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A N  
I N Q U I R Y  
I N T O T H E  
G R O U N D S *and* N A T U R E

Of the several SPECIES of  
R A T I O C I N A T I O N.

I N W H I C H,

The Argument made Use of in the PHILLOSOPHICAL ESSAYS of D. HUME, Esq; is occasionally taken Notice of.

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By A. G. O. T. V. O. C.

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*Fuit ergo, jam accepta à PLATONE, philosophandi ratio triplex: Una, de vita & moribus; altera, de natura, & rebus occultis; Tertia, de — quid verum & quid falsum. Cic. Acad. I. 5.*

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L O N D O N:

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O F T H E

G r o u n d s a n d N a t u r e , & c .

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I N T R O D U C T I O N .

**T**H E gift of reason, whatever benefits may attend the application of it in the *ordinary* occurrences of life, is seldom exerted to the higher and more refined purposes of *philosophical* inquiry, with that success which might reasonably be expected from the known extent of its powers. In the investigation of truth, as in every other science, few can boast the attainments of *masterly* execution, though every pretender to leisure makes profession of the business, and many of these have actually labored in it through an apprenticeship of half their lives.

From an *ordinary* capacity indeed, and a *scanty* distribution of the proper talents, it

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were unreasonable to expect the same rich produce we naturally promise ourselves, in the happy effects of *address* and *skill*: And hence, in the *philosophical*, as in the *mechanic* arts, where *genius* is wanting, men of sense and candor will always be disposed to make the proper allowances. At the same time, however, miscarriages in the *former* province are perhaps less pardonable than is usually supposed, as proceeding more frequently from an habit of *inattention*, than from natural *defect* and *incapacity*. In reasoning, men generally procede too indiscriminately, and without a proper regard to the *nature* of the work before them: And hence it is, that a good cause so frequently suffers under the conduct of those who undertake the management of it. For men fail, where they do fail in the establishment of their point, not so much through the want of *ability to conduct their proof*, as through a *mistaken application of arguments* to their particular purpose, which are by no means adapted to it.

Truths of a different nature are accordingly the objects of a different *species* of reasoning: And if they are not handled, in the discussion, with a proper regard to their nature, and that essential difference which nature hath established, the result of such inquiry can never be depended upon, and if the conclusion

clusion is *not* erroneous, it can only be by chance. We should deservedly laugh at a man who pretended to shew us the *probability* that *the three angles of a triangle were equal to two right ones*; yet a *demonstration of facts* is frequently pretended to. But, in point of absurdity, where is the difference? For a matter of *fact* is no more the object of *demonstrative* proof, than the relation between the two ideas, in the foregoing instance, is of *presumptive* evidence: Nor can the former be ascertained by a train of *reasoning*, any more than the latter can by a jury of *witnesses*.

Whatever can become the object of a rational inquiry, is ultimately reducible to one or another of *three* general classes. One of these includes the several relations of *ideas*; another, the whole system of *moral* relations; and the remaining one, that of all *actual* existences. And it is the principal business of every man that would reason with a prospect of success, to consider, to which of these several classes the object of his inquiry may properly be referred. For the sagacity which is necessary to conduct the proof, or calculate the issue of it, is in comparison of this, but a secondary qualification. Few are seen to err, (that have common abilities) for want of the latter; while the best understandings, where the former has been neglected, after

setting out wrong, as must always be the case, have shamefully miscarried of their intended purpose.

It may much contribute then to our success, and thereby to our satisfaction too, to observe and remember that there are three distinct species of *ratiocination*, corresponding to the three distinct classes of *objects* just now spoken of; three different methods, in which the faculty of reason is capable of being exercised—that each of these, as a distinct court of judicature, hath its particular province—and, that every object of reasoning, as it *naturally* belongs to this or that of the classes beforementioned, is *naturally* capable of being *proved* only in this or that particular *manner*; and of being *ascertained* only in this or that particular *degree*. What I call the different species of reasoning, I shall chuse to distinguish by the several names of *demonstration*, *moral evidence*, and *presumptive*: In each of which, three particulars are especially to be noted, *viz.* the *first principle*, the *argument*, and the *conclusion*.

S E C T.

## S E C T. I.

W H E R E the *first principle* assumed, in the order of proof, is a *necessary* truth; if the several *steps* that follow, are alio *necessarily* connected, the first with that, and the rest with one another, throughout; the *argument*, in that case, is of the *demonstrative* kind, the highest imaginable, being, on those accounts, indissoluble and irrefragable, and terminating in *absolute* certainty.

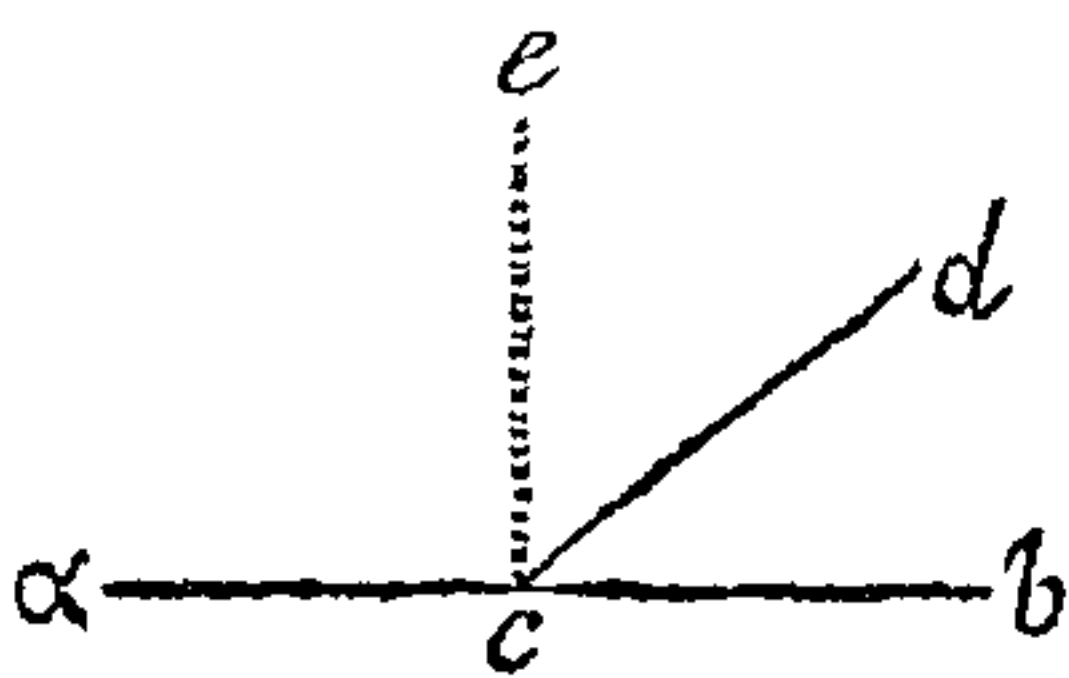
By *necessary* truths, I mean such as manifestly *cannot but* be, in opposition to such as however *evident*, and however we may be *persuaded* of, are yet not certain in such manner, but that the *contrary* also may be supposed to take place, without a *natural contradiction*. Thus, that  $2 + 3 = 5$ , I call a *necessary* truth, because two and three *cannot but* make five, and the supposition that they can, implies a natural absurdity. For, since it is granted that they *actually* are equal to five, if they could also be equal to any *other* number, to six, for instance, then, since two quantities, that are equal to a third, are equal also to one another, six and five would be equal, a greater to a less, which is a *natural contradiction*. But with other truths, however  
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self-evident, as we say, this is not the case. E. g. That *every effect does necessarily require a cause*, or to speak more properly, that *every finite existence is an effect*, I call and allow to be a *natural and self-evident* truth: But why? I cannot tell. I *feel* indeed and am *persuaded* of it; yet not because the *contrary* supposition implies any *natural contradiction*, for, in reality, it does not, nor can any such contradiction be shewn: It is not, therefore, a *necessary* truth. If it be said, that I have no other authority for the necessity of the truth supposed in the *former* instance; no other authority for saying that *a greater can not be equal to a less*, than an inward *feeling and persuasion*, which would equally justify my calling the *latter* also a *necessary* truth; this I deny. The very inequality of one thing to another *consists* in this, that one is *greater*, and the other *less*. While therefore, the one *continues* greater, and the other less, the *inequality* also subsists, which is only a synonymous expression for, and equivalent to, *non-equality*: The contradiction therefore, in *this* case, is *visible*. In the *other* case it is not so. I *feel* indeed the truth I contend for; but if I do not also *see* the absurdity of supposing the contrary, I do not *see* the *necessity* of that truth. There is, indeed, between the *barely* self-evident, and the *necessary* truth, considered as *objects*, exactly the same difference that there is betwixt the two *media*  
through

through which I respectively contemplate them; the *faculties* (if I may so say) of *faith* and *sight*. But to return:

This therefore is that species of argument, which I call *demonstrative*. It is essential to it, that the *first* principle be a *necessary* truth; that the several *steps* in the progression be *necessary* consequences of that and of each other; from whence it must needs follow, that the *conclusion* also will be a *necessary* truth; and that this kind of proof therefore will always and unavoidably terminate in *absolute certainty*.

