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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. --The 'volume' referred to at the outset contained the present work, the *Dissertation on the Passions* and the *Enquiry Concerning the Principles of Morals*, which were all published together.]

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Enquiry Concerning Human Understanding By David Hume

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Section 9: The reason of animals

All our reasonings about matters of fact are based on a sort of analogy, which leads us to expect from any cause the same outcome that we have observed to result from similar causes in the past. Where the causes are entirely alike, the analogy is perfect, and the inference drawn from it is regarded as certain and conclusive. Nobody who sees a piece of iron has the faintest doubt that it will have weight and its parts will hold together, like every other specimen of iron he has observed. But when the objects are not exactly alike, the analogy is less perfect and the inference is less conclusive, though still it has some force, in proportion to how alike the causes are. Observations about the anatomy of one 'species of' animal are by this kind of reasoning extended to all animals: when the circulation of the blood, for instance, is clearly shown to occur in one creature (e.g. a frog or a fish) that creates a strong presumption that blood circulates in all animals. This analogical kind of reasoning can be carried further, even into the kind of philosophy I am now presenting. Any theory by which we explain the operations of the understanding or the origin and connection of the passions in man will acquire additional authority if we find that the same theory is needed to explain the same phenomena in all other animals. I shall put this to the test with regard to the hypothesis through which I have been trying to explain all our reasonings from experience; and I hope that this new point of view - ·looking at the use animals make of what they learn from experience - will serve to confirm everything I have been saying.

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First, it seems evident that animals, like men, learn many things from experience, and infer that the same outcomes will always follow from the same causes. By this principle they become acquainted with the more obvious properties of external objects, and gradually store up a lifetime's stock of knowledge of the nature of fire, water, earth, stones, heights, depths, etc., and of the effects that result from the operation of these. The ignorance and inexperience of the young are here plainly distinguishable from the cunning and cleverness of the old, who have learned by long observation to avoid what has hurt them in the past, and to pursue what gave them ease or pleasure. A horse that has been accustomed to the hunt comes to know what height he can leap, and will never attempt what exceeds his force and ability. An old greyhound will leave the more tiring part of the chase to the younger dogs, and will position himself so as to meet the hare when she doubles back; and the conjectures that he forms on this occasion are based purely on his observation and experience.

This is still more evident from the effects of discipline and education on animals, who by the proper application of rewards and punishments can be taught any course of action, 'even' one that is contrary to their natural instincts and propensities. Isn't it experience that makes a dog fear pain when you threaten him or lift up the whip to beat him? Isn't it experience that makes him answer to his name, and infer from that arbitrary sound that you mean him rather than any of his fellows, and that when you pronounce it in a certain manner and with a certain tone and accent you intend to call him?

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In all these cases we see that the animal infers some fact beyond what immediately strikes his senses, and that this inference is entirely based on past experience, with the animal expecting from the present object the same consequences that it has always found in its observation to result from similar objects.

Secondly, this inference of the animal can't possibly be based on any process of argument or reasoning through which he concludes that similar outcomes must follow similar objects, and that the course of nature will always be regular in its operations. If there is anything in any arguments of this nature, they are surely too abstruse to be known by such imperfect understandings as those of animals, for it may well require the utmost care and attention of a philosophical genius to discover and observe them. So animals aren't guided in these inferences by reasoning; nor are children; nor are most people in their ordinary actions and conclusions; nor even are philosophers and scientists, who in all the practical aspects of life are mostly like the common people, and are governed by the same maxims. For getting men and animals from past experience to expectations for the future, nature must have provided some other means than reasoning - some more easily available and usable device. An operation of such immense importance in life as that of inferring effects from causes couldn't be trusted to the uncertain process of reasoning and argumentation. And even if you doubt this with regard to men, it seems to be unquestionably right with regard to animals; and once the conclusion is firmly established for them, we have a strong presumption from all the rules of analogy that it ought to be confidently accepted as holding universally, with no exceptions. It is custom alone that gets animals when an object strikes their senses to infer its usual attendant, and carries their imagination, from the appearance of the object, to conceive the attendant in that special manner that we call belief. No other explanation can be given of this operation in all classes of sensitive beings - higher as well as lower - that fall under our notice and observation.¹³

¹³ Since all reasonings concerning facts or causes is derived merely from custom, it may be asked how it comes about that men reason so much better than animals do, and that one man reasons so much better than another? Hasn't the same custom the same influence on all? I'll try here to explain briefly the great difference in human understandings. Then it will be easy to see the reason for the difference between men and animals.

^{1.} When we have long enough to become accustomed to the uniformity of nature, we acquire a general habit of judging the unknown by the known, and conceiving the former to resemble the latter. On the strength of this general habitual principle we are willing to draw conclusions from even one experiment, and expect a similar event with some degree of certainty, where the experiment has been made accurately and is free of special distorting circumstances. It is therefore considered as a matter of great importance to observe the consequences of things; and as one man may very much surpass another in attention and memory and observation, this will make a very great difference in their reasoning.

^{2.} Where many causes combine to produce some effect, one mind may be much larger than another, and therefore better able to take in the whole system of objects, and therefore to draw correct conclusions from them.

^{3.} One man can carry on a chain of consequences to a greater length than another.

^{4.} Few men can think for long without running into a confusion of ideas, and mistaking one idea for another. Men differ in how prone they are to this trouble.

^{5.} The circumstance on which the effect depends is often combined with other circumstances having nothing to do with that effect. The separation of the one from the others often requires great attention, accuracy, and subtlety.

^{6.} The forming of general maxims from particular observations is a very delicate operation; and all too often people make mistakes in performing it, because they go too fast or because they come at it in a narrow-minded manner which prevents them from seeing all sides.

^{7.} When we reason from analogies, the man who has the greater experience or is quicker in suggesting analogies will be the better reasoner.

