufficient to produce vision in general, are deemed perfect, without fixing any standard more scientifically exact.

4. The impression necessary to be made upon the organ in order to produce perception, depends on its sensibility. An impression sufficient to produce perception in one organ may be quite insufficient to produce it in another. The quality of the impression made is also sometimes concerned. Some persons are able to read by moon light, who could not see, distinctly, a face at three yards distant in broad day. On the other hand, there are persons who can see distinctly at considerable distance in the day, who could distinguish a letter upon the page by moonlight. Deaf persons frequently find it easier to hear a distinct speaker than a loud one. The impression, therefore, both in its quantity and quality, must be suited to the state and construction of the organ which is designed to receive it.

5. Even though an impression suitable to the organ be made, and therefore the corresponding effect produced upon the sensorium, there may yet be no perception. This may happen when the attention of the mind is oc-

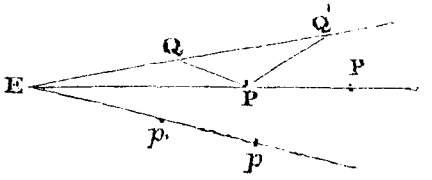
cupied in the contemplation of some other object. Every one must have experienced when occupied in intense thought, that he has not been sensible of persons addressing him. Various instances of this abstraction of mind continually recur. In order therefore that perception should follow an impression which is usually sufficient to produce it, it is necessary that the mind should be disengaged from the attentive contemplation of other objects.

The precedency of our ideas in entering the mind, is not very easily determined, and not very useful, even if it were determined. Hunger and warmth, Locke conjectures to be the first. After being born, pain and light are probably the first. These ideas, which enter first, whatever they may be, differ from other ideas of sensation only in precedency of time. They are wholly different from innate ideas. (Lect. II.)

6. The perception of ideas of sight is produced, as we have stated, by the impression of light upon the eye. Colours are therefore the proper and only objects of vision. The eye, however, as has been formerly observed, takes cognizance of the ideas of space, figure and motion. We now propose to examine how it happens that these ideas are common to the sight and touch, and in what sense only they can be properly said to be common to these two senses. In order perfectly to explain this matter, we must, as in a former instance, step a little out of the way.

Any object is seen in that direction in which the light reflected from it enters the eye. Let P be a visible point, and E the eye of the spectator, the *direction* in which the point P is seen and judged to be, is that of the line EP.

In like manner p being another visible point, it is esteemed to be in the direction Ep. Now if these points respectively move along the lines of their direction, the eye at E will be sensible of no change whatever in their mutual position. If P move to P′, and p to p', no visible change take place as their mutual position. It is true that one will grow visibly larger and the other visible smaller, but this might take place had they remained at P and p, and changed their actual magnitudes.



Hence it appears that the eye is neither sensible of actual motion, nor actual position.

7. Let us suppose the point P to move from P to Q. The eye becomes immediately sensible that it has changed its direction by the angle PEQ. This change the *judgment* suggests may have been produced by some motion by which the point has passed across the intermediate space, but the effect would be equally produced by any motion across that space as PQ′; it is not even necessary that its motion between the two lines should be rectilinear. Finally, the effect may be produced, even when the point P is quiescent, if a corresponding motion in the opposite direction be given to the spectator. The conclusion from all this is, that the eye perceives neither distance nor motion. It only perceives the direction of objects, and that by the light reflected from them. We receive from this sense no idea of space but that of the inclination of the directions of different objects; and I leave it to the metaphysician to determine whether we would receive even this idea, had we not previously the idea of linear space, and the other modes of extension by the touch.

8. If the eye judge not of distance, it cannot judge of figure. The figure of a visible object must be determined by the different distances of the points of its surface from the eye; these distances the eye cannot estimate, and therefore cannot judge of the figure. When

Locke states that a globe of an uniform colour, presents to the mind, when viewed with the eye, the idea of a flat plane, variously shadowed, he means that it presents the same idea to the mind, as a flat plane variously shadowed would present *when viewed with the eye*. The truth is, neither the globe nor the plane, nor any thing else affecting the sight only, could produce the idea of *a flat plane*. This is an idea to be had from the touch, and from the touch only. The light and colour reflected from a flat plane, and received by the eye, could no more of themselves produce in the mind the idea of a flat plane, than the light and colours reflected from the leaves of sweet-briar could produce an idea of the scent of that shrub.

