DAVID HUME: A TREATISE OF HUMAN NATURE

Being An Attempt to introduce the experimental Method of Reasoning into Moral Subjects
(1739-40)

Excerpts from Book I

PART I. OF IDEAS, THEIR ORIGIN, COMPOSITION, CONNECTION, ABSTRACTION, ETC.

SECT. I. OF THE ORIGIN OF OUR IDEAS.

All the perceptions of the human mind resolve themselves into two distinct kinds, which I shall call IMPRESSIONS and IDEAS. The difference betwixt these consists in the degrees of force and liveliness, with which they strike upon the mind, and make their way into our thought or consciousness. Those perceptions, which enter with most force and violence, we may name impressions: and under this name I comprehend all our sensations, passions and emotions, as they make their first appearance in the soul. By ideas I mean the faint images of these in thinking and reasoning; such as, for instance, are all the perceptions excited by the present discourse, excepting only those which arise from the sight and touch, and excepting the immediate pleasure or uneasiness it may occasion. I believe it will not be very necessary to employ many words in explaining this distinction. Every one of himself will readily perceive the difference betwixt feeling and thinking. The common degrees of these are easily distinguished; though it is not impossible but in particular instances they may very nearly approach to each other. Thus in sleep, in a fever, in madness, or in any very violent emotions of soul, our ideas may approach to our impressions, As on the other hand it sometimes happens, that our impressions are so faint and low, that we cannot distinguish them from our ideas. But notwithstanding this near resemblance in a few instances, they are in general so very different, that no-one can make a scruple to rank them under distinct heads, and assign to each a peculiar name to mark the difference.

There is another division of our perceptions, which it will be convenient to observe, and which extends itself both to our impressions and ideas. This division is into SIMPLE and COMPLEX. Simple perceptions or impressions and ideas are such as admit of no distinction nor separation. The complex are the contrary to these, and may be distinguished into parts. Though a particular colour, taste, and smell, are qualities all united together in this apple, it is easy to perceive they are not the same, but are at least distinguishable from each other.

Having by these divisions given an order and arrangement to our objects, we may now apply ourselves to consider with the more accuracy their qualities and relations. The first circumstance, that strikes my eye, is the great resemblance betwixt our impressions and ideas in every other particular, except their degree of force and vivacity. The one seem to be in a manner the reflection of the other; so that all the perceptions of the mind are double, and appear both as impressions and ideas. When I shut my eyes and think of my chamber, the ideas I form are exact representations of the impressions I felt; nor is there any circumstance of the one, which is not to be found in the other. In running over my other perceptions, I find still the same resemblance and representation. Ideas and impressions appear always to correspond to each other. This circumstance seems to me remarkable, and engages my attention for a moment.

Upon a more accurate survey I find I have been carried away too far by the first appearance, and that I must make use of the distinction of perceptions into simple and complex, to limit this general decision, that all our ideas and impressions are resembling. I observe, that many of our complex ideas never had impressions, that corresponded to them, and that many of our complex impressions never are exactly copied in ideas. I can imagine to myself such a city as the New Jerusalem, whose pavement is gold and walls are rubies, though I never saw any such. I have seen Paris; but shall I affirm I can form such an idea of that city, as will perfectly represent all its streets and houses in their real and just proportions?

I perceive, therefore, that though there is in general a great, resemblance betwixt our complex impressions and ideas, yet the rule is not universally true, that they are exact copies of each other. We may next consider how the case stands with our simple, perceptions. After the most accurate examination, of which I am capable, I venture to affirm, that the rule here holds without any exception, and that every simple idea has a simple impression, which resembles it, and every simple impression a correspondent idea. That idea of red, which we form in the dark, and that impression which strikes our eyes in sun-shine, differ only in degree, not in nature. That the case is the same with all our simple impressions and ideas, it is impossible to prove by a particular enumeration of them. Every one may satisfy himself in this point by running over as many as he pleases. But if any one should deny this universal resemblance, I know no way of convincing him, but by desiring him to shew a simple impression, that has not a correspondent idea, or a simple idea, that has not a correspondent impression. If he does not answer this challenge, as it is certain he cannot, we may from his silence and our own observation establish our conclusion.

Thus we find, that all simple ideas and impressions resemble each other; and as the complex are formed from them, we may affirm in general, that these two species of perception are exactly correspondent. Having discovered this relation, which requires no farther examination, I am curious to find some other of their qualities. Let us consider how they stand with regard to their existence, and which of the impressions and ideas are causes and which effects.

The full examination of this question is the subject of the present treatise; and therefore we shall here content ourselves with establishing one general proposition, THAT ALL OUR SIMPLE IDEAS IN THEIR FIRST APPEARANCE ARE DERIVED FROM SIMPLE IMPRESSIONS, WHICH ARE CORRESPONDENT TO THEM, AND WHICH THEY EXACTLY REPRESENT. . . .

SECTION IV. OF THE CONNECTION OR ASSOCIATION OF IDEAS.

As all simple ideas may be separated by the imagination, and may be united again in what form it pleases, nothing would be more unaccountable than the operations of that faculty, were it not guided by some universal principles, which render it, in some measure, uniform with itself in all times and places. Were ideas entirely loose and unconnected, chance alone would join them; and it is impossible the same simple ideas should fall regularly into complex ones (as they commonly do) without some bond of union among them, some associating quality, by which one idea naturally introduces another. This uniting principle among ideas is not to be considered as an inseparable connection; for that has been already excluded from the imagination: Nor yet are we to conclude, that without it the mind cannot join two ideas; for nothing is more free than that faculty: but we are only to regard it as a gentle force, which commonly prevails, and is the cause

why, among other things, languages so nearly correspond to each other; nature in a manner pointing out to every one those simple ideas, which are most proper to be united in a complex one. The qualities, from which this association arises, and by which the mind is after this manner conveyed from one idea to another, are three, viz. RESEMBLANCE, CONTIGUITY in time or place, and CAUSE and EFFECT.

I believe it will not be very necessary to prove, that these qualities produce an association among ideas, and upon the appearance of one idea naturally introduce another. It is plain, that in the course of our thinking, and in the constant revolution of our ideas, our imagination runs easily from one idea to any other that resembles it, and that this quality alone is to the fancy a sufficient bond and association. It is likewise evident that as the senses, in changing their objects, are necessitated to change them regularly, and take them as they lie CONTIGUOUS to each other, the imagination must by long custom acquire the same method of thinking, and run along the parts of space and time in conceiving its objects. As to the connection, that is made by the relation of cause and effect, we shall have occasion afterwards to examine it to the bottom, and therefore shall not at present insist upon it. It is sufficient to observe, that there is no relation, which produces a stronger connection in the fancy, and makes one idea more readily recall another, than the relation of cause and effect betwixt their objects. . . .

Of the three relations above-mentioned this of causation is the most extensive. Two objects may be considered as placed in this relation when one is the cause of any of the actions or motions of the other just as when it is the cause of the existence of the other. For that action or motion is nothing but the object itself, considered in a certain light, and as the object remains otherwise the same in all its different situations, it is easy to imagine how such an influence of objects upon one another may connect them in the imagination.

We may carry this farther, and remark, not only that two objects are connected by the relation of cause and effect when the one produces a motion or any action in the other, but also when it has a power of producing it. . . . These are therefore the principles of union or cohesion among our simple ideas, and in the imagination supply the place of that inseparable connection, by which they are united in our memory. Here is a kind of ATTRACTION, which in the mental world will be found to have as extraordinary effects as in the natural, and to shew itself in as many and as various forms. Its effects are every where conspicuous; but as to its causes, they are mostly unknown, and must be resolved into original qualities of human nature, which I pretend not to explain. . . .

PART II, SECTION III. OF THE OTHER QUALITIES OF OUR IDEA OF SPACE AND TIME.

No discovery could have been made more happily for deciding all controversies concerning ideas, than that abovementioned, that impressions always take the precedency of them, and that every idea, with which the imagination is furnished, first makes its appearance in a correspondent impression. These latter perceptions are all so clear and evident, that they admit of no controversy; though many of our ideas are so obscure, that it is almost impossible even for the mind, which forms them, to tell exactly their nature and composition. Let us apply this principle, in order to discover farther the nature of our ideas of space and time.

Upon opening my eyes, and turning them to the surrounding objects, I perceive many visible bodies; and upon shutting them again, and considering the distance betwixt these bodies, I acquire the idea of

extension. As every idea is derived from some impression, which is exactly similar to it, the impressions similar to this idea of extension, must either be some sensations derived from the sight, or some internal impressions arising from these sensations.

Our internal impressions are our passions, emotions, desires and aversions; none of which, I believe, will ever be asserted to be the model, from which the idea of space is derived. There remains therefore nothing but the senses, which can convey to us this original impression. Now what impression do oar senses here convey to us? This is the principal question, and decides without appeal concerning the nature of the idea.

The table before me is alone sufficient by its view to give me the idea of extension. This idea, then, is borrowed from, and represents some impression, which this moment appears to the senses. But my senses convey to me only the impressions of coloured points, disposed in a, certain manner. If the eye is sensible of any thing farther, I desire it may be pointed out to me. But if it be impossible to shew any thing farther, we may conclude with certainty, that the idea of extension is nothing but a copy of these coloured points, and of the manner of their appearance.

Suppose that in the extended object, or composition of coloured points, from which we first received the idea of extension, the points were of a purple colour; it follows, that in every repetition of that idea we would not only place the points in the same order with respect to each other, but also bestow on them that precise colour, with which alone we are acquainted. But afterwards having experience of the other colours of violet, green, red, white, black, and of all the different compositions of these, and finding a resemblance in the disposition of coloured points, of which they are composed, we omit the peculiarities of colour, as far as possible, and found an abstract idea merely on that disposition of points, or manner of appearance, in which they agree. Nay even when the resemblance is carryed beyond the objects of one sense, and the impressions of touch are found to be Similar to those of sight in the disposition of their parts; this does not hinder the abstract idea from representing both, upon account of their resemblance. All abstract ideas are really nothing but particular ones, considered in a certain light; but being annexed to general terms, they are able to represent a vast variety, and to comprehend objects, which, as they are alike in some particulars, are in others vastly wide of each other.

The idea of time, being derived from the succession of our perceptions of every kind, ideas as well as impressions, and impressions of reflection as well as of sensations will afford us an instance of an abstract idea, which comprehends a still greater variety than that of space, and yet is represented in the fancy by some particular individual idea of a determinate quantity and quality.

As it is from the disposition of visible and tangible objects we receive the idea of space, so from the succession of ideas and impressions we form the idea of time, nor is it possible for time alone ever to make its appearance, or be taken notice of by the mind. A man in a sound sleep, or strongly occupyed with one thought, is insensible of time; and according as his perceptions succeed each other with greater or less rapidity, the same duration appears longer or shorter to his imagination. It has been remarked by a great philosopher, that our perceptions have certain bounds in this particular, which are fixed by the original nature and constitution of the mind, and beyond which no influence of external objects on the senses is ever able to hasten or retard our thought. If you wheel about a burning coal with rapidity, it will present to the senses an image of a circle of fire; nor will there seem to be any interval of time betwixt its revolutions; merely because it is impossible for our perceptions to succeed each other with the same rapidity, that motion may be communicated to external objects. Wherever we have no successive perceptions, we have no notion of time, even though there be a real succession in the objects. From these phenomena, as well as from many others, we may conclude, that time cannot make its appearance to the mind, either alone, or attended with a steady unchangeable object, but is always discovered by some PERCEIVABLE succession of changeable objects.

To confirm this we may add the following argument, which to me seems perfectly decisive and convincing. It is evident, that time or duration consists of different parts: For otherwise we could not conceive a longer or shorter duration. It is also evident, that these parts are not co-existent: For that quality of the co-existence of parts belongs to extension, and is what distinguishes it from duration. Now as time is composed of parts, that are not coexistent: an unchangeable object, since it produces none but coexistent impressions, produces none that can give us the idea of time; and consequently that idea must be derived from a succession of changeable objects, and time in its first appearance can never be severed from such a succession.

Having therefore found, that time in its first appearance to the mind is always conjoined with a succession of changeable objects, and that otherwise it can never fall under our notice, we must now examine whether it can be conceived without our conceiving any succession of objects, and whether it can alone form a distinct idea in the imagination.

