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Square [brackets] enclose editorial explanations. Small ·dots· enclose material that has been added, but can be read as though it were part of the original text. Occasional bullets, and also indenting of passages that are not quotations, are meant as aids to grasping the structure of a sentence or a thought.

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Enquiry Concerning Human Understanding By David Hume

1. The different species of philosophy ......................................................................
2. The origin of ideas ...............................................................................................
3. The association of ideas .....................................................................................
4. Sceptical doubts concerning the operations of the understanding........................
5. Sceptical solution of these doubts ......................................................................
6. Probability .........................................................................................................
7. The idea of necessary connection .......................................................................
8. Liberty and necessity..........................................................................................
9. The reason of animals ........................................................................................
10. Miracles...........................................................................................................
11. A particular providence and a future state ........................................................
12. The sceptical philosophy .................................................................................

Most of the principles and reasonings contained in this volume were published in a work in three volumes called A Treatise of Human Nature - a work which the author had planned before he left college, and which he wrote and published not long after. Its failure made him aware of his error in publishing too early, and he reworked the whole thing in the following pieces, in which he hopes he has corrected some careless slips in his reasoning, and more in his expression of his views, in the Treatise. [The ‘pieces’ are the present work, the Dissertation on the Passions and the Enquiry Concerning the Principles of Morals, which were all published together.] Yet several writers who have honoured the author’s philosophy with answers have taken care to aim their guns only at that youthful work, which the author never acknowledged, ·having published it anonymously·, and they have boasted of the victories they thought they had won against it. This is behaviour is flatly contrary to all the rules of honesty and fairness, and a striking example of those debating tricks that bigoted zealots think it is all right for them to employ. From now on the author wants the following pieces to be regarded as the sole source for his philosophical opinions and principles.

(….)

(….)

**Section 4: Sceptical doubts concerning the operations of the understanding**

**Part 1**

All the objects of human reason or enquiry fall naturally into two kinds, namely Relations of Ideas and Matters of Fact. The first kind include Geometry, Algebra, and Arithmetic, and indeed every statement that is either intuitively or demonstratively certain. That the square of the hypotenuse is equal to the squares of the two sides expresses a relation between those figures. That three times five equals half of thirty expresses a relation between those numbers. Propositions of this kind can be discovered purely by thinking, with no need to attend to anything that actually exists anywhere in the universe. The truths that Euclid demonstrated would still be certain and self-evident even if there never were a circle or triangle in nature.

Matters of fact, which are the second objects of human reason, are not established in the same way; and we cannot have such strong grounds for thinking them true. The contrary of every matter of fact is still possible, because it doesn’t imply a contradiction and is conceived by the mind as easily and clearly as if it conformed perfectly to reality. That the sun will not rise to-morrow is just as intelligible as - and no more contradictory than - the proposition that the sun will rise tomorrow. It would therefore be a waste of time to try to demonstrate [= prove purely by logic] its falsehood. If it were demonstratively false, it would imply a contradiction and so could never be clearly conceived by the mind.

So it may be worth our time and trouble to try to answer this: What sorts of grounds do we have for being sure of matters of fact - propositions about what exists and what is the case - that are not attested by our present senses or the records of our memory? It is a notable fact that neither ancient philosophers nor modern ones have attended much to this important question; so in investigating it I shall be marching through difficult terrain with no guides or signposts; and that may help to excuse any errors I commit or doubts that I raise. Those errors and doubts may even be useful: they may make people curious and eager to learn, and may destroy that ungrounded and unexamined confidence ·that people have in their opinions - a confidence· that is the curse of all reasoning and free enquiry. If we find things wrong with commonly accepted philosophical views, that need not be a discouragement, but rather can spur us on to try for something more full and satisfactory than has yet been published.

All reasonings about matters of fact seem to be based on the relation of Cause and Effect, which is the only relation that can take us beyond the evidence of our memory and senses. If you ask someone why he believes some matter of fact which is not now present to him - for instance that his friend is now in France - he will give you a reason; and this reason will be some other fact, such as that he has received a letter from his friend or that his friend had planned to go to France. Someone who finds a watch or other machine on a desert island will conclude that there have been men on that island. All our reasonings concerning fact are like this. When we reason in this way, we suppose that the present fact is connected with the one that we infer from it. If there were nothing to bind the two facts together, the inference of one from the other would be utterly shaky. Hearing the sounds of someone talking rationally in the dark assures us of the presence of some person. Why? Because such sounds are the effects of the human constitution, and are closely connected with it. All our other reasonings of this sort, when examined in detail, turn out to be based on the relation of cause and effect. The causal chain from evidence to the ‘matter of fact’ conclusion may be short or long. And it may be that the causal connection between them isn’t direct but collateral - as when one sees light and infers heat, not because either causes the other but because the two are collateral effects of a single cause, namely fire.

So if we want to understand the basis of our confidence about matters of fact, we must find out how we come to know about cause and effect.

I venture to assert, as true without exception, that knowledge about causes is never acquired through a priori reasoning, and always comes from our experience of finding that particular objects are constantly associated with one other. [When Hume is discussing cause and effect, his word ‘object’ often covers events as well as things.] Present an object to a man whose skill and intelligence are as great as you like; if the object is of a kind that is entirely new to him, no amount of studying of its perceptible qualities will enable him to discover any of its causes or effects. Adam, even if his reasoning abilities were perfect from the start, could not have inferred from the fluidity and transparency of water that it could drown him, or from the light and warmth of fire that it could burn him. The qualities of an object that appear to the senses never reveal the causes that produced the object or the effects that it will have; nor can our reason, unaided by experience, ever draw any conclusion about real existence and matters of fact.

The proposition that causes and effects are discoverable not by reason but by experience will be freely granted (1) with regard to objects that we remember having once been altogether unknown to us; for in those cases we remember the time when we were quite unable to tell what would arise from those objects. Present two smooth pieces of marble to a man who has no knowledge of physics - he will not be able to work out that they will stick together in such a way that it takes great force to separate them by pulling them directly away from one another, while it will be easy to slide them apart. (2) Events that are not much like the common course of nature are also readily agreed to be known only by experience; and nobody thinks that the explosion of gunpowder, or the attraction of a magnet, could ever be discovered by arguments a priori - ·that is, by simply thinking about the matter, without bringing in anything known from experience·. (3) Similarly, when an effect is thought to depend on an intricate machinery or secret structure of parts we don’t hesitate to attribute all our knowledge of it to experience. No-one would assert that he can give the ultimate reason why milk or bread is nourishing for a man but not for a lion or a tiger.

But this same proposition - ·that causes and effects cannot be discovered by reason· - may seem less obvious when it is applied to events of kinds (1) that we have been familiar with all our lives, (2) that are very like the whole course of nature, and (3) that are supposed to depend on the simple ·perceptible· qualities of objects and not on any secret structure of parts. We are apt to imagine that we could discover these effects purely through reason, without experience. We fancy that if we had been suddenly brought into this world, we could have known straight off that when one billiard ball strikes another it will make it move - knowing this for certain, without having to try it out on billiard balls. Custom has such a great influence! At its strongest it not only hides our natural ignorance but even conceals itself: just because custom is so strongly at work, we are not aware of its being at work at all.

If you are not yet convinced that absolutely all the laws of nature and operations of bodies can be known only by experience, consider the following. If we are asked to say what the effects will be of some object, without consulting past experience of it, how can the mind go about doing this? It must invent or imagine some event as being the object’s effect; and clearly this invention must be entirely arbitrary. The mind can’t possibly find the effect in the supposed cause, however carefully we examine it, for the effect is totally different from the cause and therefore can never be discovered in it. Motion in the second billiard ball is a distinct event from motion in the first, and nothing in the first ball’s motion even hints at motion in the second. A stone raised into the air and left without any support immediately falls; but if we consider this situation a priori we shall find nothing that generates the idea of a downward rather than an upward or some other motion in the stone.