9. To prove that the ideas produced by the same object through the senses of sight and touch are not the same, and indeed bear no resemblance whatever to each other, Locke produces the Problem of the celebrated Molyneux.

"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 the one and the other, which is the cube, and which the sphere. Suppose then, the cube and sphere placed on a table, and the blind man be made to see: *quere*, whether by his sight, before he touched them, he could now distinguish and tell which is the globe and 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."—Book 2. Ch. IX. § 8.

To this solution of the problem it has been objected that the cube gave to the touch an idea of a figure,

bounded in certain parts by right lines, and the globe gave the idea of curvature; that although the ideas produced, when viewed with the eye, be not the same exactly as those of the touch, yet that the cube both to sight and touch gives the ideas of right lines, and the globe of curvature. This objection, though at first view it appears of some weight, yet upon a closer examination is quite futile. It is founded on, and derives its force entirely from the supposition that the ideas of a right line and curve produced by the touch, are the same as these ideas produced by the sight; that is, that if a right line and circle be described upon paper, and viewed with the eye, and also the same lines formed of any tangible substance and felt with the hand, the mind will receive in both cases the same, or at least similar ideas. This, however plausible, is quite unfounded, the ideas received in these two ways are so perfectly distinct and dissimilar as not to bear a moment's comparison. The idea of figure and magnitude which we receive from sight has been called visible figure and magnitude. Those which we receive from the touch, tangible figure and magnitude. These ideas have no kind of resemblance. Having however been always accustomed to receive both ideas from the same subject, we bring ourselves by use to consider either indifferently as a *sign* of the presence of the same object. No sooner is the visible figure and magnitude perceived, than an act of the judgment substitutes in its place the idea of the tangible figure and magnitude. This is done under a supposition which seems to have prevailed with mankind, that the touch is a sense more to be relied upon in giving ideas of real existence than the sight.

10. Visible and tangible figures are ideas so totally different that Bishop Berkeley concluded that they could not belong to the same object, and uses this as one of the arguments to establish his hypothesis of the non-existence

of a material world. If external objects exist, and that figure and magnitude be attributes of them, this figure and magnitude is either 1°. visible, 2°. tangible or 3°. both. The last is manifestly absurd, for no one will seriously believe, that the same object has, at the same time, two figures and two magnitudes entirely different from each other. If the external object exist then at all, it can have but one figure and one magnitude, and whichever of the two this is alleged to be, the other must be purely a mental fiction, having no real existence whatever. But if we acknowledge the ideas of one sense to be mere fictions, and not to belong to any external thing, we must also acknowledge those of all the senses to be so.

Reid maintains that visible and tangible figure and extension are both real, but that the former is a partial and incomplete conception, whereas the latter is a perfect conception of the qualities which really exist in the object.

11. It may be objected against Locke's theory, that the act of the mind whereby the idea of tangible figure is substituted for that of visible figure, the appearance for the cause, the sign for the thing signified, is not noticed, that we are not conscious of any such act. He anticipates this objection, and gives two reasons for our unconsciousness.

1°. The rapidity with which the acts of the mind are performed makes many of them often pass unnoticed. Thus the mind glances through all the steps of a demonstration frequently in less time than would be consumed in stating verbally a single step. He thinks it not wonderful that actions performed with such rapidity should not arrest the attention, and impress us with a consciousness of them.

2°. The process objected to, is one to which we must necessarily have been accustomed from our earliest infancy; it is probably the first exertion of judgment which is demanded from the mind of a child; and it is one which must be practised every moment of our lives, except during sleep. When we consider that habit, in matters of much less frequency and much shorter duration, makes us unconscious of what passes in our mind; we cannot wonder at its effects in this case. Locke instances the use of by-words, and the fact of our being in darkness every time we wink our eyes without being conscious of either, as examples of this. It may however be questioned whether the latter example will hold; for it is known that the sensation continues for some time after the remotion of the sensible object, and if the eye be opened again before the sensation ceases, we have not been in darkness. Though this example may have been unhappily chosen, yet the principle he wishes to establish is certain. He gives a more just and striking example in language, where the idea is instantly substituted for the word without any consciousness.

