# Active Power in General

No. 1 of Essays on the Active Powers of Man

#### Thomas Reid

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[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. Every four-point ellipsis .... indicates the omission of a brief passage that seems to present more difficulty than it is worth. Longer omissions are reported between brackets in normal-sized type.

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# Introduction

The division of the human mind's faculties into *understanding* and *will* is very ancient, and has been generally adopted. The •understanding is taken to cover all our powers of thinking and believing, the •will to cover all our powers of acting.

Obviously God intended us to *act* as well as to *think*. And so he gave us certain active powers; though limited in many ways, they are suitable for our rank and place in the created world.

Our business is to *manage* these powers, by •aiming to achieve the best results, •planning the best way we can ·for achieving those results·, and •carrying out such plans vigorously and conscientiously. This is true wisdom; it's what we exist for.

Anything virtuous and praiseworthy must consist in the right use of our power  $\cdot$  of action $\cdot$ ; anything vicious and blameworthy must consist in the abuse of that power. When something lies outside the range of our power it can't be attributed to us as a basis for either blame or praise. These are self-evident truths; any unprejudiced mind will immediately and unshakably accept them.

What makes knowledge valuable is this: it widens the scope of our power  $\cdot$  of action $\cdot$  and directs us in our use of it.  $\cdot$ You may find it odd that I make *action* the basis of all value, with *knowledge* being of value only through its help to action; but I stand by that $\cdot$ , because all the honour, dignity and worth of a man consists in his using rightly his power of action, and all his vice, corruption and depravity consists in his misusing and perverting that power.

Our active powers distinguish us from the lower animals as much as our powers of thinking do.

The various actions of lower animals are triggered by their

instincts, their appetites [= 'desires'], and their emotions; but it seems that they necessarily *have* to follow the strongest impulse •of the moment• and have no capacity for self-control. So we don't blame them for anything they do, and we have no reason to think that they blame themselves. They may be •trained through •discipline, but they can't be •governed by •law. There is no evidence that they have any idea of law, or of the obligations that law imposes.

A man can act from motives that are higher  $\cdot$ than any that move the lower animals $\cdot$ . He sees one course of action as having dignity and value, and another as being base and low; and lower animals can't make such distinctions.

A man can see it to be his duty to take the worthy and honourable course, whether his appetites and emotions count for it or against it. When he does his duty at the expense of satisfying his strongest appetites or emotions, this doesn't lessen the merit of his conduct; on the contrary, it greatly *increases* it, and when he thinks it over he experiences an inner satisfaction and triumph—something that the lower animals aren't capable of. When he acts the other way, ·following appetite or emotion at the expense of duty·, he has a sense of demerit, of which the lower animals are equally incapable.

So: since man's •active powers are such an important part of his make-up, and make him stand out so clearly from other animals, they deserve to be the subject of philosophical inquiry just as much as do his •intellectual powers.

A sound knowledge of our powers—intellectual and active—is of real importance to us just to the extent that it helps us to employ them properly. Everyone must acknowledge that to *act* properly is much more valuable than to think soundly or to reason sharply.

## Chapter 1: The notion of active power

It may seem unnecessary and time-wasting to consider carefully what 'active power' means. The word 'power' isn't a technical term; it is a common word, used in everyday speech even by ordinary uneducated people. We find words with the same meaning in all other languages; and there is no reason to think that someone could understand the English language but not understand 'power'. I believe all this is true; and that some justification should be given for an attempt  $\cdot$  such as mine $\cdot$  to explain a word that is as well understood as 'power' is.

The justification is that this word, so well understood by common folk, has been darkened by philosophers. This is one case among many in which philosophers have found great difficulties in something that seems perfectly clear to the rest of mankind.

This has happened all the more easily  $\cdot$ in the special case of power because power is so much a thing of its own kind, and is so simple in its nature, that it can't be logically defined. [The thought behind this remark is as follows. A paradigm of logical definition would be the equation of 'square' with 'equilateral rectangle'; and what this definition does is to take the •complex concept of *square* and spell it out into its *simpler* constituents, the concepts of *having sides of equal length* and of *being rectangular*. Reid is saying that the concept of *power* is •simple, meaning that it isn't a complex of simpler elements that might be laid out in a logical definition.]

It is common knowledge that many things that we understand perfectly, and of which we have clear and distinct conceptions, can't be logically defined. Nobody has ever tried to define *magnitude* [= 'size'], yet this is understood as distinctly, and as universally, as any word. We can't logically define *thought, duration, number*, or *motion*. When men try to define such things, they throw no light on them. They may give a synonymous word or phrase, but it will probably involve replacing the defined word by something worse. If they insist on defining, the definition will either •be based on a hypothesis—•which means that rather than merely spelling out the *meaning* of the defined term, it will express some *theory* about whatever it is that the term stands for ·—or •it will darken the subject rather than throw light on it.

[In this paragraph Reid quotes a definition in Latin; the English given here is the unsympathetic translation used by Locke in *Essay* III.iv.8.] The Aristotelian definition of *motion*, which says that motion is 'the act of a being in power, so far forth as in power', has rightly been criticised by modern philosophers. But I think it is matched  $\cdot$ in absurdity $\cdot$  by what a famous modern philosopher has given us as the most accurate definition of *belief*, namely:

a belief is 'a lively idea, related to or associated with a present impression'.

And according to the same philosopher, •equally absurdly•,

memory is 'the faculty by which we repeat our impressions, so that they retain considerable degree of their first vivacity, and are somewhat intermediate between an idea and an impression'. [Hume, *Treatise* I. iii.7 and I.i.3.]

Euclid, if we are to trust his editors, tried to define *straight line, unity, ratio,* and *number*. But these definitions are worthless. Indeed, they may not even be Euclid's, for they are never once quoted in his *Elements*, and are useless.

So I shan't try to define 'active power', exposing myself to the same criticism. Rather, I shall make  $\cdot$ five $\cdot$  remarks

that may lead us to the conception of active power that we have in our own minds, instead  $\cdot$  of trying to understand that conception by attending to verbal definitions $\cdot$ .

(1) Power isn't something we perceive through any of our external senses, nor is it something we are aware of through consciousness.

There's no need for me to prove that power isn't seen or heard or touched or tasted or smelled. And it will be just as obvious to us that power isn't something we are conscious of—using 'conscious' in its proper sense—if we bear in mind that consciousness is the mind's power to have immediate knowledge of its own *operations*. Power isn't one of these operations, so it can't be an object of consciousness. Indeed, everything that the mind does is an *exercise* of some power; but all that we are conscious of is the operation itself, not the power, which stays off-stage out of sight. We can soundly infer the power from the operation; but don't forget that inferring is something done not by consciousness but by reason.

So I acknowledge that Locke's theory-that

•we get all our simple ideas either through the external senses or through consciousness

—conflicts with the fact that

•we have a conception or idea of power.

They can't both be true. Hume saw this conflict, and consistently maintained that we have no idea of power. Locke didn't see the conflict. Had he seen it, he might have been led to question his theory; for when theory conflicts with fact, it is easy to see which should give way. I am conscious that I have a *conception* or *idea* of power, but strictly speaking I am not conscious that I have *power*.

When the time comes for it, I shall show that from very early in our lives we have built into us a *belief* that *we* have some degree of active power. But this belief isn't a *consciousness* •of power•, for the belief could be wrong, whereas consciousness always tells the truth. Thus, it sometimes happens that a man who is struck with paralysis while he sleeps doesn't know when he wakes that he has lost the power of speech until he tries to speak; he doesn't know whether he can move his hands and arms until he tries to move them; and if without making such an attempt he consults his *consciousness* ever so attentively, it will tell him nothing about whether he has lost those powers or still retains them.

From this we must conclude that the powers we have aren't something of which we can be conscious.  $\cdot$ Of course people do often say things like 'I feel strong' and 'I am conscious of how much I can do in this affair', and according to me what they say is false $\cdot$ ; but it would be foolish to criticise this way of speaking in everyday conversation, where there's no need to be carefully accurate about how are lives are divided up amongst our various faculties— $\cdot$ for example the difference between *believing* that one has a power and *being consciously aware* of it $\cdot$ . The testimony of consciousness is always unerring; none of the most sceptical sceptics, ancient or modern, has questioned this;  $\cdot$  and this shows that one is never conscious of having power, because we know from experience that anything that might be thought to be such a consciousness could turn out to be wrong $\cdot$ .

(2) Second point: of some things we have a •direct conception, of others we have only a •relative conception; and *power* is of the latter kind.

As this distinction is overlooked by most writers on logic. let me illustrate it a little, before applying it to our present subject.

What I call a •direct conception of something is what we have when we know what the thing is in itself; our conception of a thing is only •relative if we don't know what the thing

is in itself, and know only that it has certain properties or attributes or certain relations to other things.

Here is an example. In the university library, I call for the book **stack L, shelf 10, book 10.** The librarian must have enough of an idea of the book I'm asking for to be able to distinguish it from thousands of others under his care. But what conception of it does he form from my words? They don't inform him about the author, the subject, the language, the size, or the binding, but only the book's *place* in the library, which is just to say how the book is spatially related to certain other things. His conception of the book, though merely relative, enables him to distinguish it from every other book in the library.

In that example, the book is identified through some of its •accidental relations, but sometimes a relative notion involves qualities or attributes  $\cdot$  or relations $\cdot$  that are •essential to the thing— $\cdot$ not ones that it merely happens to have, but ones that from its very nature it *must* have $\cdot$ . Our notions of *body* and of *mind* are like that.

#### **Questioner:** What is body?

**Philosopher:** It is that which is extended, solid, and divisible. **Questioner:** I am not asking what its *properties* are. I want to know what body is, in itself. First let me know directly what body *is*, and then tell me about its properties.