Hence we see what kind of truths are the proper and peculiar objects of this species of reasoning, *viz.* all such as are deducible, by *necessary consequence*, from *necessary principles*. E. g. That *two quantities, which are equal to a third, are equal also to one another*, is a *necessary* truth; wherefore the quantities  $\overline{acd + dc}$  and  $\overline{ace + ec}$ , as being each equal to  $\overline{ace + ecd + dc}$ , are also equal to one another: *i. e.* the two angles, formed by one right line falling  $\alpha$  upon another, are equal to two right ones. And it is, for the reasons abovementioned a proposition of *absolute certainty*, and *universal* truth. The same may be affirmed



affirmed of all mathematical conclusions whatsoever: As being all, in like manner, deductions from principles, either visibly *necessary* on first sight, or which have previously been *shewn* to be such.

If what is here laid down be true, it will follow, as I conceive, that *quantity* alone is the object of *this* species of reasoning; and such propositions, as are affirmative of the several relations of equality, proportion, &c. betwixt any two ideas of quantity, the only ones that are susceptible of *demonstrative* proof. Mr. *Locke* indeed, has given it as his opinion, that it is not true; however, “ it  
 “ has generally been taken for granted, that  
 “ mathematics *alone*, are capable of *demon-*  
 “ *strative* certainty \*;” and urges, in support of it, “ that, wherever we can per-  
 “ ceive the agreement or disagreement of  
 “ any two ideas, by an *intuitive* perception  
 “ of the agreement or disagreement they  
 “ have with any intermediate ideas, there  
 “ (as he expresses himself) the mind is capa-  
 “ ble of *demonstration*.” But with all proper submission to the judgment of so profound and accurate an inquirer, I cannot but profess myself to be of a very different opinion. It is not, I think, sufficient, that the relation between any two ideas be discernible “ by an  
 “ *intuitive* perception of their agreement or  
 “ dis-

\* Essay on human understanding, B. IV. C. ii. § 9.

“ disagreement with any intermediate ones,” unless their several connections with, and relations to, those intermediate ones, as well as of the intermediate ones with one another, from first to last, be also, in the nature of things, *necessary*, *i. e.* manifestly such as *cannot but* obtain. That there is such a difference as I have all along contended for, between truths simply evident, and truths *necessary* also as well as *evident*, cannot, I think, be disputed. And if so, there will be a proportionable Difference in the nature of the proof, according as this or that sort of truths take place in the process. If the connection throughout be visibly *necessary*, the conclusion in the end will be *necessary* too; and the truth it establishes, *absolutely* certain. But if we have no *other* assurance of the intimacy of such connection, than such as arises from a simple *persuasion* of the mind, however unavoidable, this alters the case, and will affect the argument in the same degree. For if it be barely *possible*, that something might exist *otherwise* than is affirmed in the course of the deduction, then the truth also which is *concluded* from such deduction, (since the force of the conclusion depends upon the strictness of the intermediate connections) might *possibly* also not have taken place. Hence, whatever assurance we may have of a truth inferred in *this* manner, as it cannot amount to *absolute* certainty, it will necessarily be inferior to the

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assurance

assurance we have of a truth established as in the instance that goes before: And if that therefore be properly called *demonstrative*, the latter must be referred to some *other* class. This we proceed to consider.

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## S E C T. II.

**A**NOTHER method then in which the faculty of reason is exercised, is that wherein the Argument proceeds upon, as the first and fundamental *principles*, truths, which though *not* necessary in their *nature*, and in respect of their subject matter, are yet such, with respect to the *human mind*. Truths, which *we cannot but* be persuaded of, though it were *possible*, at the same time, that the relations expressed in them, might cease to exist. Truths, in short, which are necessary indeed, from the particular cast and constitution of *our* nature, though from no consideration or circumstance, that we know of, in *their own*.

Thus, that *nothing could ever begin to exist of itself, singly, and independently of any thing else whatsoever*, is a *self-evident* truth; every thing, which ever had a beginning, being, in the order of *our ideas*, pre-conceived of as an *effect*.

*effect.* Yet, in the *nature* of things, this will not be a *necessary* truth, unless I can make it appear from *thence* also, that such pre-conception is well-grounded. For, however I may be *persuaded* that *nothing could ever begin to exist of itself*, if I can assign no better reason for it, than that every thing must have had a cause, this is nothing but affirming, that things could not begin to exist *of themselves*, because they could not begin to exist *without* the operation of *something else*; i. e. they could not begin to exist of themselves, because they could not. In which case, though I *believe*, unavoidably, it is not upon any principle of *reason*; and though I *feel* it must be so, yet my sense of that necessity does not arise from any *natural absurdity* I can point out in the *contrary* supposition.

Now an *argument* which proceeds upon such *principles* as these, as *fundamental* ones; or, in the course of which, such principles are assumed as *intermediate* proofs; will fail of that intimacy of union in its several parts, which is discernible in *mathematical* reasonings; because, in whatever part of the argument such principles are assumed, from that point the connection ceases to be *necessary*. Such kind of proof therefore, is not *demonstrative*. For the same reason, the *conclusion* also will not be necessary: Such sort of

conclusions therefore will not be *demonstrably certain*.

For the same reason that this sort of argument is not *demonstrative* in its nature, it is likewise not *universal* in its application, viz. because its connection is not necessary throughout. When any principle is assumed, which is not *necessarily* what it is supposed to be, the *contrary* of what is so assumed is, for ought we know, *possible* in the nature of things. Now if the *contrary* be *possible* in the nature of things, the contrary may also be asserted by any man without a natural absurdity. And if my argument proceed upon the supposition of what another man does *not* allow, and moreover may disallow without a *natural absurdity*, it is, with respect to that man, of no force or value. I argue from the supposed necessity of the relation of *cause* and *effect*, that there exists in the universe a supreme *first* cause of all things : And as far as that *principle* is true, the *conclusion* may be incontestibly certain. But if I cannot shew that there is a natural contradiction in supposing finite existences to take place *independently*, the contrary may be *possible* in the nature of things. Another person therefore may maintain the contrary, for any *reason* I can shew why he should not : And what becomes then of the argument founded only on the *supposed* necessity I contend for ?

for? In that case, I must manifestly, either establish such necessity, in order to justify the particular sort of proof I make use of; or if that cannot be done, ply him with proofs of a different kind. And this is what I mean by saying, that an argument of this sort is not *universal*. Its *premises* are *disputable*; its *authority* therefore but *conditional*. It goes upon a supposition that is liable to *controversy*; and can have no farther weight than as that supposition is *not* controverted. I cannot apply it to any man's conviction, without first requiring his assent to the principles I deduce it from, whence it will only have the force of an argument *ad hominem*: Not be conclusive *absolutely*, and whether men will or no; but only with respect to *such* persons as *agree* with myself in the truth of the preliminaries.