12. The reason given by Locke why we change the ideas of sight into those of touch, and do not change the ideas of any other two senses one into another, is as follows:

"Because sight, the most comprehensive of our senses, conveying to our minds the ideas of light and colours, which are peculiar only to that sense; and also the far different ideas of space, figure, and motion, the several varieties whereof change the appearances of its proper object, viz. light and colours; we bring ourselves by use to judge of the one by the other." B. 2. Ch. IX. § 9.

This, I believe, will be found, when examined, to amount to nothing more than an assertion, that we do change the ideas of visible space, figure and motion produced by light upon the eye into "the far different" ideas of tangible space, figure, and motion pro-

duced through the sense of touch. It is difficult to conceive how Locke could mistake a simple statement of a fact for a reason for that fact. The ideas of sight are changed into those of touch; and his object is to show why the ideas of no other sense are changed into those of touch, or into those of any other sense, and he does this by a very circuitous statement of the fact itself. If this fact could be admitted as proof in the case at all, it would prove the opposite; for by analogy, if what he states be the case with sight it is likely to be so also with the other senses.

Locke considers perception in its lowest degree to be the distinction between animals and the inferior orders of the creation.

LECTURE VIII.

Memory.

1. CONTEMPLATION is that act or power of the mind whereby it holds its ideas continually in view. This power in the human mind is very limited. It is limited both as to the number of ideas and the time it can contemplate them. According to Locke, the mind cannot have a distinct view at the same time of more than a single idea, nor can it keep the same idea in view for any considerable length of time. The ideas in the mind of man exist in succession, nor can that succession be stopped in order to dwell upon any particular idea. B. 2. Ch. XIV. § 13.

There are two ways whereby an idea may be produced in the mind, perception and memory. Properly speaking, these are both perception, but this term is usually confined to the production of an idea of sensation by the effect of an external object or of reflection by noticing the operations of our minds. The mind possesses a power of reproducing any idea which it has formerly had from sensation or reflection, merely by an act of the will, and without the presence of the object or the existence of the operation from which such idea was originally derived. Many attempts have been made by philosophers to account for this power, but it is probable that the *modus*

operandi must lie hidden from us until our faculties are so improved as to be able to discover the nature and construction of the human mind. Some have supposed that when the sensible object is removed, and therefore the impression upon the organ of sense, and on the nerves with which it is connected, has ceased, the impression upon the brain continues. This however will be found, even if admitted, quite inadequate to account for memory. It might indeed be taken as a reason for contemplation, but not for memory.

2. We shall here transcribe the observations of Reid, upon Locke's account of the memory.

Mr. Locke, and those who have followed him, speak with more reserve than the ancients, and only incidentally, of impressions on the brain as the cause of memory, and impute it rather to our retaining in our minds the ideas, got either by sensation or reflection.

This, Mr. Locke says, may be done two ways; "*First*, "By keeping the idea for some time actually in view, "which is called *contemplation*. *Secondly*, By the power "to revive again in our minds those ideas, which, after "imprinting, have disappeared, or have been, as it were, "laid out of sight; and this is memory, which is, as it "were, the storehouse of our ideas."

To explain this more distinctly, he immediately adds the following observation; "But our ideas being nothing "but actual perceptions in the mind, which cease to be "any thing, when there is no perception of them, this "laying up of our ideas in the repository of the memory, "signifies no more but this, that the mind has a power, "in many cases, to revive perceptions which it once had, "with this additional perception annexed to them, that "it has had them before; and in this sense it is, that "our ideas are said to be in our memories, when indeed "they are actually no where; but only there is an ability "in the mind, when it will, to revive them again, and,

"as it were, paint them anew upon itself, though some "with more, some with less, difficulty, some more lively, "and others more obscurely."

