

## III

For help in the preparation of these versions, I wish particularly to thank Professor Charles Singer for assistance in the elucidation of some medical terms in *D'Alembert's Dream* and to Mr R. S. Partridge for his frenzies of inspiration when confronted with some almost unintelligible passages. *D'Alembert's Dream* is an extremely difficult piece of French. I hope there are no longer any gross errors in my version. Readers may rest assured that any inaccuracies that still linger are not there owing to absence of pains on my part.

I owe a particular debt to my friend, Mr R. F. Wright, who could hardly have taken more interest in the preparation of this volume had his own personal honour been involved. Every page has benefited by his help. Naturally he is in no way responsible for any errors remaining in the versions.

FRANCIS BIRRELL.

CONVERSATION BETWEEN D'ALEMBERT  
AND DIDEROT

*D'ALEMBERT*: I grant it is difficult to accept the existence of a Being so contradictory in nature: a Being which exists everywhere and relates to no particular point in space; a Being which is without space and yet occupies space: which is quite complete in each part of this space: which differs essentially from nature and yet is united to it: which follows and removes matter, while itself remaining motionless; a Being, of which I have not the slightest conception. Yet quite other difficulties lie in wait for the man who rejects this Being. Take this Feeling, which you substitute for it. If it be a general and essential quality of matter, it follows that a Stone must feel.

*DIDEROT*: And why not?

*D'ALEMBERT*: I find it hard to believe.

*DIDEROT*: Yes, because a man cuts, carves, and crushes the stone and does not hear it scream.

*D'ALEMBERT*: I should like you to tell me what distinction you make between man and statue, flesh and marble.

*DIDEROT*: Not very much. Marble is made with flesh and flesh with marble.

*D'ALEMBERT*: Still one is not the other.

*DIDEROT*: Just as what you call live force is not dead force.

*D'ALEMBERT*: I don't follow.

*DIDEROT*: Let me explain. The transplanting of a body from one place to another is not movement, only



effect. Movement resides equally in the body whether it be transplanted or motionless.

*D'ALEMBERT*: That is a new way of looking at it.

*DIDEROT*: And none the less true for that. Remove the obstacle which prevents the transplanting from one place to another of this motionless body and it will be transplanted. Suppress by a rapid rarefaction the air which surrounds this enormous trunk of oak and the water it contains will disperse it in a hundred thousand fragments. I say just the same of your own body.

*D'ALEMBERT*: Very well. But what is the relation between movement and feeling? Could it be that you recognized an active feeling and a passive feeling in the same way as there is a live force and a dead force, which manifests itself by pressure: an active feeling which is characterized by a certain remarkable behaviour in animals and perhaps in plants: and a passive feeling, which one can test by its passage to an active state of feeling?

*DIDEROT*: Exactly. You have put it perfectly.

*D'ALEMBERT*: Then the statue has only passive feeling, while men, animals, and perhaps even plants are endowed with active feeling.

*DIDEROT*: That no doubt is one difference between the block of marble and the flesh tissue. But you certainly understand that it is not the only one.

*D'ALEMBERT*: Most assuredly. Whatever resemblance there may be between the external form of man and statue, there is no point of contact between their internal organisms. The chisel of the most cunning sculptor does not create even an epidermis. There is a very simple process by which the passage from the state of live force to that of dead force can be effected. It is an experiment which is repeated under our eyes

a hundred times a day. On the other hand, I do not see how to make a body pass from the state of passive to that of active feeling.

*DIDEROT*: Only because you do not wish to. It is quite a common phenomenon.

*D'ALEMBERT*: And this quite common phenomenon, what is it, if you please?

*DIDEROT*: I am going to tell you, since you choose to be shy about it. It occurs every time you eat.

*D'ALEMBERT*: Every time I eat!

*DIDEROT*: Yes, for what do you do when you eat? You remove the obstacles which prevented what you are eating being able to feel. You assimilate it with yourself. You make flesh of it. You animalize it. You give it feeling. And what you do to a piece of food, I shall do, when I please, to marble.

*D'ALEMBERT*: And how?