This species of reasoning however is not without its weight: And, if in the process from the *first* principle the connections obtain throughout, its *conclusions*, in general, may safely be depended on. For since *they* are undeniably *just*, as far as the *premises* are *true*; they will unavoidably be *convincing*, as far as those premises are *acknowledged*. And if the apparent necessity of the premises have a foundation in *human nature*, it may reasonably be presumed they *will* be *universally* acknowledged. To man, therefore, as  
man,

man, I may fairly tender an argument of this sort ; though, in *particular* cases, the application of it may be improper.

The certainty of those conclusions in which this species of ratiocination terminates, is so unavoidable, with respect to the mind, that hence it is, if I mistake not, that even *accurate* and *penetrating* minds, such as see things *distinctly* and *deeply* too, have frequently misunderstood *this* kind of proof for *demonstrative*; and the *natural* conclusions it leads to, for *necessary* ones ; and the certainty *peculiar* thereto, for what alone is *physically* and properly such. They do not seem to distinguish between *absolute* and *conditional* Proof ; *mathematical* and *moral* certainty ; what *may* be admitted, and what *cannot* be disputed : In short, what must indeed be true, *if* the premises are so ; and what must be true, because the premises *cannot but* be so. This *similarity* of operation in the argument, in *both* cases, (each producing the same effect upon an undiscerning mind) has also led us to miscall that assurance which is the result of the *latter*, by the name of *certainty*. Philosophers, of all men, should be careful to specify any material difference between two Ideas, by different appellations also ; In the present case therefore, if we must needs call both by the name of *certainty* ; let us, at least, distinguish their respective kinds,

kinds, and call the former, *physical* certainty, and the latter, *moral*.

It is farther observable, that the assent produced in the mind, by *this* sort of argument, is what we call *belief*, in opposition to what is the natural effect of *demonstrative* proof, which is *knowledge*. “*Belief*,” (says Mr. *Locke* \*) “is the admitting or receiving any  
 “ proposition for true, upon arguments or  
 “ proofs, that are found to *persuade* us to re-  
 “ ceive it as true, without certain *knowledge*  
 “ that it is so. In all the parts of *knowledge*,  
 “ each step has its *visible* and *certain* connec-  
 “ tion; in *belief*, not so. That which makes  
 “ me *believe*, is something *extraneous* to the  
 “ thing I believe: Something *not evidently*  
 “ joined on both sides to, and not so manifest-  
 “ ly shewing the agreement or disagreement  
 “ of, those ideas that are under considera-  
 “ tion.” And this natural distinction between *belief* and *knowledge*, which are indeed not only different *degrees*, but different *kinds* of assurance, may serve to throw light on an argument made use of by Mr. *David Hume*; in which, I believe, he has been generally misunderstood, and, as I conceive, for want of the proper attention, in many of his readers, to the different *kinds* of evidence, and the different effects of them. That gentleman seems to contend, that the  
 ex-

\* Essay on human Understanding, B. IV. C. xv. §. 3.

existence of a *first* cause cannot be *conclusively* argued from the phænomena of the visible world, because the validity of the proof depends upon the supposition of a *necessary connection* in nature, which we cannot explain, and which we cannot justify our admission or assumption of, as a *principle*, from any other consideration, than a *persuasion* of mind equally involuntary and unaccountable. Now, if this be the case; and if Mr. *Locke's* account of the matter also be true; that, in an argument productive of *knowledge* there must needs be a *visible* and certain connection throughout; or otherwise, that the operation of it must terminate in that different kind of assurance only, which we call *belief*; I do not see how Mr. *Hume's* allegation can reasonably be controverted, unless the proposition in dispute can be made out to a demonstration, in some *other* manner. He does not deny the existence of the supposed relation of cause and effect; nor does he any where dispute the *proper* force and efficacy of the argument grounded thereupon: He may therefore, for ought that appears to the contrary, *believe* also the conclusion usually established upon that argument. He only affirms that the *first* principle is not a *necessary* truth; that the *proof* struck out from it, is therefore not of the *demonstrative* kind; and that the *conclusion*, of consequence, does not amount to that sort of assurance which alone can, properly,

perly and philosophically speaking, be entitled to the character of *knowledge*. And hence it is, as I take it, that he speaks of *this* method of conviction, and the assent it produces, and also of the assurance we have of *any other* truth deducible *from this*, as not the proper exercise or effect of *reason*. Because, though *every* species of deduction by the use of that faculty be, in a loose and popular sense, distinguished by that name; yet *reasoning*, truly and philosophically speaking, always proceeds upon *necessary principles*, through *steps* also *necessarily* connected, to *conclusions* therefore which also *cannot but* take place, *i. e.* which are *absolutely* and *infallibly* certain.

Thus, when he applies his argument to the discussion of the important point concerning the general credibility of *miracles*, he declares himself of opinion, that the notion of their credibility is not warrantable upon any principles of *reasoning*. His meaning, I presume, is, that no matter of *fact* contrary to universal experience, being credible, but upon the previous assurance of a *power* in nature adequate to the production of it, that is, upon the supposed *necessary* connection of *cause* and *effect*; if such necessary connection cannot be *shewn* to exist in nature, we cannot arrive at *knowledge*, properly so called, with respect to the existence of such *power*. It will therefore only be matter of *belief*, upon ar-

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guments

guments or proofs, (as Mr. *Locke* says) “ that  
 “ are indeed found to *persuade* us to receive it  
 “ as true, though without *certain knowledge*  
 “ that it is so.”——And hence also, *mira-*  
*cles* will only be matter of *belief*; because  
 not having any *knowledge* of the requisite  
*power* that amounts to more than this, the  
 issue is to be tried by the appeal to *expe-*  
*rience*; which holding *universally against* the  
 existence of them, and but *partially confirm-*  
 ing the evidence *in favour* of them, will  
 determine (according to Mr. *H.*) *against* the  
 credibility of them.

And hence we may account for his resolv-  
 ing the general reception christianity has met  
 with, into the principle of *faith*: By which  
 he means, I suppose, that it is not credible on  
 the grounds of what, according to the *strictly*  
 philosophical sense of the word, we under-  
 stand by *reasoning*; viz. not on the prin-  
 ciples of mathematical *demonstration*. Not  
 that we *believe* in consequence of an *im-*  
*mediate* impulse; nor that *deductions* are not  
 made use of, e'er the mind is wrought up to  
 the assent it yields: But, that the *first* prin-  
 ciples of our deductions being *involuntary*  
 persuasions, of which we can give no ac-  
 count, the *argument* constructed upon them  
 does not proceed by *necessarily* connected  
 proofs; and so, the whole process, however  
 it be an act of *nature*, is not an exercise of  
 reason,

*reason*, in the philosophical acceptation of the term.—This gentleman indeed, for ought I know, may be as great an *unbeliever* as his adversaries have endeavoured to represent him: But it is to God and himself only, for any thing that can be inferred from the argument he has hitherto made public. His own reasonings must have operated upon his mind in a very extraordinary manner indeed, if, in *mere* consequence of *them*, he is either an *infidel* or an *enthusiast*. But this by the way.

Amongst the proper *objects* of *this* species of argumentation, we may reckon all such as fall under our notice as *moral relations*: All propositions expressive of the several obligations enumerated by writers in that branch of science. In all which, the several connections, by which the proof is carried on, subsist indeed by the *unavoidable* perception of their Reality; yet by no *necessity* in the *nature* of things. In which the mind indeed does *intuitively* perceive an agreement or disagreement of certain ideas with others; yet where it does not perceive a *natural absurdity* in supposing the *contrary* in any case. Now, in such a state of things, though the *conclusion* following any *deduction* be ever so *natural*, it will not be *necessary*; and therefore, however *true* likewise, it will not be *demonstratively* so. There certainly is a difference like that we

are contending for, between perceptions simply *natural*, and perceptions *necessary* as well as *natural*: Between such as *barely* cannot be rooted out, and such as cannot but be supposed to take place, *without a natural contradiction*. And it is according as the proof, in any case, proceeds upon, and is upheld by, truths founded on the *one* or the *other* of these; it is this, I say, that constitutes, as I imagine, the essential difference between *demonstration* and *moral Evidence*.