In this account of memory, the repeated use of the phrase, *as it were*, leads one to judge that it is partly figurative; we must therefore endeavour to distinguish the figurative part from the philosophical. The first being addressed to the imagination, exhibits a picture of memory, which, to have its effect, must be viewed at a proper distance, and from a particular point of view. The second being addressed to the understanding, ought to bear a near inspection, and a critical examination.

The analogy between memory and a repository, and between remembering and retaining, is obvious, and is to be found in all languages, it being very natural to express the operations of the mind by images taken from things material. But in philosophy we ought to draw aside the veil of imagery, and to view them naked.

When therefore memory is said to be a repository or storehouse of ideas, where they are laid up when not perceived, and again brought forth as there is occasion, I take this to be popular and rhetorical. For the author tells us, that when they are not perceived, they are nothing, and no where, and therefore can neither be laid up in a repository, nor drawn out of it.

But we are told, "That this laying up of our ideas in "the repository of the memory signifies no more than "this, that the mind has a power to revive perceptions, "which it once had, with this additional perception "annexed to them, that it has had them before." This, I think, must be understood literally and philosophically.

But it seems to me as difficult to revive things that have ceased to be any thing, as to lay them up in a repository, or to bring them out of it. When a thing is once annihilated, the same thing cannot be again pro-

duced, though another thing similar to it may. Mr. Locke, in another place, acknowledges, that the same thing cannot have two beginnings of existence; and that things that have different beginnings are not the same, but diverse. From this it follows, that an ability to revive our ideas or perceptions, after they have ceased to be, can signify no more but an ability to create new ideas or perceptions similar to those we had before.

They are said " to be revived, with this additional " perception, that we have had them before." This, surely, would be a fallacious perception, since they could not have two beginnings of existence; nor could we believe them to have two beginnings of existence. We can only believe, that we had formerly ideas or perceptions very like to them, though not identically the same. But whether we perceive them to be the same, or only like to those we had before, this perception, one would think, supposes a remembrance of those we had before, otherwise the similitude or identity could not be perceived.

Another phrase is used to explain this reviving of our perceptions. " The mind, as it were, paints them anew " upon itself." There may be something figurative in this; but making due allowance for that, it must imply, that the mind, which paints the things that have ceased to exist, must have the memory of what they were, since every painter must have a copy either before his eye, or in his imagination and memory.

These remarks upon Mr. Locke's account of memory are intended to shew, that his system of ideas gives no light to this faculty, but rather tends to darken it; as little does it make us understand how we remember, and by that means have the certain knowledge of things past.

Every man knows what memory is, and has a distinct notion of it: But when Mr. Locke speaks of a power to revive in the mind those ideas, which, after imprinting,

have disappeared, or have been, as it were, laid out of sight, one would hardly know this to be memory, if he had not told us. There are other things which it seems to resemble at least as much. I see before me the picture of a friend. I shut my eyes, or turn them another way; and the picture disappears, or is, as it were, laid out of sight. I have a power to turn my eyes again towards the picture, and immediately the perception is revived. But is this memory? no surely; yet it answers the definition as well as memory itself can do. Reid, Essay III. Ch. VII.

3. It will be remembered that Reid's opinions are in direct opposition to Locke's doctrine of ideas.

Berkely and Hume pushed the doctrine of ideas much farther than Locke, and finished what he left imperfect. The first rejected the existence of the material world as an unfounded and an unnecessary hypothesis, and the latter rejected the existence of every thing except ideas or impressions. Hume's account of memory is as follows: impressions originally made upon the mind, when they reappear and retain none of their original vivacity, become *ideas;* but when they retain a considerable share of their primitive vividness, they may be considered as something between ideas and impressions. The faculty of producing the former effect is imagination, and the latter memory.

4. Memory is a faculty which cannot always be commanded. Different men have it in different degrees, and the same man on different occasions has it in different degrees. Ideas are observed to be imprinted upon the memory, as it is figuratively expressed, with more or less force; by which it is meant that they are recalled with greater or less facility. There are several circumstances connected with the first perception of ideas which give this facility. These circumstances are usually called the helps to memory. Locke enumerates four of them :

1°. Attention to the original impression from sensation.

