

what are the qualities of a solid, of this something which resists? more or less solidity, resistance. More solidity is hardness, less, is softness; hence, perhaps, also figure with its dimensions. Charge with different qualities this solid, this something which resists, and you have all that touch can give, whether aided or not aided by sight. This something which resists, which is solid, which is more or less so, which has such or such a figure, in a single word, is body.

Is it true that the touch, with the sight, suffices to give that which resists, the solid with its qualities, body? I do not wish to examine it too far. Analysis would perhaps force me to admit the necessary intervention of something besides the sense of touch.* I prefer, however, to suppose that in fact touch, sensation, gives the idea of body. I grant that sensation may go thus far; but that it goes farther, Locke does not pretend. In the chapter where, almost without any of the spirit of system, Locke examines what may be derived from sight and from touch, he deduces from them nothing more than the solid, that is, body. If, then, at a later period, and in a systematic manner, he pretends, as we have seen, that the idea of space comes from sensation, to wit, from sight and from touch, it follows that he reduces the idea of space to the idea of body, and that for him space is nothing more than body itself, body enlarged, multiplied in an indefinite manner, the world, the universe. In fact, § 10, Chap. XIII.: "The idea of place we have by the same means that we get the idea of space (whereof this is but a particular and limited consideration), viz., by our sight and touch..." Same chapter, same paragraph: "To say that the world is somewhere, means no more than that it does exist..." This is clear: the space of the universe is equivalent to neither more nor less than to the universe itself; and as the idea of the universe is, after all, only the idea of body, it is to this that the idea of space is reduced.

* First Series, Vol. 1st: Course of 1817, Lect. 11, p. 296; and Vol. 4, Lect. 21, p. 426.

Such is the necessary origin of the idea of space in the system of Locke.

That there are throughout these different chapters contradictory paragraphs, and that the contradiction is often gross, is true; but it is not less true that the system of Locke being given, that is, sensation as the only principle of the idea of space, the necessary result is the idea of space such as Locke has just determined it. But is this systematic result the reality? The idea of space derived from sensation, from touch and from sight, is this the idea of space such as it is in your mind and in the minds of all men? Let us see now, such as we are, whether we confound the idea of body and the idea of space, whether for us they are but one and the same idea.

In making any such experiment upon ourselves, let us guard against two things which corrupt every experiment: let us guard against having in view such or such a systematic conclusion; let us guard against thinking of any origin whatever, for the preoccupation of the mind by such or such an origin would, unconsciously even, lead us to attribute to ideas, such as they are at present in our consciousness, such or such a character more in relation with the origin which we inwardly prefer. We shall see hereafter the conclusions which may be drawn from the experiment which we wish to institute; hereafter we will ascend even to the origin of the idea which it concerns us and suffices us first to state without any prejudice, without any foreign view.

Is the idea of space reduced in the understanding to the idea of body? Such is the question; it is a question of fact. Let us take any body that you please; let us take this book which is under our eyes, under our hands; it resists, it is solid, it is more or less hard, it has figure, etc. Do you think of nothing more in regard to it? Do you not think, for example, that this body is somewhere, in a certain place? Do not be astonished at the simplicity of my questions; we must not be afraid of bringing philosophers to the most simple questions; for it is precisely be-

cause they are the most simple that they are often neglected, and that, for want of interrogating and collecting evident facts, philosophers are precipitated into absurd systems.

Is this body somewhere? is it in a place? Yes, doubtless, all men will answer. Well! let us take a more considerable body, let us take the world. Is the world also somewhere? is it in a place? No one doubts it. Let us take thousands of worlds, myriads of worlds; can we not in regard to these thousands of worlds, ask the same questions which I have just asked concerning this book? Are they somewhere? are they in a place, that is, are they in space? We may ask the question in regard to one world or thousands of worlds as in regard to this book, and to all these questions you will equally reply: This book, this world, these thousands of worlds are somewhere, are in a place, are in space. There is not a human creature, except perhaps a philosopher preoccupied by a system, who can doubt what I have just said to you. Take the savage to whom Locke so often appeals, take the child, take the idiot, unless he be completely one; and if any of these human creatures has the idea of any body whatever, book or world, or thousands of worlds, he will naturally believe that this book, this world, these thousands of worlds are somewhere, in a place, in space. What does this amount to? It is to recognize that the idea of a book, of a world, of thousands of worlds, solid, resisting, situated in space, is one thing, and that the idea of space wherein this book, this world, or these thousands of worlds are situated and contained, is another thing.