^{8.} Biases from prejudice, education, passion, party, etc. hang more upon one mind than another.

But though animals get much of their knowledge from observation, many parts of it were given to them from the outset by nature. These far outstrip the abilities the animals possess on ordinary occasions, and in respect of them the animals make little or no improvement through practice and experience. We call these *instincts*, and we are apt to wonder at them as something very extraordinary, something that can't be explained by anything available to us. But our wonder will perhaps cease or diminish when we consider that the reasoning from experience which we share with the beasts, and on which the whole conduct of life depends, is itself nothing but a sort of instinct or mechanical power that acts in us without our knowing it, and in its chief operations isn't directed by any such relations or comparisons of ideas as are the proper objects of our intellectual faculties. Between flame and pain, for instance, there is no relation that the intellect can do anything with, no comparison of ideas that might enter into a logical argument. An instinct •teaches a bird with great exactness how to incubate its eggs and to manage and organize its nest; an instinct •teaches a man to avoid the fire; they are different instincts, but they are equally *instincts*.

Section 10: Miracles

Part 1

Dr. Tillotson's writings contain an argument against the real presence of the body and blood of Christ in the bread and wine of the Eucharist. It is as concise, elegant, and strong as any argument can possibly be against a doctrine that is so far from deserving a serious refutation. The learned prelate argues as follows:

Everyone agrees that the authority of the scripture and of tradition rests wholly on the testimony of the apostles who were eye-witnesses to those miracles of our saviour by which he proved his divine mission. So our evidence for the truth of the Christian religion is less than the evidence for •the truth of our senses, because even in the first authors of our religion the evidence was no better than •that, and obviously it must lose strength in passing from them to their disciples; nobody can rest as much confidence in their testimony as in the immediate object of his senses. But a weaker evidence can never destroy a stronger; and therefore, even if the doctrine of the real presence were ever so clearly revealed in scripture, it would be directly contrary to the rules of sound reasoning to give our assent to it. It contradicts our senses •which tell us that the bread isn't flesh and the wine isn't blood; yet both the scripture and the tradition on which the doctrine is supposed to be built have less evidential power than the senses have - when they are considered merely as external evidences, that is, and are not brought home to everyone's breast by the immediate operation of the Holy Spirit.

Nothing is so convenient as a decisive argument of this kind, which, 'even if it doesn't *convince* the opposition', must at least *silence* the most arrogant bigotry and superstition, and free us from being pestered by them. I flatter myself that I have discovered a similar argument - one which, if it is sound, will serve wise and learned people as a permanent barrier to all kinds of superstitious delusion, and consequently will be useful as long as the world lasts. I presume that that is how long histories, sacred and secular, will continue to give accounts of miracles and prodigies! [In this

section Hume uses 'prodigy' to mean 'something amazing, extraordinary, abnormal, or the like'; similarly 'prodigious'.]

Though experience is our only guide in reasoning concerning matters of fact, it must be admitted that this guide is not altogether infallible, but in some cases is apt to lead us into errors. If someone in our climate expects better weather in any week of June than in one of December, he reasons soundly and in conformity with experience; but he certainly *may* find in the upshot that he was mistaken. We may observe, though, that in such a case he would have no cause to complain of experience; because it commonly informs us of such uncertainty in advance, by presenting us with conflicting outcomes that we can learn about by attending carefully. Not all effects follow with the same certainty from their supposed causes. Some events are found in all countries and all ages to have been constantly conjoined together: Others are found to have been more variable, and sometimes to disappoint our expectations; so that in our reasonings about matters of fact there are all imaginable degrees of assurance, from the highest certainty to the weakest kind of probable evidence.

In Hume's day, an 'experiment' didn't have to be something deliberately contrived to test some hypothesis. An 'experiment' that you have observed may be merely an experience that you have had and attended to. A wise man, therefore, proportions his belief to the evidence. In conclusions that are based on an infallible experience, he expects the outcome with the highest degree of assurance, and regards his past experience as a full proof of the future existence of that outcome. In other cases he proceeds with more caution: he weighs the opposite experiments; he considers which side is supported by the greater number of experiments; he leans to that side, with doubt and hesitation; and when at last he fixes his judgment, his support for it doesn't exceed what we properly call *probability*. All probability, then, presupposes an opposition of experiments and observations, where one side is found to overbalance the other and to produce a degree of evidence proportioned to the superiority. We can have only a doubtful expectation of an outcome that is supported by a hundred instances or experiments and contradicted by fifty; though a hundred uniform experiments with only one that is contradictory reasonably generate a pretty strong degree of assurance. In all cases where there are opposing experiments, we must balance them against one another and subtract the smaller number from the greater in order to know the exact force of the superior evidence.

Let us apply these principles to a particular instance. No kind of reasoning is more common or more useful - even necessary - to human life than the kind derived from the testimony of men and the reports of eye-witnesses and spectators. Perhaps you will deny that this kind of reasoning is based on the relation of cause and effect. Well, I shan't argue about a word. All that I need ·for my line of thought is that our confidence in any argument of this kind is derived wholly from our observation of •the truthfulness of human testimony and of •how facts usually conform to the reports witnesses give of them. It is a general maxim that no objects have any discoverable ·necessary· connection with one another, and that all the inferences we can draw from one to another are based merely on our experience of their constant and regular conjunction; so we clearly oughtn't to make an exception to this maxim in favour of human testimony, because there is as little necessary connection between testimony and fact as between any pair of items. •If memories were not tenacious to a certain degree; •if men didn't commonly have an inclination to truth and a drive towards honesty; •if they were not given to shame when detected in a falsehood - if all these were not found by experience to be qualities inherent in human nature, •we would never have the least confidence in human testimony. The word of a man who is delirious, or is known for his falsehood and villainy, carries no weight with us.