2°. Frequent repetition of the impression upon the organ of sense.

3°. Pleasure, which may accompany the original impression as well as the reminiscent recurrence of it.

4°. Pain, which may accompany them.

In addition to these, the association of ideas and method are sometimes enumerated.

5. The causes of ideas or impressions fading from the memory, or without a metaphor, the causes of an inability to revive ideas formerly impressed, are enumerated by Locke to be three:

1°. Because perception has not been produced sufficiently often, and perhaps but once.

2°. Because no attention, or insufficient attention has been given to it, even supposing the impression repeated.

3°. Because of some physical defect in the construction of those organs of the brain or sensorium on which memory depends.

He might also have added that the idea, though it might have occurred with frequency, and may have been attended to, yet not producing pleasure or pain, being, in a word, indifferent, did not fix itself in the memory.

6. As examples of ideas being lost from want of repetition, our author instances persons who became blind in early infancy, losing the ideas of light and colours. The ideas fade from their minds "like shadows flying over fields of corn."

He by no means supposes our ideas and our minds to be coœval either *a parte ante* or *a parte post*. He supposes the mind in the first moment of its creation to be completely free of ideas, "like a sheet of white paper;" and he thinks that our ideas, like the children of our youth, may die before us. Our minds, in surviving their

ideas, he compares to the tombs to which we are hastening, "where, though the brass and marble may remain, yet the inscriptions are effaced by time, and the imagery moulders away."

7. That Locke conceives the memory to be a faculty which, in a great degree at least, depends upon a physical constitution, appears from what follows:

"How much the constitution of our bodies, and the make of our animal spirits are concerned in this" (the degree of our retention), "and whether the temper of the brain makes this difference, that in some it retains the characters drawn on it like marble, in others like freestone, and in others little better than sand, I shall not here inquire." B. 2. Ch. X. § 5.

8. The ideas which are least apt to be forgotten, he thinks are those which are oftenest repeated, and these he reduces to three classes:

1°. The primary qualities of bodies.

2°. The secondary qualities which oftenest affect us as heat and cold.

3° The affections of all beings, as existence, duration and number.

He might have stated as one class the ideas which enter by all the ways of sensation and by reflection. These must last as long as life itself.

9. Memory differs from perception in two respects:

1°. Perception (as far as regards sensation) requires an external object, a sound organ, and a sufficient impression upon that organ. Memory requires none of these. After the organs are gone, the memory of the ideas may remain.

2°. Perception (as far as regards sensation) is a passive faculty. Memory is sometimes passive, sometimes active.

Aristotle points out distinctions between different modes of memory.

The most perfect memory is where the idea offers itself without any spontaneous act of the mind, when there is

occasion for it. The next degree is where the idea itself is forgotten, but some other idea with which it is associated brings it into the mind without an effort. The third degree (specified by Locke,) in which the mind "sets itself on work in search of some hidden idea, and turns as it were the eye of the soul upon it," is distinguished by Aristotle as that degree of memory in which is included an act of the will, and which may be called recollection.

10. Between mere memory and recollection, Aristotle makes a marked distinction. So much so, that though he allows to brutes the former faculty, he denies them the latter. That brutes have memory Locke acknowledges, and produces the fact of birds learning tunes as an instance of it. The only possible causes which could account for this phenomenon are instinct, mechanism, or memory.

1°. Locke denies it to be instinct, because this faculty is only given to supply the want of reason in matters which concern the preservation of the animal. As the learning a tune does not in any way tend to the bird's preservation, he denies it to be instinct.

2°. He denies that it can be the mechanical effect of the traces produced by the sounds upon the brains of the bird, because the effect produced is not what such a mechanical cause would produce. Were the cause mechanical, the sound of the bird's notes would immediately follow the traces received by the brain, and gradually be lost when those traces would disappear. Whereas the case is exactly the reverse; the bird approximates gradually to the tune, instead of gradually losing it.

11. Locke enumerates two defects which exist in the memories of men, compared one with another:

1°. Oblivion, or the irrecoverable loss of the ideas. This is productive of ignorance.