Just as the first imagining or inventing of a particular effect is arbitrary if it isn’t based on experience, the same holds for the supposed tie or connection between cause and effect - the tie that binds them together and makes it impossible for that cause to have any effect but that one. Suppose for example that I see one billiard ball moving in a straight line towards another: even if the contact between them should happen to suggest to me the idea of motion in the second ball, aren’t there a hundred different events that I can conceive might follow from that cause? May not both balls remain still? May not the first bounce straight back the way it came, or bounce off in some other direction? All these suppositions are consistent and conceivable. Why then should we prefer just one, which is no more consistent or conceivable than the rest? Our a priori reasonings will never reveal any basis for this preference. In short, every effect is a distinct event from its cause. So it can’t be discovered in the cause, and the first invention or conception of it a priori must be wholly arbitrary. Furthermore, even after it has been suggested, the linking of it with the cause must still appear as arbitrary, because plenty of other possible effects must seem just as consistent and natural from reason’s point of view. So there isn’t the slightest hope of reaching any conclusions about causes and effects without the help of experience. That is why no reasonable scientist has ever claimed to know the ultimate cause of any natural process, or to show clearly and in detail what goes into the causing of any single effect in the universe. It is agreed that the most human reason can achieve is to make the principles that govern natural phenomena simpler, bringing many particular effects together under a few general causes by reasoning from analogy, experience and observation. But if we try to discover the causes of these general causes, we shall be wasting our labour. These ultimate sources and principles are totally hidden from human enquiry. Probably the deepest causes and principles that we shall ever discover in nature are these four:elasticity,gravity,cohesion of parts ·which makes the difference between a pebble and a pile of dust·, and communication of motion by impact ·as when one billiard ball hits another·. We shall be lucky if by careful work we can explain particular phenomena in terms of these four, or something close to them. The perfect philosophy of the natural kind [= the perfect physics] only staves off our ignorance a little longer; just as, perhaps, the most perfect philosophy of the moral or metaphysical kind [= the most perfect philosophy, in the 21st century sense of the word] serves only to show us more of how ignorant we are. So both kinds of philosophy eventually lead us to a view of human blindness and weakness - a view that confronts us at every turn despite our attempts to get away from it. Although geometry is rightly famous for the accuracy of its reasoning, when it is brought to the aid of physics it can’t lead us to knowledge of ultimate causes, thereby curing the ignorance I have been discussing. Every part of applied mathematics works on the assumption that nature operates according to certain established laws; and abstract reasonings are used either to help experience to discover these laws or to work out how the laws apply in particular cases where exactness of measurement is relevant. Here is an example. It is a law of motion, discovered by experience, that the force of any moving body is proportional to its mass and to its velocity; so we can get a small force to overcome the greatest obstacle if we can devise a machine that will increase the velocity of the force so that it overwhelms its antagonist. Geometry helps us to apply this law by showing us how to work out the sizes and shapes of all the parts of the machine that we make for this purpose; but the law itself is something we know purely from experience, and no amount of abstract reasoning could lead us one step towards the knowledge of it. When we reason a priori, considering some object or cause merely as it appears to the mind and independently of any observation of its behaviour, it could never prompt us to think of any other item, such as its effect. Much less could it show us the unbreakable connection between them. It would take a very clever person to discover by reasoning that heat makes crystals and cold makes ice without having had experience of the effects of heat and cold!

Part 2 (of Section 4)

But we haven’t yet found an acceptable answer to the question that I initially asked. Each solution raises new questions which are as hard to answer as the first one, and which lead us on to further enquiries. To the question What is the nature of all our reasonings concerning matter of fact? the proper answer seems to be that they are based on the relation of cause and effect. When it is further asked, What is the foundation of all our reasonings about cause and effect? we can answer in one word, Experience. But if we persist with questions, and ask, What are inferences from experience based on? this raises a new question that may be harder still. Philosophers - for all their air of superior wisdom - are given a hard time by people who persist with questions, pushing them from every corner into which they retreat, finally bringing them to some dangerous dilemma [= a choice between two alternatives which both seem wrong]. The best way for us to avoid such an embarrassment is not to claim too much in the first place, and even to find the difficulty for ourselves before it is brought against us as an objection. In this way we can make a kind of merit even of our ignorance!

In this section I shall settle for something easy, offering only a negative answer to the question I have raised ·about what inferences from experience are based on·. It is this: even after we have experience of the operations of cause and effect, the conclusions we draw from that experience are not based on reasoning or on any process of the understanding. I shall try to explain and defend this answer.

It must be granted that nature has kept us at a distance from all its secrets, and has allowed us to know only a few superficial qualities of objects, concealing from us the powers and principles on which the influence of the objects entirely depends. Our senses tell us about the colour, weight and consistency of bread; but neither the senses nor reason can ever tell us about the qualities that enable bread to nourish a human body. Sight or touch gives us an idea of the motion of bodies; but as for the amazing force that keeps a body moving for ever unless it collides with other bodies - we cannot have the remotest conception of that. Despite this ignorance of natural powers3 and principles, however, we always assume that the same sensible qualities [that is, qualities that can be seen or felt or heard etc.] will have the same secret powers, and we expect them to have the same effects that we have found them to have in our past experience. If we are given some stuff with the colour and consistency of bread that we have eaten in the past, we don’t hesitate to repeat the experiment ·of eating it·, confidently expecting it to nourish and support us. ·That is what we do every morning at the breakfast table: confidently experiment with bread-like stuff by eating it! I would like to know what the basis is for this process of thought. Everyone agrees that a thing’s sensible qualities are not connected with its secret powers in any way that we know about, so that the mind isn’t led to a conclusion about their constant and regular conjunction through anything it knows of their nature. All that past experience can tell us, directly and for sure, concerns the behaviour of the particular objects we observed, at the particular time when we observed them. ·My experience directly and certainly informs me that that fire consumed coal then; but it is silent about the behaviour of the same fire a few minutes later, and about other fires at any time·. Why should this experience be extended to future times and to other objects, which for all we know may only seem similar? - that is what I want to know. The bread that I formerly ate nourished me; that is, a body with such and such sensible qualities did at that time have such and such secret powers. But does it follow that other bread must also nourish me at other times, and that the same perceptible qualities must always be accompanied by the same secret powers? It does not seem to follow necessarily. Anyway, it must be admitted that in such a case as this the mind draws a conclusion; it takes a certain step, goes through a process of thought or inference, which needs to be explained. These two propositions are far from being the same:

I have found that such and such an object has always had such and such an effect.

I foresee that other objects which appear similar will have similar effects.  
The second proposition is always inferred from the first; and if you wish I shall grant that it is rightly inferred. But if you insist that the inference is made by a chain of reasoning, I challenge you to produce the reasoning. The connection between these propositions is not intuitive [that is, the second does not self-evidently and immediately follow from the first]. If the inference is to be conducted through reason alone, it must be with help from some intermediate step. But when I try to think what that intermediate step might be, I am defeated. Those who assert that it really exists and is the origin of all our conclusions about matters of fact owe us an account of what it is.

·They haven’t given any account of this, which I take to be evidence that none can be given·. If many penetrating and able philosophers try and fail to discover a connecting proposition or intermediate step through which the understanding can perform this inference from past effects to future ones, my negative line of thought about this will eventually be found entirely convincing. But as the question is still new, the reader may not trust his own abilities enough to conclude that because he cannot find a certain argument it does not exist. In that case I need to tackle a harder task than I have so far undertaken - namely, going through all the branches of human knowledge one by one, trying to show that none can give us such an argument.

All reasonings fall into two kinds: (1) demonstrative reasoning, or that concerning relations of ideas, and (2) factual reasoning, or that concerning matters of fact and existence. That no demonstrative arguments are involved in (1) seems evident; since there is no outright contradiction in supposing that the course of nature will change so that an object that seems like ones we have experienced will have different or contrary effects from theirs. Can’t I clearly and distinctly conceive that snowy stuff falling from the clouds might taste salty or feel hot? Is there anything unintelligible about supposing that all the trees will flourish in December and lose their leaves in June? Now, if something is intelligible and can be distinctly conceived, it implies no contradiction and can never be proved false by any demonstrative argument or abstract a priori reasoning.

So if there are arguments to justify us in trusting past experience and making it the standard of our future judgment, these arguments must be probable only; that is, they must be of the kind (2) that concern matters of fact and real existence, to put it in terms of the classification I have given. But probable reasoning can’t provide us with the argument we are looking for, if I have described it accurately. According to my account, all arguments about existence are based on the relation of cause and effect; our knowledge of that relation is derived entirely from experience; and in drawing conclusions from experience we assume that the future will be like the past. So if we try to prove this assumption by probable arguments, i.e. arguments regarding existence, we shall obviously be going in a circle, taking for granted the very point that is in question.

In reality, all arguments from experience are based on the similarities that we find among natural objects - which lead us to expect that the effects of the objects will also be similar. Although only a fool or a madman would ever challenge the authority of experience or reject it as a guide to human life, still perhaps a philosopher may be allowed to ask what it is about human nature that gives this mighty authority to experience and leads us to profit from the similarities that nature has established among different objects. Our inferences from experience all boil down to this: From causes that appear similar we expect similar effects. If this were based on reason, we could draw the conclusion as well after a single instance as after a long course of experience. But that isn’t in fact how things stand. Nothing so similar as eggs; yet no-one expects them all to taste the same. When we become sure of what will result from a particular event, it is only because we have experienced many events of that kind, all with the same effects. Now, where is that process of reasoning that infers from one instance a conclusion that was not inferred from a hundred previous instances just like this single one? I ask this for the sake of information as much as with the intention of raising difficulties. I can’t find - I can’t imagine - any such reasoning. But I am willing to learn, if anyone can teach me.