I'm afraid that the questioner won't get an answer that satisfies him, because our notion of *body* is not •direct but is •relative to its qualities.We know that it is something extended, solid, and divisible, and that is all we know. Here's another example:

#### **Questioner:** What is mind?

**Philosopher:** It is that which thinks.

**Guestioner:** I'm not asking what it *does*, what its *operations* are. I'm asking: what *is* it ?

I can find no answer to this demand, because our notion of *mind* isn't •direct but is •relative to mind's operations, just as our notion of body is relative to its qualities.

Even for many of the *qualities* of body we have only a relative conception. What is *heat* in a body? It is a quality that affects the sense of touch in a certain way. If you want to know not how it affects the sense of touch but what it is *in itself*, I have to say that I don't know. My conception of heat isn't direct, but relative to its effect on bodies. Our notions of *all* the qualities that Locke calls 'secondary' and of those he calls 'powers' of bodies—such as the power of the magnet to attract iron, or of fire to burn wood—are relative.

Having given examples of things of which our conception is only relative, perhaps I should mention some of which our conception is direct. Of this kind are all the primary qualities of body—shape, extension, solidity, hardness, fluidity, and the like. Our senses give us a direct and immediate knowledge of these. Similarly with all the operations of mind of which we are conscious. I know what thought is, what memory, what a purpose or a promise is.

Of some things we can have both a direct and a relative conception. I can directly conceive ten thousand men or ten thousand pounds ·in money·, because both are objects of sense, and can be seen. But when I *see* such an object, as also when I *directly conceive* it, my notion of it is indistinct, ·unclear·; it is only the notion of *a great many men*, or of *a great deal of money*; and adding or removing a few men or a few pounds makes no perceptible change in the notion I form in this way. But I can form a relative notion of a thousand men or a thousand pounds, by attending to how *a thousand* relates to other numbers, greater or less. And then I see that the relative notion is sharp and scientific, for it is easy to notice the addition of a single man or of a single pound—or even a single penny! Similarly, I can form a direct notion of a polygon with a thousand equal sides and equal angles. When I •conceive this direct notion in my mind, it can't be more distinct than what I get by •sight when the polygon is in front of me; and I find it so indistinct, ·so fuzzy·, that it appears the same to my •eye or to my direct •conception as would a polygon with one more side or with one fewer. But when I form a relative conception it by attending to its relations to polygons with more or fewer sides, my notion of it becomes distinct and scientific, and I can rigorously prove ·it to have· the properties that distinguish it from all other polygons. These examples bring out the fact that our relative conceptions of things aren't always less distinct or less fit for use in accurate reasoning than our direct conceptions, and that remarkably often the advantage goes the other way.

Our conception of power is relative to its exercise or its effects. Power is one thing; the exercise of it is another. Granted, there can be no exercise of power without the power; but there can be power that isn't exercised. Thus a man may when he is silent have the power to speak, when he sits still he may have the power to walk.

But although speaking isn't the same as having the power to speak, I think that we conceive of the power  $\cdot$ to speak $\cdot$  as *something that has a certain relation to the effect*  $\cdot$ *of speaking* $\cdot$ . Similarly with every other power: we form our notion of it through the effect it can produce.

(3) It is evident that  $\cdot a \cdot power$  is a quality, and  $\cdot$  therefore can't exist without a subject to which it belongs,  $\cdot i.e.$  without being a power *of* something, a power that something *has*. This suggestion—

There exists some power that cannot be attributed to any thing, any subject, which *has* the power —is an absurdity, shocking to anyone who has ordinary intelligence. Power is a quality that can be varied not only in •degree but also in •kind; and we distinguish both the kinds and the degrees by the effects they can produce. Thus a power to fly differs in •kind from a power to reason, because their effects are different in kind. But a power to carry a weight of fifty pounds differs in •degree but not in •kind from a power to carry a weight of a hundred pounds.

(4) When a power is not exercised, we can't infer that it isn't possessed; and when it is exercised only to a certain degree, we can't infer that it isn't possessed in higher degree. A man who on a particular occasion says nothing may have the power of speech; a man who carries ten pounds of weight may have the power to carry twenty.

(5) Some qualities have a contrary, others don't; power is one that doesn't. Vice is contrary to virtue, misery to happiness, hatred to love, negation to affirmation; but there is no contrary to power. Weakness is a defect of power, and powerlessness is the lack of power; neither is a contrary of it.

What I have said about power would be easily understood and readily accepted by anyone who understands our language; or so I believe. If I am right, then we can fairly conclude from this that we have a distinct notion of power and can reason about it while understanding what we are doing, even though we can give no logical definition of it.

Some philosophers have tried hard to prove that power is something of which we have no idea—that is, that 'power' is a word with no meaning. If they were right, we could neither affirm nor deny anything concerning power while understanding what we were saying.  $\cdot$ If 'power' had no meaning·, we would have as much reason to say that power is a substance as to say that power is a quality; as much reason to say that it doesn't have different degrees as to say that it does. If our understanding immediately assents to Thomas Reid

one of these assertions and rejects its contrary, that *shows* that we give some meaning to the word 'power', i.e. that we have some idea of power. My main reason for listing all those obvious truths about power was to bring us to this conclusion  $\cdot$ that we do have an idea of power.

[From here on, Reid frequently uses the word 'speculative' and its cognates. For him and his contemporaries, 'speculation' covers much more than it does for us: for them it includes everything having to do with knowing, believing, wondering, doubting, and so on—broadly speaking, everything that we might connect with 'thinking'.] The phrase 'active power' is used, I think, to distinguish it from speculative powers—•to distinguish powers to *act* from powers to *think*•. Just as all languages distinguish action from speculation, they distinguish powers of seeing, hearing, remembering, distinguishing, judging, reasoning, are speculative powers; the power of carrying out a •physical• task, skilled or unskilled, is active power.

Many •things are related to power in such a way that we can't have any notion of •them unless we have a notion of •the• power •to bring them about•. The exercise of active power we call *action*; and just as every action produces some change, so every change must be caused by some exercise of power or by the stopping of some exercise of power. We use 'cause' to label what produces a change by the exercise of its power, and we use 'effect' for the change that is produced.

When one thing through its active power produces a change in another thing, the latter is said to be 'passive' or to be 'acted on'. Thus we see that

> 'action' and 'passion', 'cause' and 'effect', 'exercise', and

'operation'

are related to 'active power' in such a way that if *it* is understood, *they* are understood in consequence of that; but if 'power' is a word without any meaning, all those words that are related to it must also be meaningless. They are, however, common words in our language, and equivalent words have always been common in all languages.

It would be very strange indeed if •mankind had always used these words so comfortably and so often without noticing that they had no meaning, and if •this 'discovery' should have been first made by a philosopher of our own time!

It would no more absurd to maintain that though all languages have words to express sight and to signify the various colours that are objects of sight, nevertheless all mankind from the beginning of the world have been blind and never had any idea of sight or of colour. But there are no absurdities so crude as the ones philosophers have advanced concerning ideas.

# Chapter 2: The notion of active power (continued)

I don't think that any abstract notions are more universally present in the minds of men, or occur earlier in life, than the notions of •*acting* and •*being acted on*. Every child that understands the distinction between hitting and being hit must have the conception of •*action* and •*passion*, ·doing and being done to·.

So we find that every language, however imperfect, has active and passive verbs ·such as 'hit' and 'be hit'·, and active and passive participles ·such as 'hitting' and 'being hit'·—one signifying some kind of action, the other signifying being acted on. This distinction is woven into the basic fabric of all languages.

Active verbs have their own special form and construction, different from the form and construction of passive verbs. In all languages, the nominative of an active verb is the agent, while the thing acted on is put in an oblique case: in

'Raphael drew the cartoons'

the name 'Raphael' is in the nominative case, and the phrase 'the cartoons' is in an oblique case. In passive verbs, on the other hand, the thing acted on is the nominative, while the agent is expressed, if at all, in an oblique case: in

'The cartoons were drawn by Raphael'

the phrase 'the cartoons' is in the nominative and 'Raphael' in an oblique case. [Reid here connects the difference between active and passive with a difference in the 'cases' of noun phrases. In English these differences of 'case' aren't visible in the words themselves, as they are in Latin and Greek, on which Reid is evidently relying. Taking English on its own, therefore, this line of thought of Reid's is hardly convincing; but his three-part reply to a certain objection is of independent interest.]

Every distinction that we find in the structure of all languages must have been familiar to those who formed the languages in the first place, and to everyone who speaks them with understanding.

That argument from the structure of language in the use of active and passive verbs is open to these objections:

•Active verbs are not always used to denote an action, and the nominative  $\cdot$ noun phrase  $\cdot$  that precedes an active verb is not always conceived as  $\cdot$ standing for an *agent* in the strict sense of that word.

•There are many passive verbs that mean something active, and active ones that mean something passive.

These facts may be thought to support the view that men, in contriving the different forms of active and passive verbs and their different constructions, have been governed *not* by a regard for the difference between action and passion but rather by chance or some accidental cause.

The factual claims on which this objection is based are correct; but I don't think that the objector is drawing the right conclusion from them.  $\cdot$ I have three reasons for this.

(1) It seems contrary to reason to attribute to 'chance' or 'accident' something that is subject to rules, even if there are exceptions to them. When there is a rule with exceptions, *they* may be attributed to accident, but the *rule* cannot.  $\cdot$ Don't over-estimate the importance of exceptions $\cdot$ : few if any rules of language hold so generally that they don't have exceptions. It can't be denied that this

Verbs and participles have an active voice and a passive voice

is a general rule; and as it holds in all the languages we are acquainted with, that shows clearly that men from the earliest times and in all stages of history have distinguished action from passion.