2°. Slowness, or a difficulty of reviving the idea, which produces stupidity.

Memory supposes ideas to exist in succession. Therefore this quality itself is a defect, and one which could not be ascribed to a perfect intellectual being who must necessarily be supposed to have all his ideas present together. It is a quality given to supply the want of perfect contemplation.

12. The primitive idea of sensation differs from that of memory:

1°. Because the presence of an object is required in the one, and not in the other.

2°. Because the same degree of pleasure and or pain does not accompany them.

3°. The idea of memory is generally more faint.

4°. The additional idea of having had it before accompanies the one, and not the other.

LECTURE IX.

Discerning, Comparing, Compounding, and Abstracting.

1. THE faculty by which the mind distinguishes between two ideas, and perceives them to be different, and perceives in what their differences consists, is called *discerning*.

Locke considers, that from overlooking the faculty of discerning, many general propositions have been mistaken for innate truths. Under this class all general propositions respecting identity and diversity come. Their truth was observed to be self-evident, and the perception of it really depends on the faculty of distinguishing between our ideas; and as the ideas themselves are not innate impressions, so neither are those propositions into which they enter innate truths.

2. The imperfections of the discerning faculty arise from three causes:

1°. Defective organs.

2°. Want of acuteness or attention in the understanding.

3°. Hastiness and precipitancy natural to some tempers.

The perfection of this quality is of the last importance to intellectual beings. Defects in it produce confusion in

our notions of things, and disturbance and uncertainty in our judgment and reasoning.

Judgment and wit are qualities which Locke places in direct opposition. He defines them thus:

Judgment consists in the nicely discriminating things between which there is the least difference.

Wit lies in the assemblage of ideas with quickness and variety, between which there is the most remote similitude.

The sense in which the word judgment is used here, must be carefully distinguished from another sense in which our author uses the same term in his fourth book, where he treats of probability. In the sense in which it is here used, it appears nearly synonymous with discerning. He probably intended that discerning should be the name of the power, and judgment the act.

3. The definition of wit given above, is pronounced by Addison to be the best and most philosophical account of that quality he ever met with. He adds, which indeed may be also collected from Locke, that every resemblance of ideas is not wit, unless it be such an one as gives delight and surprise to the hearer. In order that the assemblage of two ideas may be wit, it is necessary that they should not lie too near each other in the nature of things; for where the likeness is obvious it gives no surprise.

"When a poet tells us that the bosom of his mistress is as white as snow, there is no wit in the comparison; but when he adds, with a sigh, that it is as cold too, it then grows into wit." Addison thinks that although the source of wit pointed out by Locke is by far the most fertile, yet that there is another, which arises not from the resemblance, but from the remarkable opposition of ideas.

Lord Kames differs from Locke in defining wit. As, however, the subject does not strictly come under our ar-

rangement, we merely refer the student to his Elements of Criticism.

Wit is generally acceptable, because its beauty appears at first sight, and requires no laborious examination. Locke thinks that there is something in it not perfectly conformable to "truth or good reason," as it is considered an affront to subject it to these tests.

4. The power of comparing ideas, furnishes the mind with that class of ideas called relations, of which we shall treat at large hereafter. Locke thinks that brutes participate in this faculty only so far as regards "the sensible qualities attached to the objects themselves;" in other words, he admits that they may compare particular ideas, but denies them the power of comparing abstract ideas, and then forming abstract relations. His reason for thinking that they do not compare abstract ideas is, that they cannot have an abstract idea. His reason for this opinion we shall presently explain.

5. That particular species of compounding, which consists in continual repetition of the same idea, is called *enlarging*. Our ideas of integral numbers are examples of this, being continual repetitions of unity or one. Locke thinks it probable that brutes have not the faculty of enlarging; for animals, which have a numerous brood of young, will not miss some of them if they be taken away. This being the simplest species of compounding, the fact of their wanting it might be taken as an *a fortiori* argument that they do not compound at all. But independently of this, he states, that the young of a fox may be substituted for those of a dog, and the animal will not be sensible of the change when once they have taken her milk.