It was his not attending to this material difference, that led Mr. *Locke*, I suppose, into that favourite opinion of his, that *mortality* is as capable of *demonstration* as *mathematics*. We find him perpetually dwelling upon such arguments as this, *viz.* that “to have such  
“ an agreement or disagreement as may *in-*  
“ *tuitively* be perceived,” is the privilege of *moral* ideas, as well as of those of *quantity*: And that, “*where* the mind can *perceive*  
“ the immediate agreement or disagreement  
“ that is between them, *there* it is capable of  
“ intuitive knowledge: And where it has *in-*  
“ *tuitive* knowledge, there it is capable of  
“ *demonstration* \*.” Not considering the difference, which surely there is, betwixt *intuitively* knowing a thing to be so or so, and knowing *withal* that it *cannot but* be so: Betwixt a *natural* perception (however unavoidable)

\* Essay on human understanding, B. IV. C. ii. §. 9.

avoidable) of an agreement or disagreement between certain ideas, which is sufficient indeed to furnish a *moral* proof; and the *farther* perception that the *contrary* would be a *natural absurdity*, which, as I take it, is *essentially* necessary to render it a *demonstrative* one. I will instance in a particular, in which Mr. *Locke* has also instanced. *Where there is no property, there can be no injustice.* This Mr. *Locke* thinks as capable of *demonstration* as any proposition in *Euclid*. But I would ask Mr. *Locke* or any gentleman of the same opinion, what is the proper foundation of this truth, *viz.* *That it is wrong or unfit to invade the property of another man?* Is it that such invasion is *contrary* to any *natural* truth, or implies any *natural contradiction* or absurdity? If not; then is it not a *necessary* truth, in the same sense in which those are so, that are the proper foundation of *demonstrative* proof. I grant indeed, that it is, *unavoidably*, with respect to the human mind, *perceived* to be so; and therefore may be depended upon as an *actual* truth: But if the *contrary* supposition may take place *without* a contradiction, it cannot, in that case, be the ground of a *demonstration*. The sundry connections in nature, of this kind, which I cannot but *perceive* to obtain, may, for ought I see to the contrary, *cease* to obtain: And, on that account, however necessary, with regard to the frame of *my*  
na-

nature, are not so with respect to the constitution of *their own*. The same may be affirmed of all propositions expressive of *moral* relations of every kind. *That obedience is due from children to their parents.—And an affectionate attention to their welfare, reciprocally due from parents to their children,* are truths I am in no sort of doubt about, as I am not about such as are either the *ground* or *result* of any *demonstration* in *Euclid*: But I am not assured of them upon the *same* principle, nor with a certainty that can properly be called or compared to *mathematical*, either in *kind* or *degree*. And the difference, as I take it, is this. That whereas all *moral* relations I cannot but be *persuaded* to be such as I take them to be: The *others* I am clearly *convinced*, cannot but be such as I see them to be. In the former case therefore, we have a necessary perception of an *actual* existence; in the latter, an equally necessary perception of a *necessary* existence. In a word, the former I *believe* to be truths, the latter I *know* to be such.

Dr. *Clarkè* hath not only followed Mr. *Locke* in his opinion, but, in his excellent *System of the evidences of natural religion*, hath endeavoured to reduce it to practice. And his proofs indeed I admit; and in their full extent: But that they are of the *kind* he supposes them to be, is not to be admitted.

I allow that he has made good his point ; and with as much clearness as the subject is capable of : But that he has, or that *any other* person can, make it good to a *demonstration*, is impossible, as I conceive, from the nature of the subject. For propositions of that kind can only be argued by a species of proof deduced from our *moral perceptions* ; whereas every *demonstration* is a process grounded upon *intellectual truth*.

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### S E C T. III.

**A** Third method in which the faculty of human reason is exercised, is that whereby it infers the existence of future *events*, by a judgment formed upon its past observation and experience.

The process of the mind, in this operation, seems to be as follows. *Experience* informs us, that, in what we call the *course of nature*, i. e. in the ordinary train of daily occurrences, a certain connection, whensoever it arises, hath perpetually obtained between such and such events. *Fire*, for instance, hath never been applied to an object endued with *sense*, but *heat* hath also been observed to attend such application. In like manner,  
bodily

bodily nourishment is the natural consequence of food: And impulse hath uniformly been attended, where nothing hath appeared to counteract its tendency, with motion in the body impelled. And on this, as a foundation, we established it as a maxim, or certain truth, that events so invariably conjoined *in fact*, are also intimately connected by an indissoluble necessity in their nature. And hence we lay our account, that whenever any one of the said events takes place again, its *hitherto observed* concomitant will *infallibly* take place likewise. Thus, fire hath always been observed to warm; fire therefore is necessarily productive of heat: And consequently, fire, whenever it is applied to a sensitive object, will *infallibly* create the usual sensation in every future instance. And so of the rest.

Now, would we truly be informed how far the inference in such cases is just, and consequently, how far we may *reasonably* place a confidence in *such* a method of induction and proof; we have nothing to do, but to examine this process, step by step, and inquire how far the several parts stand connected with one another.

The *first principle* then, upon which we set out, is, we see, the *past observation* of an *actual* conjunction of certain facts with one another;

another; about the reality of which we cannot entertain a doubt, if any trust can be reposed in our senses, and the reports they severally make. *So far* then, we are upon good ground.

From this *observation* we advance, in the next place, to a *settled notion* that facts or events thus uniformly *co-existing*, are incapable, from a *necessity in their nature*, of existing *independently*. But here I would ask, from what principle of *reasoning* it is, that we pretend to justify or support this notion. Can we, from any thing we know of the *nature* of any event, and abstracted from all *former observation*, infer the *consequences* of such events taking place? No. Then is there no *necessity*, whenever it does take place, that such or such particular consequence, should follow from it. Again, suppose we *have observed* a particular consequence to have *always* attended such event, whenever itself has occurred: Is there any *natural contradiction* in supposing that it may occur hereafter *without* any such attendant circumstance? No. Then, as there is no *necessity*, from the *nature* of it, that any particular event should be followed by any particular consequence: So neither is there any *necessary* connection between the *past* conjunction of such event with its consequence, and the *future*. Here then the argument fails of that *union*, in its several parts,

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which is so necessary in the composition of a *rational* evidence ; and without which, we can never come to a conclusion in which the mind may repose with an *absolute* and *complete* assurance.

This general review may suffice to make it appear, that all our expectations, with regard to future events, are nothing more than so many *inferences of the mind* from the *supposed* necessary existence of a certain relation, *arbitrarily* assumed upon the ground of our *past experience*. A certain combination of things has been *observed* in instances that have gone before : We *suppose* this to have proceeded from the unavoidable constitution of their *nature* : And *conclude* from thence, that, in similar circumstances, a combination, in all respects the same, will obtain in every *future* instance.

From what has been said, it follows, that in *this* species of reasoning, though the *ground work* of all be a *certain truth*, yet the *argument* constructed upon it is a downright *presumption*. A presumption indeed, not only not to be *justified* upon the principles of *reason* ; but even not to be *accounted for* in any other manner, than by a general resolution of it into the *frame* and *constitution* of the human soul. Now, where the *argument* is but *presumptive*, the *conclusion* must be *precarious* ; and the  
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operation of it on the mind proportionably fail of those powerful effects which attend the enlightened state of *knowledge* and *conviction*. The result, in such case, is indeed *opinion* instead of *knowledge* : And the *supposed* truth we *habitually* infer, what, in respect of the peculiar appearance of it to the mind, we may indeed call *verisimilar* or *likely*; but what, from no circumstance we can infer the *reality* of, or, on any consideration, expect with *certainty*.

We collect from hence however, that all our reasonings upon *matters of fact* are immediately founded upon an habitual persuasion of a *necessary* connection in nature, arising from what we have observed of the *actual* connection which subsists between *particular* causes, and *particular* effects. At the same time, all our *knowledge* of such connection being purely derived from *experience* and *observation*, our reasonings on this subject, may ultimately be referred to *these* as their foundation.