(2) Bear in mind that the forms of language are often put to uses different from those they were originally intended to have. Even the most perfect language can't have enough variety to match the variety in human thoughts. The forms and devices of language must be kept within limits so that they won't exceed the capacity of human memory; and so in every language a kind of frugality has to be at work, making one form of expression serve many different purposes.... Many examples of this could be given. Thus the Latins and Greeks had five or six cases of nouns, to express all the various relations that one thing could bear to another. The genitive case must have been at first intended to express some one principal relation, such as that of possession or of property (.for example, 'hominis' is the genitive of 'homo', man, and oculi hominis means 'the man's eyes', the eyes possessed by the man.). But we would find it hard to list all the relations that the genitive has come to express as language has developed....

We cannot always coin new linguistic forms, so sometimes we have to express our thoughts through some form that already exists in the language, though it was initially intended for another purpose.

(3) Most of these misapplications come from a source that *confirms* my account of the basic meanings of active and passive verbs  $\cdot$  and thereby undercuts the above objection to the account. It is as follows.

No principle seems to have been more universally acknowledged by mankind ever since the first dawn of reason than that *every change we observe in nature must have a cause*. Once a human mind has taken hold of this, it forms a strong desire to know what the causes are of the changes that it observes. *Happy is he who can know the causes of things*, says the voice of Nature in men. And this eagerness to know the causes of things is a very early distinguisher of rational animals from the lower animals, in which I see no sign of any such eagerness.

It can't be denied that back when languages were first being formed men were poorly equipped to carry out successfully this investigation ·into causes ·. We see that the experience of thousands of years has been needed for men to get onto the right track in this investigation-if indeed they can be said to be on it even now. By thinking about it we can *conjecture*, and through experience we can see, that primitive people in their impatient and unskilful judgments make innumerable errors about causes. This shows that if it were the case (as I say it is) that active verbs were originally intended to express what is properly called 'action', and their nominative nouns were intended to stand for the agent of the action, still, in the primitive and barbarous state of affairs when languages were coming into existence there must have been innumerable misapplications of such verbs and nominative nouns, with many things spoken of as active though they had no real activity.

A further point: children and primitive people, when they see something change and don't see anything they can believe to be the cause of that change, are generally apt to think that the thing is self-changing—that is, to conceive it to be active and animated and thus able to produce that change in itself. Hence, to a child or to a savage, all nature seems to be animated: the sea, the earth, the air, the sun, moon, and stars, rivers, fountains, and groves, are thought of as active and animated beings. As this opinion is *natural* to man in his primitive state, it persists in civilised people, who allow it without discomfort in poetical fiction and fable, finding *personification* to be one of the most agreeable devices in poetry and eloquence. The origin of this personifying tendency is probably that our beliefs about other things are based on what we know about ourselves, Thomas Reid

which inhelines us to ascribe to them the  $\cdot$ kind of  $\cdot$  life and activity that we know to be in ourselves.

A little girl credits her doll with having the passions and thoughts that she feels in herself. Even the lower animals seem to have some such tendency. When a kitten sees a feather or a straw moving briskly, her instinct leads her to hunt it as she would hunt a mouse.

Whatever the origin of this attitude in mankind, it has a powerful influence on language, leading men in the structure of language to ascribe •action to many things that are merely •passive, because when such forms of speech were invented those things really were *believed* to be active. Thus we say 'the wind blows', 'the sea rages', 'the sun rises and sets', 'bodies gravitate and move'.

When experience discovers that these things are altogether inactive, it is easy to correct our opinion about them, but it is not so easy to alter the established forms of language. The most perfect and polished languages are like old furniture—never perfectly suited to present tastes, and retaining something of the fashion of the times when it was made.

Thus, though informed people all think that the succession of day and night results from the rotation of the earth around its axis, and not from any daily motion of the whole sky, we find that we can't help speaking in the old style, of the sun's 'rising' and 'reaching its peak' and 'going down'. And this way of talking occurs not only in conversation with ordinary uneducated people but also when knowledgeable people talk to one another. Even if the common run of people came at last to think what learned people think about the cause of day and night, we would *still* talk in the same way  $\cdot$  of the sun as 'rising' and 'setting' and so on $\cdot$ .

This example teaches us •that the language of mankind can provide good evidence about opinions that were univer-

sally held in early times, and  $\bullet$ that the  $\cdot$ linguistic $\cdot$  forms devised for expressing such opinions can remain in use even when the opinions that gave rise to them are no longer held.

Active verbs seem clearly to have been first devised to express *action*. They are still generally used for this purpose. We find many instances of the active verbs being applied to things that we now think are not active, but this should be ascribed to men's having once thought that those things are active. Perhaps sometimes the explanation is different: these forms of expression may have been extended in the course of time beyond their original meanings....

Even the *mis*application of this notion of action and active power shows that there is such a notion in the human mind. It also brings out the need that there is in philosophy to distinguish the proper use of these words from the vague and improper use of them that is based on common language or on widespread  $\cdot$  false  $\cdot$  belief.

Another argument to show that all men have a notion or idea of active power is that there are many mental operations—performed by everyone who has a mind, and necessary in the ordinary conduct of life—which presuppose that we have active power. Whenever we

set ourselves to do something,

try to do something,

think about what to do,

decide what to do,

promise to do something,

we bring in our belief that •we have active power. If someone set himself to fly to the moon, or even think about whether to fly to the mind or decide to fly to the moon, we would think he was a lunatic; and even lunacy could explain his conduct only if it explained his believing that he could fly to the moon. And whenever we give advice,

urge someone to act in a certain way,

order someone to act in a certain way,

we bring in our belief that •those to whom we speak have active power.

When a man promises to pay me a sum of money tomorrow, if *he* doesn't believe that he will then have the power to make the payment, he isn't an honest man; and if *I* don't think he will then have that power, I shan't rely on his promise.

No doubt all our power has come from  $\cdot$ God $\cdot$ , the author of our being, and as he gave it freely he is free to take it away when he wants to. No man can be certain that any of his powers of body or mind will continue for another moment; so every promise is understood to have this condition:

> ... if I live, if I retain the health of body and soundness of mind that are necessary for me to keep the promise, and if God doesn't make me unable to keep it.

Even the most primitive savages are taught by nature to admit these conditions in all promises, whether or not they are expressed; and nobody is charged with breach of promise when he fails through the failure of one of these conditions.

Obviously, then, without the belief in some active power no honest man would make a promise and no wise man would rely on one. And equally obviously, a *belief* in active power, in oneself or in others, involves an *idea* or *notion* of active power. This argument holds for every case in which we advise others, or persuade or command them....

I would point out further that what *ambition* aims at most directly is power; and ambition is one of the most widespread passions of the human mind, and the one that has the dominant role in the history of all ages. How would Hume defend his system on this point? By maintaining

- —that there is no such passion as ambition?

I don't claim to be able to guess which of these he would choose!

I must repeat my apology for writing at such length in refutation of such an absurdity. A recent celebrated theory of human nature has as a principal doctrine that •we have no idea of power, even of God's power, that •we can't find a single instance of power in body or mind, whether of higher creatures or of lower ones, and that •we deceive ourselves when we think we have such an idea.

A great part of Book I of ·Hume's· *Treatise of Human Nature* is devoted to supporting this important doctrine and supplementary theses that are used in defence of it. That system is packed with conclusions that are as absurd as any that any philosopher has ever advanced; ·but· they are deduced with great sharpness and ingenuity from premises that are widely accepted by philosophers. To reject them as not worth consideration would be disrespectful to their able author; and to refute them is difficult, and appears ridiculous!

It is difficult because we can hardly find premises to argue from that are more obvious than the conclusions we want to prove; and it appears ridiculous because, as Hume himself rightly says, next to the ridiculousness of denying an obvious truth is that of putting much effort into proving an obvious truth.

Protestants rightly complain that Roman Catholics put too much of a burden on them in requiring them to prove that

bread and wine are not flesh and blood. But they have borne this burden for the sake of truth. I think it is equally burdensome to be required to prove that men have an idea of power.

What convinces me that I have an idea of power is that I am conscious that I know what I mean by the word 'power'; and while I have this consciousness I won't condescend to hear arguments for or against my having such an idea. But if we want to convince those who have been led by prejudice or by ·someone's· authority to deny that they have any such idea, we must come down to their level and use such arguments as the subject permits—the sort of arguments we would use against someone who denied that mankind have any idea of *size* or of *equality*.

Here are the five bases from which I have argued. (1) There are many things that we can affirm or deny concerning

power, understanding what we say. (2) All languages contain not only words signifying *power* but also words signifying many other things that imply power—words like 'action' and 'passion', 'cause' and 'effect', 'energy', 'operation', and others. (3) In the structure of every language, verbs and participles divide into active and passive forms, and the only account we have to explain this division is that it was originally intended to distinguish action from passion, ·causing from being caused·. (4) Many operations of the human mind that are familiar to every mentally competent person and are necessary in the ordinary conduct of life imply a belief that we and others have some degree of power. (5) The desire for power is one of the strongest passions of human nature.

#### Chapter 3: Locke's account of our idea of power

This author, having refuted Descartes's doctrine of innate ideas, took up—perhaps too rashly—the opinion that *all our simple ideas are acquired either by sensation or by reflection*—that is, either through our external senses or through our consciousness of the operations of our own minds.