6. Although brutes do not compound, yet this is no proof that they may not have complex ideas. Many of our own complex ideas are not made by the mind. The senses receive from a single external object a collection

of simple ideas. The mind, without any act of composition, looks on that collection as a single complex idea; it supposes the simple ideas to be connected in nature. In this way brutes may, without compounding, receive complex ideas from external objects. There are some reasons which render it probable that they do receive and retain such ideas. A dog will know the different individuals whom he has constant opportunities of observing, from strangers. This indicates judgment. Though this renders it probable that brutes have complex ideas, yet it is not conclusive as to the fact, because the distinction might be founded upon a single simple idea, as the smell. One of the instances already mentioned would seem to countenance some such hypothesis.

7. The doctrine of abstraction is one, which at a very early period attracted the attention of philosophers, and to this day they have not agreed upon it. We shall first attempt to explain Locke's theory, and then shew the objections to it, and the opinions of others upon the same subject.

According to Locke, man is forced to abstract by his social habits. It would appear, from his observations, that if a solitary individual existed who never had occasion for language, he would probably never abstract. This opinion I found, upon the following passage:

"The use of words being to stand as outward marks of our internal ideas, and those ideas being taken from particular things, if every particular idea that we take in should have a distinct name, names must be endless. *To prevent this*, the mind makes the particular ideas received from particular objects, to become general; which is done by considering them as they are in the mind, such appearances, separate from all other existences, and the circumstances of real existence, as the circumstances of time, place, or any other concomitant ideas. This is called abstraction, whereby ideas taken from particular be-

ings, become general representatives of all of the same kind, and their names general names, applicable to whatever exists conformable to such abstract ideas."—B. 2. Ch. XI. § 9.

It appears from this, that it is to prevent names "from being endless," that men abstract, and that therefore man is indebted for this most important exertion of his faculties, and that which Locke declares to distinguish him from brutes, to the necessity of holding society with his kind by means of his organs of speech. It would further follow from this, that if men could shew their ideas to each other immediately, and therefore had no occasion for words, they would have no occasion for abstraction. In some part of his essay, Locke conjectures this to be a privilege of spirits, and from comparing this with what we have just stated, it would amount to this, that man is elevated above the condition of brutes by *having* the power of abstraction, and that spirits are elevated above the condition of man by *wanting* the power of abstraction.

8. The process of abstraction, according to Locke, as well as I can understand it, appears to be this. Things and their qualities exist individually. A general or abstract existence is an absolute absurdity, and if the definitions were substituted for the words, would become a contradiction in terms. Ideas of things and of their qualities also exist individually. These ideas are, in the first instance, conformable to the individual things and their qualities. But by due contemplation of these ideas, and subjecting them to certain modifications, the mind forms out of them other ideas, which although they are in themselves particular individual existences in the mind, yet they are not conformable to any particular individual thing, but are looked on as the mental general signs of certain classes of individual existences. This second class

of ideas, supposed by Locke to be made by abstraction, he calls abstract ideas, or universal or general ideas. The Platonists held nearly the same opinions, differing only in this, that the abstract ideas are not made by the mind, but have been eternal and immutable existences, conformably to which all particular things have been made. Thus Locke holds that abstract ideas are formed from particular existences, and the Platonists, that particular existences are formed from abstract ideas. I cannot perceive any material difference between Locke's doctrine of abstraction and that of Aristotle. This philosopher rejected Plato's supposition of the eternal existence of abstract forms or ideas, but he held that every individual of a species must be conformable to the abstract idea of that species, and that the abstract idea constituted the essence of that species, and that all science must relate to abstract ideas as the individual existences are subject to continual fluctuation and change.

9. Other philosophers, and particularly of the moderns, Berkeley and Hume, deny the existence of any such process of mind as Locke describes, as well as the existence of any such ideas as are produced by it. They maintain that words are general, but that an abstract idea is a manifest absurdity.

There has been a third sect of philosophers who held that there are not only abstract ideas, but real universal existences. These three sects are called, from their peculiar tenets, the conceptualists, the nominalists, and the realists.