In order to know whether any objects, which are joined in impression, be inseparable in idea, we need only consider, if they be different from each other; in which case, it is plain they may be conceived apart. Every thing, that is different is distinguishable: and everything, that is distinguishable, may be separated, according to the maxims above-explained. If on the contrary they be not different, they are not distinguishable: and if they be not distinguishable, they cannot be separated. But this is precisely the case with respect to time, compared with our successive perceptions. The idea of time is not derived from a particular impression mixed up with others, and plainly distinguishable from them; but arises altogether from the manner, in which impressions appear to the mind, without making one of the number. Five notes played on a flute give us the impression and idea of time; though time be not a sixth impression, which presents itself to the hearing or any other of the senses. Nor is it a sixth impression, which the mind by reflection finds in itself. These five sounds making their appearance in this particular manner, excite no emotion in the mind, nor produce an affection of any kind, which being observed by it can give rise to a new idea. For that is necessary to produce a new idea of reflection, nor can the mind, by revolving over a thousand times all its ideas of sensation, ever extract from them any new original idea, unless nature has so framed its faculties, that it feels some new original impression arise from such a contemplation. But here it only takes notice of the manner, in which the different sounds make their appearance; and that it may afterwards consider without considering these particular sounds, but may conjoin it with any other objects. The ideas of some objects it certainly must have, nor is it possible for it without these ideas ever to arrive at any conception of time; which since it, appears not as any primary distinct impression, can plainly be nothing but different ideas, or impressions, or objects disposed in a certain manner, that is, succeeding each other.

PART II, SECT. VI. OF THE IDEA OF EXISTENCE, AND OF EXTERNAL EXISTENCE.

It may not be amiss, before we leave this subject, to explain the ideas of existence and of external existence; which have their difficulties, as well as the ideas of space and time. By this means we shall be the better prepared for the examination of knowledge and probability, when we understand perfectly all those particular ideas which may enter into our reasoning.

There is no impression nor idea of any kind, of which we have any consciousness or memory, that is not conceived as existent; and it is evident, that from this consciousness the most perfect idea and assurance of being is derived. From hence we may form a dilemma, the most clear and conclusive that can be imagined, viz. that since we never remember any idea or impression without attributing existence to it, the idea of existence must either be derived from a distinct impression conjoined with every perception or object of our thought or else must be the very same with the idea of the perception or object.

As this dilemma is an evident consequence of the principle that every idea arises from a [counterpart]

similar impression, so our decision between the propositions of the dilemma is no more doubtful. So far from there being any distinct impression attending every impression and every idea, I do not think there are any two distinct impressions which are inseparably conjoined. Though certain sensations may at one time be united, we quickly find they admit of a separation and may be presented apart. And thus, though every impression and idea we remember be considered as existent, the idea of existence is not derived from any particular impression [inseparably or always conjoined with them].

The idea of existence, then, is the very same with the idea of what we conceive to be existent. To reflect on any thing simply, and to reflect on it as existent, are nothing different from each other. That idea, when conjoined with the idea of any object, makes no addition to it. Whatever we conceive, we conceive to be existent. Any idea we please to form is the idea of a being; and the idea of a being is any idea we please to form. Whoever opposes this, must necessarily point out that distinct impression, from which the idea of entity is derived, and must prove, that this impression is inseparable from every perception we believe to be existent. This we may without hesitation conclude to be impossible. . . .

A like reasoning will account for the idea of external existence. We may observe, that it is universally allowed by philosophers, and is besides pretty obvious of itself, that nothing is ever really present with the mind but its perceptions or impressions and ideas, and that external objects become known to us only by those perceptions they occasion. To hate, to love, to think, to feel, to see; all this is nothing but to perceive.

Now since nothing is ever present to the mind but perceptions, and since all ideas are derived from something antecedently present to the mind; it follows, that it is impossible for us so much as to conceive or form an idea of any thing specifically different from ideas and impressions. Let us fix our attention out of ourselves as much as possible: Let us chase our imagination to the heavens, or to the utmost limits of the universe; we never really advance a step beyond ourselves, nor can conceive any kind of existence, but those perceptions, which have appeared in that narrow compass.

PART III, SECTION I. OF KNOWLEDGE AND PROBABILITY

There are seven different kinds of philosophical relation, which may be divided into two classes, as follows: (1) RESEMBLANCE, CONTRARIETY, DEGREES IN ANY QUALITY, PROPORTION IN QUANTITY OR NUMBER; and (2) IDENTITY, RELATIONS OF TIME AND PLACE, and CAUSATION. The first class of these relations are such as depend entirely on the ideas which we compare together, and the second are such as may be changed without any change in the ideas. It is from the idea of a triangle, that we discover the relation of equality, which its three angles bear to two right ones; and this relation is invariable, as long as our idea remains the same. [With relations of the second class, it is otherwise.] Thus, the relations of contiguity and distance betwixt two objects may be changed merely by an alteration of their place, without any change on the objects themselves or on their ideas; and the place depends on a hundred different accidents, which cannot be foreseen by the mind. It is the same case with identity and causation. Two objects, though perfectly resembling each other, and even appearing in the same place at different times, may be numerically different: And as the power, by which one object produces another, is never discoverable merely from their idea, it is evident cause and effect are relations, of which we receive information from experience, and not from any abstract reasoning or reflection. There is no single phenomenon, even the most simple, which can be accounted for from the qualities of the objects, as they appear to us; or which we could foresee without the help of our memory and experience.

It appears, therefore, that of these seven philosophical relations, there remain only four, which depending solely upon ideas, can be the objects of knowledge and certainty. These four are RESEMBLANCE,

CONTRARIETY, DEGREES IN QUALITY, and PROPORTIONS IN QUANTITY OR NUMBER. Three of these relations are discoverable at first sight, and fall more properly under the province of intuition than demonstration. When any objects resemble each other, the resemblance will at first strike the eye, or rather the mind; and seldom requires a second examination. The case is the same with contrariety, and with the degrees of any quality. No one can once doubt but existence and non-existence destroy each other, and are perfectly incompatible and contrary. And though it be impossible to judge exactly of the degrees of any quality, such as colour, taste, heat, cold, when the difference betwixt them is very small: yet it is easy to decide, that any of them is superior or inferior to another, when their difference is considerable. And this decision we always pronounce at first sight, without any enquiry or reasoning.

We might proceed, after the same manner, in fixing the proportions of quantity or number, and might at one view observe a superiority or inferiority betwixt any numbers, or figures; especially where the difference is very great and remarkable. As to equality or any exact proportion, we can only guess at it from a single consideration; except in very short numbers, or very limited portions of extension; which are comprehended in an instant, and where we perceive an impossibility of falling into any considerable error. In all other cases we must settle the proportions with some liberty, or proceed in a more artificial manner.

I have already I observed, that geometry, or the art, by which we fix the proportions of figures; though it much excels both in universality and exactness, the loose judgments of the senses and imagination; yet never attains a perfect precision and exactness. Its first principles are still drawn from the general appearance of the objects; and that appearance can never afford us any security, when we examine, the prodigious minuteness of which nature is susceptible. Our ideas seem to give a perfect assurance, that no two right lines can have a common segment; but if we consider these ideas, we shall find, that they always suppose a sensible inclination of the two lines, and that where the angle they form is extremely small, we have no standard of a right line so precise as to assure us of the truth of this proposition. It is the same case with most of the primary decisions of the mathematics.

There remain, therefore, algebra and arithmetic as the only sciences, in which we can carry on a chain of reasoning to any degree of intricacy, and yet preserve a perfect exactness and certainty. We are possessed of a precise standard, by which we can judge of the equality and proportion of numbers; and according as they correspond or not to that standard, we determine their relations, without any possibility of error. When two numbers are so combined, as that the one has always an unit answering to every unit of the other, we pronounce them equal; and it is for want of such a standard of equality in extension, that geometry can scarce be esteemed a perfect and infallible science.

But here it may not be amiss to obviate a difficulty, which may arise from my asserting, that though geometry falls short of that perfect precision and certainty, which are peculiar to arithmetic and algebra, yet it excels the imperfect judgments of our senses and imagination. The reason why I impute any defect to geometry, is, because its original and fundamental principles are derived merely from appearances; and it may perhaps be imagined, that this defect must always attend it, and keep it from ever reaching a greater exactness in the comparison of objects or ideas, than what our eye or imagination alone is able to attain. I own that this defect so far attends it, as to keep it from ever aspiring to a full certainty: But since these fundamental principles depend on the easiest and least deceitful appearances, they bestow on their consequences a degree of exactness, of which these consequences are singly incapable. It is impossible for the eye to determine the angles of a chiliagon to be equal to 1,996 right angles, or make any conjecture, that approaches this proportion; but when it determines, that right [i.e., straight] lines cannot concur; that we cannot draw more than one right line between two given points; its mistakes can never be of any consequence. And this is the nature and use of geometry, to run us up to such appearances, as, by reason of their simplicity, cannot lead us into any considerable error.

I shall here take occasion to propose a second observation concerning our demonstrative reasonings, which is suggested by the same subject of the mathematics. It is usual with mathematicians, to pretend, that those ideas, which are their objects, are of so refined and spiritual a nature, that they fall not under the conception of the fancy, but must be comprehended by a pure and intellectual view, of which the superior faculties of the soul are alone capable. The same notion runs through most parts of philosophy, and is principally made use of to explain oar abstract ideas, and to shew how we can form an idea of a triangle, for instance, which shall neither be an isoceles nor scalenum, nor be confined to any particular length and proportion of sides. It is easy to see, why philosophers are so fond of this notion of some spiritual and refined perceptions; since by that means they cover many of their absurdities, and may refuse to submit to the decisions of clear ideas, by appealing to such as are obscure and uncertain. But to destroy this artifice, we need but reflect on that principle so oft insisted on, that all our ideas are copied from our impressions. For from thence we may immediately conclude, that since all impressions are clear and precise, the ideas, which are copyed from them, must be of the same nature, and can never, but from our fault, contain any thing so dark and intricate. An idea is by its very nature weaker and fainter than an impression; but being in every other respect the same, cannot imply any very great mystery. If its weakness render it obscure, it is our business to remedy that defect, as much as possible, by keeping the idea steady and precise; and till we have done so, it is in vain to pretend to reasoning and philosophy.

SECT. II. OF PROBABILITY, AND OF THE IDEA OF CAUSE AND EFFECT.

All kinds of reasoning consist in nothing but a comparison, and a discovery of those relations, either constant or inconstant, which two or more objects bear to each other. This comparison we may make, either when both the objects are present to the senses, or when neither of them is present, or when only one. When both the objects are present to the senses along with the relation, we call this perception rather than reasoning; nor is there in this case any exercise of the thought, or any action, properly speaking, but a mere passive admission of the impressions through the organs of sensation. According to this way of thinking, we ought not to receive as reasoning any of the observations we may make concerning identity, and the relations of time and place; since in none of them the mind can go beyond what is immediately present to the senses, either to discover the real existence or the relations of objects. It is only causation, which produces such a connection, as to give us assurance from the existence or action of one object, that it was followed or preceded by any other existence or action; nor can the other two relations be ever made use of in reasoning, except so far as they either affect or are affected by it. There is nothing in any objects to persuade us, that they are either always remote or always contiguous; and when from experience and observation we discover, that their relation in this particular is invariable, we, always conclude there is some secret cause, which separates or unites them. The same reasoning extends to identity. We readily suppose an object may continue individually the same, though several times absent from and present to the senses; and ascribe to it an identity, notwithstanding the interruption of the perception, whenever we conclude, that if we had kept our eye or hand constantly upon it, it would have conveyed an invariable and uninterrupted perception. But this conclusion beyond the impressions of our senses can be founded only on the connection of cause and effect; nor can we otherwise have any security, that the object is not changed upon us, however much the new object may resemble that which was formerly present to the senses. Whenever we discover such a perfect resemblance, we consider, whether it be common in that species of objects; whether possibly or probably any cause could operate in producing the change and resemblance; and according as we determine concerning these causes and effects, we form our judgment concerning the identity of the object.

Here then it appears, that of those three relations, which do not depend upon our ideas of things, the only one, that can be traced beyond our senses and informs us of existences and objects which we do not see or feel is causation. This relation, therefore, we shall endeavour to explain fully before we leave the subject of the understanding.

To begin regularly, we must consider the idea of causation, and see from what origin it is derived. It is impossible to reason justly, without understanding perfectly the idea concerning which we reason; and it is impossible perfectly to understand any idea, without tracing it up to its origin, and examining that primary impression, from which it arises. The examination of the impression bestows a clearness on the idea; and the examination of the idea bestows a like clearness on all our reasoning.

Let us therefore cast our eye on any two objects, which we call cause and effect, and turn them on all sides, in order to find that impression, which produces an idea, of such prodigious consequence. At first sight I perceive, that I must not search for it in any of the particular qualities of the objects; since. which-ever of these qualities I pitch on, I find some object, that is not possessed of it, and yet falls under the denomination of cause or effect. And indeed there is nothing existent, either externally or internally, which is not to be considered either as a cause or an effect; though it is plain there is no one quality, which universally belongs to all beings, and gives them a title to that denomination.