Throughout his *Essay Concerning Human Understanding* he shows a fatherly affection for this opinion, and he often strains very hard to track our simple ideas back to one of those sources, or to both of them. I could illustrate this by various of his accounts—for example of *substance*, of *duration*, of *personal identity*. But I set these aside as irrelevant to my present topic, and attend only to Locke's account of our idea of *power*.

In brief, it is this: We observe through our senses various changes, and from these we infer a possibility in one object to be changed and a possibility in another to make that change; and so we come by the idea we call 'power'.

Thus we say that the fire has a power to melt gold, and gold has a power to be melted; the first he calls 'active power' and the second 'passive power'.

But he thinks that our most distinct notion of active power comes from our attending to the power that we ourselves exert when we move our bodies or direct our thoughts. He attributes this way of forming the idea of power to 'reflection', and the other way—•typified by seeing fire melt gold•—to 'sensation'.

Let me make two remarks about this account of the origin of our idea of power. I offer them with the respect due to such a great philosopher and such a good man.

Whereas he divides power into 'active' and 'passive', I don't think that Locke's 'passive power' is power at all. He means by that phrase the possibility of being changed. To call this 'power' seems to be a misapplication of the word. I don't remember having met the phrase 'passive power' in any other good author. Locke seems to have been unlucky in inventing it, and it ought to be allowed to drop out of our language.

Perhaps, seeing that 'active power' needs an opposite, he incautiously thought that the required opposite must be 'passive power'. But I think that we call certain powers 'active' to distinguish them from other powers that are called 'speculative'. [See the explanation on page 6 above.] As all mankind distinguish •action from •speculation—e.g. distinguishing •drawing a picture from •drawing a conclusion—it is very proper to divide the powers by which those different operations are performed into 'active' and 'speculative'. Locke indeed agrees that active power is *more* properly called 'power'; but to my eye 'passive power' is •not merely less proper but• wholly *im*proper. 'Passive power' stands for powerless power—a contradiction in terms.

I would observe that Locke seems to have deceived himself in his attempt to reconcile •this account of the idea of power with his favourite doctrine that all our simple ideas are ideas of sensation or of reflection.

According to this account, the mind takes two steps in forming this idea of power:

•it observes changes in things, and then from those changes

•it infers a cause of them, and a power to produce them.

If both these steps are operations of the external senses, or of consciousness  $\cdot$  of one's own mental operations $\cdot$ , then the idea of power may be called an idea of sensation or of reflection. But, if either step requires the co-operation of powers of the mind other than sensation and inner consciousness, it follows that the idea of power can't be acquired by sensation, or by reflection, or by both together. Let us, then, consider each of these steps by itself.

(1) We observe various changes in things. And Locke takes it for granted that changes in external things are observed by our senses, and that changes in our thoughts are observed by consciousness.

Well, we can say that changes in things are 'observed by our senses', as long as we don't mean this to exclude every *other* faculty from a share in this operation. And it would be ridiculous to condemn the phrase 'observed by our senses' when it is used in this non-exclusive way in everyday conversation. But Locke's purpose requires that changes in external things should be observed by the senses *alone*, with no other faculty playing any part; for if some other faculty were necessary to the observation of change, that faculty would claim a share in the origin of the idea of power.

Now, it is obvious that *memory* is as essential as the senses are for observing changes in external things; •here is why•. Every change involves *two states* of the thing that changes: at least one of these states must lie in the past; at most one can be present. Through our senses we can observe the present state of the thing; but memory must supply us with the past state—for if we don't remember that past state we can't perceive any change. So the idea of power that comes from the observation of changes in external things may as justly be ascribed to memory as to the senses.

The same line of thought applies to inner changes observed through consciousness. The truth, therefore, is that

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by the senses alone without memory, or by consciousness alone without memory, no change can be observed. So every idea that comes from observing changes in things must have its origin partly in memory—not in the senses alone, or in consciousness alone, or in the two together.

(2) According to Locke, the second step the mind makes in forming this idea of power is this: from the changes we observe, we *infer* a cause of those changes and a power to produce them.

Here one might ask Locke: Is it by •our senses that we draw this conclusion, or is it by •consciousness? Is reasoning

 $\cdot$ or inferring $\cdot$  the business of the senses or is it the business of consciousness?  $\cdot$ Neither answer is tolerable $\cdot$ . If the senses can infer one conclusion from premises, they can infer five hundred, and demonstrate the whole *Elements* of Euclid!

Thus, I think we find that •Locke's own account of the origin of our idea of power can't be reconciled to his favourite doctrine that all our simple ideas originate from sensation or reflection; and that •in trying to derive the idea of power from those two sources alone he unawares brings in our memory and our reasoning power for a share in that idea's origin.

### Chapter 4: Hume's opinion concerning our idea of power

This very ingenious author adopts the principle of Locke's that I have mentioned, that all our simple ideas are *derived from* sensation or from reflection. He seems to understand this in an even stricter sense than Locke did. For he insists that all our simple ideas are *copies of* previous impressions, either of our external senses or of consciousness. He writes:

After the most accurate examination I am capable of, I venture to say that here the rule holds without exception: that *every* simple idea has a simple impression that resembles it, and *every* simple impression has a corresponding idea. You can satisfy yourself that I am right about this by going over as many of your simple impressions and ideas as you like. [Hume, *Treatise* I.i.1]
I remark in passing that this conclusion is reached by the author rashly and unphilosophically. For it is a conclusion that admits of no proof except by induction; and induction is

indeed the basis that Hume gives it. This induction can't be complete until *every* simple idea that can enter into the human mind has been examined and shown to be copied from a resembling impression of sense or of consciousness. No-one can claim to have made this examination of all our simple ideas without exception; so no-one can, consistently with the rules of philosophising, assure us that this conclusion holds with no exceptions.

On his title page the author professes to be introducing the experimental method of reasoning into moral subjects [= 'subjects having to do with the human condition']. This was a fine thing to try; but he ought to have known that in the experimental method of reasoning it is a *rule* that conclusions established by induction ought never to exclude exceptions if any should turn up through observation or experiment. Sir Isaac Newton, speaking of such conclusions, writes: And when in subsequent experience something happens which goes against  $\cdot$  the conclusion in question $\cdot$ , the conclusion isn't to be asserted without that exception. [Reid gives this in Latin.]

But Hume says: 'I venture to say that here the rule holds without exception.'

And so all through the *Treatise* this general rule is considered to have such authority that anything seeming to be an exception to it can be dismissed without so much as a hearing. This is contrary to the basic principles of the experimental method of reasoning, and therefore may be called—ias I have called it—rash and unphilosophical.

Having thus laid down this general principle, Hume does great execution by it among our ideas. He finds that •we have no idea of *substance*, whether material or spiritual; that •body and mind are only certain sequences of related impressions and ideas; that •we have no idea of space or duration, and no idea of power, whether of moving or of thinking.

Locke used his principle  $\cdot$ that all our simple ideas are products $\cdot$  of sensation and reflection with greater moderation and mercy! Being unwilling to thrust the ideas we have mentioned into the outer darkness of nonexistence, he *stretches* sensation and reflection as far as he possibly can, in order to admit these ideas into the domain of what is real; he pulls them in, as it were by violence.

But Hume, instead of showing these ideas any favour, seems eager to get rid of them.

Of the ideas I have mentioned, the idea of *power* is the only one that concerns us here. With regard to it, the author boldly affirms that we never have any idea of power, and that we deceive ourselves when we imagine we are possessed of any idea of this kind [*Treatise* I.iii.14]

He begins by observing:

The words 'efficacy', 'agency', 'power', 'force', 'energy', are all nearly synonymous, which makes it absurd to employ any of them in defining any of the others. This observation rejects at once all the common definitions that philosophers have given of 'power' and 'efficacy'. Surely this author knew that there are many things of which we have clear and distinct conceptions although the things are so simple in their nature that they can't be defined in any way except by synonymous words. It is true that this is not a logical definition [see the explanation on page 2 above], but I can't see that there is, as *he* says there is, an absurdity in using such a definition when no better can be had.

[We shall soon meet the word 'popular' used in a sense that it had for Hume and Reid but doesn't have for us. It meant simply 'of the people'. A 'popular' way of thinking, in this sense, is one that is common to most people, including those who are uneducated and not very thoughtful. For a belief to be *very* popular is for it to be very widespread.] Hume might here have applied to power and efficacy what he says elsewhere about pride and humility:

> Because the passions of pride and humility are simple and uniform impressions, we cannot possibly give a sound definition of them. As the words 'pride' and 'humility' are in general use, and what they stand for are the most common passions of all, everyone will be able unaided to form a sound notion of them, without danger of going wrong. [*Treatise* II.i.2]

He mentions Locke's account of the idea of power—the one saying that when we observe various changes in things we infer that there must somewhere be a power capable of producing them, and are finally led by this reasoning to have the idea of power and efficacy. He objects:

> But to be convinced that this explanation is more popular than philosophical we need only to remember

two very obvious principles. First, •that reason alone can never give rise to any original idea, and secondly •that reason, as distinct from experience, can never make us conclude that a cause or productive quality is absolutely required for every beginning of existence. [*Treatise* I.iii.14]

Before we consider the two principles that Hume opposes to the 'popular' opinion of Locke, I offer two observations.

(1) Some popular opinions, just because of their status as popular, deserve more respect from philosophers than this author is willing to give them.

Things cannot come into existence or alter without a cause that has the power to produce that change—that is indeed so popular an opinion that I think Hume is the first person who ever called it in question. It is so popular that every person with ordinary prudence acts in reliance on it every day of his life. Anyone whose conduct was guided by the contrary opinion would soon be locked up as insane, and would remain in confinement until a good enough reason was found to set him free.

An opinion as popular as this has more authority than philosophy does; and •philosophy must bow to it if •it doesn't want to make itself contemptible to every man of ordinary understanding.