Because the evidence derived from witnesses and human testimony is based on past experience, it varies with the experience, and is regarded either as a *proof* or as a *probability*, depending on whether the association between the kind of report in question and the kind of fact it reports has been found to be constant or variable. There are several circumstances to be taken into account in all judgments of this kind; and the final standard by which we settle any disputes that may arise concerning them is always based on experience and observation. In cases where this experience doesn't all favour one side, there's bound to be contrariety in our judgments, with the same opposition and mutual destruction of argument as occurs with every other kind of evidence. We often hesitate to accept the reports of others. We balance the opposing circumstances that cause any doubt or uncertainty, and when we find a superiority on one side we lean that way, but still with a lessened assurance in proportion to the force of its antagonist.

When human testimony is in question, the contrariety of evidence may come from several different causes: from the opposition of contrary testimony, from the character or number of the witnesses, from their manner of delivering their testimony, or from all of these together. We entertain a suspicion concerning any matter of fact when the witnesses contradict each other, when there are few of them or they are of a doubtful character, when they have something to gain by their testimony, when they deliver their testimony with hesitation or with over-violent confidence. Many other factors like these can reduce or destroy the force of an argument derived from human testimony.

Consider, for instance, testimony that tries to establish the truth of something extraordinary and astonishing. The value of this testimony as evidence will be greater or less in proportion as the fact that is attested to is less or more unusual. We believe witnesses and historians not because we of any *connection* that we perceive *a priori* between testimony and reality, but because we are accustomed to find a conformity between them. But when the fact attested is of a sort that we have seldom observed, we have a contest between two opposite experiences; one of these uses up some of its force in destroying the other, and can then operate on the mind only with the force that then remains to it. In a case like this, the very same principle of experience that gives us a certain degree of assurance in the testimony of witnesses also gives us another degree of assurance against the claim which the witnesses are trying to establish; and from that contradiction there necessarily arises a balanced stand-off, and mutual destruction of belief and authority.

'I wouldn't believe such a story were it told me by Cato' was a proverbial saying in Rome, even during the lifetime of that philosophical patriot. The incredibility of a claim, it was allowed, might invalidate even such a great authority as Cato.

The Indian prince who refused to believe the first accounts he heard of frost reasoned soundly, and it naturally required very strong testimony to get him to accept facts arising from a state of nature which he had never encountered and which bore so little analogy to events of which he had had constant and uniform experience. Though they were not contrary to his experience, these facts - involving freezing cold - didn't conform to it either. 14

¹⁴ Obviously, the Indian couldn't have had experience of water's not freezing in cold climates. This is placing nature in a situation quite unknown to him; and it is impossible for him to tell *a priori* what will result from it. It is making a new experiment, the outcome of which is always uncertain. One may sometimes conjecture from analogy what will follow, but still this is *only* conjecture. And it must be confessed that in the present case of freezing, the outcome of making water very cold runs contrary to the rules of analogy, and is not something that a rational Indian would expect. The operations of cold upon water are not gradual, according to the degrees of cold; but whenever water reaches the freezing point it passes in a moment from the utmost liquidity to perfect hardness. An event like this can be called *extraordinary*, therefore, and requires a pretty strong testimony if people in a warm

But in order to increase the probability against the testimony of witnesses, let's take a case where •the fact which they affirm, instead of being only extraordinary, is really miraculous; and where •the testimony, considered apart and in itself, amounts to an entire proof ·because the witnesses have been found to be reliable, there is nothing suspicious about the manner of their testimony, they have nothing to gain by it, and so on. In this case, there is •proof against •proof, of which the stronger must prevail, but still with a lessening of its force in proportion to the force of the opposing side.

A miracle is a violation of the laws of nature; and because firm and unalterable experience has established these laws, the case against a miracle is - just because it is a miracle - as complete as any argument from experience can possibly be imagined to be. Why is it more than merely probable that *all men must die*, that *lead cannot when not supported remain suspended in the air*, that *fire consumes wood and is extinguished by water*, unless it is that these events are found agreeable to the laws of nature, and for things to go differently there would have to be a violation of those laws, or in other words a miracle? Nothing is counted as a miracle if it ever happens in the common course of nature. When a man who seems to be in good health suddenly dies, this isn't a miracle; because such a kind of death, though more unusual than any other, has yet often been observed to happen. But *a dead man's coming to life* would be a miracle, because that has never been observed in any age or country. So there must be a uniform experience against every miraculous event, because otherwise the event wouldn't count as a 'miracle'. And as a uniform experience amounts to a proof, we have here a direct and full proof against the existence of any miracle, just because it's a miracle; and such a proof can't be destroyed or the miracle made credible except by an opposite proof that is even stronger.¹⁵

This clearly leads us to a general maxim that deserves of our attention:

No testimony is sufficient to establish a miracle unless it is of such a kind that its falsehood would be more miraculous than the fact that it tries to establish. And even in that case there is a mutual destruction of arguments, and the stronger one only gives us an assurance suitable to the force that remains to it after the force needed to cancel the other has been subtracted.

climate are to believe it. But still it is not *miraculous*, or contrary to uniform experience of the course of nature in cases where all the circumstances are the same. The inhabitants of Sumatra have always seen water fluid in their own climate, and the freezing of their rivers ought to be deemed to be something extraordinary; but they never saw water in Russia during the winter; and therefore they cannot reasonably be positive about what the upshot of that would be.

