whether pleasant or painful; of all our affections, passions, hopes, fears, desires, and volitions. It is thus too we are assured of the *present existence* of those thoughts which, during

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" force d'être vrais, et que leur evidence palpable et grossière se reduit à exprimer la " meme idée par deux termes differens, l'esprit ne fait alors autre chose que tourner in- " utilement sur lui-même sans avancer d'un seul pas. Ainsi les axioms bien loin de " tenir en philosophie le premier rang n'ont pas même besoin d'être enoncés."—*Elem. de Phil.* pp. 24, 25.]

Although, in the foregoing passage, D'Alembert, in compliance with common phraseology, has bestowed the name of *principles* upon *axioms*, it appears clearly, from a question which occurs afterwards, that he did not consider them as well entitled to this appellation. " What are then," he asks, " in each science, the *true principles* from " which we ought to set out?" (" Quels sont donc dans chaque science les *vrais* " *principes* d'ou l'on doit partir?") The answer he gives to this question agrees with the doctrine I have stated in every particular, excepting in this, that it represents (and in my opinion very incorrectly) the principles of geometrical science to be (not definitions or hypotheses, but) those simple and acknowledged *facts*, which our senses perceive with respect to the properties of *extension*. " The *true principles* from which we " ought to set out in the different sciences, are simple and acknowledged *facts*, which do " not presuppose the existence of any others, and which, of course, it is equally vain to at- " tempt explaining or confuting; in physics, the familiar phenomena which daily experi- " ence presents to every eye; *in geometry, the sensible properties of extension*; in mecha- " nics, the impenetrability of bodies, upon which their mutual actions depend; in meta- " physics, the results of our sensations; in morals, the original and common affections of " the human race."—[" Les vrais principes d'ou l'on doit partir dans chaque science, sont " des faits simples et reconnus, qui n'en supposent point d'autres, et qu'on ne puisse " par consequent ni expliquer ni contester; en physique les phénomenes journaliers que " l'observation découvre à tous les yeux; *en géometrie les proprietés sensibles de l'etendue*; " en mechanique, l'impenetrabilité des corps, source de leur action mutuelle; en meta- " physique, le résultat de nos sensations; en morale, les affections premières et com- " munes à tous les hommes."—pp. 26, 27.]

In cases of this sort, where so much depends on extreme precision and nicety in the use of words, it appears to me to be proper to verify the fidelity of my translations by subjoining the original passages.

our waking hours, are continually passing through the mind, and of all the different effects which they produce in furnishing employment to our intellectual faculties.

According to the common doctrine of our best philosophers *, it is by the evidence of *consciousness* we are assured that we ourselves exist. The proposition, however, when thus stated, is not accurately true; for our own existence (as I have elsewhere observed †), is not a direct or immediate object of consciousness, in the strict and logical meaning of that term. We are conscious of sensation, thought, desire, volition; but we are not conscious of the existence of mind itself; nor would it be possible for us to arrive at the knowledge of it (supposing us to be created in the full possession of all the intellectual *capacities* which belong to human nature), if no impression were ever to be made on our external senses. The moment that, in consequence of such an impression, a sensation is excited, we learn two facts at once;—the existence of the sensation, and our own existence as sentient beings;—in other words, the very first exercise of consciousness necessarily implies a belief, not only of the present existence of what is felt, but of the present existence of *that* which feels and thinks; or (to employ plainer language) the present existence of that being which I denote by the words *I* and *myself*. Of these facts, however, it is the former alone of which we can properly be said to be conscious, agreeably to the rigorous interpretation

* See, in particular, Campbell's Philosophy of Rhetoric.

† Philosophical Essays, p. 7.

of the expression. A conviction of the latter, although it seems to be so inseparable from the exercise of consciousness, that it can scarcely be considered as posterior to it in the order of *time*, is yet (if I may be allowed to make use of a scholastic distinction) posterior to it in the order of *nature*; not only as it supposes consciousness to be already awakened by some sensation, or some other mental affection; but as it is evidently rather a judgment accompanying the exercise of that power, than one of its immediate intimations concerning its appropriate class of internal phenomena. It appears to me, therefore, more correct to call the belief of our own existence a concomitant or accessory of the exercise of consciousness, than to say, that our existence is a fact falling under the immediate cognizance of consciousness, like the existence of the various agreeable or painful sensations which external objects excite in our minds.

2. That we cannot, without a very blameable latitude in the use of words, be said to be *conscious* of our personal identity, is a proposition still more indisputable; inasmuch as the very idea of personal identity involves the idea of *time*, and consequently presupposes the exercise not only of *consciousness*, but of *memory*. The belief connected with this idea is implied in every thought and every action of the mind, and may be justly regarded as one of the simplest and most essential elements of the understanding. Indeed it is impossible to conceive either an intellectual or an active being to exist without it. It is, however, extremely worthy of remark, with respect to this belief, that, universal as it is among our species, nobody but a

metaphysician ever thinks of expressing it in words, or of reducing into the shape of a proposition, the truth to which it relates. To the rest of mankind, it forms not an object of knowledge; but a condition or supposition, necessarily and unconsciously involved in the exercise of all their faculties. On a part of our constitution, which is obviously one of the last or primordial elements at which it is possible to arrive in analyzing our intellectual operations, it is plainly unphilosophical to suppose, that any new light can be thrown by metaphysical discussion. All that can be done with propriety, in such cases, is to state the fact.

And here, I cannot help taking notice of the absurd and inconsistent attempts which some ingenious men have made, to explain the gradual process by which they suppose the mind to be led to the knowledge of its own existence, and of that continued identity which our constitution leads us to ascribe to it. How (it has been asked) does a child come to form the very abstract and metaphysical idea expressed by the pronoun *I* or *moi*? In answer to this question, I have only to observe, that when we set about the explanation of a phenomenon, we must proceed on the supposition that it is possible to resolve it into some more general law or laws with which we are already acquainted. But, in the case before us, how can this be expected, by those who consider that all our knowledge of mind is derived from the exercise of reflection; and that every act of this power implies a conviction of our own existence as reflecting and intelligent beings? Every theory, therefore, which pretends to account for this conviction, must necessarily

involve that sort of paralogism which logicians call a *petitio principii*; inasmuch as it must resolve the thing to be explained into some law or laws, the evidence of which rests ultimately on the assumption in question. From this assumption, which is necessarily implied in the joint exercise of consciousness and memory, the philosophy of the human mind, if we mean to study it analytically, must of necessity set out; and the very attempt to dig deeper for its foundation, betrays a total ignorance of the logical rules, according to which alone it can ever be prosecuted with any hopes of success.

It was, I believe, first remarked by Mr Prevost of Geneva, (and the remark, obvious as it may appear, reflects much honour on his acuteness and sagacity) that the inquiries concerning the mind, founded on the hypothesis of the *animated statue*—inquiries which both Bonnet and Condillac professed to carry on analytically,—were in truth altogether synthetical. To this criticism it may be added, that their inquiries, in so far as they had for their object to explain the origin of our belief of our own existence, and of our personal identity, assumed, as the principles of their synthesis, facts at once less certain and less familiar than the problem which they were employed to resolve.

Nor is it to the metaphysician only, that the ideas of identity and of personality are familiar. Where is the individual who has not experienced their powerful influence over his imagination, while he was employed in reflecting on the train of events which have filled up the past history of his life; and on that internal world, the phenomena of which

have been exposed to his own inspection alone? On such an occasion, even the wonders of external nature seem comparatively insignificant; and one is tempted (with a celebrated French writer) in contemplating the spectacle of the universe, to adopt the words of the Doge of Genoa when he visited Versailles—"Ce qui m'etonne le plus ici, c'est de m'y voir *."

3. The belief which all men entertain of the existence of the material world, (I mean their belief of its existence independently of that of percipient beings), and their expectation of the continued uniformity of the laws of nature, belong to the same class of ultimate or elemental laws of thought, with those which have been just mentioned. The truths which form their objects are of an order so radically different from what are commonly called *truths*, in the popular acceptation of that word, that it might perhaps be useful for logicians to distinguish them by some appropriate appellation, such, for example, as that of *metaphysical* or *transcendental* truths. They are not *principles* or *data* (as will afterwards appear) from which any consequence can be deduced; but form a part of those original *stamina* of human reason, which are equally essential to all the pursuits of science, and to all the active concerns of life.

4. I shall only take notice farther, under this head, of the confidence which we must necessarily repose in the evidence of memory (and, I may add, in the continuance of our personal

* D'Alembert, Apologie de l'Etude.

identity) when we are employed in carrying on any process of deduction or argumentation;—in following out, for instance, the steps of a long mathematical demonstration. In yielding our assent to the conclusion to which such a demonstration leads, we evidently trust to the fidelity with which our memory has connected the different links of the chain together. The reference which is often made, in the course of a demonstration, to propositions formerly proved, places the same remark in a light still stronger; and shews plainly that, in this branch of knowledge, which is justly considered as the most certain of any, the authority of the same laws of belief which are recognized in the ordinary pursuits of life, is tacitly acknowledged. Deny the evidence of memory as a ground of certain knowledge, and you destroy the foundations of mathematical science as completely as if you were to deny the truth of the axioms assumed by Euclid.