It may be said that from a number of uniform experiences we infer a connection between the sensible qualities and the secret powers; but this seems to raise the same difficulty in different words. We still have to ask what process of argument this inference is based on. Where is the intermediate step, the interposing ideas, which join propositions that are so different from one another? It is agreed that the colour, consistency and other sensible qualities of bread do not appear to be inherently connected with the secret powers of nourishment and support. If they were, we could infer these secret powers from a first encounter with those qualities, without the aid of long previous experience; and this contradicts what all philosophers believe and contradicts plain matters of fact. Start by thinking of us in our natural state of ignorance, in which we know nothing about the powers and influence of anything. How does experience cure this ignorance? All it does is to show us that certain ·similar· objects had similar effects; it teaches us that those particular objects had such and such powers and forces at those particular times. When a new object with similar perceptible qualities is produced, we expect similar powers and forces and look for a similar effect. We expect for instance that stuff with the colour and consistency of bread will nourish us. But this surely is a movement of the mind that needs to be explained. When a man says ‘I have found in all past instances such and such sensible qualities conjoined with such and such secret powers’, and then goes on to say ‘Similar sensible qualities will always be combined with similar secret powers’, he isn’t guilty of merely repeating himself; these propositions are in no way the same. ‘The second proposition is inferred from the first’, you may say; but you must admit that the inference isn’t intuitive [that is, it can’t be seen at a glance to be valid], and it isn’t demonstrative either [that is, it can’t be carried through by a series of steps each of which can be seen at a glance to be valid]. What kind of inference is it, then? To call it ‘experiential’ is to assume the point that is in question. For all inferences from experience are based on the assumption that the future will resemble the past, and that similar powers will be combined with similar sensible qualities. As soon as the suspicion is planted that the course of nature may change, so that the past stops being a guide to the future, all experience becomes useless and cannot support any inference or conclusion. So no arguments from experience can support this resemblance of the past to the future, because all such arguments are based on the assumption of that resemblance. However regular the course of things has been, that fact on its own doesn’t prove that the future will also be regular. It’s no use your claiming to have learned the nature of bodies from your past experience. Their secret nature, and consequently all their effects and influence, may change without any change in their sensible qualities. This happenssometimes with regard tosome objects: Why couldn’t it happenalways with regard toall? What logic, what process of argument, secures you against this? You may say that I don’t behave as though I had doubts about this; but that would reflect a misunderstanding of why I am raising these questions. When I am considering how to act, I am quite satisfied that the future will be like the past; but as a philosopher with an enquiring - I will not say sceptical - turn of mind, I want to know what this confidence is based on. No reading or enquiry has yet been able to remove my difficulty. Can I do better than to put the difficulty before the public, even though I may not have much hope of being given a solution? In this way we shall at least be aware of our ignorance, even if we don’t increase our knowledge.

It would be inexcusably arrogant to conclude that because I haven’t discovered a certain argument it does not really exist. Even if learned men down the centuries have searched for something without finding it, perhaps it would still be rash to conclude with confidence that the subject must surpass human understanding. Even though we examine all the sources of our knowledge and conclude that they are unfit for a given subject, we may still suspect that the list of sources is not complete or our examination of them not accurate. With regard to our present subject, however, there are reasons to think that my conclusion is certainly right and that I am not arrogant in thinking so.

It is certain that the most ignorant and stupid peasants, even infants, indeed even brute beasts, improve by experience and learn the qualities of natural objects by observing their effects. When a child has felt pain from touching the flame of a candle, he will be careful not to put his hand near any candle, and will expect a similar effect from any cause that is similar in its appearance. If you assert that the child’s understanding comes to this conclusion through a process of argument, it is fair for me to demand that you produce that argument, and you have no excuse for refusing to comply. You can’t say that the argument has eluded you because it is so difficult and complex, because you have said that a mere infant finds it easy! So if you hesitate for a moment, or if after reflection you produce any intricate or profound argument, you have in effect given up your side in this dispute: you have as good as admitted that it is not reasoning which leads us to suppose the future to resemble the past and to expect similar effects from apparently similar causes. This is the proposition that I intended to establish in the present section. If I am right about it, I don’t claim it as any great discovery. If I am wrong, then there is an argument ·from past to future· which was perfectly familiar to me long before I was out of my cradle, yet now I can’t discover it. What a backward scholar I must be!

**Section 5: Sceptical solution of these doubts**

**Part 1**

The passion for philosophy, like that for religion, involves a certain danger. Although it aims to correct our behaviour and wipe out our vices, it may - through not being handled properly - end up by merely encouraging us to carry on in directions that we are already naturally inclined to follow. We may set out to achieve philosophical wisdom and firmness, and to become satisfied with the pleasures of the mind ·as distinct from those of the body·, yet reason ourselves out of all virtue as well as all social enjoyment, ending up with a philosophy which (like that of Epictetus and other Stoics) is only a more refined system of selfishness. While we meditate on the vanity of human life, and focus our thoughts on the empty and transitory nature of riches and honours, perhaps we are really just finding excuses for our idleness, trying to get reason’s support for our lazy unwillingness to be busy in the world. However, one kind of philosophy seems to run little risk of this drawback, because it does not join forces with any disorderly passion of the human mind, and cannot get mixed up with any of our natural tendencies or inclinations; and that is the sceptical philosophy. The sceptics always talk of doubt and suspending judgment, of the danger of deciding too quickly, of keeping intellectual enquiries within narrow limits, and of giving up all theorizing that isn’t in touch with common life and practice. So their philosophy is as opposed as it could be to the mind’s idleness, its rash arrogance, its grandiose claims, and its superstitious credulity. This philosophy has a humbling effect on every passion except the love of truth; and that could never be carried too far. Given that this philosophy is almost always harmless and innocent, it is surprising that it should so often be criticized and stigmatized as libertine, profane, and irreligious. Perhaps the very feature that makes it so innocent also brings hatred and resentment against it. It doesn’t encourage any bad feelings or habits, so it has few supporters; but it does oppose many vices and follies, which is why it has so many enemies! When it tries to limit our enquiries to common life, this philosophy runs no risk of going too far and undermining the reasonings that we use in common life, pushing its doubts so far as to destroy all action and belief. Nature will always maintain its rights, and prevail in the end over any abstract reasoning whatsoever. ·That is, we shall continue to think and act in the ways that our human nature dictates - the ways that are natural to us - and there’s no chance of our being deflected from these by philosophical considerations·. For example, I showed in the preceding section that whenever we reason from experience we take a step that is not supported by any argument or intellectual considerations; but these experiential reasonings are the basis for almost all the knowledge we have, and there’s no chance of their being dislodged by the discovery that they can’t be justified by arguments. If we are not led by argument to make inferences from past experience, we must be led by something else that is just as powerful - some other principle that will have power in our lives as long as human nature remains the same. It would be worthwhile to explore what that other principle is.

Suppose that a highly intelligent and thoughtful person were suddenly brought into this world; he would immediately observe one event following another, but that is all he could discover. He would not be able by any reasoning to reach the idea of cause and effect, because (firstly) the particular powers by which all natural operations are performed are never perceived through the senses, and (secondly) there is no reason to conclude that one event causes another merely because it precedes it. Their occurring together may be arbitrary and casual, with no causal connection between them. In short, until such a person had more experience he could never reason about any matter of fact, or be sure of anything beyond what was immediately present to his memory and senses.

Now suppose that our person gains more experience, and lives long enough in the world to observe similar objects or events occurring together constantly; now what conclusion does he draw from this experience? He immediately infers the existence of one object from the appearance of the other! Yet all his experience has not given him any idea or knowledge of the secret power by which one object produces another; nor can any process of reasoning have led him to draw this inference. But he finds that he can’t help drawing it: and he will not be swayed from this even if he becomes convinced that there is no intellectual support for the inference. Some other principle is at work, compelling him to go through with it.