15 Sometimes an event may not *in itself* seem to be contrary to the laws of nature, and yet if it really occurred it might be called a miracle because *in those circumstances* it is in fact contrary to these laws. For example, if a person who claimed to have a divine authority were to command a sick person to be well, a healthy man to fall down dead, the clouds to pour rain, the winds to blow - in short, if he were to order many natural events which did then occur immediately after his command - these might reasonably be thought to be miracles, because they really are *in this case* contrary to the laws of nature. If there is any suspicion that the event followed the command by accident, there is no miracle and no breaking of the laws of nature. If that suspicion is removed, then clearly there is a miracle and a breaking of those laws; because nothing can be more contrary to nature than that the voice or command of a man should have such an influence. A 'miracle' may be accurately defined as *a breaking of a law of nature by a particular act of God's will or by the interposition of some invisible agent.* A miracle may be discoverable by men or not - that makes no difference to its nature and essence. The raising of a house or ship into the air is a visible miracle. The raising of a feather, when the wind is ever so slightly less strong that is needed to raise it naturally, is just as real a miracle, though we can't see it as such.

When anyone tells me that he saw a dead man restored to life, I immediately ask myself whether it is more probable that •this person either deceives or has been deceived or that •what he reports really has happened. I weigh one miracle against the other, and according to the superiority which I discover I pronounce my decision and always reject the greater miracle. If the falsehood of his testimony would be more miraculous than the event that he relates, then he can claim to command my belief or opinion, but not otherwise.

Part 2 (of Section 10)

In the foregoing reasoning I have supposed that the testimony on which a miracle is founded may possibly amount to an entire proof, and that the falsehood of that testimony would be a real prodigy. But it's easy to show that this was conceding far too much, and that there never was a miraculous event established on evidence as good as that.

For, *first*, never in all of history has a miracle been attested by •a sufficient number of men, of such unquestioned good sense, education, and learning as to guarantee that they aren't deluded; •of such undoubted integrity as to place them beyond all suspicion of wanting to deceive others; •of such credit and reputation in the eyes of mankind as to have much to lose if they were found to have told a falsehood; •and at the same time testifying to events - ·the reported miracle· -that occurred in such a public manner and in such a famous part of the world as to make the detection ·of any falsehood· unavoidable. All these conditions must be satisfied if we are to be completely confident of the testimony of men.

Secondly. We may observe in human nature a principle which, if strictly examined, will be found to reduce greatly the confidence that human testimony can give us in the occurrence of any kind of prodigy. In our reasonings we commonly conduct ourselves in accordance with the maxim:

The objects of which we have no experience resemble those of which we have; what we have found to be most usual is always most probable; and where there is an opposition of arguments, we ought to give the preference to such as are founded on the greatest number of past observations.

This rule leads us to reject at once any testimony whose truth would be unusual and incredible in an ordinary degree; but higher up the scale the mind doesn't always stick to the same rule, for when something is affirmed that is utterly absurd and miraculous, the mind the more readily accepts it on account of the very feature of it that ought to destroy all its authority! The surprise and wonder that arise from miracles is an agreeable emotion, and that makes us tend to believe in events from which it is derived. And this goes so far that even those who can't enjoy this pleasure immediately, because they don't believe in those miraculous events of which they are informed, still love to partake in the satisfaction at second-hand or by rebound, and take pride and delight in arousing the wonder of others.

How greedily the miraculous accounts of travellers are received - their descriptions of sea and land monsters, their tales of wonderful adventures, strange men, and crude customs! But when the spirit of religion is joined to the love of wonder, there is an end of common sense; and human testimony in these circumstances loses all claims to authority. A religionist •may be a wild fanatic, and imagine he sees something that isn't there; •he may know his narrative to be false, and yet persevere in it with the best intentions in the world for the sake of promoting so holy a cause; and even where this delusion ·about promoting a cause· isn't at work, •his vanity - encouraged by such a strong temptation - operates on him more powerfully than on other people in other circumstances; and •his self-interest operates with equal force. His hearers may not have,

and commonly do not have, sufficient judgment to examine his evidence critically; and what judgment they do have they automatically give up in these lofty and mysterious subjects; or if they are willing - even very willing - to employ their judgment, its workings are upset by emotions and a heated imagination. Their credulity increases the impudence of the person relating the miracle, and his impudence overpowers their credulity.

Eloquence, when at its highest pitch, leaves little room for reason or reflection; it speaks only to the imagination or to feelings, captivates the willing hearers, and subdues their understanding. Fortunately, it seldom gets as far as that. But what a Tully or a Demosthenes could scarcely do to a Roman or Athenian audience, every itinerant or stationary teacher can do to the generality of mankind, and in a higher degree, by touching such crude and common emotions.

The many instances of forged miracles and prophecies and supernatural events which, in all ages, either have been exposed by contrary evidence or have exposed themselves by their absurdity show well enough mankind's great liking for the extraordinary and the marvellous, and ought make us suspicious of all such tales. This is our natural way of thinking, even with regard to the most common and most credible events. For instance, there is no kind of report that rises so easily and spreads so quickly - especially in country places and provincial towns - as those concerning marriages; to such an extent that two young persons from the same level of society have only to see each other twice for the whole neighbourhood immediately to join them together! The story is spread through the pleasure people get from telling such an interesting piece of news, of propagating it, and of being the first to tell it. And this is so well known that no sensible person pays any attention to these reports until he finds them confirmed by some better evidence. Well, now, don't the same passions - and others still stronger - incline most people to believe and report, forcefully and with confidence, all religious miracles?

Thirdly. It counts strongly against all reports of supernatural and miraculous events that they chiefly occur among ignorant and barbarous nations; and if a civilized people has ever accepted any of them, that people will be found to have received them from ignorant and barbarous ancestors who transmitted them with the 'you-had-better-believe-this' sort of authority that always accompanies received opinions. When we read the earliest history of any nation, we are apt to imagine ourselves transported into some new world where the whole frame of nature is disjointed, and every element works differently from how it does at present. Battles, revolutions, pestilence, famine, and death, are never - in such a history - the effect of those natural causes that we experience. Prodigies, omens, oracles, and judgments push into the shadows the few natural events that are intermingled with them. But as the prodigies etc. grow thinner page by page as we advance towards the enlightened ages, we soon learn that nothing mysterious or supernatural was going on, that it all came from mankind's usual liking for the marvellous, and that although this inclination may occasionally be held back by good sense and learning, it can never be thoroughly erased from human nature.