The foregoing examples sufficiently illustrate the nature of that class of truths which I have called *Fundamental Laws of Human Belief*, or *Primary Elements of Human Reason*. A variety of others, not less important, might be added to the list*; but these I shall not at present stop to enumerate, as my chief object, in introducing the subject here, was to explain the common relation in which they all stand to deductive evidence. In this point of view, two analogies, or rather coincidences, between the truths which we have been last consider-

* Such, for example, as our belief of the existence of *efficient* causes; our belief of the existence of other intelligent beings besides ourselves, &c. &c.

ing, and the mathematical axioms which were treated of formerly, immediately present themselves to our notice.

1. From neither of these classes of truths can any direct inference be drawn for the farther enlargement of our knowledge. This remark has been already shown to hold universally with respect to the axioms of geometry; and it applies equally to what I have called Fundamental Laws of Human Belief. From such propositions as these,—*I exist; I am the same person to-day that I was yesterday; the material world has an existence independent of my mind; the general laws of nature will continue, in future, to operate uniformly as in time past*,—no inference can be deduced, any more than from the intuitive truths prefixed to the Elements of Euclid. Abstracted from other *data*, they are perfectly barren in themselves; nor can any possible combination of them help the mind forward, one single step, in its progress. It is for this reason, that instead of calling them, with some other writers, *first principles*, I have distinguished them by the title of *fundamental laws of belief*; the former word seeming to me to denote, according to common usage, some *fact*, or some *supposition*, from which a series of consequences may be deduced.

If the account now given of these *laws of belief* be just, the great argument which has been commonly urged in support of their authority, and which manifestly confounds them with what are properly called *principles of reasoning**, is not at all

* Aristotle himself has more than once made this remark; more particularly, in dis-

applicable to the subject; or at least does not rest the point in dispute upon its right foundation. If there were no first principles (it has been said) or, in other words, if a reason could be given for every thing, no process of deduction could possibly be brought to a conclusion. The remark is indisputably true; but it only proves (what no logician of the present times will venture to deny) that the mathematician could not demonstrate a single theorem, unless he were first allowed to lay down his definitions; nor the natural philosopher explain or account for a single phenomenon, unless he were allowed to assume, as acknowledged facts, certain general laws of nature. What inference does this afford in favour of that particular class of truths to which the preceding observations relate, and against which the ingenuity of modern sceptics has been more particularly directed? If I be not deceived, these

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cussing the absurd question, Whether it be possible for the same thing to be and not to be? ἐξίνασι δέ και τουτο ἀποδεικνυναι τινες δι' ἀπαιδευσιαν. ἐστι γαρ ἀπαιδευσια, τὸ μη γινωσκειν τινων δει ζητειν ἀποδειξιν, και τινων οὐ δει. ὁλως μεν γαρ ἁπαντων ἀδυνατον ἀποδειξιν ειναι. εις ἀπειρον γαρ αν βαδιζοι· ὡστε μηδ' οὑτως εἰναι ἀποδειξιν.—*Aristot. Metaphys.* Vol. II. p. 873. Edit. Du Val.

"But there are some who, through ignorance, make an attempt to prove even this "principle, (that it is impossible for the same thing to be and not to be.) For "it is a mark of ignorance, not to be able to distinguish those things which ought to be "demonstrated from things of which no demonstration should be attempted. In truth, "it is altogether impossible that every thing should be susceptible of demonstration; "otherwise the process would extend to infinity, and, after all our labour, nothing "would be gained." In the sentence immediately preceding this quotation, Aristotle calls the maxim in question, βεβαιοτατη των ἀρχων πασων, "the most certain of all "*principles.*"

To the same purpose, Dr Reid has said: "I hold it to be certain, and even demon- "strable, that all knowledge got by reasoning must be built on first principles. This (he "adds) is as certain as that every house must have a foundation."—*Essays on Int. Powers*, p. 558, 4to edit.

truths are still more intimately connected with the operations of the reasoning faculty than has been generally imagined; not as the *principles* (αρχαι) from which our reasonings set out, and on which they ultimately depend; but as the necessary *conditions* on which every step of the deduction tacitly proceeds; or rather (if I may use the expression) as essential elements which enter into the composition of reason itself.

2. In this last remark I have anticipated, in some measure, what I had to state with respect to the *second* coincidence alluded to, between mathematical axioms, and the other propositions which I have comprehended under the general title of *fundamental laws of human belief*. As the truth of axioms is virtually presupposed or implied in the successive steps of every demonstration, so, in every step of our reasonings concerning the order of Nature, we proceed on the supposition, that the laws by which it is regulated will continue uniform as in time past; and that the material universe has an existence independent of our perceptions. I need scarcely add, that, in all our reasonings whatever, whether they relate to necessary or to contingent truths, our own personal identity and the evidence of memory, are virtually taken for granted. These different truths all agree in this, that they are essentially involved in the exercise of our rational powers; although, in themselves, they furnish no *principles* or *data* by which the sphere of our knowledge can, by any ingenuity, be enlarged. They agree farther in being tacitly acknowledged by all men, learned or ignorant, without any formal enunciation in words, or even any conscious exercise of reflection. It is only at that period of our intellectual progress when

scientific arrangements and metaphysical refinements begin to be introduced, that they become objects of attention to the mind, and assume the form of propositions.

In consequence of these two analogies or coincidences, I should have been inclined to comprehend, under the general title of *axioms*, all the truths which have been hitherto under our review, if the common usage of our language had not, in a great measure, appropriated that appellation to the axioms of mathematics; and if the view of the subject which I have taken, did not render it necessary for me to direct the attention of my readers to the wide diversity between the branches of knowledge to which they are respectively subservient.

I was anxious also to prevent these truths from being all identified, in point of logical importance, under the same name. The fact is, that the one class, (in consequence of the relation in which they stand to the demonstrative conclusions of geometry,) are comparatively of so little moment, that the formal enumeration of them was a matter of choice rather than of necessity; whereas the other class have unfortunately been raised, by the sceptical controversies of modern times, to a conspicuous rank in the philosophy of the human mind. I have thought it more advisable, therefore, to bestow on the latter an appropriate title of their own; without however going so far, as to reject altogether the phraseology of those who have annexed to the word *axiom* a more enlarged meaning than that which I have usually given to it. Little inconvenience, indeed, can

arise from this latitude in the use of the term; provided only it be always confined to those ultimate laws of belief, which, although they form the first elements of human reason, cannot with propriety be ranked among the principles from which any of our scientific conclusions are deduced.

Corresponding to the extension which some late writers have given to *axioms*, is that of the province which they have assigned to *intuition*; a term which has been applied, by Dr Beattie and others, not only to the power by which we perceive the truth of the axioms of geometry, but to that by which we recognize the authority of the fundamental laws of belief, when we hear them enunciated in language. My only objection to this use of the word is, that it is a departure from common practice; according to which, if I be not mistaken, the proper objects of intuition are propositions analogous to the axioms prefixed to Euclid's Elements. In some other respects, this innovation might perhaps be regarded as an improvement on the very limited and imperfect vocabulary of which we are able to avail ourselves in our present discussions *.

* According to Locke, we have the knowledge of our own existence by *intuition*; of the existence of God by *demonstration*; and of other things by *sensation*. Book iv. Chap. 9. § 2.

This use of the word *intuition* seems to be somewhat arbitrary. The reality of our own existence is a truth which bears as little analogy to the axioms of mathematics, as any other primary truth whatever. If the province of *intuition*, therefore, be extended as far as it has been carried by Locke in the foregoing sentence, it will not be easy to give a good reason why it should not be enlarged a little farther. The words *intuition* and *demonstration*, it must not be forgotten, have, both of them, an etymological reference to the sense of seeing; and when we wish to express, in the strongest terms, the most complete

To the class of truths which I have here called *laws of belief*, or *elements of reason*, the title of *principles of common sense* was long ago given by Father Buffier, whose language and doctrine concerning them bears a very striking resemblance to those of some of our later Scotish logicians. This, at least, strikes me as the meaning which these writers *in general* annex to the phrase; although all of them have frequently employed it with a far greater degree of latitude. When thus limited in its acceptation, it is obviously liable, in point of scientific accuracy, to two very strong objections, both of which have been already sufficiently illustrated. The first is, that it applies the appellation of *principles* to laws of belief from which no inference can be deduced; the second, that it refers the origin of these laws to common sense *.—Nor is this phraseology more agreeable to popular use than to logical precision. If we were to suppose an individual, whose conduct betrayed a disbelief of his own existence, or of his own identity, or of the reality of surrounding objects, it would by no means amount to an adequate description of his condition to say, that he was destitute of *common sense*. We should at once pronounce him to be destitute of *reason*, and would no longer consider him as a fit subject of discipline or of punishment. The former expression, indeed, would only imply that he was apt to fall into absurdi-

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evidence which can be set before the mind, we compare it to the light of noon-day;—in other words, we compare it to what Mr Locke here attempts to degrade, by calling it *the evidence of sensation*.