In matters of deep speculation, the multitude must be guided by philosophers; but in things that are within the reach of every man's understanding, and on which the whole conduct of human life turns, the philosopher must follow the multitude—or make himself perfectly ridiculous! [This is one of the contexts where 'philosopher' means 'philosopher or scientist'.]

(2) Whether this popular opinion is true or false, the mere fact that men *have* it proves that they have an idea of power. A false opinion about power, no less than a true one, requires an idea of power; for how can men have any opinion, true or

false, about something of which they have no idea?

The first of the  $\cdot$ two $\cdot$  'very obvious principles' that the author brings against Locke's account of the idea of power is that 'reason alone can never give rise to any original idea'. This appears to me so far from being a very obvious principle that its contrary is very obvious.

Isn't it our reasoning faculty that gives rise to the idea of reasoning itself? Just as our idea of sight originates from our having the faculty of sight. Don't the ideas of

demonstration,

probability,

the major and minor premises and the conclusion of a syllogism,

an enthymeme,

a dilemma,

a sorites,

and all the various forms of reasoning, arise from the faculty of reason? Could someone who wasn't endowed with a capacity for of reasoning have those ideas? This principle, therefore, far from being obviously true, appears to be obviously false.

The second 'obvious principle' is that 'reason, as distinct from experience, can never make us conclude that a cause or productive quality is absolutely required for every beginning of existence'.

In my *Essays on the Intellectual Powers of Man* I had occasion to discuss this principle that every change in nature must have a cause; and rather than repeating myself I ask you to see what I said on this subject in that work, Essay 6, chapter 6. I tried to show there that it is a *first principle* whose truth is obvious to everyone who is old enough to be able to think. Besides its having been universally accepted without the least doubt from the beginning of the world, it has this sure mark of a first principle: the acceptance of it is absolutely necessary in the ordinary affairs of life, and no-one who didn't have this belief could act with ordinary prudence or avoid the charge of insanity. Yet a philosopher who has acted on the firm belief in it every day of his life thinks it is all right to sit in his study and call it into question.

He hints here that we can know it from experience. I tried to show that we don't learn it from experience, for two reasons.

(1) It is a necessary truth, and has always been accepted as a necessary truth. Experience gives no information regarding what is •necessary, or what •must be the case. From experience we can know what *is*, and what *was*, and from these we can draw conclusions about what *will* probably happen in similar circumstances; but with regard to what must *necessarily* be the case, experience is perfectly silent.

Thus we know, through unvaried experience from the beginning of the world, that the sun and stars rise in the east and set in the west. But everyone realizes that it *could* have been otherwise, and that whether the earth revolves to the east or to the west depends on the will and power of God who made the world.

Similarly, if in our unvarying experience we found that every change in nature that we have observed has actually had a cause, this might provide grounds for believing that this will continue to be so in the future, but it gives no grounds at all for believing that it must be so and cannot be otherwise.

(2) Experience doesn't show us a cause for as many as one percent of the changes that we observe; so it can never teach us that there must be a cause for all of them.

Of all the paradoxes that Hume has advanced, none is more shocking to the human understanding than this, that *things may begin to exist without a cause*. This would put an end to all theorizing, as well as to all the practical business of life. What speculative—•or theory-building•—men have been doing since the beginning of the world is *to investigate the causes of things*. What a shame that they didn't think of asking first whether things *do* have a cause! Well, this question has at last been raised; and what is there so ridiculous as not to be maintained by some philosopher?

I have said enough about this—more indeed than it deserves. But, planning to discuss the active powers of the human mind, I thought it would be improper for me to ignore what such a celebrated philosopher  $\cdot$ as Hume $\cdot$  says when trying to show that the human mind contains no idea of power.

# Chapter 5: Can beings that have no will or understanding have active power?

Active power is an attribute that can't exist except in some being that *has* the power, and is *the subject of* the attribute. I take this for granted as a self-evident truth. What is less evident is whether there can be active power in a subject that has no thought, no understanding, no will.

This question is made harder, more tangled, by the ambiguity of the words 'power', 'cause', 'agent', and all the words related to these. The weakness of our understanding, which gives us only an indirect and relative conception of power [see the discussion starting on page 4 above], contributes to making our reasoning obscure, and should make us cautious and modest in the conclusions we come to.

We can get little light on this matter from events that we observe in the course of nature. We perceive innumerable changes in things outside us. We know that those changes must be produced by the active power of some agent; but we don't perceive the agent or the power—only the change. It is not easy to discover whether the thing ·that changes· is active or merely passive, ·i.e. whether the change in the thing is caused by the thing itself or by something else·. And though •the tiny minority of people who have theoretical interests may want to know the answer, it doesn't greatly concern •the general run of people.

To know the event and the circumstances in which it occurred, and to know in what circumstances similar events may be expected, may be of consequence in the conduct of life; but to know what the real efficient cause of an event is, whether it is matter or mind, whether of a superior or inferior order, concerns us little. [In Reid's day, 'efficient cause' meant what we today mean simply by 'cause'—that is, the cause that makes or produces or forces or compels.] And that is how things stand with regard to all the effects we ascribe to nature.

'Nature' is the name we give to the efficient cause of innumerable effects that we observe every day. But what *is* nature? The first universal cause, or rather an intermediate cause that is subordinate to the first cause? Does it involve one cause or many? Are the causes that it involves thinking beings or unthinking beings? Upon these points we find various conjectures and theories, but no solid ground to stand on. The wisest men, I think, are those who are aware that they know nothing of these matters.

The course of events in the natural world gives us sufficient reason to conclude that there exists an eternal thinking first cause,  $\cdot$ which we call  $God \cdot$ . But does God

act *immediately* in producing those events? or rather act through subordinate thinking agents? or rather act through *non*-thinking instruments?

And if he does act through intermediate agents or instruments, how many of them are there? what are they like? and how is the intervening-cause work distributed amongst them? I can see that all these questions are mysteries that lie beyond the limits of human knowledge. We see an •established order in the sequence of natural events, but we don't see the •bond that connects them together.

So our attention to the natural world throws very little light on efficient causes and their active power. Let us then turn from the natural world to the moral world—I mean the world of human actions and conduct.

Locke writes very truly:

Our sensory perception of the operations of bodies gives us only a very imperfect and obscure idea of

active power, since it provides no idea of the power to begin any action, whether physical or mental. [*Essay* II.xxi.4]

He adds:

We find in ourselves a power to begin or not begin, and to continue or end, various actions of our minds and motions of our bodies, by a mere thought or preference of the mind in which it commands (so to speak) that such and such an action be done or that it not be done. This power that the mind has to order that a given idea be thought about or that it not be thought about, or to prefer that a given part of the body move rather than stay still (or vice versa), is what we call *the will*. The actual exercise of that power in a particular case is what we call *volition* or *willing*. [*Essay* II.xxi.5]

According to Locke, therefore, the only clear notion or idea we have of *active power* is taken from the power that we find *we* have to give certain movements to our bodies or a certain direction to our thoughts; and this power in ourselves can be brought into action only by willing or volition.

I think it follows from this that if we didn't have will—and didn't have the amount of thinking capacity that will necessarily implies—we couldn't *exercise* any active power and consequently couldn't *have* any such power; for 'power' that can't be exercised is not power. It also follows that the only active power of which we can have any distinct conception can only be possessed by beings that have understanding and will.

Power to produce an effect implies power *not* to produce it. We can't conceive how a being could have power to do x but no power not to do x; that would be a being that had no will.

If something is an effect of active power then it must be *contingent.* •Contingent existence is what is had by anything

that depended on the power and will of its cause,  $\cdot$  and thus wouldn't have existed if its cause had willed otherwise $\cdot$ . Opposed to this is •necessary existence, which we ascribe to God because his existence is not a result of the power of any being. The distinction between •contingent truth and •necessary truth is just the same:  $\cdot$ i.e. to say that God has necessary existence is to say that *God exists* is a necessary truth $\cdot$ .

That *the planets of our system go round the sun from west to east* is a contingent truth, because it depended on the power and will of God, who made the planetary system and set it in motion. That *a circle and a straight line can cut one another at only two points* is a truth that doesn't depend on anyone's power or will, and therefore is called 'necessary' and 'unchangeable'. So contingency is tied to active power ·in two ways·. •All active power is exercised in contingent events; and •contingent events can't happen except through the exercise of active power.

When I observe a plant growing from its seed to maturity, I know that there must be some cause that has the power to produce this effect; but I don't see •the cause or •what it does to produce the effect.

But in certain motions of my body and directions of my thought I know not only that there must be some cause that has power to produce these effects, but further that  $\bullet$ I am that cause; and I am conscious of  $\bullet$ *what* 1 do to produce them.

Our consciousness of our own activity seems to be the source not merely of our *clearest* but of our *only* conception of activity or of the exercise of active power.

I cannot form a notion of any *intellectual* power that is different in kind from the powers that I have, and the same holds for *active* power. If all men had been blind, we would have had no conception of the power of seeing, and no word

5: Will, understanding, power

standing for it. If man hadn't had the powers of abstraction and reasoning, we couldn't have had any conception of those operations. Similarly, if we didn't have some degree of active power, and if we weren't conscious of the exercise of this power in our voluntary actions, we probably couldn't have had any conception of activity or of active power.

A sequence of events following one another as regularly as you please could never lead us to the notion of a cause if our own constitution didn't convince us that every event must have a cause.

And the only conception we can have of *how* a cause could exercise its active power is the one that comes from our consciousness of *how* our own active power is exercised.