A judicious reader of these wonderful historians may think: 'It is strange that such prodigious events never happen in our days.' But you don't find it strange, I hope, that *men lie* in all ages. You must surely have seen instances enough of that frailty. You have yourself heard many such marvellous stories started and then, having been treated with scorn by all the wise and judicious, finally abandoned even by the common people. You can be sure that the famous lies that have spread and grown to such a monstrous height arose from similar beginnings; but being sown in better soil, *they* shot up at last into prodigies almost equal to the ones they tell of.

It was a wise policy in that false prophet Alexander of Abonoteichos - now forgotten, once famous - to begin his impostures in Paphlagonia, where the people were extremely ignorant and stupid, and ready to swallow even the crudest delusion. People at a distance who are weak-minded enough to think the matter worth looking into have no access to better information. The stories reach them magnified by a hundred circumstances. Fools are busy propagating the imposture, while the wise and learned are mostly content to laugh at its absurdity without informing themselves of the particular facts that could be used to refute it clearly. That's what enabled Alexander to move on from his ignorant Paphlagonians to enlist believers even among the Greek philosophers and men of the most eminent rank and distinction in Rome - indeed, to engage the attention of that wise emperor Marcus Aurelius to the point where he entrusted the success of a military expedition to Alexander's delusive prophecies.

The advantages of starting an imposture among an ignorant populace are so great that, even if the delusion is too crude to impose on most of them (which it sometimes is, though not often), it has a much better chance of success in remote countries than it would if it had first been launched in a city renowned for arts and knowledge. In the former case, the most ignorant and barbarous of the barbarians carry the report abroad. None of their countrymen have a large correspondence, or sufficient credit and authority to contradict the delusion and beat it down. Men's liking for the marvellous has full opportunity to display itself. And thus a story that is universally exploded in the place where it began is regarded as certainly true a thousand miles away. But if Alexander had lived in Athens, the philosophers in that renowned market of learning would immediately have spread their sense of the matter throughout the whole Roman empire; and this, being supported by so great an authority and displayed by all the force of reason and eloquence, would have entirely opened the eyes of mankind. It is true that Lucian, happening to pass through Paphlagonia, had an opportunity of doing this good service to mankind. But desirable though it is, it doesn't always happen that every Alexander meets with a Lucian who is ready to expose and detect his impostures.

Here is a *fourth* reason that lessens the authority of reports of prodigies. There is no testimony for any prodigy, even among those that haven't been outright shown to be false, that isn't opposed by an infinite number of witnesses; so that not only does the miracle destroys the credit of testimony, but the testimony destroys itself. To understand why this is so, bear in mind that in matters of religion whatever is different is contrary, and the religions of ancient Rome, of Turkey, of Siam, and of China can't possibly all rest on solid foundations. Every miracle that is claimed to have been performed in any of these religions (and all of them abound in miracles) is directly aimed at establishing the particular system to which it is attributed; so has it the same force, though more indirectly, to overthrow every other system. In destroying a rival system, it likewise destroys the credit of those miracles on which that system was established; so that all the prodigies of different religions are to be regarded as contrary facts, and the evidences of these prodigies, whether weak or strong, as opposite to each other. When we believe any miracle of Mahomet or his successors, we rely on the testimony of a few barbarous Arabs; and on the other side there is the authority of Livy, Plutarch, Tacitus, and all the authors and witnesses - Greek, Chinese, and Roman Catholic - who have told of any miracle in their particular religion. According to the line of thought I have been presenting, we should regard the testimony of all these in the same way as if they had mentioned that Mahometan miracle and had explicitly contradicted it with the same certainty as they have for the miracle they tell of. This argument may appear over subtle and refined, but really it's just the same as the reasoning of a judge who

supposes that the credit of two witnesses alleging a crime against someone is destroyed by the testimony of two others who affirm that when the crime was committed the accused person was two hundred leagues away.

One of the best attested miracles in all non-religious history is the one that Tacitus reports of the Emperor Vespasian, who cured a blind man in Alexandria by means of his spittle and a lame man by the mere touch of his foot, in obedience to a vision of the god Serapis who had told these men to go to the emperor for these miraculous cures. The story may be seen in the work of that fine historian, where every detail seems to add weight to the testimony. The story could be presented at length, with all the force of argument and eloquence, if anyone now wanted to strengthen the case for that exploded and idolatrous superstition. We can hardly imagine stronger evidence for so crude and obvious a falsehood. Its strength comes from four factors. • The gravity, solidity, age, and probity of so great an emperor, who through the whole course of his life conversed in a familiar manner with his friends and courtiers and never put on those extraordinary airs of divinity assumed by Alexander [the Great] and Demetrius. •The historian, a contemporary writer known for his candour and truthfulness, as well as having perhaps the greatest and most penetrating intellect of all antiquity; and free from any tendency to credulity - so much so that he has been subjected to the opposite charge of atheism and irreligion. •The persons from whose authority Tacitus reported the miracle, who were presumably of established character for good judgment and truthfulness; they were eye-witnesses of the fact, and continued to attest to it after Vespasian's family lost the empire and could no longer give any reward in return for a lie. •The public nature of the facts, as related.