This principle is custom or habit. When we are inclined to behave or think in some way, not because it can be justified by reasoning or some process of the understanding but just because we have behaved or thought like that so often in the past, we always say that this inclination is the effect of ‘custom’. In using that word we don’t claim to give the basic reason for the inclination. All we are doing is to point out a fundamental feature of human nature which everyone agrees is there, and which is well known by its effects. Perhaps that is as far as we can go. Perhaps, that is, we cannot discover the cause of this cause, and must rest content with it as the deepest we can go in explaining our conclusions from experience. Our ability to go that far should satisfy us; we oughtn’t to complain about the narrowness of our faculties because they won’t take us any further. We do at least have here a very intelligible proposition and perhaps a true one: After the constant conjunction of two objects - heat and flame, for instance, or weight and solidity - sheer habit makes us expect the one when we experience the other. Indeed, this hypothesis seems to be the only one that could explain why we draw from a thousand instances an inference which we cannot draw from a single one that is exactly like each of the thousand. Reason isn’t like that. The conclusions it draws from considering one circle are the same as it would form after surveyingall the circles in the universe. But no man, having seen only one body move after being pushed by another, could infer that every other body will move after a similar collision. All inferences from experience, therefore, are effects of custom and not of reasoning.

Custom, then, is the great guide of human life. It alone is what makes our experience useful to us, and makes us expect future sequences of events to be like ones that have appeared in the past. Without the influence of custom, we would be entirely ignorant of every matter of fact beyond what is immediately present to the memory and senses. We would never know what means we should adopt in order to reach our ends; we could not employ our natural powers to produce any desired effect. There would be an end of all action and of most theorizing.

I should point out, however, that although our inferences from experience carry us beyond our memory and senses, and assure us of matters of fact that happened in distant places and at remote times, any such inference must start with a fact that is present to the senses or memory. A man who found in a desert country the remains of magnificent buildings would conclude that the country had long before had civilized inhabitants; but without the initial experience he could never infer this. We learn the events of bygone ages from history; but to do this we must read the books that give the information, and carry out inferences from one report to another, until finally we arrive at the eye-witnesses and spectators of these distant events. In short, if we did not start with some fact that is present to the memory or senses, our reasonings would be merely hypothetical; and however strong the particular links might be, the whole chain of inferences would have nothing to support it, and we couldn’t use it to arrive at knowledge of any real existence. If I ask why you believe any particular matter of fact that you tell me of, you must tell me some reason; and this reason will be some other fact connected with it. But you can’t go on like this for ever: eventually you must end up with some fact that is present to your memory or senses - or else admit that your belief has no foundation at all.

What are we to conclude from all this? Something that is far removed from the common theories of philosophy, yet is very simple:

All beliefs about matters of fact or real existence are derived merely from something that is present to the memory or senses, and a customary association of that with some other thing.

Or in other words: having found in many cases that two kinds of objects - flame and heat, snow and cold - have always gone together, and being presented with a new instance of flame or snow, the mind’s habits lead it to expect heat or cold and to believe that heat or cold exists now and will be experienced if one comes closer. This belief is the inevitable result of placing the mind in such circumstances. That our minds should react in that way in those circumstances is as unavoidable as that we should feel love when we receive benefits, or hatred when we are deliberately harmed. These operations of the soul are a kind of natural instinct, which no reasoning or process of the thought and understanding can either produce or prevent.

At this point we could reasonably allow ourselves to stop our philosophical researches. In most questions, we can never make a single step further; and in all questions, we must eventually stop, after our most restless and probing enquiries. But still our curiosity will be pardonable, perhaps commendable, if it carries us on to still further researches, and makes us examine more accurately the nature of this belief, and of the customary conjunction from which it is derived. This may bring us to some explanations and analogies that will give satisfaction - at least to those who love the abstract sciences and can enjoy speculations which, however accurate, may still retain a degree of doubt and uncertainty. As to readers whose tastes are different from that: Part 2 of this section is not addressed to them, and can be neglected without harm to their understanding of the rest.

Part 2 (of Section 5)

Nothing is more free than the imagination of man; and though it is confined to the original stock of ideas provided by the internal and external senses, it has unlimited power to mix, combine, separate and divide these ideas, in all the varieties of fiction and vision [= in every way that can be described or depicted.] It can invent a sequence of events, with all the appearance of reality, ascribe to them a particular time and place, conceive them as really happening, and depict them to itself with as much detail as it could any historical event which it believes with the greatest certainty to have really happened. What, then, is the difference between such a fiction and belief? It is not this:

There is one special idea that is joined to every proposition that we assent to and

not to any that we regard as fictional.  
The reason why that is a wrong account is that the mind has authority over all its ideas, so that if this ‘one special idea’ existed the mind could voluntarily join it to any fiction, and consequently - according to this account - it would be able to believe anything it chose to believe; and we find by daily experience that it cannot. We can in putting thoughts together join the head of a man to the body of a horse; but we can’t choose to believe that such an animal has ever really existed.

It follows, therefore, that the difference between fiction and belief lies in some sentiment or feeling that goes with belief and not with fiction - a feeling that doesn’t depend on the will and can’t be commanded at pleasure. It must be caused by nature, like all other sentiments; and must arise from the particular situation that the mind is in at that particular moment. Whenever any object is presented to the memory or to the senses, it immediately leads the imagination - by the force of custom - to conceive the object that is usually conjoined to it; and this conception comes with a feeling or sentiment that is different from ·anything accompanying· the loose daydreams of the imagination. That is all there is to belief. For as there is no matter of fact that we believe so firmly that we can’t conceive the contrary, there would be no difference between the conception assented to and that which is rejected if there were not some ·feeling or· sentiment that distinguishes the one from the other. If I see a billiard-ball moving towards another on a smooth table, I can easily conceive it to stop upon contact. This conception implies no contradiction; but still it feels very different from the conception by which I represent to myself the collision followed by the communication of motion from one ball to the other.

If we tried to define this feeling, we might find that hard if not impossible to do; like the difficulty of defining the feeling of cold or the passion of anger to someone who never had any experience of these sentiments. ‘Belief’ is the true and proper name of this feeling; and everyone knows the meaning of that term because everyone ·has beliefs all the time, and therefore· is at every moment conscious of the feeling represented by it. Still, it may be worthwhile to try to describe this sentiment, in the hope of explaining it better with help from some analogies. In that spirit, I offer this:

Belief is nothing but a more vivid, lively, forcible, firm, steady conception of an

object than any that the unaided imagination can ever attain.  
This variety of terms, which may seem unphilosophical, is intended only to express that act of the mind which renders realities - or what we take to be realities - more present to us than ·what we take to be· fictions, which causes them to weigh more in the thought and gives them a greater influence on the passions and on the 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 every possible way. It can conceive fictitious objects with all the circumstances of place and time. It can set such fictions - in a way - before our eyes, in their true colours, just as they might have existed. But this faculty of imagination can never by itself produce a belief; and that makes it evident that belief doesn’t consists in any special nature or order of ideas ·because the imagination has no limits with respect to those·, but rather in the manner of their conception and in their feeling to the mind. I admit that it is impossible to explain perfectly this feeling or manner of conception. We can use words that express something near it ·as I have been doing·; but its true and proper name, as we observed before, is ‘belief’ - a term that everyone sufficiently understands in common life. And in philosophy we can go no further than to assert that belief is something felt by the mind that distinguishes the ideas of the judgment from the fictions of the imagination. It gives them more weight and influence, makes them appear of greater importance, strengthens them in the mind, and makes them the governing principle of our actions. For example: right now I hear the voice of someone whom I know, the sound seeming to come from the next room. This impression of my ·auditory· senses immediately carries my thought to the person in question and to all the objects surrounding him. I depict them to myself as existing right now, with the same qualities and relations that I formerly knew them to have. These ideas take a firmer hold on my mind than would ideas of ·something I know to be fictitious, such as· an enchanted castle. They are very different to the feeling, and have a much greater influence of every kind, either to give pleasure or pain, joy or sorrow.

Let us, then, take in this doctrine in its full scope, and agree that the sentiment of belief is nothing but a conception that is more intense and steady than conceptions that are mere fictions of the imagination, and this manner of conception arises from a customary conjunction of the object with something present to the memory or senses.

It will not be hard, I think, to find other operations of the mind analogous to belief (on this account of it), and to bring these phenomena under still more general principles.