* See the preceding part of this section, with respect to the word *principle*; and the Account of Reid's Life, for some remarks on the proper meaning of the phrase *common sense*.

ties and improprieties in the common concerns of life. To denominate, therefore, such laws of belief as we have now been considering, *constituent elements of human reason*, while it seems quite unexceptionable in point of technical distinctness, cannot be justly censured as the slightest deviation from our habitual forms of speech. On the same grounds, it may be fairly questioned, whether the word *reason* would not, on some occasions, be the best substitute which our language affords for *intuition*, in that enlarged acceptation which has been given to it of late. If not quite so definite and precise as might be wished, it would be at least employed in one of those significations in which it is already familiar to every ear; whereas the meaning of *intuition*, when used for the same purpose, is stretched very far beyond its ordinary limits. And in cases of this sort, where we have to choose between two terms, neither of which is altogether unexceptionable, it will be found much safer to trust to the context for restricting, in the reader's mind, what is too general, than for enlarging what use has accustomed us to interpret in a sense too narrow.

I must add, too, in opposition to the high authorities of Dr Johnson and Dr Beattie *, that, for many years past, *reason*

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* Dr Johnson's definition of Reason was before quoted. The following is that given by Dr Beattie:

"Reason is used by those who are most accurate in distinguishing, to signify that "power of the human mind by which we draw inferences, or by which we are convinced, "that a relation belongs to two ideas, on account of our having found that these ideas "bear certain relations to other ideas. In a word, it is that faculty which enables us, "from relations or ideas that are known, to investigate such as are unknown, and with-

has been very seldom used by philosophical writers, or indeed by correct writers of any description, as synonymous with the power of reasoning. *To appeal to the light of human reason from the reasonings of the schools*, is surely an expression to which no good objection can be made, on the score either of vagueness or of novelty. Nor has the etymological affinity between these two words the slightest tendency to throw any obscurity on the foregoing expression. On the contrary, this affinity may be of use in some of our future arguments, by keeping constantly in view the close and inseparable connection which will be afterwards shown to exist between the two different intellectual operations which are thus brought into immediate contrast.

The remarks which I have stated in the two preceding sections, comprehend every thing of essential importance which I have to offer on this article of logic. But the space which it has occupied for nearly half a century, in some of the most noted philosophical works which have appeared in Scotland, lays me under the necessity, before entering on a new topic, of introducing, in this place, a few critical strictures on the doctrines of my predecessors.

" out which we never could proceed in the discovery of truth a single step beyond first " principles or intuitive axioms."—*Essay on Truth*, Part I. Chap. i.

Section III.

Continuation of the Subject.—Critical Remarks on some late Controversies to which it has given rise.—Of the Appeals which Dr Reid and some other Modern Writers have made, in their Philosophical Discussions, to Common Sense, as a Criterion of Truth.

I observed, in a former part of this work, that Dr Reid acknowledges the Berkeleian system to be a logical consequence of the opinions universally admitted by the learned at the time when Berkeley wrote. In the earlier part of his own life, accordingly, he informs us, that he was actually a convert to the scheme of immaterialism; a scheme which he probably considered as of a perfectly inoffensive tendency, as long as he conceived the existence of the material world to be the only point in dispute. Finding, however, from Mr Hume's writings, that, along with this paradox, the ideal theory necessarily involved various other consequences of a very different nature, he was led to a careful examination of the data on which it rested; when he had the satisfaction to discover that its only foundation was a *hypothesis*, unsupported by any evidence whatever but the authority of the schools *.

* It was not, therefore, (as has very generally been imagined by the followers of Berkeley) from any apprehension of danger in his argument against the existence of *matter*, that Reid was induced to call in question the ideal theory; but because he

From this important concession of a most impartial and competent judge, it may be assumed as a fact, that, till the refutation of the ideal theory in his own "Inquiry into the "Human Mind," the partizans of Berkeley's system remained complete masters of the controversial field; and yet, during the long period which intervened, it is well known how little impression that system made on the belief of our soundest philosophers. Many answers to it were attempted, in the meantime, by various authors, both in this country and on the Continent; and by one or other of these, the generality of the learned professed themselves to be convinced of its futility;—the evidence of the conclusion (as in many other cases) supporting the premises, and not the premises the conclusion *. A very curious anecdote, in illustration of

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thought that Mr Hume had clearly shown, by turning Berkeley's weapons against himself, that this theory was equally subversive of the existence of *mind*. The ultimate object of Berkeley and of Reid was precisely the same; the one asserting the existence of matter from the very same motive which led the other to deny it.

When I speak of Reid's *asserting the existence of matter*, I do not allude to any new proofs which he has produced of the fact. This he rests on the evidence of sense, as he rests the existence of the mind on the evidence of consciousness. All that he professes to have done is, to show the inconclusiveness of Berkeley's argument against the former, and that of Hume against the latter, by refuting the ideal hypothesis which is the common foundation of both.

* The impotent, though ingenious attempt of Berkeley (not many years after the date of his metaphysical publications) to shake the foundations of the newly-invented method of Fluxions, created, in the public mind, a strong prejudice against him, as a sophistical and paradoxical disputant; and operated as a more powerful antidote to the scheme of immaterialism, than all the reasonings which his contemporaries were able to oppose to it. This unfavourable impression was afterwards not a little confirmed, by the ridicule which he incurred in consequence of his pamphlet on the Virtues of Tar-water;

this, is mentioned in the life of Dr Berkeley. After the publication of his book, it appears that he had an interview with Dr Clarke; in the course of which, Clarke (it is said) discovered a manifest unwillingness to enter into the discussion, and was accused by Berkeley of a want of candour*. —The story (which, if I recollect right, rests on the authority of Whiston) has every appearance of authenticity; for as Clarke, in common with his antagonist, regarded the principles of the ideal theory as incontrovertible, it was perfectly impossible for him, with all his acuteness, to detect the flaw to which Berkeley's paradox owed its plausibility. In such circumstances, would it have been unphilosophical in Clarke to have defended himself, by saying: "Your conclusion not only contradicts those perceptions of my senses, the evidence of which I feel to be irresistible; but, by annihilating space itself as an external existence, bids defiance to a conviction inseparable from the human understanding; and, therefore, although I cannot point out the precise oversight which has led you astray, there *must* necessarily be some error, either in your original *data*, or in your subsequent reasoning." Or, supposing Clarke to have perceived, as clearly as Reid, that Berkeley's

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a performance, however, of which it is but justice to add, that it contains a great deal more, both of sound philosophy and of choice learning, than could have been expected from the subject.

* Philosophical Essays, Note E.

That Clarke would look upon the Berkeleian theory with more than common feelings of suspicion and alarm, may be easily conceived, when it is recollected that, by denying the independent existence both of *space* and of *time*, it put an end at once to his celebrated argument *a priori*, for the existence of God.

reasoning was perfectly unexceptionable, might he not have added;—"The conclusion which it involves is a demonstration in "the form of a *reductio ad absurdum*, of the unsoundness of "the ideal theory, on which the whole of your argument is "built*?"

I am far from supposing that Berkeley would have admitted this consideration as decisive of the point in dispute. On the contrary, it appears from his writings, that the scheme of immaterialism was, in his opinion, more agreeable to popular belief, than the received theories of philosophers concerning the independent existence of the external world; nay, that he considered it as one of the many advantages likely to result from the universal adoption of his system, that

* I acknowledge, very readily, that the force of this indirect mode of reasoning is essentially different in mathematics, from what it is in the other branches of knowledge; for the object of mathematics (as will afterwards more fully appear) not being *truth*, but systematical connection and consistency, whenever two contradictory propositions occur, embracing evidently the only possible suppositions on the point in question, if the one can be shown to be incompatible with the definitions or hypotheses on which the science is founded, this may be regarded as perfectly equivalent to a direct proof of the legitimacy of the opposite conclusion. In the other sciences, the force of a *reductio ad absurdum* depends entirely on the maxim, "That truth is always consistent "with itself;" a maxim which, however certain, rests evidently on grounds of a more abstract and metaphysical nature than the indirect demonstrations of geometry. It is a maxim, at the same time, to which the most sceptical writers have not been able to refuse their testimony. "Truth (says Mr Hume himself) *is one thing*, but errors are "numberless, and every man has a different one."

The *unity*, or systematical consistency of truth, is a subject which well deserves to be farther prosecuted. It involves many important consequences, of which Mr Hume does not, from the general spirit of his philosophy, seem to have been sufficiently aware.

"men would thereby be reduced from paradoxes to *common* "*sense.*"

The question, however, if not decided by this discussion, would at least have been brought to a short and simple issue; for the paramount authority of the common sense or common reason of mankind being equally recognized by both parties, all that remained for their examination was,—whether the belief of the existence, or that of the non-existence of matter, was sanctioned by this supreme tribunal? For ascertaining this point, nothing more was necessary than an accurate analysis of the meaning annexed to the word *existence*: which analysis would have at once shown, not only that we are irresistibly led to ascribe to the material world all the independent reality which this word expresses, but that it is from the material world that our first and most satisfactory notions of *existence* are drawn. The mathematical affections of matter (extension and figure) to which the constitution of the mind imperiously forces us to ascribe an existence, not only independent of our perceptions, but necessary and eternal, might more particularly have been pressed upon Berkeley, as proofs how incompatible his notions were with those laws of belief, to which the learned and the unlearned must in common submit *.