There is also a memorable story told by Cardinal de Retz, which may well deserve our consideration. When that devious politician fled into Spain to avoid the persecution of his enemies, he passed through Saragossa, the capital of Arragon, where he was shown in the cathedral a man who had served seven years as a door-keeper, and was well known to everybody in town who had ever attended that church. He had been seen for a long time lacking a leg, but he recovered that limb by rubbing holy oil on the stump; and the cardinal assures us that he saw him with two legs. This miracle was vouched for by all the canons of the church; all the people in the town were appealed to for a confirmation of the fact; and their zealous devotion showed the cardinal that they were thorough believers in the miracle. Here the person who reported the supposed prodigy was contemporary with it, and was of an incredulous and libertine character, as well as having a great intellect so that he isn't open to suspicion of religious fraud or of stupidity. And the 'supposed' miracle was of a special sort that could hardly be counterfeited, and the witnesses were very numerous, and all of them were in a way spectators of the fact to which they gave their testimony. And what adds enormously to the force of the evidence, and may double our surprise on this occasion, is that the cardinal himself (who relates the story) seems not to believe it, and consequently can't be suspected of going along with a holy fraud. He rightly thought that in order to reject a factual claim of this nature it wasn't necessary to be able to disprove the testimony and to trace its falsehood through all the circumstances of knavery and credulity that produced it. He knew that just as this was commonly altogether impossible at any small distance of time and place, so was it extremely difficult even when one was immediately present, because of the bigotry, ignorance, cunning, and roguery of a great part of mankind. He therefore drew the sensible conclusion that evidence for such an event carried falsehood on the very face of it, and that a miracle supported by human testimony was something to laugh at rather than to dispute.

There surely never was a greater number of miracles ascribed to one person than those that were recently said to have been performed in France on the tomb of Abbé Paris, the famous Jansenist whose sanctity for so long used to delude the people. The curing of the sick, giving hearing to the deaf and sight to the blind, were everywhere talked of as the usual effects of that holy tomb. But what is more extraordinary is this: many of the miracles were immediately proved [= 'critically examined'] on the spot, before judges of unquestioned integrity, attested by witnesses of credit and distinction, at a time when learning flourished and on the most eminent platform in the world. Nor is this all. An account of them was published and dispersed everywhere; and the Jesuits, though a learned body supported by the civil magistrate, and determined enemies to the opinions in whose favour the miracles were said to have been performed, were never able clearly to refute or expose them. Where shall we find such a number of circumstances converging in the

Another book in three volumes, called *Compendium of the Miracles of the Abbé Paris*, gives an account of many of these miracles, along with well-written discussions of them. But through all of these there runs a ridiculous comparison between the miracles of our Saviour and those of the Abbé, with the assertion that the evidence for the latter is equal to the evidence for the former - as if the testimony of *men* could ever be put in the balance with that of *God himself* who directed the pen of the inspired writers of the Bible. If the Biblical writers were to be considered merely as human testimony, the French author would count as very moderate in his comparison of the two sets of miracles; for he could make a case for claiming that the Jansenist miracles are supported by much stronger evidence and authority than the Biblical ones. Here are some examples, taken from authentic documents included in the above-mentioned book.

Many of the miracles of Abbé Paris were testified to immediately by witnesses before the bishop's court at Paris, under the eye of Cardinal Noailles, whose reputation for integrity and ability was never challenged even by his enemies.

His successor in the archbishopric was an enemy to the Jansenists, which is why he was promoted to the archbishopric by the court. Yet twenty-two Parisian priests earnestly urged him to look into those miracles which they said were known to the whole world and were indisputably certain; but he wisely forbore to do so.

The Molinist party had tried to discredit these miracles in the case of Mademoiselle Le Franc. But their proceedings were highly irregular in many ways, especially in citing only a few of the Jansenist witnesses, and in tampering with them. Besides all this, they soon found themselves overwhelmed by a cloud of new witnesses, one hundred and twenty in number, most of them persons of credit and substance in Paris, who swore to the reality of the miracle. This was accompanied by a solemn and earnest appeal to the parliament. But the parliament was forbidden by authority to meddle in the affair. It was eventually seen that when men are heated by zeal and enthusiasm, any degree of human testimony - as strong as you like - can be procured for the greatest absurdity; and those who will be so silly as to examine the affair in that way, looking for particular flaws in the testimony, are almost sure to be confounded. It would be a miserable fraud indeed that could not win in *that* contest!

Anyone who was in France at about that time will have heard of the reputation of Monsieur Heraut, a police lieutenant whose vigilance, penetration, activeness and extensive intelligence have been much talked of. This law officer, whose position gave him almost absolute power, was given complete power to suppress or discredit these miracles, and he frequently questioned people who saw them or were the subjects of them; but he could never find anything satisfactory against them.

In the case of Mademoiselle Thibaut he sent the famous De Sylva to examine her. His evidence is very interesting. The physician declares that she cannot have been as ill as the witnesses testify she was, because she could not in so short a time have recovered and become as healthy as he found her to be. He reasoned in a sensible way from natural causes; but the opposite party told him that the whole event was a miracle, and that his evidence was the very best proof of that.

The Molinists were in a sad dilemma. They dared not assert that human testimony could never suffice to prove a miracle. They were obliged to say that these miracles were brought about by witchcraft and the devil. But they were told that this is the plea that the Jews of old used to resort to.

No Jansenist ever had trouble explaining why the miracles stopped when the church-yard was closed on the

¹⁶ This book was written by Monsieur Montgeron, counsellor or judge of the parliament of Paris, a man of good standing and character, who also suffered in the cause of Jansenism and is now said to be somewhere in a dungeon on account of his book.

corroboration of one fact? And what have we to oppose to such a cloud of witnesses but the absolute impossibility or miraculous nature of the events that they relate? And in the eyes of all reasonable people this will surely be regarded as all by itself a sufficient refutation.

Some human testimony has the utmost force and authority in some cases, for instance when it relates the battle of Philippi or Pharsalia, but is it sound to infer from this that all kinds of testimony must in all cases have equal force and authority? Suppose that the Caesarean and Pompeian factions had each claimed the victory in these battles, and that the historians of each party had uniformly ascribed the advantage to their own side; how could mankind, at this distance in time, have decided between them? The contrariety is equally strong between the miracles related by Herodotus or Plutarch and those delivered by Mariana, Bede, or any monkish historian.