The idea, then, of causation must be derived from some relation among objects; and that relation we must now endeavour to discover. I find in the first place, that whatever objects are considered as causes or effects, are contiguous; and that nothing can operate in a time or place, which is ever so little removed from those of its existence. Though distant objects may sometimes seem productive of each other, they are commonly found upon examination to be linked by a chain of causes, which are contiguous among themselves, and to the distant objects; and when in any particular instance we cannot discover this connection, we still presume it to exist. We may therefore consider the relation of CONTIGUITY as essential to that of causation; at least may suppose it such, according to the general opinion, till we can find a more proper occasion to clear up this matter, by examining what objects are or are not susceptible of juxtaposition and conjunction.

The second relation I shall observe as essential to causes and effects, is not so universally acknowledged, but is liable to some controversy. It is that of priority of time in the cause before the effect. Some pretend that it is not absolutely necessary a cause should precede its effect; but that any object or action, in the very first moment of its existence, may exert its productive quality, and give rise to another object or action, perfectly co-temporary with itself. But beside that experience in most instances seems to contradict this opinion, we may establish the relation of priority by a kind of inference or reasoning. It is an established maxim both in natural and moral philosophy, that an object, which exists for any time in its full perfection without producing another, is not its sole cause; but is assisted by some other principle, which pushes it from its state of inactivity, and makes it exert that energy, of which it was secretly possessed. Now if any cause may be perfectly co-temporary with its effect, it is certain, according to this maxim, that they must all of them be so; since any one of them, which retards its operation for a single moment, exerts not itself at that very individual time, in which it might have operated; and therefore is no proper cause. The consequence of this would be no less than the destruction of that succession of causes, which we observe in the world; and indeed, the utter annihilation of time. For if one cause were co-temporary with its effect, and this effect with its effect, and so on, it is plain there would be no such thing as succession, and all objects must be co-existent

Having thus discovered or supposed the two relations of contiguity and succession to be essential to causes and effects, I find I am stopped short, and can proceed no farther in considering any single instance of cause and effect. Motion in one body is regarded upon impulse as the cause of motion in another. When we consider these objects with utmost attention, we find only that the one body approaches the other; and that the motion of it precedes that of the other, but without any, sensible interval. It is in vain to rack ourselves with farther thought and reflection upon this subject. We can go no farther in considering this particular instance.

Should any one leave this instance, and pretend to define a cause, by saying it is something productive of

another, it is evident he would say nothing. For what does he mean by production? Can he give any definition of it, that will not be the same with that of causation? If he can; I desire it may be produced. If he cannot; he here runs in a circle, and gives a synonymous term instead of a definition.

Shall we then rest contented with these two relations of contiguity and succession, as affording a complete idea of causation? By, no means. An object may be contiguous and prior to another, without being considered as its cause. There is a NECESSARY CONNECTION to be taken into consideration; and that relation is of much greater importance, than any of the other two above-mentioned.

Here again I turn the object on all sides, in order to discover the nature of this necessary connection, and find the impression, or impressions, from which its idea may be derived. When I cast my eye on the known Qualities of objects, I immediately discover that the relation of cause and effect depends not in the least on them. When I consider their relations, I can find none but those of contiguity and succession; which I have already regarded as imperfect and unsatisfactory. Shall the despair of success make me assert, that I am here possessed of an idea, which is not preceded by any similar impression? This would be too strong a proof of levity and inconstancy; since the contrary principle has been already so firmly established, as to admit of no farther doubt; at least, till we have more fully examined the present difficulty.

We must, therefore, proceed like those, who being in search of any thing, that lies concealed from them, and not finding it in the place they expected, beat about all the neighboring fields, without any certain view or design, in hopes their good fortune will at last guide them to what they search for. It is necessary for us to leave the direct survey of this question concerning the nature of that necessary connection, which enters into our idea of cause and effect; and endeavour to find some other questions, the examination of which will perhaps afford a hint, that may serve to clear up the present difficulty. Of these questions there occur two, which I shall proceed to examine, viz.

First, For what reason we pronounce it necessary, that every thing whose existence has a beginning, should also have a cause.

Secondly, Why we conclude, that such particular causes must necessarily have such particular effects; and what is the nature of that inference we draw from the one to the other, and of the belief we repose in it?

I shall only observe before I proceed any farther, that though the ideas of cause and effect be derived from the impressions of reflection as well as from those of sensation, yet for brevity's sake, I commonly mention only the latter as the origin of these ideas; though I desire that whatever I say of them may also extend to the former. Passions are connected with their objects and with one another; no less than external bodies are connected together. The same relation, then, of cause and effect, which belongs to one, must be common to all of them.

SECT. III. WHY A CAUSE IS ALWAYS NECESSARY.

To begin with the first question concerning the necessity of a cause: It is a general maxim in philosophy, that whatever begins to exist, must have a cause of existence. This is commonly taken for granted in all reasonings, without any proof given or demanded. It is supposed to be founded on intuition, and to be one of those maxims, which though they may be denied with the lips, it is impossible for men in their hearts really to doubt of. But if we examine this maxim by the idea of knowledge above-explained, we shall discover in it no mark of any such intuitive certainty; but on the contrary shall find, that it is of a nature quite foreign to that species of conviction.

All certainty arises from the comparison of ideas, and from the discovery of such relations as are

unalterable, so long as the ideas continue the same. These relations are RESEMBLANCE, PROPORTIONS IN QUANTITY AND NUMBER, DEGREES OF ANY QUALITY, and CONTRARIETY; none of which are implied in this proposition, Whatever has a beginning has also a cause of existence. That proposition therefore is not intuitively certain. At least any one, who would assert it to be intuitively certain, must deny these to be the only infallible relations, and must find some other relation of that kind to be implied in it; which it will then be time enough to examine.

But here is an argument, which proves at once, that the foregoing proposition is neither intuitively nor demonstrably certain. We can never demonstrate the necessity of a cause to every new existence, or new modification of existence, without showing at the same time the impossibility there is, that any thing can ever begin to exist without some productive principle; and where the latter proposition cannot be proved, we must despair of ever being able to prove the former. Now that the latter proposition is utterly incapable of a demonstrative proof, we may satisfy ourselves by considering that as all distinct ideas are separable from each other, and as the ideas of cause and effect are evidently distinct, it will be easy for us to conceive any object to be non-existent this moment, and existent the next, without conjoining to it the distinct idea of a cause or productive principle. The separation, therefore, of the idea of a cause from that of a beginning of existence, is plainly possible for the imagination; and consequently the actual separation of these objects is so far possible, that it implies no contradiction nor absurdity; and is therefore incapable of being refuted by any reasoning from mere ideas; without which it is impossible to demonstrate the necessity of a cause.

The second argument which I find used on this head labors under an equal difficulty. Every thing, it is said, must have a cause; for if any thing wanted a cause, it would produce itself; that is, exist before it existed; which is impossible. But this reasoning is plainly inconclusive; because it supposes, that in our denial of a cause we still grant what we expressly deny, viz. that there must be a cause; which therefore is taken to be the object itself; and that, no doubt, is an evident contradiction. But to say that any thing is produced, of to express myself more properly, comes into existence, without a cause, is not to affirm, that it is itself its own cause; but on the contrary in excluding all external causes, excludes a fortiori the thing itself, which is created. An object, that exists absolutely without any cause, certainly is not its own cause; and when you assert, that the one follows from the other, you suppose the very point in questions and take it for granted, that it is utterly impossible any thing can ever begin to exist without a cause, but that, upon the exclusion of one productive principle, we must still have recourse to another.

It is exactly the same case with the third argument which has been employed to demonstrate the necessity of a cause. Whatever is produced without any cause, is produced by nothing; or in other words, has nothing for its cause. But nothing can never be a cause, no more than it can be something, or equal to two right angles. By the same intuition, that we perceive nothing not to be equal to two right angles, or not to be something, we perceive, that it can never be a cause; and consequently must perceive, that every object has a real cause of its existence.

I believe it will not be necessary to employ many words in showing the weakness of this argument, after what I have said of the foregoing. They are all of them founded on the same fallacy, and are derived from the same turn of thought. It is sufficient only to observe, that when we exclude all causes we really do exclude them, and neither suppose nothing nor the object itself to be the causes of the existence; and consequently can draw no argument from the absurdity of these suppositions to prove the absurdity of that exclusion. If every thing must have a cause, it follows, that upon the exclusion of other causes we must accept of the object itself or of nothing as causes. But it is the very point in question, whether every thing must have a cause or not; and therefore, according to all just reasoning, it ought never to be taken for granted.

They are still more frivolous, who say, that every effect must have a, cause, because it is implied in the

very idea of effect. Every effect necessarily pre-supposes a cause; effect being a relative term, of which cause is the correlative. But this does not prove, that every being must be preceded by a cause; no more than it follows, because every husband must have a wife, that therefore every man must be married. The true state of the question is, whether every object, which begins to exist, must owe its existence to a cause: and this I assert neither to be intuitively nor demonstratively certain, and hope to have proved it sufficiently by the foregoing arguments.

Since it is not from knowledge or any scientific reasoning, that we derive the opinion of the necessity of a cause to every new production, that opinion must necessarily arise from observation and experience. The next question, then, should naturally be, how experience gives rise to such a principle? But as I find it will be more convenient to sink this question in the following, Why we conclude, that such particular causes must necessarily have such particular erects, and why we form an inference from one to another? we shall make that the subject of our future enquiry. It will, perhaps, be found in the end, that the same answer will serve for both questions.

SECT. IV. OF THE COMPONENT PARTS OF OUR REASONINGS CONCERNING CAUSE AND EFFECT.

Though the mind in its reasonings from causes or effects carries its view beyond those objects, which it sees or remembers, it must never lose sight of them entirely, nor reason merely upon its own ideas, without some mixture of impressions, or at least of ideas of the memory, which are equivalent to impressions. When we infer effects from causes, we must establish the existence of these causes; which we have only two ways of doing, either by an immediate perception of our memory or senses, or by an inference from other causes; which causes again we must ascertain in the same manner, either by a present impression, or by an inference from their causes, and so on, till we arrive at some object, which we see or remember. It is impossible for us to carry on our inferences IN INFINITUM; and the only thing, that can stop them, is an impression of the memory or senses, beyond which there is no room for doubt or enquiry. . . .

I need not observe, that it is no just objection to the present doctrine, that we can reason upon our past conclusions or principles, without having recourse to those impressions, from which they first arose. For even supposing these impressions should be entirely effaced from the memory, the conviction they produced may still remain; and it is equally true, that all reasonings concerning causes and effects are originally derived from some impression; in the same manner, as the assurance of a demonstration proceeds always from a comparison of ideas, though it may continue after the comparison is forgot.

SECT. V. OF THE IMPRESSIONS OF THE SENSES AND MEMORY.

As to those impressions, which arise from the senses, their ultimate cause is, in my opinion, perfectly inexplicable by human reason, and it will always be impossible to decide with certainty, whether they arise immediately from the object, or are produced by the creative power of the mind, or are derived from the author of our being. Nor is such a question any way material to our present purpose. We may draw inferences from the coherence of our perceptions, whether they be true or false; whether they represent nature justly, or be mere illusions of the senses.

When we search for the characteristic, which distinguishes the memory from the imagination, we must immediately perceive, that it cannot lie in the simple ideas it presents to us; since both these faculties borrow their simple ideas from the impressions, and can never go beyond these original perceptions. These faculties are as little distinguished from each other by the arrangement of their complex ideas. For though it be a peculiar property of the memory to preserve the original order and position of its ideas, while the imagination transposes and changes them, as it pleases; yet this difference is not sufficient to

distinguish them in their operation, or make us know the one from the other; it being impossible to recall the past impressions, in order to compare them with our present ideas, and see whether their arrangement be exactly similar. Since therefore the memory, is known, neither by the order of its complex ideas, nor the nature of its simple ones; it follows, that the difference between it and the imagination lies in its superior force and vivacity. A man may indulge his fancy in feigning any past scene of adventures; nor would there be any possibility of distinguishing this from a remembrance of a like kind, were not the ideas of the imagination fainter and more obscure. . . .

Since, therefore, the imagination can represent all the same objects that the memory can offer to us, and since those faculties are only distinguished by the different feeling of the ideas they present, it may be proper to consider what is the nature of that feeling. And here I believe every one will readily agree with me, that the ideas of the memory are more strong and lively than those of the fancy. . . . And as an idea of the memory, by losing its force and vivacity, may degenerate to such a degree, as to be taken for an idea of the imagination; so on the other hand an idea of the imagination may acquire such a force and vivacity, as to pass for an idea of the memory, and counterfeit its effects on the belief and judgment. . . . Thus it appears, that the belief or assent, which always attends the memory and senses, is nothing but the vivacity of those perceptions they present; and that this alone distinguishes them from the imagination. To believe is in this case to feel an immediate impression of the senses, or a repetition of that impression in the memory.

SECT. VI. OF THE INFERENCE FROM THE IMPRESSION TO THE IDEA.