I have already remarked that nature has established connections among particular ideas, and that no sooner has one idea occurred to our thoughts than it introduces its correlative - ·that is, the idea that nature has connected with it· - and carries our attention towards it by a gentle and imperceptible movement. These ·natural· principles of connection or association come down to three ·basic ones·, namely, Resemblance, Contiguity [= nextness], and Causation. These three are the only bonds that unite our thoughts together, and generate that regular sequence of thought or talk that takes place among all mankind to a greater or lesser degree. Now a question arises on which the solution of the present difficulty will depend. Does it happen with each of these relations that, when an object is presented to the senses or memory the mind is not only carried to the conception of the correlative, but comes to have ·a belief in it, that is·, a steadier and stronger conception of it than it would it would otherwise have been able to attain? This seems to be what happens when beliefs arise from the relation of cause and effect. If it also holds for the other two relations or principles of association, this will be established as a general law that holds in all the operations of the mind. As the first relevant experiment, let us notice that when we see the picture of an absent friend, our idea of him is evidently enlivened by the picture’s resemblance to him, and that every feeling that our idea of him produces, whether of joy or sorrow, acquires new force and vigour. This effect is produced by the joint operation ofa relation ·of resemblance· anda present impression. If the picture does not resemble him, or at least was not intended to be of him, it does not conveys our thought to him at all. And when the picture and the person are both absent from us, though the mind may pass from the thought of the one to that of the other it feels its idea of the person to be weakened rather than strengthened by that transition. We take pleasure in viewing the picture of a friend, when it is set before us; but when it is not in our presence we would prefer considering him directly to considering him through a likeness of him that is both distant and obscure.

The ceremonies of the Roman Catholic religion can be considered as instances of this phenomenon. When the devotees of that superstition are reproached for the ridiculous ceremonies it has them perform, they usually plead in their defence that they feel the good effect of those external motions and postures and actions, in enlivening their devotion and intensifying their fervour, which would decay if it were directed entirely to distant and immaterial objects ·such as God·. ‘We portray the objects of our faith’, they say, ‘in perceptible pictures and images; and the immediate presence of these pictures makes the objects more present to us than they could be merely through an intellectual view and contemplation.’ Perceptible objects always have a greater influence on the imagination that anything else does, and they readily convey this influence to the ideas to which they are related and which they resemble. All that I shall infer from these practices and this reasoning is that the effect of resemblance in enlivening ideas is very common; and because in every case a resemblance and a present impression must both be at work, we are supplied with plenty of experiences that support the truth of the foregoing principle.

We may add force to these experiences by others of a different kind, bringing in the effects of contiguity as well as of resemblance. It is certain that distance diminishes the force of every idea, and that as we get nearer to some object - even though our senses don’t show it to us - its influence on the mind comes to be like the influence of an immediate ·sensory· impression. Thinking about an object readily transports the mind to things that are contiguous to it; but it is only the actual presence of an object that transports the mind 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 reflecting on anything in the neighbourhood of my friends or family naturally produces an idea of them. But in cases like this, both the objects of the mind - ·what it is carried from and what it is carried to· - are ideas ·and not the more vivacious kind of perception that we call ‘impressions’·. Although there is an easy transition between them, that transition alone can’t give either of them a vivacity greater than ideas have; and the reason for that is that in these cases no immediate impression is at work.

No-one can doubt that causation has the same influence as the other two relations, resemblance and contiguity. Superstitious people are fond of the relics of saints and holy men for the same reason that they like to have pictures or images - ·namely· to enliven their devotion and give them a more intimate and strong conception of those exemplary lives that they desire to imitate. Now it is evident that one of the best relics that a devotee could procure would be something made by a saint; and if his clothes and furniture are ever considered in this light, it is because they were once at his disposal and were moved and affected by him. This lets us consider them as imperfect effects ·of the saint; ‘imperfect’ because he did not cause them to exist, but merely caused them to go through various vicissitudes while they were in his possession·. They are connected with him by a shorter chain of consequences than any of the things - ·human testimony, gravestones, written records, etc·. - by which we learn the reality of his existence.

Suppose we encounter the son of a friend of ours who has been long dead or absent; it is evident that this object (·the son·) would instantly revive its correlative idea (·namely, the idea of our friend·), and recall to our thoughts all our past intimacies and familiarities with the friend, in more lively colours than they would otherwise have appeared to us. This is another phenomenon that seems to prove the above-mentioned principle.

Notice that in each of these phenomena the person believes that the correlative object does or did exist. Without that the relation could have no effect. The influence of the picture requires that we believe our friend to have once existed. Being close to home can never stir up our ideas of home unless we believe that home really exists. Now I assert that this belief, where it reaches beyond the memory or senses, is of a similar sort and arises from similar causes as the transition of thought and vivacity of conception that I have just been explaining. When I throw a piece of dry wood into a fire, my mind is immediately carried to a thought of it as making the flame grow, not as extinguishing it. This transition of thought from the cause to the effect doesn’t come from reason. Its sole origin is custom and experience. And as it first begins from an object that is present to the senses ·when I see the dry wood go into the fire·, it makes the idea or conception of flame more strong and lively than ·it would be in· any loose, floating reverie of the imagination. That idea ·of the augmented flame· arises immediately. The thought moves instantly towards it, and conveys to it all the force of conception that comes from the impression present to the senses. It might happen by accident that when a glass of wine is presented to me my next ideas are those of wound and pain; but they will not occur as strongly as they would if I had been presented with a sword levelled at my breast! But what is there in this whole matter to cause such a strong conception apart from a present object and a customary transition to the idea of another object, which we have been accustomed to conjoin with the former? This is all that our mind does in all our inferences concerning matters of fact and existence; and it is satisfactory to have found some analogies through which it can be explained. In every case, the transition from a present object gives strength and solidity to the related idea ·to which the transition is made·.

Here, then, is a kind of pre-established harmony between the course of nature and the sequence of our ideas; and though the powers and forces by which nature is governed are wholly unknown to us, we find that our thoughts and conceptions have occurred in an order matching the order of events in the other works of nature. This correspondence has been brought about by custom, which is so necessary to the survival of our species and to the regulation of our conduct in every circumstance and occurrence of human life. If it hadn’t been the case that the presence of an object instantly arouses the idea of objects that are commonly conjoined with it, all our knowledge would have been limited to the narrow sphere of our memory and senses; and we would never have been able to suit our means to our ends, or to employ our natural powers in producing good and avoiding evil. Those who delight in the discovery and contemplation of final causes [= ‘purposiveness in nature’] have here a great deal to admire and wonder at.

Here is a point that further confirms the theory I have offered. This operation of the mind in which we infer like effects from like causes, and vice versa, is so essential to our survival that it probably couldn’t have been entrusted to the fallacious deductions of our reason. For reason is slow in its operations; very little of it appears in early infancy; and at best - even in adults - it is extremely liable to error and mistake. It fits better with the ordinary wisdom of nature that such a necessary an act of the mind should be secured by some instinct or mechanical [= ‘automatic’] tendency, which may be infallible in its operations, may be present at the first appearance of life and thought, and may be independent of all the laborious deductions of the understanding. As nature has taught us the use of our limbs without giving us knowledge of the muscles and nerves by which they are moved, so she has implanted in us an instinct that carries our thought forward along a course corresponding to the course has established among external objects - though we are ignorant of those powers and forces on which this regular course and succession of objects totally depends.

**Section 6: Probability**

Even if there were no such thing as chance in the world, our ignorance of the real cause of any event has the same effect on the understanding, and generates the same kinds of belief or opinion, ·as knowledge about chances does·.

It can certainly happen that an outcome is probable because the chances of its occurring are greater than the chances of its not occurring; and the probability is greater - and the corresponding belief or assent stronger - in proportion as those chances exceed the chances of the outcome’s not occurring. If a die were marked with two spots on four of its sides and with three spots on the two remaining sides, then it would be more probable that ·when the die was thrown· it would turn up two than that it would turn up three. If it had a thousand sides, with 999 of them marked with two spots and the remaining one side marked with three spots, the probability of its turning up two would be much higher, and our belief or expectation of the event more steady and secure. This process of thought or reasoning may seem trivial and obvious, but it offers plenty to think about for those who attend to it carefully.

It seems clear that when the mind looks forward to learn which event will result from the throw of such a die, it considers the turning up of each particular side as equally probable; and this is the very nature of chance, to render all the particular events that it covers entirely equal. But the mind, finding that a greater number of sides involve one event (·turning up two·) than in the other (·turning up three·), is carried more frequently to the former event, and meets it oftener in revolving the various possibilities or chances on which the ultimate result depends. This situation in which several views involve one particular event immediately generates - by an inexplicable contrivance of nature - the sentiment of belief, and gives that event the advantage over its antagonist, which is supported by a smaller number of views and recurs less frequently to the mind. ·Although I have called it inexplicable·, this operation may perhaps be in some measure accounted for if we allow that belief is nothing but a firmer and stronger conception of an object than what accompanies the mere fictions of the imagination. The concurrence of these several views or glimpses imprints the idea more strongly on the imagination; gives it superior force and vigour; renders its influence on the passions and affections more obvious; and, in short, creates that reliance or security which constitutes the nature of belief and opinion.