Locke himself appears to have been a conceptualist, although I think an attentive student of his Essay would become a nominalist. He seems to consider that the abstract idea is created by the mind for no other purpose than to receive a name. In the formation of this idea, or fiction of the mind, he states, that there is considerable difficulty, and when formed, considerable inconsistency.

" Abstract ideas are not so obvious or easy to children, or the yet unexercised mind, as particular ones. If they seem so to grown men, it is only because by constant and familiar use they are made so. For when we nicely reflect on them, we shall find that general ideas are fictions and contrivances of the mind, that carry difficulty with them, and do not so easily offer themselves as we are apt to imagine. For example, does it not require some pains and skill to form the general idea of a triangle? (which is yet none of the most abstract, comprehensive, and difficult;) for it must be neither oblique nor rectangle, neither equilateral, equicrural, nor scatenon, *but all and none of these at once.* In fact it is something imperfect *that cannot exist*, an idea wherein some parts are different and *inconsistent ideas put together.*" B. 4. Ch. VII. § 9.

The most zealous nomalist could hardly support his system by stronger argument or clearer language than the above. What are we to think of a system, which demands from us a postulate that we have ideas which are made up of other ideas totally inconsistent with each other; that we have ideas existing in our minds, and yet not existing; that we have an idea of a triangle which is equilateral and not equilateral; isoceles and not isosceles at the same time; which is large and not large; small and not small, &c.—all these and none of these at the same time? But Locke thinks that we are driven to the necessity of calling into existence these mental monsters, for the mere purpose of giving them names. How then, answers the nominalist, do young children discourse so fluently? Have they even in their early infancy conjured up this world of inconsistent, impossible beings, which are declared by Locke to be *existences which cannot exist?*

At present we shall not enter further into the question between the nominalists and conceptialists, as it will be

necessary to speak of it again, and considerably more at length when we come to treat of general terms.

10. As Locke considers abstraction to have been the consequence of language, he denies the faculty to brutes. Though many brutes, as parrots, &c. can produce articulate sounds, yet they are never used by them as language, nor to express abstract ideas, and yet men who have no language, who are dumb, find means, as our author declares, of expressing abstract ideas. His reasoning to shew that brutes have no abstract ideas, reduced to a logical form, stands thus:

All beings having abstract ideas express them,
Brutes do not express abstract ideas,
Therefore, brutes have not abstract ideas.

11. The faculties of the mind are, according to Locke, liable to two opposite defects, two great and too small a degree of intensity. To the one defect he ascribes lunacy, to the other, ideocy. The lunatic, by the violence of his imagination, adopts precipitately false propositions as principles, and from these, by right reasoning, he deduces false conclusions. The ideot, however, seldom puts ideas together, so as to form a proposition, and never reasons.

12. We have now arrived at the conclusion of another stage of our course. In the investigations we have just made of the earliest and principal operations of the mind, we have for the most part considered them as employed upon simple ideas of sensation:

1°. Because these are the ideas about which the mind first employs itself.

2°. Because the operations are more easily understood relatively to simple ideas.

3°. Because these operations themselves employed about simple ideas of sensation, furnish another class of simpler ideas, viz. simple ideas of reflection.

13. Locke, recapitulating his theory of ideas, illustrates it in the following manner:

"These alone," (sensation and reflection) "as far as I can discover, are the windows by which light is let into this dark room; for methinks the understanding is not much unlike a closet wholly shut from light, with only some little opening left to let in external visible resemblances, or ideas of things without: would the pictures coming into such a dark room but stay there, and lie so orderly as to be found upon occasion, it would very much resemble the understanding of a man in reference to the objects of sight, and the ideas of them." B. 2. Ch. XI. § 17.

This illustration is evidently borrowed from Plato. He illustrates the manner in which we perceive external objects of sense, by supposing a dark cave in which men are so bound, that they can only view one part of it. Behind this, at a distance, is a light, some rays of which pass over a wall to that part of the cave which is before the eyes of those who are confined in it. Various objects pass between them and the light, the shadows of which they behold, but not the objects themselves. Locke, however, seems to confine the illustration to perceptions of sight.