But farther (in order to prevent any cavil about the foregoing illustration), we shall suppose that Clarke had anticipated Hume in perceiving that the ideal theory went to the anni-

* See Note (B).

hilation of *mind* as well as of *matter*; and that he had succeeded in proving, to the satisfaction of Berkeley, that nothing existed in the universe but impressions and ideas. Is it possible to imagine that Berkeley would not immediately have seen and acknowledged, that a theory which led to a conclusion directly contradicted by the evidence of consciousness, ought not, out of respect to ancient authority, to be rashly admitted; and that, in the present instance, it was much more philosophical to argue from the conclusion against the hypothesis, than to argue from the hypothesis in proof of the conclusion? No middle course, it is evident, was left him between such an acknowledgement, and an unqualified acquiescence in those very doctrines which it was the great aim of his system to tear up by the roots.

The two chief objections which I have heard urged against this mode of defence, are not perfectly consistent with each other. The one represents it as a presumptuous and dangerous innovation in the established rules of philosophical controversy, calculated to stifle entirely a spirit of liberal inquiry; while the other charges its authors with all the meanness and guilt of literary plagiarism. I shall offer a few slight remarks upon each of these accusations.

1. That the doctrine in question is not a new one, nor even the language in which it has been recently stated an innovation in the received phraseology of logical science, has been shown by Dr Reid, in a collection of very interesting quotations, which may be found in different parts of his Essays on the

Intellectual Powers of Man, more particularly in the second chapter of the sixth essay. Nor has this doctrine been generally rejected even by those writers who, in their theories, have departed the farthest from the ordinary opinions of the world. Berkeley has sanctioned it in the most explicit manner, in a passage already quoted from his works, in which he not only attempts the extraordinary task of reconciling the scheme of immaterialism with the common sense of mankind, but alleges the very circumstance of its conformity to the unsophisticated judgment of the human race, as a strong argument in its favour, when contrasted with the paradoxical doctrine of the independent existence of matter. The ablest advocates, too, for the necessity of human actions, have held a similar language; exerting their ingenuity to show, that there is nothing in this tenet which does not perfectly accord with our internal consciousness, when our supposed feelings of liberty, with all their concomitant circumstances, are accurately analyzed, and duly weighed *. In this respect, Mr Hume forms almost a solitary exception, avowing, with the greatest frankness, the complete repugnance between his philosophy and the laws of belief to which all men are subjected by the constitution of

* This, I own, appears to me the only argument for the scheme of necessity, which deserves a moment's consideration, in the present state of the controversy: and it is certainly possible to state it in such a form as to give it some degree of plausibility to a superficial inquirer. On this point, however, as on many others, our *first* and *third* thoughts will be found perfectly to coincide; a more careful and profound examination of the question infallibly bringing back to their natural impressions, those who reflect on the subject with candour and with due attention. Having alluded to so very important a controversy, I could not help throwing out this hint here. The farther prosecution of it would be altogether foreign to my present purpose.

their nature. "I dine; I play a game at backgammon; I "converse, and am happy with my friends; and when, after "three or four hours of amusement, I would return to these "speculations, they appear so cold, so strained, and so ridi- "culous, that I cannot find in my heart to enter into them any "further. Here, then, I find myself absolutely and necessa- "rily determined to live, and talk, and act, like other people, "in the common affairs of life *."

Even Mr Hume himself, however, seems at times to forget his sceptical theories, and sanctions, by his own authority, not only the same logical maxims, but the same mode of expressing them, which has been so severely censured in some of his opponents. "Those (he observes) who have refused the rea- "lity of moral distinctions, may be ranked among the disin- "genuous disputants. The only way of converting an anta- "gonist of this kind, is, to leave him to himself; for, finding "that nobody keeps up the controversy with him, 'tis probable "he will at last, of himself, from mere weariness, come over to "the side of *common sense* and reason †."

To the authorities which have been already produced by Reid and his successors, in vindication of that mode of arguing which is now under our review, I shall beg leave to add another, which, as far as I know, has not yet been remarked by any of them; and which, while it effectually removes from it the imputation of novelty, states, in clear and forcible terms,

* Treatise of Human Nature, Vol. I. p. 467.

† Inquiry concerning the Principles of Morals.

the grounds of that respect to which it is entitled, even in those cases where it is opposed by logical subtleties which seem to baffle all our powers of reasoning.

"What is it (said some of the ancient sophists) which consti-
"tutes what we call little, much, long, broad, small, or great?
"Do three grains of corn make a heap? The answer must
"be—No. Do four grains make a heap? You must make
"the same answer as before.—They continued their interroga-
"tions from one grain to another, without end; and if you
"should happen at last to answer, *here is a heap*, they pre-
"tended your answer was absurd, inasmuch as it supposed,
"that one single grain makes the difference between what is
"a heap, and what is not. I might prove, by the same method,
"that a great drinker is never drunk. Will one drop of wine
"fuddle him?—No. Two drops, then? By no means; nei-
"ther three nor four. I might thus continue my interroga-
"tions from one drop to another; and if, at the end of the
"999th drop, you answered he is not fuddled, and at the
"1000th he is, I should be entitled to infer, that one single
"drop of wine makes the difference between being drunk and
"being sober; which is absurd. If the interrogations went
"on from bottle to bottle, you could easily mark the diffe-
"rence in question. But he who attacks you with a *sorites*,
"is at liberty to choose his own weapons; and, by making
"use of the smallest conceivable increments, renders it im-
"possible for you to name a precise point which fixes a sensi-
"ble limit between being drunk and being sober; between
"what is little and what is great; between what is enough and

" what is too much. A man of the world would laugh at " these sophistical quibbles, and would *appeal to common sense*; " to that degree of knowledge which, in common life, is suffi- " cient to enable us to establish such distinctions. But to this " tribunal a professed dialectician was not permitted to resort; " he was obliged to answer in form; and if unable to find " a solution according to the rules of art, his defeat was un- " avoidable. Even at this day, an Irish Tutor*, who should " harass a Professor of Salamanca with similar subtleties, and " should receive no other answer but this,—*common sense, and* " *the general consent of mankind, sufficiently show that your infe-* " *rences are false*,—would gain the victory; his antagonist hav- " ing declined to defend himself with those logical weapons " with which the assault had been made."

Had the foregoing passage been read to the late Dr Priestley, while he was employed in combating the writings of Reid Oswald, and Beattie, he would, I apprehend, without hesitation, have supposed it to be the production of one of their dis-

* It is remarkable of this ingenious, eloquent, and gallant nation, that it has been for ages distinguished, in the universities on the Continent, for its proficiency in the school logic. *Le Sage* (who seems to have had a very just idea of the value of this accomplishment) alludes to this feature in the Irish character, in the account given by Gil Blas of his studies at Oviedo. " Je m'appliquai aussi à la logique, *qui m'apprit à* " *raisonner beaucoup*. J'aimois tant la dispute, que j'arrêtois les passans, connus ou in- " connus, pour leur proposer des argumens. Je m'addressois quelquefois à des FIGURES " HIBERNOISES, qui ne demandoient pas mieux, et il falloit alors nous voir disputer. " Quels gestes, quelles grimaces, quelles contorsions! nos yeux etoient pleins de fureur, " et nos bouches écumantes. On nous devoit plutot prendre pour des possédés que " pour des philosophes."

ciples. The fact is, it is a translation from Mr Bayle, an author who was never accused of an undue deference for established opinions, and who was himself undoubtedly one of the most subtile disputants of modern times*.

From this quotation it clearly appears, not only that the *substance* of the doctrine maintained by these philosophers is of a much earlier date than their writings; but that, in adopting the phrase *common sense*, to express that standard or criterion of truth to which they appealed, they did not depart from the language previously in use among the least dogmatical of their predecessors.

In the passage just quoted from Bayle, that passion for disputation which, in modern Europe, has so often subjected the plainest truths to the tribunal of metaphysical discussion, is, with great justness, traced to the unlimited influence which the school logic maintained for so many ages over the understandings of the learned. And although, since the period when Bayle wrote, this influence has everywhere most remarkably declined, it has yet left traces behind it, in the habits of thinking and judging prevalent among speculative men, which are but too discernible in all the branches of science connected with the philosophy of the mind. In illustration of this remark, it would be easy to produce a copious list of examples from the

* See Bayle's Dictionary, article *Chrysippe*. I have availed myself, in the above translation (with a few retrenchments and corrections), of that which is given in the English Biographical and Critical Dictionary.

literary history of the eighteenth century; but the farther prosecution of the subject here would lead me aside from the conclusions which I have at present in view. I shall therefore content myself with opposing, to the contentious and sceptical spirit bequeathed by the schoolmen to their successors, the following wise and cautious maxims of their master,—maxims which, while they illustrate his anxiety to guard the principles of the demonstrative sciences against the captiousness of sophists, evince the respect which he conceived to be due by the philosopher to the universal reason of the human race.

"Those things are to be regarded as *first truths*, the credit "of which is not derived from other truths, but is inherent in "themselves. As for *probable* truths, they are such as are ad- "mitted by *all* men, or by the *generality* of men, or by *wise* "men; and, among these last, either by all the wise, or by the "generality of the wise, or by such of the wise as are of the "highest authority *."