With the probability of causes the situation is the same as it is with the probability of chance. Some causes are entirely uniform and constant in producing a particular ·kind of· effect, with no instance having ever been found of any failure or irregularity in their operation. Fire has always burned, and water has always suffocated, every human creature. The production of motion by impact and gravity is a universal law which up to now has had no exceptions. But other causes have been found to be more irregular and uncertain: rhubarb hasn’t always worked as a purge, or opium as a soporific, on everyone who has taken these medicines. It is true that when any cause fails to produce its usual effect, scientists don’t ascribe this to any irregularity in nature; but rather suppose that some secret causes in the particular structure of parts have prevented the operation. But our reasonings about the outcome are the same as if this principle ·concerning ‘secret causes’· did not apply. Custom has determined us to transfer the past to the future in all our inferences; so where the past has been entirely regular and uniform, we expect the ·usual· outcome with the greatest confidence, and leave no room for any contrary supposition. But where different effects have been found to follow from causes that appear exactly alike, all these various effects must occur to the mind when it moves from the past to the future, and must enter into our thoughts when we estimate the probability of an outcome. Though we give preference to the one that has been found to be the most usual, and believe that this effect will occur this time too, we have to take into account the other effects, assigning to each a particular weight and authority in proportion as we have found it to be more or less frequent. In almost every country of Europe it is more probable that there will be frost some time in January than that the weather will continue frost-free throughout that whole month; though this probability varies according to the different climates, and comes near to certainty in the more northern kingdoms. Here then it seems evident that when we transfer the past to the future in order to predict the effect that will result from any cause, we transfer all the different outcomes in the same proportion as they have appeared in the past, and conceive (for instance) one to have existed a hundred times, another ten times, and another once. As a great number of views here point to one outcome, they fortify and confirm it to the imagination, generate the sentiment that we call belief, and make us prefer that outcome to the contrary one that isn’t supported by as many experiences and doesn’t show up so frequently in our thought in transferring the past to the future. Try to account for this operation of the mind on the basis of any of the received systems of philosophy and you will become aware of the difficulty. For my part, I shall be satisfied if the hints that I have given arouse the curiosity of philosophers, and make them aware of how defective all common theories are in their treatments of these interesting and elevated subjects.

**Section 7: The idea of necessary connection**

Part 1

The mathematical sciences have a great advantage over the sciences that deal with human nature, namely that the ideas of the former - because they come from the senses - are always clear and determinate, the smallest distinction between them is immediately perceptible, and the same terms continue to stand for the same ideas, without ambiguity or variation. An oval is never mistaken for a circle, nor a hyperbola for an ellipse. The isosceles and scalenon triangles are distinguished by boundaries more exact than those between vice and virtue, right and wrong. When a term is defined in geometry, the mind always promptly substitutes the definition for the term defined. And even when no definition is employed, the object itself may be presented to the senses and by that means be clearly and firmly grasped. But the more subtle sentiments of the mind, the operations of the understanding, the various agitations of the passions, though really in themselves distinct ·from one another·, easily escape us when we reflectively look in on them; and we are not able to recall the original object every time we have occasion to think about it. Ambiguity, by this means, is gradually introduced into our reasonings; similar objects are readily taken to be the same; and eventually the conclusion goes far beyond the premises.

Still, it is safe to say that if we consider these sciences in a proper light we shall see that their respective advantages and disadvantages make them nearly equal. Although the mind more easily retains clear and determinate ideas in geometry , it must carry on a much longer and more intricate chain of reasoning, and compare ideas that are much wider of each other, in order to reach the abstruser truths of that science. On the other side, although ideas relating to human nature are likely, if we are not extremely careful, to fall into obscurity and confusion, the inferences are always much shorter in these enquiries, with far fewer steps from premises to conclusion than in the sciences that treat of quantity and number. Almost every proposition in Euclid’s Geometry consists of more parts than are to be found in any fully coherent reasoning about human nature. When we trace the principles of the human mind through a few steps, we can be well satisfied with our progress, considering how soon nature puts up barriers to all our enquiries into causes, and reduces us to admitting our ignorance. Thus,the chief obstacle to our making advances in the human or metaphysical sciences is the obscurity of the ideas and the ambiguity of the terms.The principal difficulty in the mathematics is the length of inferences and scope of thought needed for reaching any conclusion. And it may be that what chiefly holds back our progress in natural science is the lack of relevant experiments and phenomena, which are often found only by chance, and sometimes when they are needed can’t be found at all, even by the most persistent and careful enquiry. As the study of human nature seems until now to have advanced less than either geometry or physics, we may conclude that if there is any difference in this respect among these sciences, the difficulties that obstruct the progress of the human sciences require the greater care and skill to be surmounted.

Of all the ideas that occur in metaphysics, none are more obscure and uncertain than those of power, force, energy or necessary connection, which we have to make use of at every moment in our enquiries. So I shall try in this section to fix (as far as possible) the precise meaning of these terms, thereby removing some of the obscurity that is so much complained of in this species of philosophy.

It seems that there won’t be much dispute about this proposition:  
All our ideas are merely copies of our impressions, so it is impossible for us to think of anything that we have not previously felt through either our external or our internal senses.

I tried in Section 2 to explain and prove this proposition, expressing my hope that by applying it properly men may make their philosophical reasonings clearer and more precise than ever before. Perhaps complex ideas can be well known by definition, for a definition merely enumerates the parts or simple ideas that make up the defined idea. But when we have pushed definitions back to the most simple ideas, and still find some ambiguity and obscurity, where can we turn for help? What technique can we use to throw light on these ideas and give our minds an altogether precise and determinate grasp of them? ·The answer is that we can· produce the impressions or original sentiments, from which the ideas are copied. These impressions are all strong and sensible. There can be no ambiguity in them. They are not only placed in a full light themselves, but may throw light on the corresponding ideas that lie in obscurity. Perhaps by this means we can come to have a new microscope, so to speak, through which in the human sciences the smallest and simplest ideas can be enlarged enough to be readily grasped and to be as well known as the biggest and most sensible ideas that we can enquire into.

To be fully acquainted with the idea of power or necessary connection, therefore, let us examine the impression that it copies; and in order to find that impression with greater certainty, let us search for it in all the sources from which it might have been derived.

When we look around us at external objects, and think about the operation of causes, we are never able to discover any power or necessary connection, any quality that ties the effect to the cause and makes it an infallible consequence of it. All we find is that the one ·event· does in fact follow the other. The impact of one billiard-ball is accompanied by motion in the other. This is all that appears to the outer senses. The mind feels no sentiment or inward impression from this sequence of events: so in no single particular instance of cause and effect is there anything that can suggest the idea of power or necessary connection.

When we experience something for the first time, we never can conjecture what effect will result from it. But if the power or energy of any cause were discoverable by the mind, we would be able to foresee the effect even if we had no previous experience ·of similar items·, and would be able straight off to say with confidence what the effect would be, simply through thought and reasoning. In fact no material thing ever reveals through its sensible qualities any power or energy, or gives us a basis for thinking it will produce anything or be followed by any other item that we could call its effect. Solidity, extension, motion - these qualities are all complete in themselves, and never point to any other item that might result from them. The scenes of the universe are continually shifting, and one object follows another in an uninterrupted sequence; but the power or force that drives the whole machine is entirely concealed from us, and never shows itself in any of the sensible qualities of material things. We know that in fact heat constantly accompanies flame; but we have no basis on which to conjecture or imagine - ·let alone to know· - what the connection is between flame and heat. So the idea of power can’t be derived from our experience of bodies in single instances of their operation; because no bodies ever reveal any power that could be the origin of this idea.

Since external objects as they appear to our senses give us no idea of power or necessary connection by their operation in particular instances, let us see whether this idea is derived from our reflection on the operations of our own minds, and thus copied from some internal impression. Here is something that may be said:

We are conscious of internal power all the time, while we feel that by the simple command of our will we can move our limbs or change our thoughts. An act of volition produces motion in our limbs, or raises a new idea in our imagination. We know this influence of our will by being conscious of it. That is how we acquire the idea of power or energy; and it is what makes us certain that we ourselves and all other intelligent beings are possessed of power. So this idea is an idea of reflection, since it arises from reflecting on the operations of our own mind, and on the command that is exercised by will over the organs of the body and faculties of the soul.

I shall examine this claim, first with regard to the influence of volition over the organs of the body. This influence, like all other natural events, can be known only by experience; it can never be foreseen from any apparent energy or power in the cause which connects it with the effect and makes the effect absolutely certain to follow. The motion of our body follows the command of our will; we are conscious of this at every moment. But how this comes about - the energy through which the will performs so extraordinary an operation - is something of which we are so far from being immediately conscious that it we can never discover it, however hard we look. ·I now give three reasons for believing this·.