With regard to the operations of nature, all we *need* to know is that whatever the  $\cdot$ causing  $\cdot$  agents may be, and whatever their manner of operation or the extent of their power, they depend on  $\cdot$ God $\cdot$ , the first cause, and are under his control. And this indeed is all that we *do* know; beyond this we are left in darkness. But with regard to human actions we have a more immediate concern.

We are creatures to whom morality applies, and who are accountable for our behaviour; so for us it is of the highest importance to know what actions are in our own power—·by which I mean, always, that we have the power to perform them and have the power not to perform them·. Here is why. It is only for actions that are 'in our power' in that sense that

—we can be accountable to God or to our fellow men in society;

—we can deserve praise or blame;

—our prudence, wisdom, and virtue are put to work.

With regard to our actions, therefore, the wise author of nature hasn't left us in the dark. Every man is •led by nature to attribute to *himself* the free decisions of his own will, and to believe that the events that depend on his will

are in *his* power. On the other hand, it is •self-evident that nothing is in our power that isn't subject to our will.

We grow from childhood to manhood, we digest our food, our blood circulates, our heart and arteries beat, we are sometimes sick and sometimes healthy. All these things must be done by the power of some agent, but they aren't done by *our* power. How do we know this? Because they aren't subject to our will! This is the infallible criterion by which we distinguish what *is* our doing from what *is not*, what *is* in our power from what *is not*.

*Human* power, therefore, can be exercised only by will; and we can't conceive *any* active power to be exercised without will. Every man knows infallibly that what is done by his conscious will and intention is to be attributed to him as the agent or cause; and that whatever is done without his will and intention can't be truthfully attributed to him.

We judge the actions and conduct of other men by the same rule as we judge our own. In morals it is self-evident that no man can merit approval or blame for something he didn't do. But how are we to know whether a given action is his doing or not? If it depended on his will, and if he intended and willed it, it is *his* action—all mankind says so. But if it was done without his knowledge, or without his will and intention, it is equally certain that *he* didn't do it and that it oughtn't to be attributed to him as the agent.

When there is any doubt about who should be picked on as the agent of a particular action, the doubt arises only from our ignorance of facts. When the facts about it are known, no thinking person has any doubt to whom the action ought to be attributed.

The general rules for the attribution of agency are selfevident. They have been the same in all ages, and among all civilized nations. No man blames another for being black or white, for having a fever or epilepsy, because these things are believed not to be in his power. Why? Because they don't depend on his will. We can never conceive that a man's duty goes beyond his power, or that his power goes beyond what depends on his will.

Reason leads us to ascribe *unlimited power* to God. But what do we mean by 'unlimited power'? It is the power to do whatever he wills. To suppose God to do something that he doesn't will to do is absurd.

The only distinct conception I can form of active power is this: active power is an attribute that a being has through which he can do certain things if he wills to do them.

This, after all, is only a relative conception. It is relative to the effect, and to the will to produce that effect. Take away the effect and the will, and the conception of power vanishes too. They are the handles by which the mind takes hold of *power*, and when they are taken away our hold is gone. The same holds for other relative conceptions—of *velocity*, for example. Velocity is a real state of a body, and scientists conduct demonstrations regarding it; but our conception of it—•though good enough to support such demonstrations•—is relative to space and time. A body's velocity is a state in which it passes through a certain space in a certain time.

> Space and time are very different from velocity, but our only way of conceiving it is through its relation to them.

Similarly:

The effect produced and the will to produce it are things different from active power, but our only way of conceiving it is through its relation to them.

Could the conception of *efficient cause* and of *real activity* ever have entered our minds if we hadn't had the experience of activity in ourselves? I can't answer with certainty. The origins of many of our conceptions, and even of many of our

judgments, are not so easily traced as philosophers have generally thought them to be. No man can recollect the time when he first got the conception of an efficient cause, or the time when he first came to believe that every change in nature must have an efficient cause. Our conception of an efficient cause very likely comes from our experience in childhood of our own power to produce certain effects. But the belief, that no event *can* happen without an efficient cause can't be derived from experience. We may learn from experience what *is* and what *was*, but no experience can teach us what *necessarily must be*.

In a similar way, we probably derive our conception of pain from our experience of our own pains; but our belief that pain *can't* exist except in a living being cannot be acquired by experience, because it is a necessary truth, and experience can't testify in support of a necessary truth.

If it is true—and I think it probable—that the conception of an efficient cause enters into our minds only from our youthful conviction that we are the efficient causes of our own voluntary actions, then our notion of efficiency  $\cdot$ or *making*·—comes down to this:

It is a relation between the •cause and the •effect that is similar to the relation between •us and •our voluntary actions.

This is surely the clearest notion—and I think it's the *only* notion—that we can form of real efficiency.

Now let us look into the relation between me and my action. It is obvious that this relation essentially involves my *conception* of the action and my *will* to do it. For something that I didn't conceive and didn't will is something that I didn't do.

So if anyone claims that a being that can neither conceive nor will may be the efficient cause of an action and have power to produce it, he speaks a language that I don't Thomas Reid

understand. If he means anything by what he says, his notion of power and efficiency must be different at the core from mine; and until he gets *his* notion of efficiency into my mind, I can no more agree with his opinion than I would if he were to assert that *a being that isn't alive can feel pain*.

So it seems to me most probable that active power can be possessed only by beings that have some degree of understanding and will, and that inanimate beings must be merely passive, having no real activity. Nothing we perceive outside us gives us any good grounds for ascribing active power to any inanimate being; and everything we can discover in our own constitution leads us to think that active power can't be exercised without will and thought.

### Chapter 6: The efficient causes of the phenomena of nature

If active power, properly understood, requires a subject that has will and intelligence, what shall we say of the active powers that scientists teach us to ascribe to *matter*—the powers of corpuscular attraction, magnetism, electricity, gravitation, and others? Isn't it accepted by everyone that heavy bodies descend to the earth by the power of gravity? and that that same power keeps the moon and all the planets and comets in their orbits? Have the most eminent scientists been cheating us, giving us words instead of real causes?

In answering this, I take it that the principles of natural science have in modern times been built on a foundation that cannot be shaken, and that they would be called into question only by people who didn't understand the evidence on which those principles stand. But the ambiguity of the words 'cause', 'agency', 'active power', and the other words related to these has led many to understand them, as used in natural science, in a wrong sense—one that isn't *needed* for establishing the true principles of natural science and wasn't *meant* by the most enlightened scientists.

To be convinced of this, we may observe that the very people who credit matter with having 'the power of gravitation' and other active powers also teach us that matter is an altogether inert and merely passive substance, that gravitation and the other attractive or repulsive 'powers' that they ascribe to it are not inherent in its nature but imposed on it by some external cause—they don't claim to explain it or to know what it is. Now, when we find wise men ascribing 'action' and 'active power' to a substance which they explicitly say we are to consider as merely passive and acted on by some unknown cause, we have to conclude that they don't mean 'action' and 'active power' strictly but only in some popular sense.

It should also be noticed that although philosophers when they want to be understood have to *speak* the language of common people in saying such things as that the sun 'rises' and 'sets', they often *think* differently from common people. Let us hear what the greatest of natural scientists, ·Newton·, says in the 8th definition at the start of his *Principia*: ....I use the words 'attraction', 'impulse', and 'propensity' of any sort towards a centre, using these terms freely and not intending to make any distinction between them. For I am considering those forces not physically but mathematically. Don't think that I mean to use those words to define the kind or manner of any event, or to say what caused it. And centres are only mathematical points; don't think that when I happen to speak of a centre as 'attracting' or as 'having attractive powers' I mean to attribute to it *forces* in a true and physical sense of that term. [Reid gives this in Latin.]

In all languages, action is attributed to many things that  $\cdot$ not just scientists but $\cdot$  all men of ordinary understanding believe to be merely passive; thus we say 'the wind blows', 'the river flows', 'the sea rages', 'the fire burns', 'bodies move' and 'bodies make other bodies move'.

Every object that undergoes any change must be either active or passive in that change. This has been self-evident to everyone ever since men first became able to think; which is why a change is always expressed in language either by an •active verb or by a •passive one. I don't know of any change-denoting verb that doesn't imply either action or passion—the thing either •changes or •is changed. But it is a remarkable fact about language that whenever there is no *obvious* external cause for it, the change is imputed to the thing that undergoes the change, as though it were alive and had active power to produce the change in itself. So we say 'the moon changes', 'the sun rises', 'the sun goes down'.

Thus we often apply active verbs and attribute active power to things which—as we learn from a little further knowledge and experience—are merely passive. This happens in all languages. I offered an explanation for it in chapter 2 above, to which you might now refer.

A similar irregularity can be seen in the use of the word signifying 'cause' in all languages, and in the use of words related to it.

Little enough is known about causes in the most advanced state of society; how much less was known back in the days when language was first being formed! Everyone in every condition of life strongly wants to know the causes of things; but we can see that down the ages this keen appetite, rather than remaining unfed, will let itself be fobbed off with the •husks of real knowledge when the •fruit can't be found.

While we are very much in the dark concerning the real agents or causes that make things happen in the world, yet still intensely eager to know them, ingenious men form conjectures which those of weaker understanding take to be truths. The food is coarse, but appetite makes it go down!

Thus, in •one very ancient system *love* and *strife* were said to be the causes of things. •Plato made the causes of things to be *matter*, *ideas*, and an *all-efficient architect*. •Aristotle said they were *matter*, *form*, and *privation*. •Descartes thought the material world could be explained in terms purely of *matter* and *a certain quantity of motion* that God gave to matter at the outset. •Leibniz thought that the whole universe, even the material part of it, is made up of 'monads', each of which is active and thinking and produces in itself, by its own active power, all the changes it undergoes from the beginning of its existence to eternity.