*DIDEROT*: I shall make it eatable.

*D'ALEMBERT*: Make marble eatable! I don't think that can be easy.

*DIDEROT*: It is only my business to indicate the process to you. I take that statue, you see there. I put it in a mortar, and with great blows from a pestle . . .

*D'ALEMBERT*: Gently there. It's Falconet's\* masterpiece. Now if it were something by Huez or a man like him——

*DIDEROT*: Falconet won't mind. The statue is paid for, and Falconet cares little for present, nothing for future fame.

*D'ALEMBERT*: Go on then. Grind it to powder.

*DIDEROT*: When the block of marble is reduced to impalpable powder, I mix this powder with *humus*,

\* Falconet (1716-1791), a sculptor greatly admired in Europe and a client of Catherine the Great. Translated Pliny's writings on art. He professed a heroic contempt for fame.



or leaf-mould. I compound them well together. I water the mixture. I allow it to rot one year, two years, a century. Time matters nothing to me. When everything has been transformed into a more or less homogeneous piece of matter, *humus*, do you know what I shall do with it?

D'ALEMBERT: I am sure you never eat *humus*.

DIDEROT: No. But there is a method by which I can unite with myself, can appropriate the *humus*, a *latus*, as the chemists say.

D'ALEMBERT: And this *latus* is a plant?

DIDEROT: Exactly. I sow peas, beans, cabbages, and other leguminous plants. The plants are fed by the earth and I feed myself with the plants.

D'ALEMBERT: Whether it be true or false, I like this passage from marble to *humus*, from *humus* to the vegetable kingdom, from the vegetable to the animal kingdom, to flesh.

DIDEROT: And so I consider flesh (or soul, as my daughter calls it) actively feeling matter. And if I am not solving the problem you put to me, at least I am getting near it. For you will grant that it is much further from a block of marble to a being which feels than from a being that feels to a being that thinks.

D'ALEMBERT: Agreed. But for all that, the feeling being has not yet become the thinking being.

DIDEROT: Before taking a step forward, let me tell you the story of one of the greatest mathematicians in Europe. What was this marvellous being originally? Nothing.

D'ALEMBERT: How nothing? Nothing springs from nothing.

DIDEROT: You take my words too literally. This is what I want to say. Before his mother, the beautiful

and criminal canoness Tencin,\* had reached the age of puberty, before the soldier La Touche was adolescent, the molecules which were to form the first rudiments of my mathematician were scattered in the young and delicate organisms of these two, filtered with the lymph, circulated with the blood, until they arrived at the reservoirs destined for their mingling, the testicles and ovaries of their father and mother. Now see this rare germ formed: see it, as common opinion says, brought into the womb by the Fallopian tubes: attached to the womb by a long stalk, increasing by stages and advancing to the state of foetus. Now is the moment come for leaving its dark prison. Behold it born, and exposed on the steps of St Jean le Rond, which gave it its name: pulled out of the Foundlings, attached to the breast of the good glass-seller Madame Rousseau, weaned and grown great in mind and body, writer, engineer, mathematician. And how is this done? By eating and other purely mechanical operations. Here is the general formula in four words. Eat, digest, distil, *in vasi licito et fiat homo secundum artem*. But he who would develop before the Academy how a man or animal is progressively formed, should employ only material agencies, whose successive stages would be—a passive being, a feeling being, a thinking being, a being who resolves the Precession of the Equinoxes, a sublime being, a marvellous being, a being ageing, failing, dying, dissolved, and returned to the leaf-mould.

D'ALEMBERT: You do not, then, believe in pre-existent germs?

DIDEROT: No.

D'ALEMBERT: I am delighted to hear it.

\* D'Alembert was the illegitimate son of the famous Mme de Tencin by the Chevalier la Touche. His mother exposed him at birth, as Diderot relates.



*DIDEROT*: They are contrary to experiment and reason: contrary to experiment, which would search vainly for these germs in the egg and in most animals before a certain age: contrary to reason, which tells us that the divisibility of matter has a limit in nature, though it may have none in imagination and shrinks at conceiving an elephant ready formed in an atom, and in this atom another elephant already formed, and so on indefinitely.