First: the most mysterious principle in the whole of nature is that of the union of mind and body, in which a supposed spiritual substance gets so much influence over a material substance that the most refined thought is able to drive large portions of matter ·such as human limbs·. If we had the power to move mountains or control the planets just by secretly wishing these results to occur, this wide-ranging power wouldn’t be more extraordinary or further from our understanding ·than the power our thoughts do have over our bodies·. But if by consciousness we perceived any power or energy in the will, we would knowthis power, knowits connection with the effect, knowthe secret union of soul and body, and know the nature of both these substances through which one is able to operate so often upon the other.

Secondly: we know from experience that we don’t have an equal command over all the organs of our body, though we can’t explain why there is this remarkable difference between one and the other. Why can the will influence the tongue and fingers, not the heart or liver? This question would not perplex us if we were conscious of a power in the former case and not in the latter. We would then perceive, independently of experience, why the authority of will over the organs of the body is kept within certain limits. Being fully acquainted with the power or force by which the will operates, we would also know why its influence reaches precisely as far as it does and no further.

It often happens that someone who has been suddenly struck with paralysis in a leg or arm, or who has recently lost a limb, tries to move the paralysed or lost limb and to make it perform its usual tasks. In this case he is as much conscious of power to command such limbs as a man in perfect health is conscious of power to move any limb that remains in its natural state and condition. But consciousness never deceives. Consequently, we are never conscious of any power in either case - ·that is, with a limb lost or paralysed, or with all limbs present and correct·. We learn the influence of our will from experience alone. And experience teaches us only how one event constantly follows another, without instructing us in the secret connection that binds them together and makes them inseparable.

Thirdly: we learn from anatomy that in voluntary motion the immediate object of power is not the body-part that is moved but certain muscles and nerves and animal spirits (and perhaps something still tinier and more unknown) through which the motion is passed along until it eventually reaches the body-part whose motion is the immediate object of volition - ·that is, the part the person is trying to move·. Can there be a more certain proof that the power by which this whole operation is performed, so far from being directly and fully known by an inward feeling or consciousness, is utterly mysterious and impossible to understand? The mind wills a certain event: immediately another event is produced, one that we don’t know and that is totally different from the one intended; this event produces another, which is equally unknown; and finally, through a long sequence ·of such intermediaries·, the desired event is produced. But if the original power were felt, it would be known; if it were known its effect would also be known, because all power is relative to its effect - ·that is, knowing a power is knowing it as the-power-to-produce-x for some specific x·. And vice versa: if the effect isn’t known ·in advance·, the power can’t be known or felt. Indeed, how can we be conscious of a power to move our limbs when we have no such power? All we have is a power to move certain animal spirits which, though they eventually make our limbs move, operate in a manner that is wholly beyond our understanding.

From all of this we can safely conclude that our idea of power is not copied from any feeling or consciousness of power within ourselves when we get our limbs to perform their normal functions. That their motion follows the command of the will is something we find from common experience, like other natural events; but the power or energy by which this is brought about, like that in other natural events, is unknown and inconceivable.

Well, then, shall we assert that we are conscious of a power or energy in our own minds when, by an act or command of our will, we ·make something happen in our minds; for example, when we· raise up a new idea, make our mind focus on it, turn it on all sides, and finally dismiss it when we think that we have inspected it with enough accuracy? I believe the same arguments will show that even this command of the will gives us no real idea of force or energy.  
First, it must be allowed that when we know a power we know what it is about the cause that enables it to produce the effect. For these are supposed to be synonymous. [That is, ‘x’s power to produce y’ is supposed to be synonymous with ‘what it is about x that enables it to produce y’.] To know the power, therefore, we must know both the cause and effect and the relation between them. But do we claim to be acquainted with the nature of the human mind and the nature of an idea, or the aptitude of the mind to produce the idea? Producing an idea is a real creation, a production of something out of nothing; and that implies a power so great that it may seem at first sight to be beyond the reach of any finite being. At least it must be admitted that such a power isn’t felt or known by the mind, and isn’t even conceivable by it. We only feel the event, namely the existence of an idea following a command of the will. How this operation is performed, the power by which it is produced, is entirely beyond our understanding.

Secondly: like its command over the body, the command of the mind over itself is limited; and these limits are not known by reason, or any acquaintance with the nature of cause and effect, but only in the way we know all other natural events, namely by experience and observation. Our authority over our feelings and passions is much weaker than our authority over our ideas; and even the latter authority is contained within narrow boundaries. Will anyone claim to assign the ultimate reason for these boundaries, or show why the power is lacking in one case and not in another?

Thirdly: this self-command is very different at different times. A healthy man has more of it than a sick one; we are more master of our thoughts in the morning than in the evening, and more when fasting than after a full meal. Can we give any reason for these variations, except experience? Where then is the power of which we claim to be conscious? Isn’t there here, in either a spiritual or material substance or both, some secret mechanism or structure of parts on which the effect depends? And since this is entirely unknown to us, isn’t the power or energy of the will equally unknown and incomprehensible?

Volition is surely an act of the mind with which we are sufficiently acquainted. Reflect on it. Consider it on all sides. Do you find anything in it like this creative power through which it creates a new idea out of nothing, and with a kind of Let it be so! imitates the omnipotence of God (if I may be allowed so to speak), who called into existence all the various scenes of nature ·by saying things like Let there be light!·? So far from being conscious of this energy in the will, we need solid experiential evidence if we are to be convinced that such extraordinary effects ever do result from a simple act of volition.

People in general find no difficulty in accounting for the more common and familiar operations of nature, such as the falling of heavy bodies, the growth of plants, the procreation of animals, and the nourishment of bodies by food. They think that in all these cases they perceive the very force or energy of the cause that connects it with its effect and guarantees that the effect will always follow. Through long habit they come to be in a frame of mind such that, when the cause appears, they immediately and confidently expect its usual outcome, and think it virtually inconceivable that any other event could result from that cause. It is only when they encounter extraordinary phenomena such as earthquakes, plague, and strange events of any kind, that they find themselves at a loss to assign a proper cause and to explain how the effect has been produced. It is usual for men in such difficulties to fall back on some invisible thinking cause as the immediate cause of the event that surprises them and cannot (they think) be accounted for through the common powers of nature. But philosophers, who look a little deeper, immediately perceive that the energy of the cause is no more intelligible in the most familiar events than it is in the most unusual ones, and that we only learn by experience the frequent conjunction of things without ever being able to grasp anything like a connection between them. Here, then, many philosophers - ·most notably Malebranche· - think that reason obliges them to appeal to the same cause that common people appeal to only in cases that appear miraculous and supernatural. These philosophers hold that an intelligent mind is the immediate and sole cause of every event that appears in nature, not merely the ultimate and original cause of all events, ·or the immediate and sole cause of seemingly miraculous events·. They claim that the items that are commonly called causes are really nothing but occasions, and that the true and direct cause of every effect is not any power or force in nature but a volition of the Supreme Being, who wills that such-and-such particular pairs of items should for ever be conjoined with each other. Instead of saying that one billiard- ball moves another by a force that the author of nature bestowed on it, they say that it is the Deity himself who moves the second ball by a particular act of will, having been led to do this by the impact of the first ball - in conformity with the general laws that he has laid down for himself in the government of the universe. But philosophers push their enquiries further, and discover that, just as we are totally ignorant of the power through which bodies act on one another, so we are equally ignorant of the power through which mind acts on body or body acts on mind; and that neither our senses nor our consciousness tells us what the ultimate principle is in that case any more than in the other. So they are led by the same ignorance to the same conclusion. They assert that the Deity is the immediate cause of the union of mind with body; and that sensations in the mind are not produced by sense-organs that have been activated by external objects, but rather it is a particular volition of God’s that arouses a particular kind of sensation in consequence of a particular motion in the sense-organ. Similarly, the movements of our limbs are not produced by any energy in our will; rather (they say), it is God himself who is pleased to back up our will (which in itself has no power to do anything) and to command the bodily motion which we wrongly attribute to our own power and efficacy. And ·these· philosophers do not stop there. They sometimes extend the same inference to the internal operations of mind itself. Our mental vision or conception of ideas (·they say·) is nothing but a revelation made to us by our Maker. When we voluntarily turn our thoughts to any object, and bring up its image in the imagination, it isn’t our will that creates that idea; it is the universal Creator who reveals it to the mind and makes it present to us.

Thus, according to these philosophers, everything is full of God. Not content with the principle that nothing exists except by his will, that nothing has any power except with his permission, they rob nature and all created beings of every power, in order to render their dependence on the Deity still more obvious and immediate. They overlook the fact that by this theory they diminish instead of magnifying the grandeur of those divine attributes which they purport to celebrate so much. God’s delegating some power to lesser creatures surely shows him as more powerful than would his producing everything by his own immediate volition. It indicates more wisdom to structure the world from the outset with such perfect foresight that it will serve all the purposes of providence of itself and by its own way of operating, thanif God needed moment by moment to adjust the world’s parts and animate by his breath all the wheels of that stupendous machine.