The wise adopt a very sceptical attitude towards every report that favours the passion of the person making it, whether it glorifies his country, his family, or himself, or in any other way goes with his natural inclinations and propensities. But what greater temptation than to appear a missionary, a prophet, an ambassador from heaven? Who would not encounter many dangers and difficulties in order to achieve *that*? Or if through vanity and a heated imagination a man has first made a convert of himself and entered seriously into the delusion, who ever hesitates to make use of pious frauds in support of so holy and meritorious a cause?

The smallest spark may here kindle into the greatest flame, because the materials are always prepared for it. The gazing populace - hungry for gossip - accept greedily and uncritically whatever supports superstition and promotes wonder.

king's orders. It was the touch of the tomb that produced these extraordinary effects, 'the Jansenists maintained; and when no-one could approach the tomb no effects could be expected. God, indeed, could have thrown down the walls in a moment; but the things he does and the favours he grants are his business, and it is not for us to explain them. He did not throw down the walls of every city like those of Jericho when the rams' horns sounded, or break up the prison of every apostle as he did that of St. Paul.

No less a man than the Duc de Chatillon, a French peer of the highest rank and family, testifies to a miraculous cure, performed upon a servant of his who had lived for several years in his house with an obvious infirmity.

I have only to add that no clergy are more celebrated for strictness of life and manners than the clergy of France, particularly the rectors or curés of Paris, who testify to these impostures.

The learning, intelligence, and honesty of these gentlemen, and the austerity of the nuns of Port-Royal, have been much celebrated all over Europe. Yet they all testify to a miracle performed on the niece of the famous Pascal, who is well known for his purity of life as well as for his extraordinary abilities. The famous Racine gives an account of this miracle in his famous history of Port-Royal, and strengthens it with all the support that a multitude of nuns, priests, physicians, and men of the world - all people of undoubted credit - could give to it. Several literary men, particularly the bishop of Tournay, were so sure of this miracle that they used it in arguing against atheists and free-thinkers. The queen-regent of France, who was extremely prejudiced against the Port-Royal, sent her own physician to examine the miracle; and he returned an absolute convert to belief in the miracle. In short, the supernatural cure was so incontestable that for a while it saved that famous monastery from the ruin with which it was threatened by the Jesuits. If it had been a cheat, it would certainly have been detected by such sagacious and powerful enemies, and would have hastened the ruin of those who contrived it. Our divines, who can build up a formidable castle from such lowly materials - what an enormous structure they could have erected from these and many other circumstances that I have not mentioned! How often the great names of Pascal, Racine, Arnauld, Nicole would have resounded in our ears! But it would be wise of them to adopt the miracle as being worth a thousand times more than all the rest of their collection. Besides, it may serve their purpose very well. For that miracle was really performed by the touch of an authentic holy prickle of the holy thorn, which composed the holy crown, which, etc.

How many stories of this nature have, in all ages, been exposed and exploded in their infancy? How many more have been celebrated for a time and then sunk into neglect and oblivion? So when such reports fly about, the explanation of them is obvious: we judge in conformity with regular experience and observation when we account for the stories by the known and natural principles of credulity and delusion. Rather having a recourse to so natural an explanation, shall we rather allow of a miraculous violation of the most established laws of nature?

I needn't mention the difficulty of detecting a falsehood in any private or even public history at the place where it is said to happen, let alone when one is at a distance, however small, from it. Even a judicial court, with all the authority, accuracy, and judgment it can employ, *often* finds itself at a loss to distinguish truth from falsehood concerning very recent actions. But the matter is *never* settled if it is left to the common method of squabbling and debate and flying rumours; especially when men's passions have taken part on either side.

In the infancy of new religions, the wise and learned commonly judge the matter too inconsiderable to deserve their attention or regard. And when later on they would like to expose the cheat in order to undeceive the deluded multitude, it is now too late: the records and witnesses that might have cleared up the matter have perished beyond recovery.

The only means of exposure that are left to us are whatever we can extract from the very testimony itself of the reporters - ·for example, internal inconsistencies in the reports·. And these means, though always sufficient with the judicious and knowing, are usually too subtle and delicate for the common people to grasp them.

Upon the whole, then, it appears that no testimony for any kind of miracle has ever amounted to a probability, much less to a proof; and that even if it did amount to a proof it would be opposed by another proof derived from the very nature of the fact it is trying to establish. It is experience that gives authority to human testimony, and it is the same experience that assures us of the laws of nature. So when these two kinds of experience are contrary, we can only subtract the one from the other, and adopt an opinion on one side or the other with the level of assurance that arises from the remainder. But according to the principle I have been presenting, when popular religions are in question this subtraction amounts to an entire annihilation; and so we may accept it as a maxim that no human testimony can have such force as to prove a miracle, and make it a legitimate foundation for any such system of religion.

Please notice the restriction I put on my claim, when I say that a miracle can never be proved so as to be the foundation of a system of religion. Outside that restriction, I admit, there may possibly be miracles, or violations of the usual course of nature, of such a kind as to admit of proof from human testimony; though it may be impossible to find any such in all the records of history. Thus, suppose that all authors in all languages agree that from 1 January 1600 there was total darkness over the whole earth for eight days; suppose that the tradition of this extraordinary event is still strong and lively among the people, and that all travellers returning from foreign countries bring us accounts of the same tradition, without the least variation or contradiction. It is evident that our present scientists, instead of doubting the fact, ought to accept it as certain and to search for the causes for it. The decay, corruption and dissolution of nature is an event rendered probable by so many analogies that any phenomenon which seems to have a tendency towards that catastrophe comes within the reach of human testimony, if that testimony be very extensive and uniform. [That last sentence is verbatim Hume.]