*D'ALEMBERT*: But without these pre-existing germs, the original generation of animals is difficult to grasp.

*DIDEROT*: If the egg's priority over the hen, or the hen's over the egg troubles you, it is because you suppose that originally they were the same as they are at present. What lunacy! One no more knows what they have been than what they will become. The worm which stirs in the slime is proceeding perhaps to the estate of a huge animal. The enormous animal which terrifies us by its size is proceeding perhaps to the estate of a worm, or is perhaps a peculiar and momentary production of this planet.

*D'ALEMBERT*: Quite how did you say that?

*DIDEROT*: I said . . . But that will take us too far away from our first discussion.

*D'ALEMBERT*: And what does that matter? We shall come back to it or not, as the case may be.

*DIDEROT*: May I put the clock on some few thousand years?

*D'ALEMBERT*: Why not? Nature does not bother about time.

*DIDEROT*: You will let me snuff out the sun.

*D'ALEMBERT*: All the more readily, as it will not be the first sun to be snuffed out.

*DIDEROT*: The sun once snuffed out, what will happen? Plants will perish, animals will perish,

and behold the earth solitary and silent. Relight that star and immediately you re-establish the necessary cause of infinite new generations, in the course of whose progress through the centuries, I should not like to say whether or not our present plants and animals will be reproduced.

*D'ALEMBERT*: And why should these scattered elements, when they come to reunite, not yield the same results?

*DIDEROT*: Because everything is contained in nature and because that which supposes a new phenomenon or calls back a vanished moment recreates a new world.

*D'ALEMBERT*: No serious thinker would deny that. But to come back to Man, since the order of things has willed his existence. You remember you left me in the passage from the feeling to the thinking being.

*DIDEROT*: I do.

*D'ALEMBERT*: You would greatly oblige me by pulling me out of it. I am anxious to turn into a thinker.

*DIDEROT*: Even if I did not succeed, what would come of it against my chain of incontrovertible facts?

*D'ALEMBERT*: None, unless we stopped there dead.

*DIDEROT*: And in order to go on, should we be justified in inventing an agent contradictory in its attributes, a word devoid of sense and unintelligible?

*D'ALEMBERT*: Can you tell me in what consists the existence of a feeling being in so far as his relation to himself is concerned?

*D'ALEMBERT*: In the consciousness of having been himself from the first moment he thought till the present.

*DIDEROT*: And on what is this consciousness founded?



*D'ALEMBERT*: On the memory of his actions.

*DIDEROT*: And say he did not possess this memory?

*D'ALEMBERT*: Without this memory, he would have nothing of himself, since, only being aware of his existence at the moment of receiving an impression, he would have no history of his life. His life would be an interrupted succession of unconnected sensations.\*

*DIDEROT*: Very good. And what is this memory? What does it spring from?

*D'ALEMBERT*: From a certain organism which gains and loses in strength and is sometimes entirely lost.

*DIDEROT*: If, then, a being who feels and also has this organism peculiar to memory connects the impression he receives, forms by this connection a history which is that of his own life and acquires consciousness of himself, he denies, he affirms, he concludes, he thinks.

*D'ALEMBERT*: That seems so. Now I have only one difficulty left.

*DIDEROT*: There you're wrong. You have heaps left.

*D'ALEMBERT*: But one principal one. This. It seems to me that we can think of only one thing at a time and in order to form, I do not say those enormous chains of reasoning which embrace thousands of ideas in their circuit, but only a simple proposition, there must, one would think, be two things present, the object that seems to rest under the eye of the understanding, while the understanding is busy with the quality it will allow or deny to the object.