From this it follows then, that though an argument or course of reasoning, founded on *experience*, be, at best, but of a *presumptive* nature, yet the presumption will be *stronger*, where our experience has been *more general*; and the supposed truth which such presumption suggests, have a greater appearance of *verisimilitude* or probability, accordingly. And universally, the weight of the evidence, the

validity of the conclusion, and so also the probability of the truth inferred, in any particular instance, will *vary* with, and be *proportioned* to, our experience with respect to its eventuality or non-eventuality in similar instances heretofore.

Thus, if I know by *experience*, that an event, every time (which we will suppose to be *ten*) that it hath hitherto taken place, hath been regularly followed by *one and the same* determinate consequence: The *probability* that such consequence shall take place in similar circumstances hereafter, being the *natural result* of, and *proportioned* to that experience, will be as 10 : 0; for it has followed it *ten* times, and failed to do so *never*. More particularly; the chance of its *happening* (as far as there is *any* chance of its happening, *merely* from its having happened *already*) will manifestly be  $\frac{10}{10}$ , of its *not* happening  $\frac{0}{10}$ ; the *superior* probability therefore on the former side,  $\frac{10}{10}$ , or integer; *i. e.* in other words, events; which are *conformable* to our past experience, *universally*, are credible in the *highest* degree which the nature of such things is capable of; for there is *all* the probability of their coming to pass, in similar circumstances, that can possibly be inferred by the *only* rule whereby we can judge at all whether they will come to pass or not. If the same event should have produced a certain consequence  
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but *five* times out of the *ten* itself had been observed; in that case, the respective probabilities will be as 5 : 5; the value of the chance on each side,  $\frac{5}{10}$ ; and the *superior* probability of that consequence's taking place, equal to *nothing*; *i. e.* events, which in the course of nature, have been observed, in certain circumstances, to *happen* and *not* happen with *equal* regularity, we have *equal* grounds to *expect* and *not* expect. Once more, where the supposed *eventuality* and *non-eventuality* of such consequence have been as 4 : 6, the *probability* will be accordingly. In *this* case therefore, the separate probabilities will  $\frac{4}{10}$  and  $\frac{6}{10}$ , and the difference  $\frac{2}{10}$  in favour of the future *non-existence* of such consequence. The probability therefore will here be transferred to the opposite side. The same rule will hold for estimating the degrees of credibility in all cases. From whence it will appear, lastly, that such events as are *totally contrary* to our past experience, in all respects, we cannot only have no reason to expect should happen, but have the *highest* reason, the nature of the case is capable of, to be assured they will *not* happen. *As far as* we can judge from our observations upon the order of nature, in general, it will be *utterly incredible* that they should.

## S E C T. IV.

**I**F evidence, of any kind, be a just ground of assent, it naturally follows, that, where *different* kinds or degrees of evidence interfere with one another, *that* will be intitled to our admission, which appears the stronger on a due comparison ; and in a degree *proportioned* to their difference.

If *five witnesses* maintain the *affirmative* of any quæstion, against *three* others of *equal veracity*, who assert the *negative* ; the probability, *determinable by human testimony*, will be on the side of the former. And the *likelihood* that the affirmative is *true*, will be to the *likelihood* that it is *false*, in the ratio of those numbers, *viz.* as 5 : 3.

If an *experiment*, *five* times repeted, hath been uniformly attended with the same event, which, in *three* succeeding repetitions of the same, with circumstances *exactly similar*, hath *failed* to do so ; the probability that that event *will* follow on any future trial, *determinable by past experience*, will be to the probability that it will *not*, in the *same* proportion ; upon the whole therefore, it is probable that it *will*.

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If the evidence of *testimony*, on one side, be opposed to that of *experience* on the other ; we are then to consider, what the value or weight of human testimony is, in \* *general* ; and compare it with the quantity of experience, with respect to the *particular* fact in question.

Now the value of *human testimony*, as such, is itself only to be had from an appeal to *past experience*, i. e. by considering how far *facts* in general have been found to agree with the *reports* of men concerning them. And, with respect to this point, it may certainly be affirmed with truth, that such agreement has not obtained *universally* ; and consequently, that *human testimony*, as such, is at best, but upon a level, in point of authority, with a *general* experience. In a word, that the most that can be said with justice in its behalf, is, that it is, upon the whole, *more* probable that it should be *true*, than that it should be *false*.

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\* This is laid down as a *general* rule. With respect to such events indeed as are *conformable* in any degree with our past experience, we have nothing to do, but to enquire into the *particular* credit of the attestation that is tendered on their behalf : Because such events, being *credible* in themselves, are capable of being ascertained by witnesses that are *credible* in like manner. But as events also may fall under our examination, which are totally *inconsistent* with our past experience, and which are consequently *incredible* in their own nature ; the question then will be, whether testimony, however credible, will intitle them to our assent ? And, in order to know that, the value of human testimony, *as such*, must be ascertained in the first place.

On this account, whatever human *testimony*, as such, may contribute to the establishment of a fact, which is *conformable* in any degree, with our past *experience*, in like cases; it cannot be of weight when thrown into the balance *against* an experience that has *universally* obtained. Our conviction and assent, we may observe, depends, in such case, on two separate considerations, *viz.* the truth of the *attestation*, and the suffrage of past *experience*. Now, as far as the *former* of these is concerned, there is, with a *superior* probability indeed that the allegation is *true*, a *degree* of probability at the same time, that it is *false*; whilst we find, when we reflect upon the *latter*, the *highest* probability there *can be* of its *falsehood*, without even the *lowest* ground of presumption imaginable in favour of its truth. When a fact therefore is attested, which is absolutely *inconsistent* with the *whole* tenor of human experience; *as far as* testimony, in general, and experience, in respect of such matters, are *alone* concerned in regulating our judgment, and determining our assent, such attestation can never be of real efficacy, nor consequently, the fact supported by it intitled to our admission.

At the same time however, that so great a stress is laid upon the argument founded in *experience*, it is not on account of any *intrinsic*

*trinsec* authority of its own; since, as hath been already observed, the argument, arising from this consideration, is, in fact, nothing better than a downright *presumption*. When therefore we reject a *Testimony*, that opposes itself to the *universal experience* of mankind, it is not because such experience is, in itself, any *argument*, properly speaking, against the belief of the fact attested; but because, as far as experience may be urged as a foundation of belief at all, the preference will naturally become due to the *greater* degree of it, when set in competition with one that is *less*.

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## S E C T. V.

**T**HESE considerations upon the method of reasoning from *experience*, having naturally led us into an inquiry concerning the credibility of Events in general; it is farther incumbent upon us, before we dismiss that subject, to inquire also, whether *experience*, in these matters, be our *only* rule of judgment. For, since it does not, properly speaking, furnish any kind of *argument* in this case, one way or the other, there is plainly no *necessity* in the nature of things to suppose, but that such Events also may *occasionally* take place, as, being beside the general order, have hi-

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therto indeed *never* fallen within our notice. The only quæstion will be, whether it is *probable* that they should? Whether there are sufficient grounds, from any consideration of *another* kind, to suppose that events *may* come to pass, which, as far as we can judge from *Experience* indeed, there are the highest reasons to imagine will *not*?

Now, if the order of nature be subject to a *power* existing in the universe, which is capable of producing a change in it, events *beside* that order may certainly take place at any time: And if the agent invested with such *Power*, be farther disposed, by the requisite qualifications of *Wisdom* and *Goodness*, to produce a change of that sort, on a supposition of it's expediency, the improbability of such Events, as far as it arises from their *contrariety* to our *past Experience*, will, in proportion as these particulars can be ascertained to the mind, vanish and disappear.

Again; if every thing was *produced*, by the energy and operation of some active *principle* existing in the universe, we cannot doubt of the existence also of such a *Power* as we have been speaking of; because a *Power* to ordain, is also a *Power* to *re-ordain*:—Nor of the farther qualifications of the same agent, in respect of *Wisdom* and *Goodness*; because whatever grounds there be to suppose the existence  
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of a *first Cause* itself, the *latter* perfections will be in like manner deducible from the *method* and visible *ends* of it's appointments. For, whatever disputes might otherwise arise concerning the necessity of a *wise* agent. to solve the appearances of *wisdom* and *providence* in the system of nature ; if it be once allowed, that every finite being did originally procede from a *principle* of *causation*, it will naturally follow, and by parity of reasoning, that every *wise* and *good* appointment did originally procede also from a *principle* of *wisdom* and *goodness*. And hence, the only remaining quæstion will be, whether the system we behold was actually a *production*, in which some præ-existent nature concurred—and, *on what grounds*, we assert this to have been the real truth of the case? And, for the resolution of this quæstion, we are diligently to search in the respective sources of human knowlege; and see, what each may, of itself, or in conjunction with the rest, contribute to the discovery.