In common speech we give the name 'cause' to a *reason*, a *motive*, an *end*  $\cdot$ or *purpose* $\cdot$ , and to any circumstance that is connected with the effect and occurs before it. Aristotle and his followers distinguished four kinds of causes—

efficient, material, formal, and final.

Like many of Aristotle's distinctions, this merely distinguishes •different meanings of an ambiguous word,  $\cdot$  and

6: The causes of natural phenomena

not •different kinds of a single more general kind of thing, like different kinds of bird or different kinds of house. For all birds have something in common, as do all houses; but Aristotle's four 'causes' have nothing common in their nature that would let them count as different species of a single are the four 'causes' of a coin: the •efficient cause (the stamping of a die on hot metal), •the material cause (the gold the coin is made of), •the formal cause (the coin's roundness etc.), •the final cause (commerce. the purpose for which the coin was made).] But the Greek word that we translate by 'cause' had these four different meanings in Aristotle's time, and we have added other meanings. We don't call the *matter* or the *form* of a thing its 'cause'; but ·like Aristotle· we have 'final causes', ·and unlike him some of us also have. 'instrumental causes', 'occasional causes', and I know not how many others!

Thus the word 'cause' has been so over-used and given so many different meanings, in the writings of philosophers and in the talk of common people, that its original and proper meaning is lost in the crowd.  $\cdot$ There are explanations for why some of this has happened, as I now show.

It is important to us to know the causes of •natural events, not only to satisfy our curiosity but also so that we can know when to expect •them or how to bring •them about. This is very often of real importance in life; and  $\cdot$ for $\cdot$  this purpose  $\cdot$ we don't have to know what *causes* a given kind of event, because the purpose  $\cdot$  is served by knowing what in the course of nature *goes before* events of that kind and *is connected with* them; and so we come to call *this* the 'cause' of such events,  $\cdot$ though really it is not $\cdot$ .

If a magnet is brought near to a sailor's compass, the needle starts to move, and inclines toward the magnet or perhaps away from it. If an uneducated sailor is asked 'What caused the needle to move?' he is ready with an answer. He tells you 'It was the magnet'; and  $\cdot$  for him $\cdot$  the proof is clear—remove the magnet and the effect stops, bring it near and the effect is produced again. So we can see, obviously, that the magnet is the cause of the needle's moving.

A follower of Descartes digs deeper into the cause of this event. He observes that the magnet doesn't touch the needle, and therefore can't make it move by pushing it. He pities the ignorance of the sailor! The effect is produced, he says, by an outflow of very finely divided matter coming from the magnet and going to the needle which it *pushes* into moving. He can even show you in a diagram where this magnetic stream flows out of the magnet, what route it takes, and how it returns home again ·to the magnet·. [Descartes held that all movement is in loops: for particle  $x_1$  to be able to move, it must push particle  $x_2$  which pushes... and so on to particle  $x_n$  which takes the place that  $x_1$  is leaving.] So he thinks he perfectly understands how and by what cause the motion of the needle is produced.

A Newtonian scientist demands proof of the existence of magnetic outflows, and can find none. So he takes this ·Cartesian view· to be a fiction, ·an invention·, a hypothesis; and he has learned that hypotheses ought to have no place in the scientific study of nature. He admits that he doesn't know the real cause of the movement of the compass needle, and thinks that his business as a scientist is only to find from experience the laws by which nature is always regulated.

These three people differ greatly in their views about the real cause of the compass phenomenon; and the one of them who *knows the most* is the one who is aware that he *knows nothing* of the matter! Yet all the three speak the same language, and accept that the cause of this motion is the attractive or repulsive power—•the pulling or pushing power•—of the magnet.

What I have said about this can be applied to every phenomenon that falls within the province of natural science.

Thomas Reid

We deceive ourselves if we think we can point out the real efficient cause of any one of them.

The grandest discovery ever made in natural science was that of the law of gravitation, which opens such a view of our planetary system that it looks like something divine. But the author of this discovery,  $\cdot$ Newton $\cdot$ , was perfectly aware that his discovery of gravitation was a discovery not of •a real cause but only of •the law or rule according to which the unknown cause operates.

Natural scientists who think accurately have a precise meaning for the terms they use in the science; and when they claim to show 'the cause' of any natural phenomenon of nature they mean by 'the cause' a *law of nature* of which that phenomenon is a necessary consequence.

The whole object of natural science, as Newton explicitly teaches, is reducible to these two headings:

•To discover the laws of nature through sound induction from experiment and observation. •To apply those laws to the solution of the phenomena of nature.

That was all that this great scientist attempted, and all that he thought could be achieved. In a great measure he *did* achieve it, with regard to the motions of our planetary system, and with regard to the rays of light. But suppose that *this* were the state of affairs:

> All the phenomena that we can observe through our senses are accounted for through general laws of nature that have been soundly derived from experience.

Thus, natural science has been *completed*. Even *that* wouldn't involve discovering the efficient cause of any one phenomenon in nature!

The •laws of nature are the •rules according to which the effects are produced; but there must be a cause that operates according to these rules. The rules of navigation never steered a ship. The rules of architecture never built a house.

Natural scientists, by great attention to the course of nature, have discovered many of nature's laws and have very satisfactorily applied them to account for many phenomena; but they have never discovered the efficient cause of any one phenomenon; and those who have clear notions of the principles of science don't claim to discover causes.

Upon nature's stage we see innumerable effects that must be due to an agent endowed with active power; but the agent is off-stage. No doubt for good reasons, we have not been equipped with the ability to see whether the agent is the supreme cause ( $\cdot$ God $\cdot$ ) alone or rather a subordinate cause or causes; and if God employs subordinate causes we cannot see what they are like, how many there are, or how the work is distributed among them.

It is only with regard to *human* actions (which can be attributed as bases for praise or blame) that we have any *need* to know who is the agent; and for this  $\cdot$ knowledge nature has given us all the light that is necessary for our conduct,

## Chapter 7: The extent of human power

Everything that is praiseworthy in a man must consist in his properly exercising the *power* that God has given him. This power is the ability that he is required to put to use, and he must give an account  $\cdot$  of his use of it $\cdot$  to God who committed it to his trust.

Some people are given more power than others, and a single person has more power at some times than at others. A person's •having power, •how much power he has, and •for how long he continues to have it, all depend entirely on what God chooses for that person; but everyone who is *accountable* must have more or less of it. For it would be absurd to call a person to account, to approve or disapprove of his conduct, if he had *no* power to do good or bad. No axiom in Euclid's geometry appears more evident than this.

Power is a valuable gift, .so it is important to have an accurate idea of how much power you have. •Underrating your power shows ingratitude to .God. who gave it to you; •overrating your power .is also bad, because it. generates pride and arrogance, and leads you to try things that you can't succeed in. So it's wise for every man to form an accurate estimate of his own power—'What the shoulders would refuse to bear, and what they have the strength for' [Reid gives this in Latin, quoting the poet Horace].

....Our only way of thinking of power is in relational terms—•thinking of some power as *the power to bring about such-and-such*—and so we can estimate the extent of human power only by the effects it can produce, •i.e. the things that people can do•.

It would be wrong to estimate the extent of human power by the effects that it has actually produced. For everyone has power to do many things that he didn't do, and power not to do many things that he did; if this weren't so, no rational being could approve or disapprove of anything he did.

The effects of human power divide into •the immediate effects and •the more remote ones.  $\cdot I$  shall discuss •the former for quite a while, turning to •the more remote effects of human power on page 26.

The immediate effects •of human power• fall, I think, into two groups: we can make our own bodies move in certain ways, and we can give a certain direction to our thoughts. Whatever we can do *beyond* these must be done *by means of* one or both of them—•by means of our bodily movements and/or of our thoughts•. We can't make any body in the universe move except by first moving our own body as an instrument, And we can't produce thought in anyone else except by means of thought and movement in ourselves,

Our power to move our own body is not only limited in its extent but is also inherently subject to mechanical laws. It can be compared to a spring that has the power of contracting or expanding itself, but which can't contract without pulling equally at both ends, and can't expand without pushing equally at both ends; so that every action of the spring is accompanied by an equal reaction in the opposite direction. We can *conceive* of a man having the power to move his whole body in any direction without help from any other body, or to move one part of his body without help from any other part. But nobody actually *has* such a power—science teaches us this.

If you take your whole body in some direction with a certain quantity of motion, you can do this only by pushing the earth or some other body with an equal quantity of motion in the opposite direction.

Even if you merely stretch out your arm in one direction, the rest of your body is pushed with an equal quantity of motion in the opposite direction. This holds for all animal and voluntary movements that we can observe. They are performed by the contraction of certain muscles; and when a muscle is contracted it pulls equally at both ends.

What about the motions that *precede* contraction of the muscle and *follow* the volition of the animal?  $\cdot$ I decide to raise my arm, then my arm goes up; what happens in between? We don't know; we can say nothing about those intervening motions. We don't even know how those immediate effects of our power—whatever they may be-—are produced by our willing them. We can't see any necessary connection between the volition and exercise-of-power on our part and the motion of our body that follows them.

Anatomists tell us that

every voluntary motion of our body is performed by the contraction of certain muscles,

and that

the muscles are contracted by some influence coming from the nerves.