*DIDEROT*: I think so too. And this has sometimes made me compare the fibres of our organs to sensitive

\* This doctrine of 'Sensations' was common to nearly all eighteenth-century philosophers and was erected into a system by Condillac.

vibrating strings. The sensitive vibrating string oscillates and resounds long after one has plucked it. It is this oscillation, this sort of necessary resonance, which keeps the object present, while the understanding is busy on the qualities suitable to the object. But vibrating strings have another quality still, that of making other strings vibrate from them. Thus it is that a first idea calls up a second, these two a third, all three a fourth and so on, without anyone being able to put a limit to the ideas stirred up and associated in the mind of the philosopher who meditates or listens in silence and obscurity. This instrument makes astonishing jumps and an idea once stirred up can sometimes cause its corresponding harmonic to vibrate, though this harmonic is incomprehensibly far from the idea that awakened it. If this phenomenon be observable between two sounding strings which are inert and separated, how could it fail to take place between two points which are living and connected, between fibres which are continuous and feeling?

*D'ALEMBERT*: That may not be true, but it is at any rate very ingenious. But I am tempted to think that you are falling imperceptibly into the error you wanted to avoid.

*DIDEROT*: Which one?

*D'ALEMBERT*: You are bothered by the difference between the two substances.

*DIDEROT*: I admit it.

*D'ALEMBERT*: And if you look into it closely, you are making of the philosopher's understanding a being distinct from the instrument, a sort of musician, who lends his ear to the vibrating strings and pronounces on whether they are in tune or not.

*DIDEROT*: I may have laid myself open to this objection, but still, perhaps you would not have raised



it, had you considered what a difference there is between the instrument philosopher and the instrument clavecin. The instrument philosopher has feeling: he is at the same time musician and instrument. As a feeling instrument, he has immediate consciousness of the sound he is giving out. As an animal he has the memory of it. This organic faculty, by connecting up the sounds inside himself, produces and conserves the melody there. Allow the clavecin feeling and memory and tell me whether it will not repeat of itself the airs you have already played on its notes. We are instruments endowed with feeling and memory. Our senses are so many notes plucked by nature, which is all round us, and which often pluck themselves. And this, in my opinion, is all that passes in a clavecin organized like you and me. First there is an impression which has its cause inside or outside the instrument, then a sensation which springs from this impression, a sensation which lasts (for it is impossible to imagine that it is made and snuffed out in an indivisible instant): then another impression which succeeds to this sensation and which likewise has its cause inside and outside the animal, then a second sensation and voices which indicate them by natural or conventional sounds.

*D'ALEMBERT*: I understand. And so, if this clavecin, which has feeling and life, were further endowed with the faculty of feeding and reproduction, it would live and breed of itself, or with the female of its species, little living resonant clavecins.

*DIDEROT*: Certainly. What else in your opinion is a chaffinch, a nightingale, a musician, or a man? What other difference do you see between a canary and a musical box? \* Do you see this egg? With its aid, we can overturn all the schools of theology and all

\* *Serin*, canary; *serinette*, musical box. The pun has been necessarily sacrificed in the translation.

the temples of the world. What is this egg? Before the germ is introduced, an unfeeling mass. And after the introduction of the germ, what is it still? An unfeeling mass. For this germ is itself but a passive and impercipient fluid. How will this mass pass to another state of organism? To feeling? To life? By heat. What will produce heat? Movement. What will be the successive effects of movement? Instead of answering, sit down and follow them with your eye from moment to moment. At first there is a swaying point, a thread which stretches out and takes on colour, flesh which forms: a beak, the tips of wings, eyes and claws which make their appearance: a yellow matter which winds itself round and produces intestines: it is an animal. This animal moves, stirs, cries. I hear its cries across the egg-shell. It covers itself with down: it sees. The weight of its swaying head brings its beak unceasingly against the inner wall of its prison. There, it is smashed. The animal comes out, it walks, it flies, it is provoked, it runs away, it comes up close, it complains, it suffers, it loves, it desires. It shares all your passions, goes through all your actions. Will you assert with Descartes that this is a purely imitative mechanism? Why, small children will laugh at you and philosophers will reply that if that be a mechanism, then you are such another. If you grant that between you and an animal there is no difference but one of organism, you will show sense and reason. You will be honest. But men will conclude against you that feeling, life, memory, consciousness, passions, thought can all be produced, from passive matter disposed in a certain way and impregnated with some other matter, with warmth and movement. You have only one of these two sides to choose between. You can imagine in the passive mass of the egg a hidden element, which is awaiting the egg's development to manifest its presence, or



you may suppose that this imperceptible element has insinuated itself into the egg across the egg-shell, at a determined instant in its development. But what is this element? Did it occupy space or not? How has it come or escaped without moving? Where was it? What was it doing there or anywhere else? Was it in existence before? Was it expecting a home? If homogeneous, it consists of matter. If heterogeneous we can conceive neither its passivity before development, nor its activity in the developed animal.