It is easy to observe, that in tracing this relation, the inference we draw from cause to effect, is not derived merely from a survey of these particular objects, and from such a penetration into their essences as may discover the dependance of the one upon the other. There is no object, which implies the existence of any other if we consider these objects in themselves, and never look beyond the ideas which we form of them. Such an inference would amount to knowledge, and would imply the absolute contradiction and impossibility of conceiving any thing different. But as all distinct ideas are separable, it is evident there can be no impossibility of that kind. When we pass from a present impression to the idea of any object, we might possibly have separated the idea from the impression, and have substituted any other idea in its room.

It is therefore by experience only, that we can infer the existence of one object from that of another. The nature of experience is this. We remember to have had frequent instances of the existence of one species of objects; and also remember, that the individuals of another species of objects have always attended them, and have existed in a regular order of contiguity and succession with regard to them. Thus we remember, to have seen that species of object we call flame, and to have felt that species of sensation we call heat. We likewise call to mind their constant conjunction in all past instances. Without any farther ceremony, we call the one cause and the other effect, and infer the existence of the one from that of the other. In all those instances, from which we learn the conjunction of particular causes and effects, both the causes and effects have been perceived by the senses, and are remembered But in all cases, wherein we reason concerning them, there is only one perceived or remembered, and the other is supplied in conformity to our past experience.

Thus in advancing we have insensibly discovered a new relation betwixt cause and effect, when we least expected it, and were entirely employed upon another subject. This relation is their CONSTANT CONJUNCTION. Contiguity and succession are not sufficient to make us pronounce any two objects to be cause and effect, unless we perceive, that these two relations are preserved in several instances. We may now see the advantage of quitting the direct survey of this relation, in order to discover the nature of that necessary connection, which makes so essential a part of it. There are hopes, that by this means we

may at last arrive at our proposed end; though to tell the truth, this new-discovered relation of a constant conjunction seems to advance us but very little in our way. For it implies no more than this, that like objects have always been placed in like relations of contiguity and succession; and it seems evident, at least at first sight, that by this means we can never discover any new idea, and can only multiply, but not enlarge the objects of our mind. It may be thought, that what we learn not from one object, we can never learn from a hundred, which are all of the same kind, and are perfectly resembling in every circumstance. As our senses shew us in one instance two bodies, or motions, or qualities in certain relations of success and contiguity; so our memory presents us only with a multitude of instances, wherein we always find like bodies, motions, or qualities in like relations. From the mere repetition of any past impression, even to infinity, there never will arise any new original idea, such as that of a necessary connection; and the number of impressions has in this case no more effect than if we confined ourselves to one only. But though this reasoning seems just and obvious; yet as it would be folly to despair too soon, we shall continue the thread of our discourse; and having found, that after the discovery of the constant conjunction of any objects, we always draw an inference from one object to another, we shall now examine the nature of that inference, and of the transition from the impression to the idea. Perhaps it will appear in the end, that the necessary connection depends on the inference, instead of the inference's depending on the necessary connection.

Since it appears, that the transition from an impression present to the memory or senses to the idea of an object, which we call cause or effect, is founded on past experience, and on our remembrance of their constant conjunction, the next question is, Whether experience produces the idea by means of the understanding or imagination; whether we are determined by reason to make the transition, or by a certain association and relation of perceptions. If reason determined us, it would proceed upon that principle, that instances, of which we have had no experience, must resemble those, of which we have had experience, and that the course of nature continues always uniformly the same. In order therefore to clear up this matter, let us consider all the arguments, upon which such a proposition may be supposed to be founded; and as these must be derived either from knowledge or probability, let us cast our eve on each of these degrees of evidence, and see whether they afford any just conclusion of this nature.

Our foregoing method of reasoning will easily convince us, that there can be no demonstrative arguments to prove, that those instances, of which we have, had no experience, resemble those, of which we have had experience. We can at least conceive a change in the course of nature; which sufficiently proves, that such a change is not absolutely impossible. To form a clear idea of any thing, is an undeniable argument for its possibility, and is alone a refutation of any pretended demonstration against it.

Probability, as it discovers not the relations of ideas, considered as such, but only those of objects, must in some respects be founded on the impressions of our memory and senses, and in some respects on our ideas. Were there no mixture of any impression in our probable reasonings, the conclusion would be entirely chimerical: And were there no mixture of ideas, the action of the mind, in observing the relation, would, properly speaking, be sensation, not reasoning. It is therefore necessary, that in all probable reasonings there be something present to the mind, either seen or remembered; and that from this we infer something connected with it, which is not seen nor remembered.

The only connection or relation of objects, which can lead us beyond the immediate impressions of our memory and senses, is that of cause and effect; and that because it is the only one, on which we can found a just inference from one object to another. The idea of cause and effect is derived from experience, which informs us, that such particular objects, in all past instances, have been constantly conjoined with each other: And as an object similar to one of these is supposed to be immediately present in its impression, we thence presume on the existence of one similar to its usual attendant. According to this account of things, which is, I think, in every point unquestionable, probability is founded on the presumption of a resemblance betwixt those objects, of which we have had experience, and those, of

which we have had none; and therefore it is impossible this presumption can arise from probability. The same principle cannot be both the cause and effect of another; and this is, perhaps, the only proposition concerning that relation, which is either intuitively or demonstratively certain.

Should any one think to elude this argument; and without determining whether our reasoning on this subject be derived from demonstration or probability, pretend that all conclusions from causes and effects are built on solid reasoning: I can only desire, that this reasoning may be produced, in order to be exposed to our examination. It may, perhaps, be said, that after experience of the constant conjunction of certain objects, we reason in the following manner. Such an object is always found to produce another. It is impossible it could have this effect, if it was not endowed with a power of production. The power necessarily implies the effect; and therefore there is a just foundation for drawing a conclusion from the existence of one object to that of its usual attendant. . . .

It shall therefore be allowed for a moment, that the production of one object by another in any one instance implies a power; and that this power is connected with its effect. But it having been already proved, that the power lies not in the sensible qualities of the cause; and there being nothing but the sensible qualities present to us; I ask, why in other instances you presume that the same power still exists, merely upon the appearance of these qualities? Your appeal to past experience decides nothing in the present case; and at the utmost can only prove, that that very object, which produced any other, was at that very instant endowed with such a power; but can never prove, that the same power must continue in the same object or collection of sensible qualities; much less, that a like power is always conjoined with like sensible qualities. should it be said, that we have experience, that the same power continues united with the same object, and that like objects are endowed with like powers, I would renew my question, why from this experience we form any conclusion beyond those past instances, of which we have had experience. If you answer this question in, the same manner as the preceding, your answer gives still occasion to a new question of the same kind, even in infinitum; which clearly proves, that the foregoing reasoning had no just foundation.

Thus not only our reason fails us in the discovery of the ultimate connection of causes and effects, but even after experience has informed us of their constant conjunction, it is impossible for us to satisfy ourselves by our reason, why we should extend that experience beyond those particular instances, which have fallen under our observation. We suppose, but are never able to prove, that there must be a resemblance betwixt those objects, of which we have had experience, and those which lie beyond the reach of our discovery.

We have already taken notice of certain relations, which make us pass from one object to another, even though there be no reason to determine us to that transition; and this we may establish for a general rule, that wherever the mind constantly and uniformly makes a transition without any reason, it is influenced by these relations. Now this is exactly the present case. Reason can never shew us the connection of one object with another, though aided by experience, and the observation of their constant conjunction in all past instances. When the mind, therefore, passes from the idea or impression of one object to the idea or belief of another, it is not determined by reason, but by certain principles, which associate together the ideas of these objects, and unite them in the imagination. Had ideas no more union in the fancy than objects seem to have to the understanding, we could never draw any inference from causes to effects, nor repose belief in any matter of fact. The inference, therefore, depends solely on the union of ideas.

The principles of union among ideas, I have reduced to three general ones, and have asserted, that the idea or impression of any object naturally introduces the idea of any other object, that is resembling, contiguous to, or connected with it. These principles I allow to be neither the infallible nor the sole causes of an union among ideas. They are not the infallible causes, for one may fix his attention during some time on any one object without looking farther. They are not the sole causes. For the thought has

evidently a very irregular motion in running along its objects, and may leap from the heavens to the earth, from one end of the creation to the other, without any certain method or order. But though I allow this weakness in these three relations, and this irregularity in the imagination; yet I assert that the only general principles, which associate ideas, are resemblance, contiguity and causation.

There is indeed a principle of union among ideas, which at first sight may be esteemed different from any of these, but will be found at the bottom to depend on the same origin. When every individual of any species of objects is found by experience to be constantly united with an individual of another species, the appearance of any new individual of either species naturally conveys the thought to its usual attendant. Thus because such a particular idea is commonly annexed to such a particular word, nothing is required but the hearing of that word to produce the correspondent idea; and it will scarce be possible for the mind, by its utmost efforts, to prevent that transition. In this case it is not absolutely necessary, that upon hearing such a particular sound we should reflect on any past experience, and consider what idea has been usually connected with the sound. The imagination of itself supplies the place of this reflection, and is so accustomed to pass from the word to the idea, that it interposes not a moment's delay betwixt the hearing of the one, and the conception of the other.

But though I acknowledge this to be a true principle of association among ideas, I assert it to be the very same with that betwixt the ideas of cause and effects and to be an essential part in all our reasonings from that relation. We have no other notion of cause and effect, but that of certain objects, which have been always conjoined together, and which in all past instances have been found inseparable. We cannot penetrate into the reason of the conjunction. We only observe the thing itself, and always find that from the constant conjunction the objects acquire an union in the imagination. When the impression of one becomes present to us, we immediately form an idea of its usual attendant; and consequently we may establish this as one part of the definition of an opinion or belief, that it is an idea related to or associated with a present impression.

Thus though causation be a philosophical relation, as implying contiguity, succession, and constant conjunction, yet it is only so far as it is a natural relation, and produces an union among our ideas, that we are able to reason upon it, or draw any inference from it.

SECT. VII. OF THE NATURE OF THE IDEA OR BELIEF.

The idea of an object is an essential part of the belief of it, but not the whole. We conceive many things, which we do not believe. In order then to discover more fully the nature of belief, or the qualities of those ideas we assent to, let us weigh the following considerations.

It is evident, that all reasonings from causes or effects terminate in conclusions, concerning matter of fact; that is, concerning the existence of objects or of their qualities. It is also evident, that the idea, of existence is nothing different from the idea of any object, and that when after the simple conception of any thing we would conceive it as existent, we in reality make no addition to or alteration on our first idea. Thus when we affirm, that God is existent, we simply form the idea of such a being, as he is represented to us; nor is the existence, which we attribute to him, conceived by a particular idea, which we join to the idea of his other qualities, and can again separate and distinguish from them. But I go farther; and not content with asserting, that the conception of the existence of any object is no addition to the simple conception of it, I likewise maintain, that the belief of the existence joins no new ideas to those which compose the idea of the object. When I think of God, when I think of him as existent, and when I believe him to be existent, my idea of him neither increases nor diminishes. But as it is certain there is a great difference betwixt the simple conception of the existence of an object, and the belief of it, and as this difference lies not in the parts or composition of the idea, which we conceive; it follows, that it must lie in the manner in which we conceive it. . . .

Whatever is absurd is unintelligible; nor is it possible for the imagination to conceive any thing contrary to a demonstration. But as in reasonings from causation, and concerning matters of fact, this absolute necessity cannot take place, and the imagination is free to conceive both sides of the question, I still ask, Wherein consists the deference betwixt incredulity and belief? since in both cases the conception of the idea is equally possible and requisite. . . . It is contest, that in all cases, wherein we dissent from any person, we conceive both sides of the question; but as we can believe only one, it evidently follows, that the belief must make some difference betwixt that conception to which we assent, and that from which we dissent. We may mingle, and unite, and separate, and confound, and vary our ideas in a hundred different ways; but until there appears some principle, which fixes one of these different situations, we have in reality no opinion: And this principle, as it plainly makes no addition to our precedent ideas, can only change the manner of our conceiving them.

All the perceptions of the mind are of two kinds, viz. impressions and ideas, which differ from each other only in their different degrees of force and vivacity. Our ideas are copied from our impressions, and represent them in all their parts. When you would any way vary the idea of a particular object, you can only increase or diminish its force and vivacity. If you make any other change on it, it represents a different object or impression. The case is the same as in colors. A particular shade of any color may acquire a new degree of liveliness or brightness without any other variation. But when you produce any other variation, it is no longer the same shade or color. So that as belief does nothing but vary the manner, in which we conceive any object, it can only bestow on our ideas an additional force and vivacity. An opinion, therefore, or belief may be most accurately defined, a lively idea related to or associated with a present impression. . . .