But suppose that all the historians who write about England were to agree that on 1 January 1600 Queen Elizabeth died; that both before and after her death she was seen by her physicians

and the whole court, as is usual with persons of her rank; that her successor was acknowledged and proclaimed by the parliament; and that after being buried for a month she re-appeared, resumed the throne, and governed England for three more years. I must confess that I would be surprised at the concurrence of so many odd circumstances, but I wouldn't have the least inclination to believe in so miraculous an event. I wouldn't doubt her *claimed death* or those other public circumstances that followed it; but I would assert it to have been merely *claimed*, and that it wasn't and couldn't possibly be *real*. It would be no use for you to point out, against this, •the difficulty and almost the impossibility of deceiving the world in an affair of such importance, •the wisdom and solid judgment of that famous queen, •the lack of any advantage that she might get from so poor a trick. All this might astonish me, but I would still reply that the knavery and folly of men are such common phenomena that I would rather believe the most extraordinary events to arise from their concurrence than admit such a striking violation of the laws of nature.

But if this 'supposed' miracle were ascribed to a new system of religion, men in all ages have been so much imposed on by ridiculous stories of that kind that the mere claim of religious significance would be a full proof of a cheat, and would be enough to get all sensible people not merely to reject the 'miracle' but to do so without further examination. Though the being who is (in this supposed case) credited with performing the miracle is God, that doesn't make it a whit more probable; for it's impossible for us to know God's attributes or actions except from our experience of his productions in the usual course of nature. This still has us relying on past observation, and obliges us to compare •instances of the violation of truth in the testimony of men with •instances of the violation of the laws of nature by miracles, in order to judge which of the two is more probable. As the violations of truth are more common in the testimony about religious miracles than in testimony about any other matter of fact, this must diminish very much the authority of the former testimony, and make us form a general resolution never to attend to it, whatever glittering pretence it may be covered with.

Lord Bacon seems to have embraced the same principles of reasoning. He says:

We ought to make a collection or particular history of all monsters and prodigious births or productions, and in a word of everything new, rare, and extraordinary in nature. But this must be done with the most severe scrutiny, lest we depart from truth. Above all, we must consider as suspicious any report that depends in any degree on religion, as do the prodigies of Livy; and equally everything that is to be found in the writers of natural magic or alchemy or the like, who all seem to have an unconquerable appetite for falsehood and fable. (*Novum Organum* II.29)

I am the better pleased with this line of thought because I think it may serve to confound those dangerous friends or disguised enemies to the Christian religion who have undertaken to defend it by the principles of human reason. Our most holy religion is founded on *faith*, not on reason; and a sure method of exposing it is to put it to a test that it is in no way fitted to pass. To make this more evident, let us examine the miracles reported in scripture; and so as not to lose ourselves in too wide a field, let us confine ourselves to miracles we find in the Pentateuch [= the first five books of the Old Testament]. I shall examine this according to the principles of those self-proclaimed Christians - the ones who defend Christianity not through faith but through reason - not as the word or testimony of God himself but as the work of a mere human historian. Here, then, we are first to consider a book that has been presented to us by a barbarous and ignorant people, written at a time when they were even more barbarous than they are now, probably written long after the events that it relates, not corroborated by any concurring testimony, and resembling those

fabulous accounts that every nation gives of its origin. Upon reading this book, we find it full of prodigies and miracles. It gives an account of

a state of the world and of human nature entirely different from the present,

our fall from that state,

the age of man extended to nearly a thousand years,

the destruction of the world by a flood,

the arbitrary choice of one people as the favourites of heaven - people who are the countrymen of the author, and

their deliverance from slavery by the most astonishing prodigies one could imagine.

I invite you to lay your hand on your heart and, after serious thought, say whether you think that the falsehood of such a book, supported by such a testimony, would be more extraordinary and miraculous than all the miracles it tells of! That is what is necessary for the Pentateuch to be accepted according to the measures of probability I have laid down. (What I have said of miracles can be applied, unchanged, to prophecies. Indeed, all prophecies *are* real miracles, and that is the only reason why they can be admitted as evidence for any revelation. If it did not exceed the capacity of human nature to foretell future events, it would be absurd to regard any prophecy as an argument for a divine mission or authority from heaven.)

So our over-all conclusion should be that the Christian religion not only was at first accompanied by miracles, but even now cannot be believed by any reasonable person without a miracle. Mere *reason* is insufficient to convince us of its truth; and anyone who is moved by *faith* to assent to it is conscious of a continued miracle in his own person - one that subverts all the principles of his understanding and gives him a determination to believe what is most contrary to custom and experience.

Section 11: A particular providence and a future state

I was recently engaged in conversation with a friend who loves sceptical paradoxes. In this he advanced many principles which, though I can by no means accept them, seem to be interesting, and to bear some relation to the chain of reasoning carried on throughout this enquiry. So I shall here copy them from my memory as accurately as I can, in order to submit them to the judgment of the reader.

Our conversation began with my admiring the special good fortune of philosophy: it requires entire liberty above all other privileges, and chiefly flourishes from the free opposition of opinions and arguments; and it came into existence in an age and country of freedom and toleration, and was never cramped, even in its most extravagant principles, by any creeds, confessions, or penal statutes. Apart from the banishment of Protagoras and the death of Socrates (and that came partly from other motives), there are scarcely any instances to be met with in ancient history of the kind of bigoted zeal with which the present age is so much infested. Epicurus lived at Athens to an advanced age, in peace and tranquillity; Epicureans were even allowed to be priests and to officiate at the altar in the most sacred rites of the established religion; and the wisest of all the Roman emperors, 'Marcus Aurelius', even-handedly gave the public encouragement of pensions and salaries to the supporters of every sect of philosophy. To grasp how much philosophy needed this kind of treatment in her early youth, reflect that even at present, when she may be supposed to be more hardy and robust, she finds it hard to bear the inclemency of the seasons, and the harsh winds of slander and persecution that blow on her.