That none of these then do, *directly*, and *immediately*, and *separately* taken, suggest this truth, is obvious on the slightest attention. Not *Experience*; for in that case it would be the object of sense. Not the *moral* faculty of *Perception*; for that extends but to the general information that no finite nature could begin to exist of itself, which is

not the *whole* point in quæstion. Nor finally, is the existence of a first cause a *necessary* truth in the eye of *Reason*; because no contradiction, as far as we know, is implied in the supposition of the contrary.

Let us inquire then, in the next place, how far experience and reason *together* will carry us.

The universe then, as far as it lies open to our view, is evidently a system of finite Natures; of which all our knowledge however is confined to this, that every thing subsists by a perpetual succession, and that that succession is regulated by an invariable law. Where certain Events, in *similar* circumstances, are uniformly attended with the *same* consequences, without the least exception, even of a single instance, to the contrary. Now an ordinary attention to these particulars cannot fail, amongst others, to suggest the following observation, *viz.* that, in all this train of mutable and transitory being, “ nothing did  
“ ever in reality *take place*, which had not  
“ immediate relation to, and *actual* Con-  
“ junction with, something that *went before*  
“ it.

The observation I thus make upon what passes within my sight, I transfer to every thing of the *same* kind, whether it fall under  
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my inspection, or not. I conclude therefore from hence, and think I have good ground to conclude, that all *finite* existences whatever, (since it is evidently the case with all I am acquainted with) did at first take place in *like* manner, *i. e.* under the similar circumstances of an immediate relation to, and *actual* conjunction with, some extraneous and *præ-existent* Nature likewise.

Thus far then, as I apprehend, our conclusion will be just: And we have all the assurance that *Reason* grounded upon *Experience* can in any case afford, that, “ antecedently  
 “ to the existence of every finite Nature in  
 “ the universe, something else had being, on  
 “ the juxta-position, application, accession,  
 “ intervention, (or whatever we please to call  
 “ it) of which, those several finite Natures  
 “ entered upon their respective stations in the  
 “ system of which they are a part.” — But *beyond* this, we cannot, on *this* foundation, procede a single step. Permanent as may seem that order in which natural Events take place; unvaried as is, in fact, the law of their succession; and however uniform the conjunction that has hitherto obtained; — to that *single* fact is *all* our *knowlege* of their natures limited. Of any thing we see, this is the most we can *declare*. From any thing we see therefore, this is the most we can *infer*. That union *may* procede from a  
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Connection in their *natures*, for any thing, it is true, that we know to the contrary ; but, as the *single* circumstance of their union does by no means point it out, such connection, for any light it is at all probable we shall ever receive from experience, must be a secret to all eternity. Hence, however we may be assured of a præ-existent Nature, under the several circumstances just now enumerated, for a principle of *Causation* we are still to seek. In a word, we gather from *Experience* indeed, that every thing, which *began* to be, has a certain relation to something that existed before it ; but our knowlege of that relation, deducible from this source, amounts to nothing more than the simple consideration of them as *antecedent* and *consequent* in the order of time.

This then may suffice to shew how little is to be expected in this point from the *analytical* method of argumentation ; and where men have nothing to procede upon but their own *Experience*.

But neither does *Reason* promise to be a better guide, if we intend to rest the issue on the decisions of that *alone*. Much indeed has been pretended to, in the deductions *à priori* ; which, proceeding upon certain premises, through the several steps of a regular process, terminating in a conclusion to this purpose, have

have been mistaken, by such as used them, for *demonstrative* proofs, though the *essential* character has all along been wanting, and what alone could intitle them to the name they bear. *Demonstration* procedes, in all cases, upon some *necessary* truth, as the first and fundamental principle, upon which it's weight and efficacy depends: And, where this is not to be had, whatever be the subject of our inquiry, and whatever light that subject may be capable of receiving from any *other* quarter, it certainly is not susceptible of *demonstrative* evidence. And this is manifestly the case with respect to every argument of the *synthetical* kind, that has ever been taken in hand, with the prospect or intention of establishing the truth now under consideration, *viz.* the existence of the first and universal *Cause*. We may fairly challenge every Reasoner, of every class, to produce a single process tending to confirm this opinion which sets out, and is founded upon, what may properly be called a *necessary* truth; a truth, of which the direct contrary may not be affirmed consistently with all that we know of the natures of things, and without any just offence to *Reason*, properly so called. If this *is* to be done, I shall readily give up the point I am contending for: If it is *not*, then neither is the existence of a principle of *Causation* capable of being established on that sort of proof which is properly called *demonstrative*.

Now,

Now, “ that the several existences we  
 “ every where contemplate, could not have  
 “ taken place *singly* and *independently*.” —  
 this, I say, is a truth, of which no other as-  
 surances can be had, than such as our *inward*  
*perceptions* afford, and *Nature* imperceptibly  
 suggests. We cannot indeed persuade our-  
 selves that they *should* do so; nay more, we  
*feel*, we are *persuaded* they could *not*: But  
 no *reason* can be shewn why they should *not*;  
 and therefore nothing can be admitted as  
 a *certainty*, which is deducible only from  
 such a supposition. No argument can be  
*universally* conclusive, which proceeds upon  
 any other than *incontestibly* certain principles:  
 And no principles can be *incontestibly* certain,  
 however we may *otherwise* be *persuaded* of  
 their truth, if nothing hinders, in the *nature*  
*of things*, but that the *contrary* also may be  
 true.

For these reasons then, we see, the argu-  
 ment for the existence of a first cause, which  
 proceeds upon the supposed *necessary* connec-  
 tion between causes and effects, will always  
 be liable to exceptions (considered as a *demon-*  
*strative* proof) unless that necessity can first be  
 made out. For *demonstrative* proof is always  
 founded upon, not barely *self-evident*, for  
 this will not suffice, unless also they be neces-  
*sary* truths. I am indeed *persuaded*, in my  
 own

own mind, of that necessary connection we are speaking of; so is another; so is the bulk of mankind: And I think moreover, that every man, so persuaded, must naturally infer from hence the existence of a supreme first Cause. But then we must observe, that the force of a conclusion so wrought up, is only of a *personal* and *private* nature: What I cannot indeed but draw for myself; but what at the same time, I cannot press, as a *reasoner*; upon another person: It is one thing to be persuaded, myself; and to be able, in this case, to convince my neighbour, clearly another. Whatever is to me self-evident, I cannot but admit; and I cannot but admit whatever is a natural consequence of that: But if the same principle, however evident to *me*, be not also *necessary*, I cannot urge the consequences of it upon *another* person's mind. I cannot, in that case, even presume to tender an argument for this purpose, without previously requiring him to subscribe to my first principles; whereas, in order to a proof that is truly *demonstrative*, a *postulatum* of this kind can never be necessary. Every principle upon which *demonstrative* reasoning proceeds, being a *necessary* truth, and what no man *can* refuse his assent to, if he would.

Men of strict probity; and who, as such, have a strong attachment to truth in general, if they happen at the same time to have at-

tended but little to what passes in their own breasts, while Opinions of any kind are forming into habits, frequently misapprehend what they *feel* to be true, for what is capable of being *demonstrated*. From an apparent similarity in their general effects upon the mind, the impressions of *nature* are mistaken, by such persons, for the dictates of *reason*: And they are apt to take it amiss, if such as have carried their inquiries farther, represent this as inaccurate or unphilosophical; though, by tracing their conclusions to the source they spring from, they are able to specify the *difference* they allude to, and thereby justify the *distinction* they contend for.