The argument from Universal Consent, on which so much stress is laid by many of the ancients, is the same doctrine with the foregoing, under a form somewhat different. It is stated with great simplicity and force by a Platonic philosopher, in the following sentences:

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* Εστι δε αληθη μεν και πρωτα, τα μη δι' ετερων, αλλα δι' αυτων εχοντα την πιστιν. Ενδοξα δε, τα δοκουντα πασιν, η τοις πλειστοις, η τοις σοφοις και τουτοις, η τοις πασιν, η τοις πλειστοις, τοις μαλιστα γνωριμοις, και ενδοξοις.—*Aristot. Top.* Lib. I. cap. i. (Vol. I. p. 180, ed. Du Val.)

"In such a contest, and tumult, and disagreement, (about "other matters of opinion) you may see this one law and lan- "guage acknowledged by common accord.——This the Greek "says, and this the barbarian says; and the inhabitant of the "continent, and the islander; and the wise, and the unwise†."

It cannot be denied, that against this summary species of logic, when employed without any collateral lights, as an infallible touchstone of philosophical truth, a strong objection immediately occurs. By what test (it may be asked) is a principle of common sense to be distinguished from one of those prejudices to which the whole human race are irresistibly led, in the first instance, by the very constitution of their nature? If no test or criterion of truth can be pointed out but universal consent, may not all those errors which Bacon has called *idola tribus*, claim a right to admission among the incontrovertible axioms of science? And might not the popular cavils against the supposition of the earth's motion, which so long obstructed the progress of the Copernican system, have been legitimately opposed, as a reply of paramount authority, to all the scientific reasonings by which it was supported?

It is much to be wished that this objection, of which Dr

† Εν τοσουτω δε πολεμω και στασει και διαφωνια ενα ιδοις αν εν πασι γη ομοφωνον νομον και λογον, &c. Ταυτα δε ὁ Ἑλλην λεγει, και ὁ Βαρβαρος λεγει, και ὁ ηπειρωτης, και ὁ θαλαττιος, και ὁ σοφος, και ὁ ασοφος.—*Max. Tyr.* (speaking of the existence of the Deity,) Dis. I.

"Una in re consensio omnium gentium lex naturæ putanda est."—*Cic.* 1. Tusc.

"Multum dare solemus præsumptioni omnium hominum: Apud nos veritatis argu- "mentum est, aliquid omnibus videri," &c. &c.—*Sen.* Ep. 117.

Reid could not fail to be fully aware, had been more particularly examined and discussed in some of his publications, than he seems to have thought necessary. From different parts of his works, however, various important hints towards a satisfactory answer to it might be easily collected *. At present, I shall only remark, that although *universality of belief* is one of the tests by which (according to him) a principle of common sense is characterized, it is not the only test which he represents as essential. Long before his time, Father Buffier, in his excellent treatise on First Truths, had laid great stress on two other circumstances, as *criteria* to be attended to on such occasions; and although I do not recollect any passage in Reid where they are so explicitly stated, yet the general spirit of his reasonings plainly shows, that he had them constantly in view in all the practical applications of his doctrine. The *first* criterion mentioned by Buffier is, "That the truths assumed as maxims "of common sense should be such, that it is impossible for "any disputant either to defend or to attack them, but by "means of propositions which are neither more manifest nor "more certain than the propositions in question." The *second* criterion is, "That their practical influence should extend even "to those individuals who affect to dispute their authority."

To these remarks of Buffier, it may not be altogether superfluous to add, that, wherever a prejudice is found to obtain universally among mankind in any stage of society, this prejudice must have some foundation in the general principles of

* See, in particular, Essays on the Int. Powers, p. 565, et seq. 4to. edit.

our nature, and must proceed upon some *truth* or fact inaccurately apprehended, or erroneously applied. The suspense of judgment, therefore, which is proper with respect to particular opinions, till they be once fairly examined, can never justify scepticism with respect to the general laws of the human mind. Our belief of the sun's motion is not a conclusion to which we are necessarily led by any such law, but an inference rashly drawn from the perceptions of sense, which do not warrant such an inference. All that we see is, that a relative change of position between us and the sun takes place; and this fact, which is made known to us by our senses, no subsequent discovery of philosophy pretends to disprove. It is not, therefore, the evidence of perception which is overturned by the Copernican system, but a *judgment* or inference of the understanding, of the rashness of which every person must be fully sensible, the moment he is made to reflect with due attention on the circumstances of the case; and the doctrine which this system substitutes instead of our first crude apprehensions on the subject, is founded, not on any process of reasoning *a priori*, but on the demonstrable inconsistency of these apprehensions with the various phenomena which our perceptions present to us. Had Copernicus not only asserted the stability of the Sun, but, with some of the Sophists of old, denied that any such thing as *motion* exists in the universe, his theory would have been precisely analogous to that of the non-existence of matter; and no answer to it could have been thought of more pertinent and philosophical, than that which Plato is said to have given to the same paradox in the mouth of Zeno, by rising up and walking before his eyes.

2. If the foregoing observations be just, they not only illustrate the coincidence between Dr Reid's general argument against those metaphysical paradoxes which revolt common sense, and the maxims of philosophical discussion previously sanctioned by our soundest reasoners; but they go far, at the same time, to refute that charge of plagiarism in which he has been involved, in common with two other Scotish writers, who have made their stand in opposition to Berkeley and Hume, nearly on the same ground. This charge has been stated in all its force, in the preface to an English translation of Buffier's Premières Vérités, printed at London in the year 1780; and it cannot be denied, that some of the proofs alleged in its support are not without plausibility. But why suppose Reid to have borrowed from this learned Jesuit, a mode of arguing which has been familiar to men in all ages of the world; and to which, long before the publication of Buffier's excellent book, the very same phraseology had been applied by numberless other authors. On this point, the passage already quoted from Bayle is of itself decisive. The truth is, it is a mode of arguing likely to occur to every sincere and enlightened inquirer, when bewildered by sceptical sophistry; and which, during the long interval between the publication of the Berkeleian theory, and that of Reid's Inquiry, was the only tenable post on which the conclusions of the former could be combated. After the length to which the logical consequences of the same principles were subsequently pushed in the *Treatise of Human Nature*, this must have appeared completely manifest to all who were aware of the irresistible force of the argument, as it is there stated; and, in fact, this very ground was taken

as early as the year 1751, in a private correspondence with Mr Hume, by an intimate friend of his own, for whose judgment, both on philosophical and literary subjects, he seems to have felt a peculiar deference *. I mention this, as a proof that the doctrine in question was the natural result of the state of science at the period when Reid appeared; and, consequently, that no argument against his originality in adopting it, can reasonably be founded on its coincidence with the views of any preceding author.

A still more satisfactory reply to the charge of plagiarism may be derived from this consideration, that, in Buffier's Treatise, the doctrine which has furnished the chief ground of accusation is stated with far greater precision and distinctness than in Dr Reid's *first* publication on the Human Mind; and that, in his subsequent performances, *after* he had perused the writings of Buffier, his phraseology became considerably more guarded and consistent than before.

If this observation be admitted in the case of Dr Reid, it will be found to apply with still greater force to Dr Beattie, whose language, in various parts of his book, is so loose and unsettled, as to afford demonstrative proof that it was not from Buffier he derived the idea of his general argument. In confirmation of this, I shall only mention the first chapter of the first part of his Essay, in which he attempts to draw the line between common sense and reason; evidently confounding

* See Note (C.)

(as many other authors of high reputation have done) the two very different words, *reason* and *reasoning*. His account of *common sense*, in the following passage, is liable to censure in almost every line: "The term *common sense* hath, in mo-"dern times, been used by philosophers, both French and "British, to signify that power of the mind which perceives "truth, or commands belief, not by progressive argumenta-"tion, but by an instantaneous, instinctive, and irresistible "impulse; derived neither from education nor from habit, "but from nature; acting independently on our will, when-"ever its object is presented, according to an established law, "and *therefore properly called* SENSE *, and acting in a similar

* The doctrine of the schoolmen (revived in later times under a form somewhat modified by Locke), which refers to *sensation* the origin of all our ideas, has given rise to a very unwarrantable extension of the word *sense*, in the writings of modern philosophers. When it was first asserted, that "there is nothing in the intellect which does "not come to it through the medium of sense," there cannot be a doubt that, by this last term, were understood exclusively our powers of *external* perception. In process of time, however, it came to be discovered, that there are many ideas which cannot possibly be traced to this source; and which, of consequence, afford undeniable proof that the scholastic account of the origin of our ideas is extremely imperfect. Such was certainly the logical inference to which these discoveries should have led; but, instead of adopting it, philosophers have, from the first, shown a disposition to save, as much as possible, the credit of the maxims in which they had been educated, by giving to the word *sense* so great a latitude of meaning, as to comprehend all the various sources of our simple ideas, whatever these sources may be. "All the *ideas* (says Dr Hutche-"son) or the materials of our reasoning and judging, are received by some immediate "powers of perception, internal or external, which we may call *senses*." Under the title of *internal senses*, accordingly, many writers, particularly of the medical profession, continue to this day to comprehend memory and imagination, and other faculties, both intellectual and active.—(Vid. *Haller, Element. Physiologiæ*, Lib. xvii.) Hence also the phrases *moral sense*, *the senses of beauty and harmony*, and many of the other pe-

"manner upon all, or at least upon a great majority of mankind, and therefore properly called COMMON SENSE*."