Listen and you will be sorry for yourself. You will perceive that in order not to admit a simple supposition that explains everything, feeling, general property of matter, or product of organism, you renounce common-sense and precipitate yourself into an abyss of mysteries, contradictions, and absurdities.

*D'ALEMBERT*: A supposition indeed! You are pleased to call it so. But suppose it were a quality essentially incompatible with matter?

*DIDEROT*: And how do you know that feeling is essentially incompatible with matter, you who do not know the essence of anything, neither of matter nor of feeling? Do you understand any better the nature of movement, its existence in a body and its communication from one body to another?

*D'ALEMBERT*: Without grasping the nature of feeling or that of matter, I see that feeling is a simple quality, one and indivisible and incompatible with a divisible subject or agent.

*DIDEROT*: Metaphysico-theological twaddle! Surely you see that all the qualities, all the feeling forms in which matter is re clothed, are essentially individual. There is neither greater impenetrability, nor less. There is half a round body: there is not half the roundness. A body may have more or less movement. There is not more movement or less. There is no

more the half or the third or the quarter of a head or an ear or a finger than the half or the third or the quarter of a thought. If in the universe there be not one molecule which resembles another, in a molecule not one point which resembles another point, you will have to agree that even the atom is endowed with a quality of its own, with an individual form: you will have to agree that division is incompatible with the essence of forms, since it destroys forms. Be a physicist and agree that an effect is produced when you see it produced, though, may be, you cannot explain the connection of cause and effect. Be a logician and do not substitute for a cause which exists and explains everything a cause which cannot be grasped, of which the connection with effect is less comprehensible still, which breeds an infinite multitude of difficulties and clears up none.

*D'ALEMBERT*: But suppose I give up this cause?

*DIDEROT*: There is not more than one substance in the universe, in man, in animals. A musical box is made of wood, man of flesh. A canary is made of flesh and a musician of differently organized flesh. But the one and the other have a same origin, a same formation, the same functions, and the same end.

*D'ALEMBERT*: And how is the convention of sounds between your two clavecins established?

*DIDEROT*: An animal being a feeling instrument exactly like any other, of the same conformation, built up with the same strings, plucked in the same manner by joy, sorrow, hunger, thirst, colic, admiration, terror, it cannot, whether at the Pole or under the Line, give forth different sounds. Also you find almost exactly the same interjections in all living and dead languages. We must trace to need and proximity the origin of conventional sounds. The feeling instrument or animal discovered that by giving forth such and



such a sound it produced an effect on others than itself, that other feeling instruments like itself, that is to say, other similar animals, drew near, made off, asked, offered, wounded, caressed, and these effects are linked in the memory of the animal and others like itself with the formation of these sounds; and note that human relationships are built up entirely of sounds and actions. And to give my system all its force, take note again that it is subject to the same unsurmountable difficulty that Berkeley urged against the existence of bodies. There is a moment of madness to be noted when the clavecin thought it was the only clavecin in the world, and that all the harmony of the universe was contained within itself.

*D'ALEMBERT:* There are many observations to be made about that.

*DIDEROT:* True.

*D'ALEMBERT:* Take an example. It is not easy to grasp from your system how we form syllogisms and deduce consequences.

*DIDEROT:* That's it. We don't. They are all deduced by nature. We do no more than propound associated phenomena of which the connection is associated or contingent, phenomena which are known to us by experience—inevitable in mathematics, physics, and other exact sciences, contingent in morals, politics, and other conjectural sciences.

*D'ALEMBERT:* Then the connection of phenomena is not so necessary in one case as in the other?