This operation of the mind, which forms the belief of any matter of fact, seems hitherto to have been one of the greatest mysteries of philosophy; though no one has so much as suspected, that there was any difficulty in explaining it. For my part I must own, that I find a considerable difficulty in the case; and that even when I think I understand the subject perfectly, I am at a loss for terms to express my meaning. I conclude, by an induction which seems to me very evident, that an opinion or belief is nothing but an idea, that is different from a fiction, not in the nature or the order of its parts, but in the manner of its being conceived. But when I would explain this manner, I scarce find any word that fully answers the case, but am obliged to have recourse to every one's feeling, in order to give him a perfect notion of this operation of the mind. An idea assented to feels different from a fictitious idea, that the fancy alone presents to us: And this different feeling I endeavor to explain by calling it a superior force, or vivacity, or solidity, or FIRMNESS, or steadiness. This variety of terms, which may seem so unphilosophical, is intended only to express that act of the mind, which renders realities more present to us than fictions, causes them to weigh more in the thought, and gives them a superior influence on the passions and imagination. Provided we agree about the thing, it is needless to dispute about the terms. The imagination has the command over all its ideas, and can join, and mix, and vary them in all the ways possible. It may conceive objects with all the circumstances of place and time. It may set them, in a, manner, before our eyes in their true colors, just as they might have existed. But as it is impossible, that that faculty can ever, of itself, reach belief, it is evident, that belief consists not in the nature and order of our ideas, but in the manner of their conception, and in their feeling to the mind. I confess, that it is impossible to explain perfectly this feeling or manner of conception. We may make use of words, that express something near it. But its true and proper name is belief, which is a term that every one sufficiently understands in common life. And in philosophy we can go no farther, than assert, that it is something felt by the mind, which distinguishes the ideas of the judgment from the fictions of the imagination. It gives them more force and influence; makes them appear of greater importance; infixes them in the mind; and renders them the governing principles of all our actions. . . .

SECT. VIII. OF THE CAUSES OF BELIEF.

I would willingly establish it as a general maxim in the science of human nature, that when any impression becomes present to us, it not only transports the mind to such ideas as are related to it, but likewise communicates to them a share of its force and vivacity. All the operations of the mind depend in a great measure on its disposition, when it performs them; and according as the spirits are more or less elevated, and the attention more or less fixed, the action will always have more or less vigor and vivacity. When therefore any object is presented, which elevates and enlivens the thought, every action, to which the mind applies itself, will be more strong and vivid, as Tong as that disposition continues, Now it is evident the continuance of the disposition depends entirely on the objects, about which the mind is employed; and that any new object naturally gives a new direction to the spirits, and changes the disposition; as on the contrary, when the mind fixes constantly on the same object, or passes easily and insensibly along related objects, the disposition has a much longer duration. Hence it happens, that when the mind is once inlivened by a present impression, it proceeds to form a more lively idea of the related objects, by a natural transition of the disposition from the one to the other. The change of the objects is so easy, that the mind is scarce sensible of it, but applies itself to the conception of the related idea with all the force and vivacity it acquired from the present impression.

If in considering the nature of relation, and that facility of transition, which is essential to it, we can satisfy ourselves concerning the reality of this phaenomenon, it is well: But I must confess I place my chief confidence in experience to prove so material a principle. We may, therefore, observe, as the first experiment to our present purpose, that upon the appearance of the picture of an absent friend, our idea of him is evidently inlivened by the resemblance, and that every passion, which that idea occasions, whether of joy or sorrow, acquires new force and vigor. In producing this effect there concur both a relation and a present impression. Where the picture bears him no resemblance, or at least was not intended for him, it never so much as conveys our thought to him: And where it is absent, as well as the person; though the mind may pass from the thought of the one to that of the other; it feels its idea to be rather weekend than inlivened by that transition. . . .

We may add force to these experiments by others of a different kind, in considering the effects of contiguity, as well as of resemblance. It is certain, that distance diminishes the force of every idea, and that upon our approach to any object; though it does not discover itself to our senses; it operates upon the mind with an influence that imitates an immediate impression. The thinking on any object readily transports the mind to what is contiguous; but it is only the actual presence of an object, that transports it with a superior vivacity. When I am a few miles from home, whatever relates to it touches me more nearly than when I am two hundred leagues distant; though even at that distance the reflecting on any thing in the neighbourhood of my friends and family naturally produces an idea of them. But as in this latter case, both the objects of the mind are ideas; notwithstanding there is an easy transition betwixt them; that transition alone is not able to give a superior vivacity to any of the ideas, for want of some immediate impression.

No one can doubt but causation has the same influence as the other two relations; of resemblance and contiguity. Superstitious people are fond of the relicks of saints and holy men, for the same reason that they seek after types and images, in order to enliven their devotion, and give them a more intimate and strong conception of those exemplary lives, which they desire to imitate. Now it is evident, one of the best relics a devotee could procure, would be the handywork of a saint; and if his clothes and furniture are ever to be considered in this light, it is because they were once at his disposal, and were moved and affected by him; in which respect they are to be considered as imperfect effects, and as connected with him by a shorter chain of consequences than any of those, from which we learn the reality of his existence. This phenomenon clearly proves, that a present impression with a relation of causation may, enliven any idea, and consequently produce belief or assent, according to the precedent definition of it.

But why need we seek for other arguments to prove, that a present impression with a relation or transition

of the fancy may enliven any idea, when this very instance of our reasonings from cause and effect will alone suffice to that purpose? It is certain we must have an idea of every matter of fact, which we believe. It is certain, that this idea arises only from a relation to a present impression. It is certain, that the belief super-adds nothing to the idea, but only changes our manner of conceiving it, and renders it more strong and lively. The present conclusion concerning the influence of relation is the immediate consequence of all these steps; and every step appears to me sure end infallible. There enters nothing into this operation of the mind but a present impression, a lively idea, and a relation or association in the fancy betwixt the impression and idea; so that there can be no suspicion of mistake.

In order to put this whole affair in a fuller light, let us consider it as a question in natural philosophy, which we must determine by experience and observation. I suppose there is an object presented, from which I draw a certain conclusion, and form to myself ideas, which I am said to believe or assent to. Here it is evident, that however that object, which is present to my senses, and that other, whose existence I infer by reasoning, may be thought to influence each other by their particular powers or qualities; yet as the phenomenon of belief, which we at present examine, is merely internal, these powers and qualities, being entirely unknown, can have no hand in producing it. It is the present impression, which is to be considered as the true and real cause of the idea, and of the belief which attends it. We must therefore endeavour to discover by experiments the particular qualities, by which it is enabled to produce so extraordinary an effect.

First then I observe, that the present impression has not this effect by its own proper power and efficacy, and when considered alone, as a single perception, limited to the present moment. I find, that an impression, from which, on its first appearance, I can draw no conclusion, may afterwards become the foundation of belief, when I have had experience of its usual consequences. We must in every case have observed the same impression in past instances, and have found it to be constantly conjoined with some other impression. This is confirmed by such a multitude of experiments, that it admits not of the smallest doubt.

From a second observation I conclude, that the belief, which attends the present impression, and is produced by a number of past impressions and conjunctions; that this belief, I say, arises immediately, without any new operation of the reason or imagination. Of this I can be certain, because I never am conscious of any such operation, and find nothing in the subject, on which it can be founded. Now as we call every thing CUSTOM, which proceeds from a past repetition, without any new reasoning or conclusion, we-may establish it as a certain truth, that all the belief, which follows upon any present impression, is derived solely from that origin. When we are accustomed to see two impressions conjoined together, the appearance or idea of the one immediately carries us to the idea of the other.

Being fully satisfyed on this head, I make a third set of experiments, in order to know, whether any thing be requisite, beside the customary transition, towards the production of this phaenomenon of belief. I therefore change the first impression into an idea; and observe, that though the customary transition to the correlative idea still remains, yet there is in reality no belief nor perswasion. A present impression, then, is absolutely requisite to this whole operation; and when after this I compare an impression with an idea, and find that their only difference consists in their different degrees of force and vivacity, I conclude upon the whole, that belief is a more vivid and intense conception of an idea, proceeding from its relation to a present impression.

Thus all probable reasoning is nothing but a species of sensation. It is not solely in poetry and music, we must follow our taste and sentiment, but likewise in philosophy. When I am convinced of any principle, it is only an idea, which strikes more strongly upon me. When I give the preference to one set of arguments above another, I do nothing but decide from my feeling concerning the superiority of their influence. Objects have no discoverable connection together; nor is it from any other principle but custom operating

upon the imagination, that we can draw any inference from the appearance of one to the existence of another.

It will here be worth our observation, that the past experience, on which all our judgments concerning cause and effect depend, may operate on our mind in such an insensible manner as never to be taken notice of, and may even in some measure be unknown to us. A person, who stops short in his journey upon meeting a river in his way, foresees the consequences of his proceeding forward; and his knowledge of these consequences is conveyed to him by past experience, which informs him of such certain conjunctions of causes and effects. But can we think, that on this occasion he reflects on any past experience, and calls to remembrance instances, that he has seen or heard of, in order to discover the effects of water on animal bodies? No surely; this is not the method, in which he proceeds in his reasoning. The idea of sinking is so closely connected with that of water, and the idea of suffocating with that of sinking, that the mind makes the transition without the assistance of the memory. The custom operates before we have time for reflection. The objects seem so inseparable, that we interpose not a moment's delay in passing from the one to the other. But as this transition proceeds from experience, and not from any primary connection betwixt the ideas, we must necessarily acknowledge, that experience may produce a belief and a judgment of causes and effects by a secret operation, and without being once thought of. This removes all pretext, if there yet remains any, for asserting that the mind is convinced by reasoning of that principle, that instances of which we have no experience, must necessarily resemble those, of which we have. For we here find, that the understanding or imagination can draw inferences from past experience, without reflecting on it; much more without forming any principle concerning it, or reasoning upon that principle.

In general we may observe, that in all the most established and uniform conjunctions of causes and effects, such as those of gravity, impulse, solidity, &c. the mind never carries its view expressly to consider any past experience: Though in other associations of objects, which are more rare and unusual, it may assist the custom and transition of ideas by this reflection. Nay we find in some cases, that the reflection produces the belief without the custom; or more properly speaking, that the reflection produces the custom in an oblique and artificial manner. I explain myself. It is certain, that not only in philosophy, but even in common life, we may attain the knowledge of a particular cause merely by one experiment, provided it be made with judgment, and after a careful removal of all foreign and superfluous circumstances. Now as after one experiment of this kind, the mind, upon the appearance either of the cause or the effect, can draw an inference concerning the existence of its correlative; and as a habit can never be acquired merely by one instance; it may be thought, that belief cannot in this case be esteemed the effect of custom. But this difficulty will vanish, if we consider, that though we are here supposed to have had only one experiment of a particular effect, yet we have many millions to convince us of this principle; that like objects placed in like circumstances, will always produce like effects; and as this principle has established itself by a sufficient custom, it bestows an evidence and firmness on any opinion, to which it can be applied. The connection of the ideas is not habitual after one experiment: but this connection is comprehended under another principle, that is habitual; which brings us back to our hypothesis. In all cases we transfer our experience to instances, of which we have no experience, either expressly or tacitly, either directly or indirectly.

I must not conclude this subject without observing, that it is very difficult to talk of the operations of the mind with perfect propriety and exactness; because common language has seldom made any very nice distinctions among them, but has generally called by the same term all such as nearly resemble each other. And as this is a source almost inevitable of obscurity and confusion in the author; so it may frequently give rise to doubts and objections in the reader, which otherwise he would never have dreamed of. Thus my general position, that an opinion or belief is nothing but a strong and lively idea derived from a present impression related to it, maybe liable to the following objection, by reason of a little ambiguity in those words strong and lively. It may be said, that not only an impression may give rise to reasoning, but

that an idea may also have the same influence; especially upon my principle, that all our ideas are derived from correspondent impressions. For suppose I form at present an idea, of which I have forgot the correspondent impression, I am able to conclude from this idea, that such an impression did once exist; and as this conclusion is attended with belief, it may be asked, from whence are the qualities of force and vivacity derived, which constitute this belief? And to this I answer very readily, from the present idea. For as this idea is not here considered, as the representation of any absent object, but as a real perception in the mind, of which we are intimately conscious, it must be able to bestow on whatever is related to it the same quality, call it firmness, or solidity, or force, or vivacity, with which the mind reflects upon it, and is assured of its present existence. The idea here supplies the place of an impression, and is entirely the same, so far as regards our present purpose.

Upon the same principles we need not be surprised to hear of the remembrance of an idea: that is, of the idea of an idea, and of its force and vivacity superior to the loose conceptions of the imagination. In thinking of our past thoughts we not only delineate out the objects, of which we were thinking, but also conceive the action of the mind in the meditation, that certain *je ne sais pas*, of which it is impossible to give any definition or description, but which every one sufficiently understands. When the memory offers an idea of this, and represents it as past, it is easily conceived how that idea may have more vigor and firmness, than when we think of a past thought, of which we have no remembrance.

After this any one will understand how we may form the idea of an impression and of an idea, and how we way believe the existence of an impression and of an idea.

SECT. XI. OF THE PROBABILITY OF CHANCES.