But if you want a more philosophical ·rather than theological· case against this theory, perhaps the two following reflections may suffice.

First, It seems to me that this theory of the universal energy and operation of the Supreme Being is too bold ever to convince someone who is properly aware of how weak and limited human reason is. Even if the chain of arguments leading to the theory were ever so logical, there would have to be a strong suspicion (if not absolute certainty) that it has carried us quite beyond the reach of our faculties, when it leads to conclusions that are so extraordinary and so remote from common life and experience. We are got into fairy land long before we have reached the last steps of ·the argument leading to· our theory, and there we have no reason to trust our common methods of argument or to think that our usual analogies and probabilities carry any weight. Our line is too short to fathom such immense depths. We may flatter ourselves that we are guided every step of the way by a kind of likelihood and experience; but we can be sure that this supposed experience has no authority when (as here) we apply it to subjects that lie entirely outside the sphere of experience. I shall have occasion to say more about this in section 12.

Secondly, I can’t see any force in the arguments on which this theory is based. It is true that we are ignorant of how bodies act on one another; their force or energy is entirely incomprehensible. But aren’t we equally ignorant of the manner or force by which a mind, even the supreme mind, acts either on itself or on body? I ask you, from where do we acquire any idea of that force? We have no feeling or consciousness of this power in ourselves. We have no idea of the Supreme Being but what we learn from reflection on our own faculties. So if our ignorance were a good reason for rejecting anything, we should be led to deny all energy in the Supreme Being as much as in the crudest matter. We surely understand the operations of the former as little as we do those of the latter. Is it harder to conceive that motion may arise from impact than to conceive that it may arise from volition? All we know is our profound ignorance in both cases.

Part 2 (of Section 7)

We have looked at every possible source for an idea of power or necessary connection, and have found nothing. However hard we look at an isolated physical episode, it seems, we can never discover anything but one event following another; we never find any force or power by which the cause operates, or any connection between it and its supposed effect. The same holds for the influence of mind on body: the mind wills, and then the body moves, and we observe both events; but we don’t observe - and can’t even conceive - the tie that binds the volition to the motion, that is, the energy by which the mind causes the body to move. And the power of the will over its own faculties and ideas - ·that is, over the mind, as distinct from the body· - is no more comprehensible. Summing up, then: throughout the whole of nature there seems not to be a single instance of connection that is conceivable by us. All events seem to be entirely loose and separate. One event follows another, but we never can observe any tie between them. They seem associated, but never connected. And as we can have no idea of anything that never appeared ·as an impression· to our outward sense or inward feeling, we are forced to conclude that we have no idea of ‘connection’ or ‘power’ at all, and that those words - as used in philosophical reasonings or in common life - have absolutely no meaning.

One escape route may be still open to us: there is one possible source for the idea of connection or power that I haven’t yet examined. When we are confronted by any natural object or event of which we have had no experience, no amount of cleverness and hard work will enable us to discover or even guess what event will result from it, or to make any prediction that goes beyond what is immediately present to our memory and senses. Even after we know from experience what the result was in a particular case, we are not entitled to bring it under a general rule, or to predict what will happen in similar cases in the future. Basing a view about the whole course of nature on a single experiment, however accurate or certain it may be, is rightly thought to be too bold. But if events of one kind have always in all instances been associated with events of some one other kind, we no longer shrink from predicting an event of the latter kind when we experience one of the former kind. We then call one the ‘cause’, and the other the ‘effect’. We suppose there to be some connection between them; some power in the cause by which it infallibly produces the effect, operating with the greatest certainty and strongest necessity.

The source of this idea of a necessary connection among events seems to be a number of similar instances of the regular pairing of events of these two kinds; and the idea cannot be prompted by any one of these instances on its own, however comprehensively we examine it. But what can a number of instances contain that is different from any single instance that is supposed to be exactly like them? Only that when the mind experiences many similar instances, it acquires a habit of expectation: the repetition of the pattern affects it in such a way that when it observes an event of one of the two kinds it expects an event of the other kind to follow. So the feeling or impression from which we derive our idea of power or necessary connection is a feeling of connection in the mind - a feeling that accompanies the imagination’s habitual move from observing one event to expecting another of the kind that usually follows it. That is all there is to it. Study the topic from all angles; you will never find any other origin for that idea. This is the only difference between a single instance (which can never give us the idea of connection) and a number of similar instances (which do suggest the idea). The first time a man saw motion being passed from one thing to another in a collision, as when one billiard ball hits another, he couldn’t say that the red ball’s starting to movewas connected with the white ball’s hitting it, but only that one event followed the other. After seeing several instances of this kind, he then says that they - ·that is, the two events within each instance· - are connected. What has happened to give rise to this new idea of connection? Only that he now feels these events to be connected in his imagination, and can predict the occurrence of one from the appearance of the other. So when we say that one event is connected with another, all we mean is that they have come to be connected in our thought so that we are willing to conduct this inference through which they are taken to be proofs of each other’s existence. This is a strange conclusion! But it seems to be well supported by the evidence. Even people who are in a general way cautious about what the understanding can achieve, or sceptical about every conclusion that is new and extraordinary, should not on that account be suspicious of this conclusion. It announces a discovery about the weakness and narrow limits of human reason and capacity - nothing could be more agreeable to scepticism than it is. And what stronger example than this could we find of how surprisingly ignorant and weak our understanding is? If there is any relation between objects that it matters to us to know perfectly, it is that of cause and effect. It is the basis for all our reasonings about matters of fact or existence; it alone assures us about objects that are not now present to memory or senses. The only immediate use of all the sciences is to teach us how to control and regulate future events through their causes. So our thoughts and enquiries are at every moment concerned with the relation of cause to effect; yet our ideas regarding it are so imperfect that we can’t accurately define ‘cause’ except in terms of something that is extraneous to the cause, forming no part of it. ·There are two ways of doing this·. (1) Similar events are always associated with similar. Of this we have experience. Suitably to this experience, therefore, we may define a ‘cause’ to be an event followed by another, where all events similar to the first are followed by events similar to the second. Or in other words where if the first event hadn’t occurred the second wouldn’t have occurred either. [Hume states all this in terms of the ‘existence’ of ‘objects’ rather than the occurrence of events.] (2) The appearance of a cause always conveys the mind - in a transition brought about through custom - to the idea of the effect. Of this also we have experience. We could embody this experience in another definition of ‘cause’: an event followed by another, where the appearance of the former always conveys the thought to the latter.  
Each of these definitions brings in something that lies right outside the cause itself ·because definition (1) brings in earlier events similar to the cause, while (2) brings in events in the mind of the speaker·; but there is no remedy for this drawback. We can’t replace those definitions by a more perfect one that picks out something in the cause itself that connects it with its effect. We have no idea of this connection; nor even any clear notion of what we are aiming at when we try to form a conception of it. When we say, for instance, that the vibration of this string is ‘the cause of’ this particular sound, what do we mean? We mean that this vibration is followed by this sound and either that all similar vibrations have been followed by similar sounds or that when the mind sees the vibration it immediately forms an anticipatory idea of the sound. We can look at the cause-effect relation in either of these two ways; but beyond them we have no idea of it.

To sum up the reasonings of this section: Every idea is copied from a previous impression or feeling, and where we can’t find any impression we may be certain that there is no idea. No isolated episode of mental or physical causation yields any impression of power or necessary connection. Therefore, no such episode can prompt us to form any idea of power or necessary connection. When many similar episodes are observed to occur, however, and events of one kind are always followed events of a second kind, we then start to form the notion of cause and connection. The experience of this regularity gives us a new impression, namely ·the feeling or impression of· a custom-induced connection in our thought or imagination between one event and another; and the idea that we have been hunting for - ·the idea of power or necessary connection· - is copied from this impression. ·Here is why this must be right·. The idea arises from a series of similar episodes and not from any one taken singly; so it must arise from whatever it is that differentiates the series from each individual episode; and the only difference is this customary connection or transition of the imagination. In every other respect, each individual episode is just like the whole series. To return to our humdrum example: The first time we saw motion being transferred through a collision between two billiard balls, what we saw was exactly like any other such collision that we might see now; the only difference was that on that first occasion we could not infer one event from the other, as we can now after such a long course of uniform experience. I not know whether the reader will easily grasp this reasoning. I am afraid that if I were to go on longer about it, presenting it from a greater variety of angles, it would only become more obscure and complicated.