This is so evident that Locke himself, when he is not under the yoke of his system, distinguishes perfectly the idea of body, of solid from that of space, and establishes the difference between them. Book II. Chap. XIII. § 11: "For I appeal to every man's own thoughts, whether the idea of space be not as distinct from that of solidity as it is from the idea of scarlet color? It is true, solidity cannot exist without extension, neither can scarlet color exist without extension; but this hinders not but that they

are distinct ideas. Many ideas require others as necessary to their existence or conception, which yet are very distinct ideas. Motion can neither be, nor be conceived, without space; and yet motion is not space, nor space motion: space can exist without it, and they are very distinct ideas; and so, I think, are those of space and solidity." Several considerations follow on the difference which separates body and space, considerations which fill more than ten paragraphs, to which I refer you in order not to multiply quotations. I cannot, however, forbear giving you here a very decisive and curious passage: Chap. IV. § 5: "Of pure space then, and solidity, there are several (among which I confess myself one), who persuade themselves they have clear and distinct ideas; and that they can think on space without any thing in it that resists or is protruded by body. This is the idea of pure space, which they think they have as clear as any idea they can have of the extension of body; the idea of the distance between the opposite parts of a concave superficies being equally as clear without as with the idea of any solid parts between: and on the other side they persuade themselves that they have, distinct from that of pure space, the idea of something that fills space, that can be protruded by the impulse of other bodies, or resist their motion. If there be others that have not these two ideas distinct, but confound them, and make but one of them, I know not how men, who have the same idea under different names, or different ideas under the same name, can in that case talk with one another, any more than a man who, not being blind or deaf, has distinct ideas of the color of scarlet and the sound of a trumpet, could discourse concerning scarlet color with the blind man I mentioned in another place, who fancied that the idea of scarlet was like the sound of a trumpet."

Thus, according to Locke himself, the idea of space and the idea of body are totally distinct. In order to place this distinction in a clear light, let us observe the difference of characters which these two ideas present.

You have the idea of a body, you believe that it exists; but

can you suppose it not to exist? I ask you, can you not suppose this book to be destroyed? Without doubt you can. And can you not also suppose the whole world to be destroyed, and no body whatever to be in existence? You can. For you, constituted as you are, the supposition of the non-existence of bodies implies no contradiction. And what do we call the idea of a thing which we can conceive as not existing? We call it a contingent and relative idea. But if you can suppose this book to be destroyed, the world destroyed, all matter destroyed; can you suppose space to be destroyed? Can you suppose that when all bodies should cease to exist, there would no longer remain any space for bodies which might come into existence? You cannot; if it is in the power of man's thought to suppose the non-existence of bodies, it is not in his power to suppose the non-existence of space; the idea of space is then a necessary and absolute idea. Here then are two characters entirely different which separate the two ideas of body and of space.

Moreover, every body is evidently limited; you seize its limits in every part. Enlarge, extend, multiply this body by thousands of analogous bodies; you will have simply removed the limits of this body, you will not have destroyed them, you will conceive them still. But with space it is not so. The idea of space is given to you as that of a continuation, in which you can, indeed, make divisions useful and convenient, but artificial, under which the idea of a space without any limit still subsists. For beyond any determinate portion of space, there is space still; and beyond this space, there is space always and forever. Body has in all its dimensions, something else which limits it, to wit, space which contains it; but space has no limits.

The idea of body is not complete without that of form and figure, and you can always represent it under a determinate form; it is always an image. Far from that, space is a conception and not an image; and as soon as you conceive space imaginatively, as soon as you represent it under any determinate form whatever, it is no longer the space which you conceive, but something else,

a body in space. The idea of space is a conception of reason, distinct from every sensible representation.

I could prolong this opposition of the characters of the idea of body and of the idea of space. It is sufficient to have established these three fundamental characters: 1st, the idea of body is a contingent and relative idea, whilst the idea of space is a necessary and absolute idea; 2d, the idea of body implies the idea of limit, and the idea of space implies the absence of all limit; 3d, finally, the idea of body is a sensible representation, and the idea of space is a pure, and entirely rational conception.

If these characters are truly those of the idea of space and of the idea of body, these two ideas are profoundly different, and every philosophy which shall pretend to rest on observation should never confound them. Nevertheless, their confusion is necessarily derived from the system of Locke. Condemned to proceed from sensation, and being able to proceed neither from smell, nor from hearing, nor from taste, the idea of space must necessarily proceed from sight and from touch; and, proceeding from sight and from touch, it could not be any thing else than the idea of body more or less generalized. Now, it has been demonstrated that the idea of space is not that of body; it does not then come from sight and from touch, it does not then come from sensation; and as it does not come from reflection, from the sentiment of our operations, and as it still exists, it follows that all ideas are not derived from sensation and reflection only, and that the system of Locke, on the origin of ideas, is incomplete and vicious, at least as regards the idea of space.