But human nature will still be human nature, however men may err, for want of examination, in their several opinions, about the quality or extent of its powers: And we can have no just quarrel with those who have made it their study, if it appear, on due inquiry, that they have but represented things as they really are. However we may except against the disposition of things on the globe, are we angry with the geographer who transfers it into his chart? In either case indeed, if we dare not blaspheme the artist who hath wrought up the scene itself, what have we to complain of in the philosopher, who hath but copied it for our inspection?

It should seem then, that the important truth under our present consideration, is not defensible, after all, on *those* principles, which mankind have hitherto supposed to be the only grounds of its admission. The existence of a first cause is not, it seems, capable of being *demonstrated*? I answer, in one word, No. It neither is, nor can be, the object of *that* species of proof, because it is not deducible from any principle of *necessary* truth. It is ordered otherwise in the nature and constitution of ourselves, and every thing about us. And if we will not be contented with such knowledge, in this point, as the information provided on that behalf is calculated to supply us with; our proper quarrel is, not with this or that philosopher, who does but state the case to us as it really is, but with the author of Nature himself, by whose particular appointment things are as they are.

The proper evidence then, on which this Truth is so universally established, and on which alone it is capable of a rational defence, is, as I conceive, of a mix'd and compound nature. *Experience*, alone, will not point it out to the nicest observation: Nor will *Reason* succede better in the investigation hereof where *Nature* has not done her part beforehand. To the *joint* assistance of them *all* we are indebted for the discovery: And, how-

ever it may flatter a mistaken pride to suppose the contrary, yet true it is beyond all reasonable ground of controversy, that the several deductions to this purpose, which we readily acknowledge to be the work, and indeed the proper province of *reason*, are originally founded upon, and of no force or efficacy without certain first principles of a very different kind, and of which no just account can possibly be given, which does not fairly resolve them at last into the make and constitution of our *nature*.

Nor is it any disparagement to the argument we are pursuing, that we are forced to try the issue of it upon *this* foundation. For *truth* surely will ever be entitled to our reception, on *whatever* recommendation it approaches: As its evidences will never fail of their proper *force*, though it be shewn that less discerning persons have mistaken the proper *character* of them. Its authority indeed can never be impaired, while *nature* vouchsafes her patronage, however *Reason* may fail, in particular instances, to administer those farther succors, we might promise ourselves would be furnished also from *that* quarter. Do philosophers then upbraid us with the want of knowledge? Be assured, it is in such points only, where *perfect* knowledge is not necessary. Do they tell us that our conclusions are not the effect of *demonstrative* evidence?

dence? Our answer is, that they are built however on deductions from principles of undoubted truth; and are the genuine information of a light more universal in its nature, and extensive in its Influence. And 'tis a folly sure to repine that truths of any kind were not communicated to us on *mathematical* evidence, while every man bears in his own breast a perpetual testimony to their reality; which, though no reasoning can confirm, no reasoning can invalidate; and if not to be asserted on the footing of *argument*, the most sceptical suggestions shall never overturn.

The testimony I mean, is that indelible *persuasion* of the human mind, in consequence of which we are led to acknowledge it as a certain truth, that "Nothing could ever have begun to exist of itself;" but that every thing, which ever *began* to exist at all, did really flow from some *præ-existent* nature, whose active influence introduced it on the stage of being. In establishing which persuasion, *reason* can have no share, since there is nothing, properly speaking, *unreasonable* in supposing the contrary. *Experience* likewise, only reaching, to *actual* connections, is of no authority, in the present case, any more than *Reason*. It informs us indeed what *has* been, and is a ground of *presumption* concerning what *will* be: But that either  
what

what has been or will be, has been or will be of *natural necessity*, is more than can be collected from any thing we have opportunity of observing. Experience indeed may lead us to *this* conclusion, that “ nothing ever did “ begin to exist without a relation of *some* “ kind or other to something antecedent to “ itself in the order of time ;” but that finite existences have any *farther* relation to, *i. e.* any *intimate* and *necessary* connection with such antecedent nature, as the *productive cause* of them, is a persuasion from a *different* principle. It is indeed to be accounted for from *nature* and *constitution* only. It is a truth I *feel* the force, but do not *see* the necessity of: And, in a word, what, after all my search, I cannot but sit down in the firm *belief* of, though I do not *know*, of a certainty, but that the contrary is possible in like manner.

And from this, as a *principle* which I cannot doubt the truth of, I consider, in the next place, what may fairly be *deduced*. *Persuaded* then that every finite existence must necessarily be a *production*; and finding that the several existences in the system about us *are* of a finite nature; my *Reason* infers from hence, as an undeniable consequence, that every existence in that system did *actually* commence under that very circumstance. And hence arises my *personal* conviction of  
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the *actual* existence of the supreme universal cause of all things.

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## S E C T. VI.

**U**PON whatever grounds we are thus induced to believe the existence of a *principle of causation* itself, we cannot but be assured, in the same degree, that it is attended, in the Object or Being to which it is referred, with the several attributes of consummate *wisdom* and *goodness*, as well as *ability*; since, if every thing was *produced*, *wise* and *beneficial* effects were necessarily produced by a *wise* and *beneficent* cause. This is but a natural consequence from the premises we are now in possession of.

From those heights of knowledge therefore, which *nature* and *reason* thus *jointly* assist us to attain, if we descend once more to the contemplation of that lower scene from which we set out on this inquiry, the first thing, and what will indeed immediately suggest itself to our notice, is; that every thing we there behold, must, in consequence of what we lately discovered of the nature of the *supreme* Being, be absolutely subject to the determinations of his will. Hence, that  
general

general plan, which was the effect of his appointment, he must ever be at liberty to vary at his pleasure. Any order there observed must be subject to his controul; and therefore, however established, must be *suceptible* of change.

I find indeed, as often as I consider these matters thoroughly, that an administration of government by *one general* method, answers a great variety of the most excellent purposes: And I conclude, that, on this account, a general method of administration was at first laid down, which, I find from experience, has, in the main, been all along pursued. The known *wisdom* of the governor is also a pledge to me that he will never depart from this order, unless the nature of things should at any time require it: But, in that case, I have the *same* ground of assurance that he infallibly will. On this account, my *past experience* cannot be considered as an *exclusive* criterion of what it is probable shall come to pass or not: Because, though on *that* foundation it be credible, in general, that the established order shall *continue* to obtain; yet, if a *variation* of government should at any time appear *expedient*, the very sense of such expediency, concurring with the former considerations, will render a variation *credible*. In a word, *experience* indeed informs me, that, in the course of nature, certain laws *have* obtained with

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unvaried order; and furnishes a conclusion that the same uniformity *will* obtain in all future instances: But, being fully *persuaded*, from what passes within me, of the existence of a principle of *causation*, I am in the same degree assured also of the existence of a *power* in nature, to which that order is subjected. To *me* therefore, the *possibility* of the *suspension* of any particular law will be as credible as the *actual continuation* of it. And, being farther persuaded of the *wisdom* of that being, in whose hands I suppose the administration of things to be vested; whenever *that* shall become a matter of wisdom, the *actual* suspension of it will be so to.

Observe here, that all this is offered only as an account of what passes in *my own* mind, where certain principles have taken deep root; and not as an argument that pretends to *universality*, or which I expect should operate where those principles are not acknowledged. It is a process indeed in which *reason* does manifestly bear a part; yet where she cannot, with propriety, be said to take the *lead*: And where, whatever she may contribute to the establishment of our purpose, it is but as a commentator on the text of nature.

Upon the whole however, it cannot be denied, that, when we assert the existence of a principle of *causation*, it is on as good

authority as any truth whatever is established that is not *mathematically* deducible, or the *immediate* object of our senses. It is *nature's* own suggestion ; and, as such, of exactly the same authority, weight, and value, with any *other* conclusion of the mind, for which *nothing but* the influence and operation of *nature* can be pleaded. I will only add at present, by way of example, that it is therefore of *equal* authority with any inference of the mind carried into *futurity*, from the *observations* we have made upon events that are *past*. In the latter case indeed we argue *from certainties*, or known truths ; but the *argument* itself is every whit as *arbitrary*, and indefensible on the principles of *reasoning*, as the supposition we have been considering, *viz.* that “ Nothing could begin to exist of it-  
“ self.” But of this more hereafter.