Those philosophers, who have divided human reason into knowledge and probability, and have defined the first to be that evidence, which arises from the comparison of ideas, are obliged to comprehend all our arguments from causes or effects under the general term of probability. But though every one be free to use his terms in what sense he pleases; and accordingly in the precedent part of this discourse, I have followed this method of expression; it is however certain, that in common discourse we readily affirm, that many arguments from causation exceed probability, and may be received as a superior kind of evidence. One would appear ridiculous, who would say, that it is only probable the sun will rise to-morrow, or that all men must dye; though it is plain we have no further assurance of these facts, than what experience affords us. For this reason, it would perhaps be more convenient, in order at once to preserve the common signification of words, and mark the several degrees of evidence, to distinguish human reason into three kinds, viz. THAT FROM KNOWLEDGE, FROM PROOFS, AND FROM PROBABILITIES. By knowledge, I mean the assurance arising from the comparison of ideas. By proofs, those arguments, which are derived from the relation of cause and effect, and which are entirely free from doubt and uncertainty. By probability, that evidence, which is still attended with uncertainty. It is this last species of reasoning, I proceed to examine.

Probability or reasoning from conjecture may be divided into two kinds, viz. that which is founded on chance, and that which arises from causes. We shall consider each of these in order.

The idea of cause and effect is derived from experience, which presenting us with certain objects constantly conjoined with each other, produces such a habit of surveying them in that relation, that we cannot without a sensible violence survey them in any other. On the other hand, as chance is nothing real in itself, and, properly speaking, is merely the negation of a cause, its influence on the mind is contrary to that of causation; and it is essential to it, to leave the imagination perfectly indifferent, either to consider the existence or non-existence of that object, which is regarded as contingent. A cause traces the way to our thought, and in a manner forces us to survey such certain objects, in such certain relations. Chance can only destroy this determination of the thought, and leave the mind in its native situation of

indifference; in which, upon the absence of a cause, it is instantly re-instated.

Since therefore an entire indifference is essential to chance, no one chance can possibly be superior to another, otherwise than as it is composed of a superior number of equal chances. For if we affirm that one chance can, after any other manner, be superior to another, we must at the same time affirm, that there is something, which gives it the superiority, and determines the event rather to that side than the other: That is, in other words, we must allow of a cause, and destroy the supposition of chance; which we had before established. A perfect and total indifference is essential to chance, and one total indifference can never in itself be either superior or inferior to another. This truth is not peculiar to my system, but is acknowledged by every one, that forms calculations concerning chances.

And here it is remarkable, that though chance and causation be directly contrary, yet it is impossible for us to conceive this combination of chances, which is requisite to render one hazard superior to another, without supposing a mixture of causes among the chances, and a conjunction of necessity in some particulars, with a total indifference in others. Where nothing limits the chances, every notion, that the most extravagant fancy can form, is upon a footing of equality; nor can there be any circumstance to give one the advantage above another. Thus unless we allow, that there are some causes to make the dice fall, and preserve their form in their fall, and lie upon some one of their sides, we can form no calculation concerning the laws of hazard. But supposing these causes to operate, and supposing likewise all the rest to be indifferent and to be determined by chance, it is easy to arrive at a notion of a superior combination of chances. A dye that has four sides marked with a certain number of spots, and only two with another, affords us an obvious and easy instance of this superiority. The mind is here limited by the causes to such a precise number and quality of the events; and at the same time is undetermined in its choice of any particular event.

Proceeding then in that reasoning, wherein we have advanced three steps; that chance is merely the negation of a cause, and produces a total indifference in the mind; that one negation of a cause and one total indifference can never be superior or inferior to another; and that there must always be a mixture of causes among the chances, in order to be the foundation of any reasoning: We are next to consider what effect a superior combination of chances can have upon the mind, and after what manner it influences our judgment and opinion. Here we may repeat all the same arguments we employed in examining that belief, which arises from causes; and may prove, after the same manner, that a superior number of chances produces our assent neither by *demonstration* nor *probability*. It is indeed evident that we can never by the comparison of mere ideas make any discovery, which can be of consequence in this affairs and that it is impossible to prove with certainty, that any event must fall on that side where there is a superior number of chances. To, suppose in this case any certainty, were to overthrow what we have established concerning the opposition of chances, and their perfect equality and indifference.

Should it be said, that though in an opposition of chances it is impossible to determine with certainty, on which side the event will fall, yet we can pronounce with *certainty*, that it is more likely and probable, it will be on that side where there is a superior number of chances, than where there is an inferior: should this be said, I would ask, what is here meant by *likelihood* and *probability*? The likelihood and probability of chances is a superior number of equal chances; and consequently when we say it is likely the event win fall on the side, which is superior, rather than on the inferior, we do no more than affirm, that where there is a superior number of chances there is actually a superior, and where there is an inferior there is an inferior; which are identical propositions, and of no consequence. The question is, by what means a superior number of equal chances operates upon the mind, and produces belief or assent; since it appears, that it is neither by arguments derived from demonstration, nor from probability.

In order to clear up this difficulty, we shall suppose a person to take a dye, formed after such a manner as that four of its sides are marked with one figure, or one number of spots, and two with another; and to put

this dye into the box with an intention of throwing it: It is plain, he must conclude the one figure to be more probable than the other, and give the preference to that which is inscribed on the greatest number of sides. He in a manner believes, that this will lie uppermost; though still with hesitation and doubt, in proportion to the number of chances, which are contrary: And according as these contrary chances diminish, and the superiority increases on the other side, his belief acquires new degrees of stability and assurance. This belief arises from an operation of the mind upon the simple and limited object before us; and therefore its nature will be the more easily discovered and explained. We have nothing but one single dye to contemplate, in order to comprehend one of the most curious operations of the understanding. . . .

It is supposed, that though the dye be necessarily determined to fall, and turn up one of its sides, yet there is nothing to fix the particular side, but that this is determined entirely by chance. The very nature and essence of chance is a negation of causes, and the leaving the mind in a perfect indifference among those events, which are supposed contingent. When therefore the thought is determined by the causes to consider the dye as falling and turning up one of its sides, the chances present all these sides as equal, and make us consider every one of them, one after another, as alike probable and possible. The imagination passes from the cause, viz. the throwing of the dye, to the effect, viz. the turning up one of the six sides; and feels a kind of impossibility both of stopping short in the way, and of forming any other idea. But as all these six sides are incompatible, and the dye cannot turn up above one at once, this principle directs us not to consider all of them at once as lying uppermost; which we look upon as impossible: Neither does it direct us with its entire force to any particular side; for in that case this side would be considered as certain and inevitable; but it directs us to the whole six sides after such a manner as to divide its force equally among them. We conclude in general, that some one of them must result from the throw: We run all of them over in our minds: The determination of the thought is common to all; but no more of its force falls to the share of any one, than what is suitable to its proportion with the rest. It is after this manner the original impulse, and consequently the vivacity of thought, arising from the causes, is divided and split in pieces by the intermingled chances.

We have already seen the influence of the two first qualities of the dye, viz. the causes, and the number and indifference of the sides, and have learned how they give an impulse to the thought, and divide that impulse into as many parts as there are units in the number of sides. We must now consider the effects of the third particular, viz. the figures inscribed on each side. It is evident that where several sides have the same figure inscribe on them, they must concur in their influence on the mind, and must unite upon one image or idea of a figure all those divided impulses, that were dispersed over the several sides, upon which that figure is inscribed. Were the question only what side will be turned up, these are all perfectly equal, and no one could ever have any advantage above another. But as the question is concerning the figure, and as the same figure is presented by more than one side: it is evident, that the impulses belonging to all these sides must re-unite in that one figure, and become stronger and more forcible by the union. Four sides are supposed in the present case to have the same figure inscribed on them, and two to have another figure. The impulses of the former are, therefore, superior to those of the latter. But as the events are contrary, and it is impossible both these figures can be turned up; the impulses likewise become contrary, and the inferior destroys the superior, as far as its strength goes. The vivacity of the idea is always proportionable to the degrees of the impulse or tendency to the transition; and belief is the same with the vivacity of the idea, according to the precedent doctrine.

SECT. XII. OF THE PROBABILITY OF CAUSES.

What I have said concerning the probability of chances can serve to no other purpose, than to assist us in explaining the probability of causes; since it is commonly allowed by philosophers, that what the vulgar call chance is nothing but a secret and concealed cause. That species of probability, therefore, is what we must chiefly examine.

The probabilities of causes are of several kinds; but are all derived from the same origin, viz. THE ASSOCIATION OF IDEAS TO A PRESENT IMPRESSION. As the habit, which produces the association, arises from the frequent conjunction of objects, it must arrive at its perfection by degrees, and must acquire new force from each instance, that falls under our observation. The first instance has little or no force: The second makes some addition to it: The third becomes still more sensible; and it is by these slow steps, that our judgment arrives at a full assurance. But before it attains this pitch of perfection, it passes through several inferior degrees, and in all of them is only to be esteemed a presumption or probability. The gradation, therefore, from probabilities to proofs is in many cases insensible; and the difference betwixt these kinds of evidence is more easily perceived in the remote degrees, than in the near and contiguous.

It is worthy of remark on this occasion, that though the species of probability here explained be the first in order, and naturally takes place before any entire proof can exist, yet no one, who is arrived at the age of maturity, can any longer be acquainted with it. It is true, nothing is more common than for people of the most advanced knowledge to have attained only an imperfect experience of many particular events; which naturally produces only an imperfect habit and transition: But then we must consider, that the mind, having formed another observation concerning the connection of causes and effects, gives new force to its reasoning from that observation; and by means of it can build an argument on one single experiment, when duly prepared and examined. What we have found once to follow from any object, we conclude will for ever follow from it; and if this maxim be not always built upon as certain, it is not for want of a sufficient number of experiments, but because we frequently meet with instances to the contrary; which leads us to the second species of probability, where there is a contrariety in our experience and observation.

It would be very happy for men in the conduct of their lives and actions, were the same objects always conjoined together, and, we had nothing to fear but the mistakes of our own judgment, without having any reason to apprehend the uncertainty of nature. But as it is frequently found, that one observation is contrary to another, and that causes and effects follow not in the same order, of which we have had experience, we are obliged to vary our reasoning on, account of this uncertainty, and take into consideration the contrariety of events. The first question, that occurs on this head, is concerning the nature and causes of the contrariety.

Philosophers observing that almost in every part of nature there is contained a vast variety of springs and principles, which are hid, by reason of their minuteness or remoteness, find that it is at least possible the contrariety of events may not proceed from any contingency in the cause but from the secret operation of contrary causes [hindering its action]. This possibility is converted into certainty by farther observation, when they remark, that upon an exact scrutiny, a contrariety of effects always reveals a contrariety of causes and proceeds from their mutual hindrance and opposition. . . . But however [we] may differ in their explication of the contrariety of events, [our] inferences from it are always of the same kind, and founded on the same principles. A contrariety of events in the past may give us a kind of hesitating belief for the future after two several ways. [One is] by producing an imperfect habit and transition from the present impression to the related idea. When the conjunction of any two objects is frequent, without being entirely constant, the mind is determined to pass from one object to the other; but not with so entire a habit, as when the union is uninterrupted, and all the instances we have ever met with are uniform and of a piece. We find from common experience, in our actions as well as reasonings, that a constant perseverance in any course of life produces a strong inclination and tendency to continue for the future; though there are habits of inferior degrees of force, proportioned to the inferior degrees of steadiness and uniformity in our conduct.

There is no doubt but this principle sometimes takes place, and produces those inferences we draw from contrary phenomena: [But] I am persuaded, that upon examination we shall not find it to be the principle,

that most commonly influences the mind in this species of reasoning. When we follow only the habitual determination of the mind, we make the transition without any reflection, and interpose not a moment's delay betwixt the view of one object and the belief of that, which is often found to attend it. As the custom depends not upon any deliberation, it operates immediately, without allowing any time for reflection. But this method of proceeding we have but few instances of in our probable reasonings; and even fewer than in those, which are derived from the uninterrupted conjunction of objects. In the former species of reasoning we commonly take knowingly into consideration the contrariety of past events; we compare the different sides of the contrariety, and carefully weigh the experiments, which we have on each side: Whence we may conclude, that our reasonings of this kind arise not directly from the habit, but in an oblique manner; which we must now endeavour to explain. . . .

First we may observe, that the supposition, that the future resembles the past, is not founded on arguments of any kind, but is derived entirely from habit, by which we are determined to expect for the future the same train of objects, to which we have been accustomed. This habit or determination to transfer the past to the future is full and perfect; and consequently the first impulse of the imagination in this species of reasoning is endowed with the same qualities.