*DIDEROT:* That is not so. But the cause undergoes too many vicissitudes which escape us for us to be able to count infallibly on the effect that will follow. Our certainty that a violent-tempered man will lose his temper when insulted is not of the same order of certainty as that a large stone, by hitting a smaller one, will set it in motion.

*D'ALEMBERT:* And your analogy?

*DIDEROT:* The analogy in the most compound cases is only a rule of three, which is exercised in the feeling instrument. If such and such a phenomenon known in nature is followed by such another phenomenon known in nature, what will be the fourth phenomenon consequent on the third, which has been either provided by nature or imagined in imitation of nature? If the lance of an ordinary warrior is ten feet long, how long will the lance of Ajax be? If I can throw a stone weighing four pounds, Diomede should shift half a rock. The strides of the Gods and the bounds of their horses are in the imaginary ratio of Gods to men. It is the fourth note of the harmonic and is in proportion to the three others; from which the animal expects that resonance which always occurs in him, but which does not always occur in nature. The poet does not care, but it is none the less true for that. It is, however, quite different for the philosopher. He has next to interrogate nature, who often gives him a phenomenon quite different from what he had expected and then he perceives that his analogy has misled him.

*D'ALEMBERT:* Well, good-bye, my friend, good-evening and good-night.

*DIDEROT:* You are joking now, but you will dream of our conversation on your pillow and if it does not take on consistency there, so much the worse for you: for you will be forced to adopt hypotheses of a far more ridiculous description.

*D'ALEMBERT:* You are quite mistaken. I shall go to bed a sceptic. I shall rise a sceptic still.

*DIDEROT:* A sceptic! Can one be a sceptic?

*D'ALEMBERT:* There you go again. Are you going to assert I am not a sceptic? Surely I am in the best position to know that I am one.



DIDEROT: Wait a moment.

D'ALEMBERT: Be quick then. I am anxious for bed.

DIDEROT: I will be quite brief. Can you imagine a man finding his scale of strict logic exactly balanced for and against any proposition under discussion?

D'ALEMBERT: No. That would turn one into Buridan's ass.\*

DIDEROT: In that case there is no such thing as a sceptic, since with the exception of mathematical problems, which do not admit of the least uncertainty, there is a for and against in everything. The scales are never equal and it is impossible that they should not incline to the side which we think the most probable.

D'ALEMBERT: But in the morning I see probability on the right, in the afternoon on the left.

DIDEROT: That is to say, that you are dogmatic for in the morning and dogmatic against in the afternoon.

D'ALEMBERT: But in the evening when I realize the fleeting nature of my judgments, I believe none of them, neither those of the morning, nor those of the afternoon.

DIDEROT: That is to say, that you can no longer tell which of these conflicting opinions preponderated: that this preponderance appears too slight to base a fixed opinion upon it: and you choose to adopt the course of no longer busying yourself with such problematic subjects: of abandoning the discussion to others, and of never arguing about them any more yourself.

D'ALEMBERT: That may be so.

\* The donkey, invented by Jean Buridan, the Schoolman (1297-1358), which, pressed by both hunger and thirst, died of starvation and thirst, through being unable to choose between a measure of oats and a bucket of water.

DIDEROT: But if somebody pulled you aside, questioning you and in a friendly way asked you on your conscience to say on which of the two sides you found the fewest difficulties, would you be really and truly too embarrassed to answer and realize in your own person Buridan's ass?

D'ALEMBERT: I suppose not.

DIDEROT: Come, my friend, if you think seriously you will find that in everything our real opinion is not the one about which we have never vacillated, but the one to which we have most often returned.

D'ALEMBERT: I dare say you are right.

DIDEROT: And so do I. Good-night, my friend, and *memento quia pulvis es, et in pulverem reverteris*.

D'ALEMBERT: A sad truth.

DIDEROT: And a necessary one. Allow man I do not say immortality, but only the double of his present term, and you will see what will happen.

D'ALEMBERT: And what do you want to happen? And what does it all matter to me? Arrive what may, I want to go to sleep. Good-night!