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## S E C T. VII.

**S**INCE *experience* then, if we consider the matter thoroughly, is in reality to be looked upon rather as a *natural* ground of *persuasion*, than as a *necessary* medium of conviction ; (because, though in consequence of its operation upon the mind we do indeed believe, yet, at the same time, we cannot assign

assign a *reason* for it ; on this account) when the arguments we have formed on *that* foundation are brought in competition with such as *necessarily* follow from principles indisputably *natural* to the human mind, we shall find that the latter also will become intitled to our attention as much as the former. I conclude, for instance, that, if a stone or other heavy body be projected into the air, it will descend to the Earth again ; and why ? because *Experience* informs me that, where no apparent cause has interfered to prevent it, *it always has* done so. In like manner, I conclude also that there is an active principle existing in the Universe, from whose energy and influence all finite Natures whatsoever derived their being ; and why ? because I am *necessarily persuaded*, in consequence of my frame and constitution as a Man, that *nothing could ever have begun to exist of itself*. One of these conclusions seems as warrantable as the other. *Neither* has any foundation, properly speaking, in *Reason* ; and the voice of *Nature* declares for *both*. Each is as natural, as unavoidable, as justifiable as the other : And, in the business of reasoning therefore, where they come in competition, each seems to deserve alike our consideration and regard.

Taking it for granted then, at present, that the Power or Principle, which at *first*

established the order we behold, is sufficient also for the *farther* purposes of *suspending* or superseding the same at any time, there seems to be *equal reason* for believing, on the one hand, that the Course of Nature, in any assignable instance, *will* continue; and, on the other, that it *may* be over-ruled. Nay farther, if there be any reason to imagine that infinite *Wisdom* and *Goodness* are concerned in the present supposed administration of things; (and there will always be exactly the same reason to imagine this, as to imagine that there is any administration of government at all,) in that case, whenever it can be farther made to appear that a suspension of the course of Nature in any particular instance would be a matter of *Wisdom* and *Goodness*, it is not only as probable that it *may* be *suspended*, as that it *will* continue, but as probable also, in such instance, that it *will* be suspended. On the former of these suppositions, the *possibility* of it's suspension is as credible as the *actual continuation* of it; on the latter, it's *actual suspension* is as credible.

In comparing the evidences then that arise from *Testimony* on the one hand, and *Experience* on the other, cases may occur, we see, in which it will be necessary to depart from the *general* rule: Since, what we may have good grounds to *reject*, on the appeal to *Experience only*, may, on *other* considerations, be-

become equally intitled to our *admission*; and, in that case, a competent *Testimony* will be sufficient to turn the scale. It is *natural* indeed to believe that a stone projected into the air will descend to the earth again; but it is also *equally* natural to believe that it *may* be suspended there. Nay farther——it *may* become equally natural to believe that it *will* be suspended there: And, in such case, an attestation which is *more* likely to be *true* than *false*, will be sufficient to determine the reality of the fact. And hence we may observe, upon the whole, that, as that which is *conformable*, in a proper degree, with our *Experience*, is always capable of being ascertained by a competent *Testimony*; so, that also which is *incredible* for *want* of such conformity, may nevertheless be so circumstanced as to become *credible* on *other* accounts; and therefore, in a particular juncture of circumstances, become susceptible of actual proof from *Testimony* likewise.

It must be owned indeed that, in the present account of the matter, the argument deduced from the natural *feelings* or *perceptions* of the human mind, is supposed to be of *equal* weight, and intitled to the same attention and regard with the argument formed upon the past *Experience* of Mankind. And as the case will be found to stand, on a nearer view, the supposition, I am persuaded,

suaded, is not ill-grounded. Neither is defensible as a conclusion of *Reason*; and, considered as an *arbitrary* inference of the mind, one seems to be as warrantable as the other. The *necessary* consequences of *natural* principles seem to have full as good a claim to our admission, as a mere *presumption* suggested even from *facts*.

Mr. *David Hume*, who has handled the subject of the credibility of facts in general, with great perspicuity and precision, has concluded that such as are totally contrary to human Experience are not capable of being ascertained by human Testimony. But this can only hold good on a supposition which that Gentleman seems to have adopted without sufficient grounds, *viz.* that Experience is an *exclusive* test of what is credible or incredible in the order of natural events. As far indeed as that test *alone* is considered, the conclusion *will* hold good; because whatever be the value of the general argument from Experience, a *greater* degree will necessarily prevail upon the comparison with a *less*. But to consider that *alone* as a test, in the present case, is, as I apprehend, to consider the grounds of credibility too partially. An Event will be credible which is *contrary* to our past Experience, to any person that is persuaded of the Existence of a Power equal to the production of it: And every

every man's *persuasion* in *this* point stands exactly on the *same* foundation with the *persuasion*, on the *other* hand, that an Event of any kind will *therefore* come to pass, in certain circumstances, because it has always taken place in the *same* circumstances *heretofore*. The inference, in the *latter* case, can only be accounted for from an impulse of *nature*; and, on the *same* principle, every thing is defensible in like manner that is affirmed in the *former*. In a word, the *supposed* conjunction of any two events, in time *to come*, has no more relation to their *actual* conjunction in time *past*, than the *supposed* existence of a first cause has to the *actual* existence of the several finite natures of the Universe. *Neither* indeed can be inferred, as *absolute certainties*; and, as *natural probabilities*, they rest exactly on the *same* foundation.

## C O N C L U S I O N.

**T**HE candid Inquirer, who will be able by this time to judge for himself of the merits of the present quæstion, is desired however to take what follows by way of recapitulation.

In judging of *future* events, we cannot at all determine about their *coming* or *not coming* to pass, by any reasoning *à priori*.

We

We can only form a judgment concerning them from what we know already of the general Order, *i. e.* from our observation and *experience* with respect to what is past.

The judgment we form in *this* manner is not an act of *reason*, but a mere inference of the mind to which it is impelled by *Nature*.

When therefore we say a thing is likely to come to pass, in certain circumstances, which, in those circumstances, has always come to pass *before*, our judgment concerning such likelihood is not a *rational* conclusion, however it be a *natural* one.

Now a case may happen in which it is every whit as *natural* (and reason is out of the question) to conclude that a *contrary* event, in any supposed circumstances, may come to pass, to that which, in the same circumstances, came to pass before.

In such case therefore, *viz.* where the point under consideration is not the object of *Reason*, and *either* supposition is *equally* agreeable to *Nature*, human Testimony, *as such*, will be sufficient to determine our *assent*. And our assent, in such case, will be but *natural*, and agreeable to our method of judging from *Experience*: Since Experience assures us, that *facts* agree with the *reports* of Witnesses, *oftener* than they disagree, *i. e.* that human Testimony is *oftener* true than false.

*Ex.*

*Ex. gr.*

*On the one Hand,*

*On the other Hand,*

It is *natural* to conclude (but not *reasonable*) from what we have hitherto observed, that a particular Event, in the general order, which in certain circumstances, has uniformly taken place, shall, in *similar* circumstances, take place hereafter.

It is equally *natural*, (however not *reasonable*) to conclude also, that “nothing could ever begin to exist of itself.”— And every thing, which *necessarily* follows from this, it will therefore be *equally natural* to conclude; *viz.*

That every thing therefore was *produced*: Or, that there is a *first cause*, an active, productive principle, existing in nature.

That there is a *Power* existing capable of producing a *new Order.*

I That

That the same principle of action is also indued with consummate *Wisdom*.

That, if occasions require, a change in the general order *will* be produced.

That therefore any assignable Event in the general order, which, in certain circumstances, hath uniformly taken place, may, even in *similar* circumstances, *not* take place; or, which is the same thing, that a *contrary* Event may take place.

These opposite conclusions then, in different circumstances, being equally *natural*, it is, in such case, but agreeable also to *nature*, and our general Method of judging from *Experience*, to assent to that of the two, as the *fact*, which is supported by *Testimony* (provided no *particular* circumstances render the *Testimony* exceptionable) because *Experience* shews that *Testimony*, in general, is *more* likely to be *true* than *false*.

F I N I S.