But, secondly, when in considering past experiments we find them of a contrary nature, this determination, though full and perfect in itself, presents us with no steady object, but offers us a number of disagreeing images in a certain order and proportion. The first impulse, therefore, [rather than acting upon a weak form of agreement to produce a weak habit] is here broke into pieces, and diffuses itself over all those images, of which each partakes an equal share of that force and vivacity, that is derived from the impulse. Any of these past events may again happen; and we judge, that when they do happen, they will be mixed in the same proportion as in the past.

If our intention, therefore, be to consider the PROPORTION of contrary events in a great number of instances, the images presented by our past experience must remain in their first form and preserve their first proportions. Suppose, for instance, I have found by long observation, that of twenty ships, which go to sea, only nineteen return. Suppose I see at present twenty ships that leave the port: I transfer my past experience to the future, and represent to myself nineteen of these ships as returning in safety, and one as perishing. Concerning this there can be no difficulty. But as we frequently run over those several ideas of past events, in order to form a judgment concerning one single event, which appears uncertain; this consideration must change the first form of our ideas, and draw together the divided images presented by experience; since that is what we refer to in the determination of that particular event upon which we reason. Many of these images are supposed to concur, and a superior number to concur on one side. These agreeing images unite together, and render the idea more strong and lively, not only than a mere fiction of the imagination, but also than any idea, which is supported by a lesser number of experiments. Each new experiment is as a new stroke of the pencil, which bestows an additional vivacity on the colors without either multiplying or enlarging the figure. This operation of the mind has been so fully explained in treating of the probability of chance, that I need not here endeavour to render it more intelligible. Every past experiment may be considered as a kind of chance; it being uncertain to us, whether the object will exist conformable to one experiment or another. And for this reason every thing that has been said on the one subject is applicable to both.

Thus upon the whole, contrary experiments produce an imperfect belief, either by weakening the habit, or by dividing and afterwards joining in different parts, that perfect habit, which makes us conclude in general, that instances, of which we have no experience, must necessarily resemble those of which we have.

To justify still farther this account of the second species of probability, where we reason with knowledge and reflection from a contrariety of past experiments, I shall propose the following considerations,

without fearing to give offence by that air of subtlety, which attends them. Just reasoning ought still, perhaps, to retain its force, however subtle; in the same manner as matter preserves its solidity in the air, and fire, and animal spirits, as well as in the grosser and more sensible forms.

First, We may observe, that there is no probability so great as not to allow of a contrary possibility; because otherwise it would cease to be a probability, and would become a certainty. That probability of causes, which is most extensive, and which we at present examine, depends on a contrariety of experiments: and it is evident that an experiment in the past proves at least a possibility for the future.

Secondly, The component parts of this possibility and probability are of the same nature, and differ in number only, but not in kind. It has been observed, that all single chances are entirely equal, and that the only circumstance, which can give any event, that is contingent, a superiority over another is a superior number of chances. In like manner, as the uncertainty of causes is discovery by experience, which presents us with a view of contrary events, it is plain, that when we transfer the past to the future, the known to the unknown, every past experiment has the same weight, and that it is only a superior number of them, which can throw the balance on any side. The possibility, therefore, which enters into every reasoning of this kind, is composed of parts, which are of the same nature both among themselves, and with those, that compose the opposite probability.

Thirdly, We may establish it as a certain maxim, that in all moral as well as natural phenomena, wherever any cause consists of a number of parts, and the effect increases or diminishes, according to the variation of that number, the effects properly speaking, is a compounded one, and arises from the union of the several effects, that proceed from each part of the cause. Thus, because the gravity of a body increases or diminishes by the increase or diminution of its parts, we conclude that each part contains this quality and contributes to the gravity of the whole. The absence or presence of a part of the cause is attended with that of a proportionable part of the effect. This connection or constant conjunction sufficiently proves the one part to be the cause of the other. As the belief which we have of any event, increases or diminishes according to the number of chances or past experiments, it is to be considered as a compounded effect, of which each part arises from a proportionable number of chances or experiments.

Let us now join these three observations, and see what conclusion we can draw from them. To every probability there is an opposite possibility. This possibility is composed of parts, that are entirely of the same nature with those of the probability; and consequently have the same influence on the mind and understanding. The belief, which attends the probability, is a compounded effect, and is formed by the concurrence of the several effects, which proceed from each part of the probability. Since therefore each part of the probability contributes to the production of the belief, each part of the possibility must have the same influence on the opposite side; the nature of these parts being entirely the same. The contrary belief, attending the possibility, implies a view of a certain object, as well as the probability does an opposite view. In this particular both these degrees of belief are alike. The only manner then, in which the superior number of similar component parts in the one can exert its influence, and prevail above the inferior in the other, is by producing a stronger and more lively view of its object. Each part presents a particular view; and all these views uniting together produce one general view, which is fuller and more distinct by the greater number of causes or principles, from which it is derived.

The component parts of the probability and possibility, being alike in their nature, must produce like effects; and the likeness of their effects consists in this, that each of them presents a view of a particular object. But though these parts be alike in their nature, they are very different in their quantity and number; and this difference must appear in the effect as well as the similarity. Now as the view they present is in both cases full and entire, and comprehends the object in all its parts, it is impossible that in this particular there can be any difference; nor is there any thing but a superior vivacity in the probability, arising from the concurrence of a superior number of views, which can distinguish these effects.

Here is almost the same argument in a different light. All our reasonings concerning the probability of causes are founded on the transferring of past to future. The transferring of any past experiment to the future is sufficient to give us a view of the object; whether that experiment be single or combined with others of the same kind; whether it be entire, or opposed by others of a contrary kind. Suppose, then, it acquires both these qualities of combination and opposition, it loses not upon that account its former power of presenting a view of the object, but only concurs with and opposes other experiments, that have a like influence. A question, therefore, may arise concerning the manner both of the concurrence and opposition. As to the concurrence, there is only the choice left betwixt these two hypotheses. First, that the view of the object, occasioned by the transference of each past experiment, preserves itself entire, and only multiplies the number of views. Or, secondly, that it runs into the other similar and correspondent views, and gives them a superior degree of force and vivacity. But that the first hypothesis is erroneous, is evident from experience, which informs us, that the belief, attending any reasoning, consists in one conclusion, not in a multitude of similar ones, which would only distract the mind, and in many cases would be too numerous to be comprehended distinctly by any finite capacity. It remains, therefore, as the only reasonable opinion, that these similar views run into each other, and unite their forces; so as to produce a stronger and clearer view, than what arises from any one alone. This is the manner, in which past experiments concur, when they are transferred to any future event. As to the manner of their opposition, it is evident, that as the contrary views are incompatible with each other, and it is impossible the object can at once exist conformable to both of them, their influence becomes mutually destructive, and the mind is determined to the superior only with that force, which remains, after subtracting the inferior.

I am sensible how abstruse all this reasoning must appear to the generality of readers, who not being accustomed to such profound reflections on the intellectual faculties of the mind, will be apt to reject as chimerical whatever strikes not in with the common received notions, and with the easiest and most obvious principles of philosophy. And no doubt there are some pains required to enter into these arguments; though perhaps very little are necessary to perceive the imperfection of every vulgar hypothesis on this subject, and the little light, which philosophy can yet afford us in such sublime and such curious speculations. Let men be once fully persuaded of these two principles, THAT THERE, IS NOTHING IN ANY OBJECT, CONSIDERED IN ITSELF, WHICH CAN AFFORD US A REASON FOR DRAWING A CONCLUSION BEYOND IT; and, THAT EVEN AFTER THE OBSERVATION OF THE FREQUENT OR CONSTANT CONJUNCTION OF OBJECTS, WE HAVE NO REASON TO DRAW ANY INFERENCE CONCERNING ANY OBJECT BEYOND THOSE OF WHICH WE HAVE HAD EXPERIENCE; I say, let men be once fully convinced of these two principles, and this will throw them so loose from all common systems that they will make no difficulty of receiving any which may appear the most extraordinary. These principles we have found to be sufficiently convincing, even with regard to our most certain reasonings from causation: But I shall venture to affirm, that with regard to these conjectural or probable reasonings they still acquire a new degree of evidence.

First, It is obvious, that in reasonings of this kind, it is not the object presented to us, which, considered in itself, affords us any reason to draw a conclusion concerning any other object or event. For as this latter object is supposed uncertain, and as the uncertainty is derived from a concealed contrariety of causes in the former, were any of the causes placed in the known qualities of that object, they would no longer be concealed, nor would our conclusion be uncertain.

But, secondly, it is equally obvious in this species of reasoning, that if the transference of the past to the future were founded merely on a conclusion of the understanding, it could never occasion any belief or assurance. When we transfer contrary experiments to the future, we can only repeat these contrary experiments with their particular proportions; which could not produce assurance in any single event, upon which we reason, unless the fancy melted together all those images that concur, and extracted from them one single idea or image, which is intense and lively in proportion to the number of experiments

from which it is derived, and their superiority above their antagonists. Our past experience presents no determinate object; and as our belief, however faint, fixes itself on a determinate object, it is evident that the belief arises not merely from the transference of past to future, but from some operation of the fancy conjoined with it. This may lead us to conceive the manner, in which that faculty enters into all our reasonings.

I shall conclude this subject with [a reflection] . . . founded on those large probabilities which the mind can judge of and the minute differences it can observe betwixt them. When the chances or experiments on one side amount to ten thousand, and on the other to ten thousand and one, the judgment gives the preference to the latter, upon account of that superiority; though it is plainly impossible for the mind to run over every particular view, and distinguish the superior vivacity of the image arising from the superior number, where the difference is so inconsiderable. We have a parallel instance in the affections. It is evident, according to the principles above-mentioned, that when an object produces any passion in us, which varies according to the different quantity of the object; I say, it is evident, that the passion, properly speaking, is not a simple emotion, but a compounded one, of a great number of weaker passions, derived from a view of each part of the object. For otherwise it were impossible the passion should increase by the increase of these parts. Thus a man, who desires a thousand pound, has in reality a thousand or more desires which uniting together, seem to make only one passion; though the composition evidently betrays itself upon every alteration of the object, by the preference he gives to the larger number, if superior only by an unit. Yet nothing can be more certain, than that so small a difference would not be discernible in the passions, nor could render them distinguishable from each other. The difference, therefore, of our conduct in preferring the greater number depends not upon our passions, but upon custom, and general rules. We have found in a multitude of instances, that the augmenting the numbers of any sum augments the passion, where the numbers are precise and the difference sensible. The mind can perceive from its immediate feeling, that three guineas produce a greater passion than two; and this it transfers to larger numbers, because of the resemblance; and by a general rule assigns to a thousand guineas, a stronger passion than to nine hundred and ninety nine.

SECT. XIV. OF THE IDEA OF NECESSARY CONNECTION.

[Since] reason alone can never give rise to any original idea, . . . reason can never give rise to the idea of efficacy, [and therefore] that idea must be derived from experience, and from some particular instances of efficacy, which make their passage into the mind by the common channels of sensation or reflection. Ideas always represent their objects or impressions; and vice versa, there are some objects necessary to give rise to every idea. If we pretend, therefore, to have any just idea of this efficacy, we must produce some instance, wherein the efficacy is plainly discoverable to the mind, and its operations obvious to our consciousness or sensation. . . . We must distinctly and particularly conceive the connection between the cause and effect, and be able to pronounce, from a simple view of the one, that it must be followed or preceded by the other. . . .

Now nothing is more evident, than that the human mind cannot form such an idea of two objects, as to conceive any connection between them, or comprehend distinctly that power or efficacy, by which they are united. Such a connection would amount to a demonstration, and would imply the absolute impossibility for the one object not to follow, or to be conceived not to follow upon the other: and this kind of connection has already been rejected in all cases. If any one is of a contrary opinion, and thinks he has attained a notion of power in any particular object, I desire he may point out to me that object. But till I meet with such-a-one, which I despair of, I cannot forbear concluding, that since we can never distinctly conceive how any particular power can possibly reside in any particular object, we deceive ourselves in imagining we can form any such general idea.

. . . Suppose we observe several instances, in which the same objects are always conjoined together, we immediately conceive a connection between them, and begin to draw an inference from one to another. This multiplicity of resembling instances, therefore, constitutes the very essence of power or connection, and is the source from which the idea of it arises. In order, then, to understand the idea of power, we must consider that multiplicity; nor do I ask more to give a solution of that difficulty, which has so long perplexed us. . . .

Though the several resembling instances, which give rise to the idea of power, have no influence on each other, and can never produce any new quality in the object, which can be the model of that idea, yet the observation of this resemblance produces a new impression in the mind, which is its real model. For after we have observed the resemblance in a sufficient number of instances, we immediately *feel* a determination of the mind to pass from one object to its usual attendant, and to conceive it in a stronger light upon account of that relation. This determination is the only effect of the resemblance; and therefore must be the same with power or efficacy, whose idea is derived from the resemblance. The several instances of resembling conjunctions lead us into the notion of power and necessity. These instances are in themselves totally distinct from each other, and have no union but in the mind, which observes them, and collects their ideas. Necessity, then, is the effect of this observation, and is nothing but an internal impression of. the mind, or a determination to carry our thoughts from one object to another.