"Reason," on the other hand, (we are told by the same autor) "is used by those who are most accurate in distinguishing, to signify that power of the human mind by which we draw inferences, or by which we are convinced that a relation belongs to two ideas, on account of our having found that these ideas bear certain relations to other ideas. In a word, it is that faculty which enables us, from relations or ideas that are known to investigate such as are unknown; and without which we never could proceed in the discovery of truth a single step beyond first principles or intuitive axioms†." "It is in this last sense (he adds) that we are to use the word "*reason* in the course of this inquiry."

These two passages are severely, and, I think, justly animadverted on, in the preface to the English translation of Buffier's book, where they are contrasted with the definition of *common sense* given by that profound and original philosopher. From this definition it appears, that, far from opposing com-

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culiarities of Dr Hutcheson's language; a mode of speaking which was afterwards carried to a much more blameable excess by Lord Kaimes. Dr Beattie, in the passage quoted above, has indirectly given his sanction to the same abuse of words; plainly supposing the phrase, *common sense*, not only to mean something quite distinct from reason, but something which bears so close an analogy to the powers of external sense, as to be not improperly called by the same name.

* Essay on Truth, p. 40. 2d edit.

† Essay on Truth, pp. 36, 37, 2d edit.

mon sense and reason to each other, he considers them either as the same faculty, or as faculties necessarily and inseparably connected together. "It is a faculty (he says) which appears "in all men, or at least in the far greater number of them, "when they have arrived at the age of reason, enabling them "to form a common and uniform judgment, on subjects essen- "tially connected with the ordinary concerns of life."

That this contrast turns out greatly to the advantage of Buffier *, must, I think, be granted to his very acute and intelli-

* It is remarkable how little attention the writings of Buffier have attracted in his own country, and how very inadequate to his real eminence has been the rank commonly assigned to him among French philosophers. This has perhaps been partly owing to an unfortunate combination which he thought proper to make of a variety of miscellaneous treatises, of very unequal merit, into a large work, to which he gave the name of a *Course of the Sciences*. Some of these treatises, however, are of great value; particularly that on *First Truths*, which contains (along with some erroneous notions, easily to be accounted for by the period when the author wrote, and the religious society with which he was connected,) many original and important views concerning the foundations of human knowledge, and the first principles of a rational logic. Voltaire, in his catalogue of the illustrious writers who adorned the reign of Louis XIV. is one of the very few French authors who have spoken of Buffier with due respect. "Il y a dans "ses traités de métaphysique des morceaux que Locke n'aurait pas désavoués, et c'est "le seul jésuite qui ait mis une philosophie raisonnable dans ses ouvrages." Another French philosopher, too, of a very different school, and certainly not disposed to overrate the talents of Buffier, has, in a work published as lately as 1805, candidly acknowledged the lights which he might have derived from the labours of his predecessor, if he had been acquainted with them at an earlier part of his studies. Condillac, he also observes, might have profited greatly by the same lights, if he had availed himself of their guidance in his inquiries concerning the human understanding. "Du moins est "il certain, que pour ma part, je suis fort fâché de ne connoître que depuis très-peu de "temps ces opinions du Père Buffier; si je les avais vues plutôt énoncées quelque part,

gent translator. But while I make this concession in favour of his statement, I must be allowed to add, that, in the same proportion in which Dr Beattie falls short of the clearness and logical accuracy of his predecessor, he ought to stand acquitted, in the opinion of all men of candour, of every suspicion of a dishonourable plagiarism from his writings.

It is the doctrine itself, however, and not the comparative merits of its various abettors, that is likely to interest the generality of philosophical students; and as I have always thought that this has suffered considerably in the public estimation, in consequence of the statement of it given in the passage just quoted from the Essay on Truth, I shall avail myself of the present opportunity to remark, how widely that statement differs from the language, not only of Buffier, but of the author's contemporary and friend, Dr Reid. This circumstance I think it necessary to mention, as it seems to have been through the medium of Dr Beattie's Essay, that most English writers have derived their imperfect information concerning Reid's philosophy.

"There is a certain degree of *sense* (says this last author, in "his Essays on the Intellectual Powers of Man,) which is ne- "cessary to our being subjects of law and government, capa-

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"elles m'auraient épargné beaucoup de peines et d'hésitations."——"Je regrette beau- "coup que Condillac, dans ses profondes et sagaces méditations sur l'intelligence hu- "maine, n'ait pas fait plus d'attention aux idées du Père Buffier," &c. &c.—*Elemens d'Idéologie, par M. Destutt-Tracy*, Tom. III. pp. 136, 137.

"ble of managing our own affairs, and answerable for our "conduct to others. This is called *common sense*, because "it is common to all men with whom we can transact busi- "ness."

"The same degree of understanding (he afterwards observes) "which makes a man capable of acting with common pru- "dence in life, makes him capable of discerning what is true "and what is false, in matters that are self-evident, and which "he distinctly apprehends." In a subsequent paragraph, he gives his sanction to a passage from Dr Bentley, in which *common sense* is expressly used as synonymous with *natural light and reason* *.

It is to be regretted, as a circumstance unfavourable to the reception of Dr Beattie's valuable essay among accurate rea-

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* Pages 522, 524, 4to edit. In the following verses of Prior, the word *reason* is employed in an acceptation exactly coincident with the idea which is, *on most occasions*, annexed by Dr Reid to the phrase *common sense*:

"Note here, Lucretius dares to teach
"(As all our youth may learn from CREECH,)
"That eyes were made, but could not view,
"Nor hands embrace, nor feet pursue,
"But heedless Nature did produce
"The members first, and then the use;
"What each must act was yet unknown,
"Till all was moved by Chance alone.
. . . . . .
. . . . . .
"Blest for his sake be HUMAN REASON,
"Which came at last, tho' late, in season."——*Alma*, Canto I.

soners, that, in the outset of his discussions, he did not confine himself to some such general explanation of this phrase as is given in the foregoing extracts from Buffier and Reid, without affecting a tone of logical precision in his definitions and distinctions, which, so far from being necessary to his intended argument, were evidently out of place, in a work designed as a popular antidote against the illusions of metaphysical scepticism. The very idea, indeed, of appealing to *common sense*, virtually implies that these words are to be understood in their ordinary acceptation, unrestricted and unmodified by any technical refinements and comments. This part of his essay, accordingly, which is by far the most vulnerable part of it, has been attacked with advantage, not only by the translator of Buffier, but by Sir James Steuart, in a very acute letter published in the last edition of his works*.

While I thus endeavour, however, to distinguish Dr Reid's definition of *common sense* from that of Dr Beattie, I am far from considering even the language of the former on this subject, as in every instance unexceptionable; nor do I think it has been a fortunate circumstance (notwithstanding the very high authorities which may be quoted in his vindication), that he attempted to incorporate so vague and ambiguous a phrase with the appropriate terms of logic. My chief reasons for this opinion I have stated at some length, in

* To the honour of Dr Beattie it must be remarked, that his reply to this letter, (which may be found in Sir James Steuart's works) is written in a strain of forbearance and of good humour, which few authors would have been able to maintain, after being handled so roughly.

an account published a few years ago of Dr Reid's Life and Writings*.

One very unlucky consequence has unquestionably resulted from the coincidence of so many writers connected with this northern part of the island, in adopting, about the same period, the same phrase, as a sort of philosophical watch-word;—that, although their views differ widely in various respects, they have in general been classed together as partizans of a new sect, and as mutually responsible for the doctrines of each other. It is easy to perceive the use likely to be made of this accident by an uncandid antagonist.

All of these writers have, in my opinion, been occasionally

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* In consequence of the ambiguous meaning of this phrase, Dr Reid sometimes falls into a sort of play on words, which I have often regretted. "If this be philosophy "(says he, on one occasion) I renounce her guidance. Let my soul dwell with *common* "*sense*." (*Inquiry into the Human Mind*, Chap. i. Sect. 3. See also Sect. 4. of the same chapter.) And in another passage, after quoting the noted saying of Hobbes, that "when reason is against a man, a man will be against reason;" he adds: "This is equally applicable to *common sense*." (*Essays on the Intellectual Powers*, p. 530, 4to edition.) In both of these instances, and indeed in the general strain of argument which runs through his works, he understands *common sense* in its ordinary acceptation, as synonymous, or very nearly synonymous, with the word *reason*, as it is now most frequently employed. In a few cases, however, he seems to have annexed to the same phrase a technical meaning of his own, and has even spoken of this meaning as a thing not generally understood. Thus, after illustrating the different classes of *natural signs*, he adds the following sentence: "It may be observed, that "as the first class of natural signs I have mentioned is the foundation of true philoso- "phy, and the second of the fine arts or of taste, so the last is the foundation of *com-* "*mon sense; a part of human nature which hath never been explained.*"—*Inquiry*, Chap. v. sect. 3.

See Note (D).

misled in their speculations, by a want of attention to the distinction between first principles, properly so called, and the fundamental laws of human belief. Buffier himself has fallen into the same error; nor do I know of any one logician, from the time of Aristotle downwards, who has entirely avoided it.