That we may better penetrate this system, it is necessary that we ourselves should take the same ground that Locke occupies and examine the question which, with him, is especially the philosophical question. After having determined the characters which the idea of space and the idea of body have already in the intelligence of all men, and after having shown that these characters make a profound difference between these two ideas, it is necessary to seek out their origin, the origin of the idea of space.

relatively to the idea of body. Thus far, I hope, every thing has been simple and clear; for we have not gone out of the human intelligence, such as we now find it. Let us proceed, and let us not extinguish the lights which we owe to an impartial observation, in the darkness of any hypothesis.

There are two sorts of origin; in human cognitions there are two orders of relations which it is necessary to distinguish.

Of two ideas, we may inquire, whether one does not suppose the other, whether one being admitted, it is not necessary to admit the other in order to escape the reproach of inconsistency? This is the logical order of ideas.

If the origin of the ideas of body and of space is met under this point of view, behold what is the result.

The idea of body and the idea of space being given, which supposes the other? Which is the logical condition of the admission of the other? Evidently it is the idea of space which is the logical condition of the admission of the idea of body. In fact, take any body that you please, you can admit the idea of this body only on condition that you admit, at the same time, the idea of space; if you do not, you would admit a body which would be nowhere, which would have no place, and such a body is inconceivable. Take an aggregate of bodies, or take a single body, since every body is an aggregate of parts, these parts are more or less distant from each other, and at the same time they coexist; these are the conditions of all bodies, even the least. Do you not see what is the condition of coexistence and of distance? Space still. For how could there be distance between bodies, or between the parts of a body, without space? and what coexistence is possible without some continuity? It is the same with contiguity. Destroy by thought the continuity of space, no distance is appreciable, no coexistence, no contiguity is possible. Besides, continuity is extension. It must not be believed, and Locke has well established it (Book II. Chap. XIII., § 11), that the idea of extension is adequate to the idea of body. The fundamental attribute of body is resistance; hence solidity;

but solidity does not imply in itself that this solidity is extension.* Extension exists only on condition of a continuity, that is, of space. The extension of body, therefore, supposes space; space is not body or resistance, but that which resists, resists only on some real point; now, every real point whatever is extended, is in space; then take away the idea of space and of extension, and no real body is supposable. Then as a last conclusion, in the logical order of human cognitions, it is not the idea of body which is the logical condition of the admission of the idea of space; it is, on the contrary, the idea of space, the idea of a continuity, the idea of extension, which is the logical condition of the admission of the least idea of body.

This is beyond doubt; and when, under the logical point of view, we meet the question of the origin of ideas, this solution, which is incontestable, overwhelms the system of Locke. Now it is here that the idealistic school has taken, in general, the question of the origin of ideas. By the origin of ideas, it usually understands the logical filiation of ideas among themselves. For this reason it could say, with its last and most illustrious interpreter, that so far is the idea of body from being the foundation of the idea of space, that it is the idea of space which is the foundation of the idea of body.† The idea of body is given to us by touch and by sight, that is, by experience, and by the experience of the senses. On the contrary, the idea of space is given to us on occasion of the idea of body, by the thought, the understanding, the mind, the reason, in short, by a power different from sensation. Hence this Kantian formula: the pure and rational idea of space comes so little from experience, that it is the condition of all experience; and this bold formula is perfectly correct, taken in a certain respect, that is, in respect to the logical order of human cognitions.

But this is not the only order of knowledge; and the logical

* 1st Series, Vol. 1, Lecture 11, p. 297, etc. See also in the Essays of D. Stuart, *Essay on the Idealism of Berkeley*.

† 1st Series, Vol. 5, Lecture 4, p. 83.

relation does not exhaust all the relations which ideas sustain among themselves. There is still another, that of anteriority or of posteriority, the order of the relative development of ideas in time, their chronological order; under this point of view we may meet the question of the origin of ideas. Now, is the idea of space, which, as we have just seen, is the logical condition of all sensible experience, also the chronological condition of all experience and of the idea of body? I do not believe that it is. No, taking ideas in the order in which they are produced in the intelligence, seeking only their history and their successive appearance, it is not true that the idea of space is antecedent to the idea of body. It is so little true that the idea of space supposes, chronologically, the idea of body, that if you had not the idea of body, you would never have the idea of space. Take away all sensation, take away sight and touch, and you have no longer any idea of body, neither have you any idea of space. Space is the place of bodies: whoever has no idea of a body will never have an idea of the space which contains it. Rationally, logically, if you have not the idea of space, you cannot have the idea of a body; but the reciprocal is chronologically true, and in fact the idea of space comes only with the idea of body; and as you have not the idea of body without at once having the idea of space, it follows that these two ideas are contemporaneous. I will go farther. Not only may we say that the idea of body is contemporaneous with the idea of space, but we may say, but we must say, that it is anterior to it. In fact, the idea of space is contemporaneous with the idea of body, in this sense, that as soon as the idea of body is given to you, you cannot help having the idea of space; but finally, it was necessary for you first to have the idea of body, in order that that of the space which contains it should appear to you. It is then by the idea of body that you arrive at the idea of space; one may then be called the historical and chronological condition of the other.