The necessary connection between causes and effects is the foundation of our inference from one to the other. The foundation of our inference is the transition arising from the accustomed union. These are, therefore, the same. . . Upon the whole, necessity is something that exists in the mind, not in objects; nor is it possible for us ever to form the most distant idea of it, considered as a quality in bodies. Either we have no idea of necessity, or necessity is nothing but that determination of the thought to pass from causes to effects, and from effects to causes, according to their experienced union. Thus as the necessity, which makes two times two equal to four, or three angles of a triangle equal to two right ones, lies only in the act of the understanding, by which we consider and compare these ideas; in like manner the necessity or power, which unites causes and effects, lies in the determination of the mind to pass from the one to the other. The efficacy or energy of causes is neither placed in the causes themselves, nor in the deity, nor in the concurrence of these two principles; but belongs entirely to the soul, which considers the union of two or more objects in all past instances. It is here that the real power of causes is placed along with their connection and necessity. . . .

PART IV, SECTION VI. OF PERSONAL IDENTITY

There are some philosophers. who imagine we are every moment intimately conscious of what we call our SELF; that we feel its existence and its continuance in existence; and are certain, beyond the evidence of a demonstration, of both its perfect identity and simplicity. The strongest sensation, the most violent passion, say they, instead of distracting us from this view, only fix it the more intensely, and make us consider their influence on self either by their pain or pleasure. To attempt a farther proof of this were to weaken its evidence; since no proof can be derived from any fact, of which we are so intimately conscious; nor is there any thing, of which we can be certain, if we doubt of this.

Unluckily all these positive assertions are contrary to that very experience, which is pleaded for them, nor have we any idea of self, after the manner it is here explained. For from what impression could this idea be derived? This question it is impossible to answer without a manifest contradiction and absurdity; and yet it is a question, which must necessarily be answered, if we would have the idea of self pass for clear and intelligible, It must be some one impression, that gives rise to every real idea. But self or person is not any one impression, but

that to which our several impressions and ideas are supposed to have a reference. If any impression gives rise to the idea of self, that impression must continue invariably the same, through the whole course of our lives; since self is supposed to exist after that manner. But there is no impression constant and invariable. Pain and pleasure, grief and joy, passions and sensations succeed each other, and never all exist at the same time. It cannot, therefore, be from any of these impressions, or from any other, that the idea of self is derived; and consequently there is no such idea.

But farther, what must become of all our particular perceptions upon this hypothesis? All these are different, and distinguishable, and separable from each other, and may be separately considered, and may exist separately, and have no need of any thing to support their existence. After what manner, therefore, do they belong to self; and how are they connected with it? For my part, when I enter most intimately into what I call myself, I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch myself at any time without a perception, and never can observe any thing but the perception. When my perceptions are removed for any time, as by sound sleep; so long am I insensible of myself, and may truly be said not to exist. And were all my perceptions removed by death, and could I neither think, nor feel, nor see, nor love, nor hate after the dissolution of my body, I should be entirely annihilated, nor do I conceive what is farther requisite to make me a perfect non-entity. If any one, upon serious and unprejudiced reflection thinks he has a different notion of himself, I must confess I can reason no longer with him. All I can allow him is, that he may be in the right as well as I, and that we are essentially different in this particular. He may, perhaps, perceive something simple and continued, which he calls himself; though I am certain there is no such principle in me.

But setting aside some metaphysicians of this kind, I may venture to affirm of the rest of mankind, that they are nothing but a bundle or collection of different perceptions, which succeed each other with an inconceivable rapidity, and are in a perpetual flux and movement. Our eyes cannot turn in their sockets without varying our perceptions. Our thought is still more variable than our sight; and all our other senses and faculties contribute to this change; nor is there any single power of the soul, which remains unalterably the same, perhaps for one moment. The mind is a kind of theatre, where several perceptions successively make their appearance; pass, re-pass, glide away, and mingle in an infinite variety of postures and situations. There is properly no simplicity in it at one time, nor identity in different; whatever natural propension we may have to imagine that simplicity and identity. The comparison of the theatre must not mislead us. They are the successive perceptions only, that constitute the mind; nor have we the most distant notion of the place, where these scenes are represented, or of the materials, of which it is composed.

What then gives us so great a propension to ascribe an identity to these successive perceptions, and to suppose ourselves possest of an invariable and uninterrupted existence through the whole course of our lives? . . . We have a distinct idea of an object, that remains invariable and uninterrupted through a supposed variation of time; and this idea we call that of identity or sameness. We have also a distinct idea of several different objects existing in succession, and connected together by a close relation; and this to an accurate view affords as perfect a notion of diversity, as if there was no manner of relation among the objects. But though these two ideas of identity, and a succession of related objects be in themselves perfectly distinct, and even

contrary, yet it is certain, that in our common way of thinking they are generally confounded with each other. That action of the imagination, by which we consider the uninterrupted and invariable object, and that by which we reflect on the succession of related objects, are almost the same to the feeling, nor is there much more effort of thought required in the latter case than in the former. The relation facilitates the transition of the mind from one object to another, and renders its passage as smooth as if it contemplated one continued object. This resemblance is the cause of the confusion and mistake, and makes us substitute the notion of identity, instead of that of related objects. However at one instant we may consider the related succession as variable or interrupted, we are sure the next to ascribe to it a perfect identity, and regard it as enviable and uninterrupted. Our propensity to this mistake is so great from the resemblance above-mentioned, that we fall into it before we are aware; and though we incessantly correct ourselves by reflection, and return to a more accurate method of thinking, yet we cannot long sustain our philosophy, or take off this bias from the imagination. Our last resource is to yield to it, and boldly assert that these different related objects are in effect the same, however interrupted and variable. In order to justify to ourselves this absurdity, we often feign some new and unintelligible principle, that connects the objects together, and prevents their interruption or variation. Thus we feign the continued existence of the perceptions of our senses, to remove the interruption: and run into the notion of a soul, and self, and substance, to disguise the variation. But we may farther observe, that where we do not give rise to such a fiction, our propensity to confound identity with relation is so great, that we are apt to imagine something unknown and mysterious, connecting the parts, beside their relation; and this I take to be the case with regard to the identity we ascribe to plants and vegetables. And even when this does not take place, we still feel a propensity to confound these ideas, though we are not able fully to satisfy ourselves in that particular, nor find any thing invariable and uninterrupted to justify our notion of identity.

Thus the controversy concerning identity is not merely a dispute of words. For when we attribute identity, in an improper sense, to variable or interrupted objects, our mistake is not confined to the expression, but is commonly attended with a fiction, either of something invariable and uninterrupted, or of something mysterious and inexplicable, or at least with a propensity to such fictions. What will suffice to prove this hypothesis to the satisfaction of every fair enquirer, is to shew from daily experience and observation, that the objects, which are variable or interrupted, and yet are supposed to continue the same, are such only as consist of a succession of parts, connected together by Resemblance, Contiguity, or Causation. . . . We may remark, that though in a succession of related objects, it be in a manner requisite, that the change of parts be not sudden nor entire, in order to preserve the identity, yet where the objects are in their nature changeable and inconstant we admit of a more sudden transition than would otherwise be consistent with that relation. Thus as the nature of a river consists in the motion and change of parts, though in less than four and twenty hours these be totally altered, this hinders not the river from continuing the same during several ages. What is natural and essential to any thing is, in a manner, expected; and what is expected makes less impression, and appears of less moment, than what is unusual and extraordinary. A considerable change of the former kind seems really less to the imagination, than the most trivial alteration of the latter; and by breaking less the continuity of the thought, has less influence in destroying the identity.

We now proceed to explain the nature of personal identity, which has become so great a question in philosophy, especially of late years in England, where all the abstruser sciences are studied with a peculiar ardour and application. . . . It is evident that the identity which we attribute to the

human mind, however perfect we may imagine it to be, is not able to run the several different perceptions into one, and make them lose their characters of distinction and difference, which are essential to them. It is still true, that every distinct perception, which enters into the composition of the mind, is a distinct existence, and is different, and distinguishable, and separable from every other perception, either contemporary or successive. But as notwithstanding this distinction and separability, we suppose the whole train of perceptions to be united by identity, a question naturally arises concerning this relation of identity: whether it be something that really binds our several perceptions together, or only associates their ideas in the imagination. That is, in other words, whether in pronouncing concerning the identity of a person, we observe some real bond among his perceptions, or only feel one among the ideas we form of them. This question we might easily decide, if we would recollect what has been already proved at large, that the understanding never observes any real connection among objects, and that even the union of cause and effect, when strictly examined, resolves itself into a customary association of ideas. For from thence it evidently follows, that identity is nothing really belonging to these different perceptions, and uniting them together; but is merely a quality, which we attribute to them, because of the union of their ideas in the imagination, when we reflect upon them. Now the only qualities, which can give ideas a union in the imagination, are these three relations above-mentioned. There are the uniting principles in the ideal world, and without them every distinct object is separable by the mind, and may be separately considered, and appears not to have any more connection with any other object, than if disjoined by the greatest difference and remoteness. It is, therefore, on some of these three relations of Resemblance, Contiguity and Causation, that Identity depends; and as the very essence of these relations consists in their producing an easy transition of ideas; it follows, that our notions of personal identity, proceed entirely from the smooth and uninterrupted progress of the thought along a train of connected ideas, according to the principles explained above.

The only question, therefore, which remains is by what relations this uninterrupted progress of our thought is produced, when we consider the successive existence of a mind or thinking person. And here it is evident we must confine ourselves to resemblance and causation, and must drop contiguity, which has little or no influence in the present case.

To begin with resemblance; suppose we could see clearly into the breast of another, and observe that succession of perceptions, which constitutes his mind or thinking principle, and suppose that he always preserves the memory of a considerable part of past perceptions; it is evident that nothing could more contribute to the bestowing a relation on this succession amidst all its variations. For what is the memory but a faculty by which we raise up the images of past perceptions? And as an image necessarily resembles its object, must not the frequent placing of these resembling perceptions in the chain of thought convey the imagination more easily from one link to another and make the whole seem like the continuance of one object? In this particular, then, the memory not only discovers the identity but also contributes to its production, by producing the relation of resemblance among the perceptions. The case is the same whether we consider ourselves or others.

As to causation; we may observe, that the true idea of the human mind, is to consider it as a system of different perceptions or different existences, which are linked together by the relation of cause and effect, and mutually produce, destroy, influence, and modify each other. Our impressions give rise to their correspondent ideas; and these ideas in their turn produce other

impressions. One thought chases away another, and draws after it a third, by which it is expelled in its turn. In this respect, I cannot compare the soul more properly to any thing than to a republic or commonwealth, in which the several members are united by the reciprocal ties of government and subordination, and give rise to other persons, who propagate the same republic in the incessant changes of its parts. And as the same individual republic may not only change its members, but also its laws and constitutions; in like manner the same person may vary his character and disposition, as well as his impressions and ideas, without losing his identity. Whatever changes he endures, his several parts are still connected by the relation of causation. And in this view our identity with regard to the passions serves to corroborate that with regard to the imagination, by the making our distant perceptions influence each other, and by giving us a present concern for our past or future pains or pleasures.

As a memory alone acquaints us with the continuance and extent of this succession of perceptions, it is to be considered, upon that account chiefly, as the source of personal identity. Had we no memory, we never should have any notion of causation, nor consequently of that chain of causes and effects, which constitute our self or person. But having once acquired this notion of causation from the memory, we can extend the same chain of causes and consequently the identity of our persons beyond our memory and can comprehend times, and circumstances, and actions, which we have entirely forgot, but suppose in general to have existed. For how few of our past actions are there, of which we have any memory? Who can tell me, for instance, what were his thoughts and actions on the 1st of January 1715, the 11th of March 1719, and the 3rd of August 1733? Or will he affirm, because he has entirely forgot the incidents of these days, that the present self is not the same person with the self of that time; and by that means overturn all the most established notions of personal identity? In this view, therefore, memory does not so much produce as discover personal identity, by shewing us the relation of cause and effect among our different perceptions. It will be incumbent on those, who affirm that memory produces entirely our personal identity, to give a reason why we can thus extend our identity beyond our memory.

The whole of this doctrine leads us to a conclusion, which is of great importance in the present affair, viz. that all the nice and subtle questions concerning personal identity can never possibly be decided, and are to be regarded rather as grammatical than as philosophical difficulties. Identity depends on the relations of ideas; and these relations produce identity, by means of that easy transition they occasion. But as the relations, and the easiness of the transition may diminish by insensible degrees, we have no just standard, by which we can decide any dispute concerning the time, when they acquire or lose a title to the name of identity. All the disputes concerning the identity of connected objects are merely verbal, except so far as the relation of parts gives rise to some fiction or imaginary principle of union, as we have already observed.