The foregoing critical remarks will, I hope, have their use in keeping this distinction more steadily in the view of future inquirers; and in preventing some of the readers of the publications to which they relate, from conceiving a prejudice, in consequence of the looseness of that phraseology which has been accidentally adopted by their authors, against the just and important conclusions which they contain.

CHAPTER SECOND.

OF REASONING AND OF DEDUCTIVE EVIDENCE.

SECTION I.

Doubts with respect to Locke's Distinction between the Powers of Intuition and of Reasoning.

ALTHOUGH, in treating of this branch of the Philosophy of the Mind, I have followed the example of preceding writers, so far as to speak of intuition and reasoning as two different faculties of the understanding, I am by no means satisfied that there exists between them that radical distinction which is commonly apprehended. Dr Beattie, in his Essay on Truth, has attempted to show, that, how closely soever they may in general be connected, yet that this connection is not necessary; insomuch, that a being may be conceived endued with the one, and at the same time destitute of the other*. Something of

* Beattie's Essay, p. 41, 2d edit.

this kind, he remarks, takes place in dreams and in madness; in both of which states of the system, the power of reasoning appears occasionally to be retained in no inconsiderable degree, while the power of intuition is suspended or lost. But this doctrine is liable to obvious, and to insurmountable objections; and has plainly taken its rise from the vagueness of the phrase *common sense*, which the author employs through the whole of his argument, as synonymous with the power of *intuition*. Of the indissoluble connection between this last power and that of reasoning, no other proof is necessary than the following consideration, that, "in every step "which reason makes in demonstrative knowledge, there must "be intuitive certainty;" a proposition which Locke has excellently illustrated, and which, since his time, has been acquiesced in, so far as I know, by philosophers of all descriptions. From this proposition (which, when properly interpreted, appears to me to be perfectly just) it obviously follows, that the power of reasoning presupposes the power of intuition; and, therefore, the only question about which any doubt can be entertained is, Whether the power of intuition (according to Locke's idea of it) does not also imply that of reasoning? My own opinion is, decidedly, that it does; at least, when combined with the faculty of memory. In examining those processes of thought which conduct the mind by a series of consequences from premises to a conclusion, I can detect no intellectual act whatever, which the joint operation of intuition and of memory does not sufficiently explain.

Before, however, proceeding farther in this discussion, it is

proper for me to observe, by way of comment on the proposition just quoted from Locke, that, although, "in a complete "demonstration, there must be intuitive evidence at every "step," it is not to be supposed, that, in every demonstration, all the various intuitive judgments leading to the conclusion are actually presented to our thoughts. In by far the greater number of instances, we trust entirely to judgments resting upon the evidence of memory; by the help of which faculty, we are enabled to connect together the most remote truths, with the very same confidence as if the one were an immediate consequence of the other. Nor does this diminish, in the smallest degree, the satisfaction we feel in following such a train of reasoning. On the contrary, nothing can be more disgusting than a demonstration where even the simplest and most obvious steps are brought forward to view; and where no appeal is made to that stock of previous knowledge which memory has identified with the operations of reason. Still, however, it is true, that it is by a continued chain of intuitive judgments, that the whole science of geometry hangs together; inasmuch as the demonstration of any one proposition virtually includes all the previous demonstrations to which it refers.

Hence it appears, that, in mathematical demonstrations, we have not, at every step, the *immediate* evidence of intuition, but only the evidence of memory. Every demonstration, however, may be resolved into a series of separate judgments, either formed at the moment, or remembered as the results of judgments formed at some preceding period; and it is in the arrangement and concatenation of these different judgments,

or *media* of proof, that the inventive and reasoning powers of the mathematician find so noble a field for their exercise.

With respect to these powers of judgment and of reasoning, as they are here combined, it appears to me, that the results of the former may be compared to a collection of separate stones prepared by the chisel for the purposes of the builder; upon each of which stones, while lying on the ground, a person may raise himself, as upon a pedestal, to a small elevation. The same judgments, when combined into a train of reasoning, terminating in a remote conclusion, resemble the formerly unconnected blocks, when converted into the steps of a staircase leading to the summit of a tower, which would be otherwise inaccessible. In the design and execution of this staircase, much skill and invention may be displayed by the architect; but, in order to ascend, nothing more is necessary than a repetition of the act by which the first step was gained. The fact I conceive to be somewhat analogous, in the relation between the power of judgment, and what logicians call the discursive processes of the understanding.

Mr Locke's language, in various parts of his Essay, seems to accord with the same opinion. "Every step in reasoning, "(he observes) that produces knowledge, has intuitive cer- "tainty; *which, when the mind perceives, there is no more requir-* "*ed but to remember it*, to make the agreement or disagreement "of the ideas, concerning which we inquire, visible and cer- "tain. This intuitive perception of the agreement or disagree-

"ment of the intermediate ideas, in each step and progression "of the demonstration, must also be carried exactly in the "mind, and a man must be sure that no part is left out; "which, in long deductions, and in the use of many proofs, "the memory does not always so readily and exactly retain: "therefore it comes to pass, that this is more imperfect than "intuitive knowledge, and men embrace often falsehood for "demonstrations *."

The same doctrine is stated elsewhere by Mr Locke, more than once, in terms equally explicit †; and yet his language occasionally favours the supposition, that, in its deductive processes, the mind exhibits some modification of reason essentially distinct from intuition. The account, too, which he has given of their respective provinces, affords evidence that his notions concerning them were not sufficiently precise and settled. "When "the mind (says he) perceives the agreement or disagreement "of two ideas immediately by themselves, without the inter- "vention of any other, its knowledge may be called intuitive. "When it cannot so bring its ideas together as, by their imme- "diate comparison, and, as it were, juxta-position, or applica- "tion one to another, to perceive their agreement or disagree- "ment, it is fain, by the intervention of other ideas (one or more "as it happens) to discover the agreement or disagreement "which it searches; and this is that which we call *reasoning* ‡."

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* B. IV. Chap. ii. § 7. See also B. IV. Chap. xvii. § 15.

† B. IV. Chap. xvii. § 2. B. IV. Chap. xvii. § 4. § 14.

‡ B. IV. Chap. ii. §§ 1. and 2.

According to these definitions, supposing the equality of two lines A and B to be perceived immediately in consequence of their coincidence; the judgment of the mind is intuitive: Supposing A to coincide with B, and B with C; the relation between A and C is perceived by reasoning. Nor is this a hasty inference from Locke's accidental language. That it is perfectly agreeable to the foregoing definitions, as understood by their author, appears from the following passage, which occurs afterwards: "The principal act of *ratiocination* is the finding "the agreement or disagreement of two ideas, one with ano- "ther, by the intervention of a third. As a man, by a yard, "finds two houses to be of the same length, which could not "be brought together to measure their equality by juxta-posi- "tion *."

This use of the words *intuition* and *reasoning*, is surely somewhat arbitrary. The truth of mathematical axioms has always been supposed to be intuitively obvious; and the first of these, according to Euclid's enumeration, affirms, That if A be equal to B, and B to C, A and C are equal. Admitting, however, Locke's definition to be just, it only tends to confirm what has been already stated with respect to the near affinity, or rather the radical identity of intuition and of reasoning. When the relation of equality between A and B has once been perceived, A and B are completely identified as the same mathematical quantity; and the two letters may be regarded as synonymous wherever they occur. The faculty, therefore, which perceives

* B. IV. Chap. xvii. § 18.

the relation between A and C, is the same with the faculty which perceives the relation between A and B, and between B and C*.

In farther confirmation of the same proposition, an appeal might be made to the structure of syllogisms. Is it possible to conceive an understanding so formed as to perceive the truth of the major and of the minor propositions, and yet not to perceive the force of the conclusion? The contrary must appear evident to every person who knows what a syllogism is; or rather, as in this mode of stating an argument, the mind is led from universals to particulars, it must appear evident, that, in the very statement of the major proposition, the truth of the conclusion is presupposed; insomuch, that it was not without good reason Dr Campbell hazarded the epigrammatic, yet unanswerable remark, that "there is always some radical defect "in a syllogism, which is not chargeable with that species of "sophism known among logicians by the name of *petitio prin-* "*cipii*, or a *begging of the question*†."

The idea which is commonly annexed to *intuition*, as oppos-

* Dr Reid's notions, as well as those of Mr Locke, seem to have been somewhat unsettled with respect to the precise line which separates intuition from reasoning. That the axioms of geometry are intuitive truths, he has remarked in numberless passages of his works; and yet, in speaking of the application of the syllogistic theory to mathematics, he makes use of the following expression: "The simple *reasoning*, 'A is equal to "B, and B to C, therefore A is equal to C,' cannot be brought into any syllogism in "figure and mode."—See his *Analysis of Aristotle's Logic*.

† Phil. of Rhet. Vol. I. p. 174.

ed to *reasoning*, turns, I suspect, entirely on the circumstance of *time*. The former we conceive to be instantaneous; whereas the latter necessarily involves the notion of succession, or of progress. This distinction is sufficiently precise for the ordinary purposes of discourse; nay, it supplies us, on many occasions, with a convenient phraseology: but, in the theory of the mind, it has led to some mistaken conclusions, on which I intend to offer a few remarks in the second part of this section.