Undoubtedly (I cannot repeat it too often, for it is the very knot of the difficulty, the secret of the problem), undoubtedly as

soon as the idea of body is given, at that very moment the idea of space arrives; but if this condition were not fulfilled, the idea of space would never enter the understanding. When it is there, it is established there and remains there, independent of the idea of body which introduced it there: for we may suppose space without body, whilst we cannot suppose body without space. The idea of body was the chronological condition of the idea of space, as the latter is the logical condition of the former.* The two orders are inverse, and, in a certain sense, we may say, every one is right and every one is wrong. Logically, idealism and Kant are right in maintaining that the pure idea of space is the condition of the idea of body and of experience; and chronologically, empiricism and Locke in their turn are right, in pretending that experience, to wit, here sensation, the sensation of sight and of touch, is the condition of the idea of space and of every exercise of the understanding.

In general, idealism neglects more or less the question of the origin of ideas, and seldom regards ideas except in their actual characters. Placing itself at first on the understanding such as it now is, it does not investigate its successive acquisitions; it does not trouble itself in regard to the chronological order of ideas, it stops at their logical connection; it sets out from reason, not from experience. Locke, on the contrary, preoccupied with the question of the origin of ideas, neglects their actual characters, confounds their chronological condition with their logical basis, and the power of reason with that of experience which precedes it and guides it, but does not constitute it. Experience, put in its right place, is the condition, not the principle of knowledge. Does it go farther, and does it pretend to constitute all knowledge? It is then nothing else than a system, and an incomplete, exclusive, vicious system; it is empiricism, or the opposite of idealism, which, in its turn, is the exaggeration of the

* On the distinction between the logical order and the historical, or chronological order of human cognitions, see 1st Series throughout.

proper power of reason, the usurpation of reason over experience, the destruction or forgetfulness of the chronological and experimental condition of knowledge, in the excessive preoccupation of its logical and rational principles.

Locke introduced and accredited empiricism in the philosophy of the eighteenth century. He plainly saw that we could have no idea of space, if we had not some idea of body. Body is not space, but it is body which fills or which measures space; if then space is not body, we can know nothing of space except what body gives us. Locke saw this; and this is his merit. His fault is: 1st, in having confounded what fills and measures space and reveals it to us, with the idea itself of space; 2d, and this second fault is much more general and more comprehensive than the first, in having confounded the chronological condition of ideas with their logical condition, experimental data, external or internal, on condition of which the understanding conceives certain ideas, with these ideas themselves.

This is the most general critical point of view which rules all the metaphysics of Locke. I deduce it from the examination to which I have just submitted his theory of the idea of space; I may apply it and I shall apply it in the next lectures to his theory of the idea of the infinite, of time, and of other ideas which Locke has boasted, as you know, of easily deducing from experience, from sensation, or from reflection.

LECTURE XVIII.

ESSAY. SECOND BOOK. TIME. INFINITY. IDENTITY.
SUBSTANCE.

Continuation of the examination of the Second Book of the *Essay on the Human Understanding*. Of the idea of time.—Of the idea of the infinite.—Of the idea of personal identity.—Of the idea of substance.

I SHALL commence by exhibiting to you the results which the last lecture has given us; the question was concerning space.

A sound philosophy should not, without doubt, retrench or destroy the ontological questions concerning the nature of space in itself, whether it is material or spiritual, whether it is a substance or an attribute, whether it is independent of God or is related to God; for all these questions are in the human mind; but it should adjourn them until psychological observations, correctly made and skilfully combined, shall permit us to resolve them; it will then first of all occupy itself with the psychological question of the idea of space.

It is sufficient to interrogate the human understanding as it now exists in all men, in order to recognize in it the idea of space with these three distinguishing characters: 1st, space is given us as necessary, whilst body is given us as being able to exist or not to exist; 2d, space is given us as without limits, body is given us as limited on all sides; 3d, the idea of space is entirely rational, that of body is accompanied by a sensible representation.

The preliminary question concerning the actual characters of the idea of space being thus resolved, we can, without danger, approach the quite as difficult and obscure question of the origin of the idea of space. Here, we have carefully distinguished two points of view intimately connected together, but which analysis ought to separate, the logical order of ideas and their chronologi-