But we can will the external effect without giving the slightest thought to nerves or muscles, and our act of willing sets the machinery going and leads to the willed external effect. •For example, I decide to *raise my arm right now*, and at once my arm goes up; my willing has started up a process in the nerves, leading to one in the muscles, leading to the movement I wanted to make; and all this has been kicked off by my mental act of will—yet that act didn't involve the faintest thought of nerves or muscles•. This is one of the wonders of our make-up, which we have reason to puzzle over but which is beyond the reach of our understanding to explain. [In the next paragraph Reid uses the word 'occasion'. So-called 'occasionalists' held that mental volitions don't •cause movements of matter, but are •regularly associated with them because God takes the occurrence of such-and-such a volition as the prompt or •occasion for *him* to cause the willed movement. This is clearly what Reid has in mind, though he writes not of 'God' but merely of 'some other efficient'. Malebranche and other occasionalists held that mental events can't possibly cause *physical* ones; Reid, we shall see a bit later, sees the case for occasionalism as broader than that, arising from our not understanding how mental events can cause *mental* events.]

There is an established harmony between •our willing certain motions of our bodies and •the operation of the nerves and muscles that produces those motions; this is a fact we know from experience. The volition is an act of the mind. Does this act of the mind have any *real effect* on the nerves and muscles, or is it only an *occasion* of their being acted on by some other efficient •cause • according to the established laws of nature? The answer to that is hidden from us; which is a measure of how *dark* our conception of our own power turns out to be when we dig down into it.

We have good reason to believe that matter had its •origin from mind, as well as all its •motions; but we don't understand how it is moved by mind, any more than we know how it was created  $\cdot$ by mind when God willed *Let there be matter* $\cdot$ .

For all we know to the contrary, what we call 'the immediate effects' of our power may really not be effects in the strictest sense. Between the will to produce the effect and the production of it there may be  $\cdot$ intermediate $\cdot$  agents or instruments of which we know nothing.

This may leave some doubt as to whether we are in the strictest sense the *efficient cause* of the voluntary motions of our own body. But it can't produce doubt concerning the moral estimation of our actions. A man who knows

that such-and-such an event *depends on* his will, and who deliberately wills to produce it, is in the strictest *moral* sense the 'cause' of the event; and it is justly attributed to him, whatever real causes may have gone along with its production.

Consider someone who maliciously intends to shoot his neighbour dead, and voluntarily does it. He is undoubtedly the cause of the man's death, even though all he did to bring it about was to pull the trigger of the gun. He didn't give the bullet its velocity, or the powder its expansive force, or the flint and steel the power to make a spark; but he knew that what he did was bound to be followed by the man's death, and he did it with that intention; so it is fair to accuse him of murder.

Philosophers can therefore carry on with their harmless disputes over whether we are the •proper efficient causes of the voluntary motions of our own body or whether—as Malebranche thinks—we are only their •occasional 'causes'. The answer to this question, even if we could get it, can't have any effect on human conduct  $\cdot$  or on our judgments on human conduct $\cdot$ .

The other part of what is immediately in our power is giving a certain direction to our own thoughts. This power is limited in various ways (just as the power to move our bodies is limited). Some people have more of this kind of power than others do, and even in one person its level varies from time to time, depending on the health of his body and the state of his mind. But when we are free from disease of body and of mind we have a considerable degree of power of this kind, and can greatly increase it by practice and habit; experience teaches us this, and it's also something that we all just naturally believe.

If we looked in detail into the connection between our volitions and the direction of our thoughts that obeys these

volitions, if we thought about *how* we are able to attend to one topic of thought for a certain time and turn our attention to another when we choose, we might find it hard to decide whether the mind itself is the sole efficient cause of those voluntary changes in the direction of our thoughts or whether it needs the help of other efficient causes.

I see no good reason why the dispute about efficient and occasional causes shouldn't extend to the power of directing our thoughts as well as to the power of moving our bodies. In each case, the dispute seems to be endless, and if it could be brought to a settlement it would be useless.

Nothing appears more evident to our reason than that there must be an efficient cause of every change that happens in nature. But when I try to understand *how* an efficient cause operates, whether on body or on mind, I encounter a darkness that my faculties cannot penetrate.

However small the immediate effects of human power seem to be, its more remote effects are very considerable. In this respect, a man's power may be compared to a great river such as the Nile or the Ganges. A great river cuts a channel on the earth's surface, crossing vast regions and bringing to many nations great benefit sometimes and at other times great harm; yet when we trace it back to it source we find that it arises from some little spring or creek.

Think of the command of a mighty monarch: what is it but the sound of his breath, modified by his organs of speech? But it can have great consequences; it can raise armies, equip fleets, and spread war and desolation over a great part of the earth. The most insignificant person has considerable power to do good, and *even more*  $\cdot$ *power* $\cdot$  *to hurt himself and others*.

 $\cdot$ The italicised phrase is important $\cdot$ . Mankind's degeneracy is great, and a fit subject for sorrow; and yet  $\cdot$ there are grounds for cheerfulness, because $\cdot$  men in general are more disposed to use their power in doing good for their fellow men than in harming them. Harm is much more in men's power than doing good is; and if they were as much disposed to do harm as to do good, human society couldn't survive, and our species would soon perish from the earth.

Let us now consider the effects that can be produced by the exercise of human power on the world of matter.

It is confined to the planet that we inhabit: we can't get to any other, and we can't produce any change in the annual or daily movements of our own planet. But through human power great changes can be made on the face of the earth; and treasures of metals and minerals that are stored up in the earth's bowels can be discovered and extracted.

No doubt God could have made the earth supply the wants of man without any input from human labour. Many lower animals that don't plant or sow or spin are provided for by Heaven's generosity. But this isn't the case with us.

We have been given active powers and ingenuity, through which we can do a lot towards getting what we lack; and our labour has been made necessary for that purpose. Our needs are greater than those of any other animal on this globe, and our resources are proportionally greater too, and have been put within reach of our power. The earth has been left by nature in such a state that it needs to be worked on if it is to meet our needs and desires.

In most places the earth is *so* capable of cultivation that human labour can get from it a hundred times as much nourishment as it could provide in its natural state.

Every tribe of men in every climate must work for their food and other necessities and conveniences; and their supply is more or less comfortable in proportion to how hard and well they have worked for it.

Nature has evidently intended that man should be hardworking, and that he should exercise his powers of body and mind for his own good and for the common good. By his power, properly used, he can greatly improve the earth's fertility, and greatly add to his own comfort and convenience.

By clearing, tilling, and manuring the ground, by planting and sowing, by building cities and harbours, draining marshes and lakes, making rivers navigable and joining them by canals, by processing the raw materials which the earth when properly worked on produces in abundance, by exchanging work for pay, man can create rich and populous states in what was formerly barren wilderness.

If we compare the city of Venice, the province of Holland, or the empire of China, with those places on earth that have never been worked on, we can get some idea of the extent of human power on the world of matter, in changing the face of the earth and furnishing the things needed for human life.

In order to produce those fine changes, however, man himself must be improved.

His •animal faculties—•of perception, movement, and so on•—are sufficient for the preservation of the species; •and for their development these faculties don't need any special care•; they need only the force of nature and the influences of heaven. They grow up without help, like the trees of the forest!

Man's •rational and moral faculties, like the earth itself, are crude and barren by nature but capable of becoming highly developed. This development—this cultivation—must come from parents, from teachers, from other members of the society, all combined with the person's own hard work.

If we consider the changes that a man can make to  $\bullet$ his own mind and to  $\bullet$ the minds of others, they seem to be great.

He can make great improvements to •his own mind, storing up the treasures of useful knowledge, the habits of practical skills, the habits of wisdom, prudence, self-control, and every other virtue. It is built into our nature that proper exercises are needed for the qualities that uplift and dignify human nature, while contrary conduct generates qualities that debase human nature to something below the lower animals.

Great effects can be had even on •the minds of others, by means that lie within the scope of human power—such means as good up-bringing, proper education, persuasion, good example, and the discipline of laws and government.

It can't be doubted that these have often had great and good effects in civilizing and improving individuals and nations. But it is hard to imagine what happy effects they *would* have—how happy human society would become, how much the whole species would be improved—if these practices were applied everywhere and always with all the skill and dexterity that human wisdom and power are capable of.

What a noble—indeed, what a *divine*—employment of human power is assigned to us here ·by these thoughts·? How ought it to arouse the ambition of parents, of teachers, of lawgivers, of magistrates, of every man in his position in life, to contribute his part toward accomplishing that glorious end?

The power a man has over his own mind and the minds of others, when we  $\cdot$ try to $\cdot$  track it back to its origin, is wrapped in darkness, no less than his power to move his own and other bodies. How far we are truly efficient causes, how far occasional 'causes', I don't claim to say.

We know that *habit* produces great changes in the mind; but we don't know how it does so. We know that *example* has a powerful effect (an almost irresistible effect on the young), but we don't know how it produces this effect. The •communication of thought, sentiment and passion from one mind to another has something in it as mysterious as the •communication of motion from one body to another.

We perceive one event to follow another according to established laws of nature, and we are accustomed to call the first the 'cause' and the other the 'effect', without knowing what connection ties them together. In order to produce a certain event, we use means which by laws of nature are connected with that event; and we call ourselves the 'cause' of that event, though other efficient causes may have had the chief hand in producing it.

Summing up: human power depends on God, and on the laws of nature he has established, for its existence, its extent, and its exercise. This ought to banish pride and arrogance from the most mighty of the sons of men. At the same time, the amount of power we have received from the bounty of heaven is one of God's noblest gifts to man. We should be aware of it, so as not to be ungrateful, and so as to be stimulated to use it properly.

The extent of human power is perfectly suited to the state of man, as a state of improvement and discipline. It is sufficient to animate us to the noblest exercises. By the proper exercise of this gift of God, human nature, in individuals and in societies, can be lifted up to a high degree of dignity and happiness, and the earth can become a paradise. On the other side, the perversion and misuse of human power is the cause of most of the evils that afflict human life.