So much with respect to the separate provinces of these powers, according to Locke;—a point on which I am, after all, inclined to think, that my own opinion does not differ essentially from his, whatever inferences to the contrary may be drawn from some of his casual expressions. The misapprehensions into which these have contributed to lead various writers of a later date, will, I hope, furnish a sufficient apology for the attempt which I have made, to place the question in a stronger light than he seems to have thought requisite for its illustration.

In some of the foregoing quotations from his Essay, there is another fault of still greater moment; of which, although not immediately connected with the topic now under discussion, it is proper for me to take notice, that I may not have the appearance of acquiescing in a mode of speaking so extremely exceptionable. What I allude to is, the supposition which his language, concerning the powers both of intuition and of reasoning, involves, *that knowledge consists solely in the perception of the agreement or the disagreement of our ideas.* The impropriety of this phraseology has been sufficiently exposed by Dr

Reid, whose animadversions I would beg leave to recommend to the attention of those readers, who, from long habit, may have familiarized their ear to the peculiarities of Locke's philosophical diction. In this place, I think it sufficient for me to add to Dr Reid's strictures, that Mr Locke's language has, in the present instance, been suggested to him by the partial view which he took of the subject; his illustrations being chiefly borrowed from mathematics, and the relations about which it is conversant. When applied to these relations, it is undoubtedly possible to annex some sense to such phrases as *comparing ideas*, —*the juxta-position of ideas*,—*the perception of the agreements or disagreements of ideas*; but, in most other branches of knowledge, this jargon will be found, on examination, to be altogether unmeaning; and, instead of adding to the precision of our notions, to involve plain facts in technical and scholastic mystery.

This last observation leads me to remark farther, that even when Locke speaks of reasoning in general, he seems, in many cases, to have had a tacit reference, in his own mind, to mathematical demonstration; and the same criticism may be extended to every logical writer whom I know, not excepting Aristotle himself. Perhaps it is chiefly owing to this, that their discussions are so often of very little practical utility; the rules which result from them being wholly superfluous, when applied to mathematics; and, when extended to other branches of knowledge, being unsusceptible of any precise, or even intelligible interpretation.

Section I.

II.

Conclusions obtained by a Process of Deduction often mistaken for Intuitive Judgments.

It has been frequently remarked, that the justest and most efficient understandings are often possessed by men who are incapable of stating to others, or even to themselves, the grounds on which they proceed in forming their decisions. In some instances, I have been disposed to ascribe this to the faults of early education; but, in other cases, I am persuaded, that it was the effect of active and imperious habits in quickening the evanescent processes of thought, so as to render them untraceable by the memory; and to give the appearance of *intuition* to what was in fact the result of a train of reasoning so rapid as to escape notice. This I conceive to be the true theory of what is generally called *common sense*, in opposition to book-learning; and it serves to account for the use which has been made of this phrase, by various writers, as synonymous with intuition.

These seemingly instantaneous judgments have always appeared to me as entitled to a greater share of our confidence than many of our more deliberate conclusions; inasmuch as they have been *forced*, as it were, on the mind by the lessons

of long experience; and are as little liable to be biassed by temper or passion, as the estimates we form of the distances of visible objects. They constitute, indeed, to those who are habitually engaged in the busy scenes of life, a sort of peculiar *faculty*, analogous, both in its origin and in its use, to the *coup d'oeil* of the military engineer, or to the quick and sure tact of the medical practitioner, in marking the diagnostics of disease.

For this reason, I look upon the distinction between our intuitive and deductive judgments as, in many cases, merely an object of theoretical curiosity. In those simple conclusions which all men are impelled to form by the necessities of their nature, and in which we find an uniformity not less constant than in the acquired perceptions of sight, it is of as little consequence to the logician to spend his time in efforts to retrace the first steps of the infant understanding, as it would be to the sailor or the sportsman to study, with a view to the improvement of his eye, the Berkeleian theory of vision. In both instances, the original faculty and the acquired judgment are equally entitled to be considered as the work of Nature; and in both instances we find it equally impossible to shake off her authority. It is no wonder, therefore, that, in popular language, such words as *common sense* and *reason* should be used with a considerable degree of latitude; nor is it of much importance to the philosopher to aim at extreme nicety in defining their province, where all mankind, whether wise or ignorant, think and speak alike.

In some rare and anomalous cases, a rapidity of judgment in the more complicated concerns of life, appears in individuals who have had so few opportunities of profiting by experience, that it seems, on a superficial view, to be the immediate gift of heaven. But, in all such instances (although a great deal must undoubtedly be ascribed to an inexplicable aptitude or predisposition of the intellectual powers,) we may be perfectly assured, that every judgment of the understanding is preceded by a process of reasoning or deduction, whether the individual himself be able to recollect it or not. Of this I can no more doubt, than I could bring myself to believe that the Arithmetical Prodigy, who has, of late, so justly attracted the attention of the curious, is able to extract square and cube roots by an instinctive and instantaneous perception, because the process of mental calculation, by which he is led to the result, eludes all his efforts to recover it *.

It is remarked by Mr Hume, with respect to the elocution of Oliver Cromwell, that "it was always confused, embarrassed, "and unintelligible."—"The great defect, however, (he adds) "in Oliver's speeches consisted, not in his want of elocution, "but in his want of ideas; the sagacity of his actions, and the "absurdity of his discourse, forming the most prodigious con- "trast that ever was known."—"In the great variety of human "gêniuses (says the same historian, upon a different occasion)

* See Note (E.)

"there are some which, though they see their object clearly and "distinctly in general; yet, when they come to unfold its parts "by discourse or writing, lose that luminous conception which "they had before attained. All accounts agree in ascribing to "Cromwell, a tiresome, dark, unintelligible elocution, even "when he had no intention to disguise his meaning: Yet, no "man's actions were ever, in such a variety of difficult inci- "dents, more decisive and judicious."

The case here described may be considered as an *extreme* one; but every person of common observation must recollect facts somewhat analogous, which have fallen under his own notice. Indeed, it is no more than we should expect *à priori*, to meet with, in every individual whose early habits have trained him more to the active business of the world, than to those pursuits which prepare the mind for communicating to others its ideas and feelings, with clearness and effect.

An anecdote which I heard, many years ago, of a late very eminent Judge (Lord Mansfield) has often recurred to my memory, while reflecting on these apparent inconsistencies of intellectual character. A friend of his, who possessed excellent natural talents, but who had been prevented, by his professional duties as a naval-officer, from bestowing on them all the cultivation of which they were susceptible, having been recently appointed to the government of Jamaica, happened to express some doubts of his competency to preside in the Court of Chancery. Lord Mansfield assured him, that he would find the difficulty not so great as he apprehended. "Trust (he said)

" to your own good sense in forming your opinions; but be-
" ware of attempting to state the grounds of your judgments.
" The judgment will probably be right;—the argument will in-
" fallibly be wrong."

From what has been said, it seems to follow, that although a man should happen to reason ill in support of a sound conclusion, we are by no means entitled to infer with confidence, that he judged right, merely by accident. It is far from being impossible that he may have committed some mistake in stating to others (perhaps in retracing to himself) the grounds upon which his judgment was really founded. Indeed, this *must* be the case, wherever a shrewd understanding in business is united with an incapacity for clear and luminous reasoning; and something of the same sort is incident, more or less, to all men (more particularly to men of quick parts) when they make an attempt, in discussions concerning human affairs, to remount to *first principles*. It may be added, that in the old, this correctness of judgment often remains, in a surprising degree, long after the discursive or argumentative power would seem, from some decay of attention, or confusion in the succession of ideas, to have been sensibly impaired by age or by disease.

In consequence of these views, as well as of various others foreign to the present subject, I am led to entertain great doubts about the solidity of a very specious doctrine laid down by Condorcet, in his " Essay on the Application of " Mathematical Analysis to the Probabilities of Decisions rest-
" ing upon the Votes of a Majority." " It is extremely pos-

"sible (he observes) that the decision which unites in its fa-
"vour the greatest number of suffrages, may comprehend a
"variety of propositions, some of which, if stated apart,
"would have had a plurality of voices against them; and, as
"the truth of a system of propositions, supposes that each
"of the propositions composing it is true, the probability of
"the system can be rigorously deduced only from an exami-
"nation of the probability of each proposition, separately con-
"sidered *."

When this theory is applied to a court of law, it is well known to involve one of the nicest questions in practical jurisprudence; and, in that light, I do not presume to have formed any opinion with respect to it. It may be doubted, perhaps, if it be not one of those problems, the solution of which, in particular instances, is more safely entrusted to discretionary judgment, than to the rigorous application of any technical rule founded on abstract principles. I have introduced the quotation here, merely on account of the proof which it has been supposed to afford, that the seeming diversities of human belief fall, in general, greatly short of the reality. On this point, the considerations already stated, strongly incline me to entertain an idea directly contrary. My reasons for think-

* Essai sur l'Application de l'Analyse à la probabilité des Décisions rendues à la pluralité des Voix. *Disc. Prel.* pp. 46, 47.

Some of the expressions in the above quotation are not agreeable to the idiom of our language; but I did not think myself entitled to depart from the phraseology of the original. The meaning is sufficiently obvious.