

CHAPTER II
BACK TO DESCARTES

WE sometimes speak of knowledge as if it were a body of truths existing independently of any human brain. Speaking in this way we say that mathematics is a part of knowledge, and that $2+2=4$ is a proposition in mathematics. We speak of philosophy in the same way. It is a body of thought. It exists historically in various movements. It has developed. It takes this direction or that.

To speak in this way is very convenient. But it is, after all, only a manner of speech. Knowledge actually exists only as a number of psychic events in the minds of knowers. Philosophy only exists in the philosophical thoughts of individual thinkers. Philosophy in general is an abstraction, like humanity. Humanity only exists as actual men, philosophy as actual processes of thought. There is your philosophy and my philosophy. There are also the philosophies of Smith, Jones, and Robinson. Philosophy in general is only the aggregate of all these, or else an abstraction from them.

My philosophy, then, must take its rise within my own mind, must begin, develop, and end there. I may, of course, borrow it from others. It need not be original. Or it may consist of new thoughts which no one ever had before me. But in either case it is equally a process which begins and ends solely within my own mind.

Its starting-point must be within me. Now it will generally be admitted by all schools of thought that philosophy must in some sense take its rise from experience. To which I pose at once the crucial question: *whose* experience? And there can only be one answer. Each individual thinker must necessarily base his own philosophy on, and understand the philosophies of others in terms of, his own individual experience. I must begin philosophizing from my experience, you from yours.

Philosophers and men of science are apt to talk of

experience as if it were impersonal, as if there were but one experience, and as if it were something which exists independently of experiencing minds. This, like 'knowledge', and 'philosophy', is no doubt a quite legitimate abstraction which serves the purposes of thought. But an abstraction it is. Abstraction is the work of thought, however. It is the end-result of a process, not the beginning. Hence an impersonal and independent experience is not the proper starting-point of philosophy. It is not a datum.

The concretes from which the abstraction of an impersonal experience is made can only be the individual experiences of each of us. It is here that we have to begin. And this reduces itself to the position that each of us must perforce take as the ultimate premiss of his philosophy nothing except his own individual experience. For each of us is, in some sense, shut up within his own mind. We can only interpret the experiences of others, when they are communicated to us, by translating them into terms of our own experiences. When you speak of 'red', I can only understand this by interpreting it in terms of my own perceptions of red. I cannot directly see *your* red. I can only see my own and suppose that yours is like it. And this supposition is itself a result of thought, not a datum.

In general each mind is at first only aware of its own experience. And it never to the end has any *direct* awareness of the experiences of others. All such knowledge is indirect and derivative. It is the result of a process, and is not given.

I am aware, of course, that some philosophers assert that we know of the existence of other minds by a direct apprehension of them. We shall have to consider this assertion, and what it means, very carefully in the sequel. Whatever it may mean, however, I do not think it can be held to contradict the position here taken up. It will hardly be alleged that I can ever directly see your sensation of redness any more than I can feel the pain in your leg. Even telepathic communication proves nothing to the contrary. Suppose that X thinks of a number, and that this number is flashed telepathically into the mind of γ .

It is still true that *Y* is aware of it only as a part of *his own* experience, not as a part of *X*'s. Telepathy, if it is a reality, proves no more as regards our present point than does ordinary communication by speech. By speech, too, an idea is transferred from one mind to another, but this means that a similar idea is generated in the second mind, not that numerically the same and identical idea exists in both minds. Each, after all, can only apprehend his own private experience, and is shut off from all others. And it is to be observed, finally, that even if we are aware of other minds by direct apprehension, that awareness is still to each of us a part of his own private experience. *X*'s direct perception of *Y*'s mind, if it exists, is just as much a part of *X*'s individual experience as is his direct perception of red.

The necessity of philosophizing in terms of one's own experience may further be illustrated by inquiring how in fact we understand the philosophies of other thinkers. Kant asserted that geometrical axioms are necessarily true. We are not here concerned with whether this opinion is correct, but with the question how we understand it. And it is obvious that each of us can only understand it by testing it in his own private mental experience. He will ask himself the questions: 'Do *I* find the axioms self-evident? Do they appear necessary to *me*? Do they compel *my* mind?' And when philosophers speak of sensations, perceptions, thoughts, judgements, and the like, we can only understand the meanings of such words by thinking of them in terms of our own sensations, perceptions, thoughts, and judgements. Unless I were myself a creature of volitions I should find it an impossibility to understand what philosophers mean when they speak of volitions.

Every mind is, in this sense, a self-enclosed monad. And philosophy must take its rise for each of us, not in some generalized experience, but in the individual experience of each mind. We shall advance to a generalized experience later. The point is that we have to realize that it *is* later. We have to arrive at it as the result of a process.

This is the truth which underlay the famous method of

Descartes. He realized that every philosophy must begin from the I and work outwards. But unfortunately he at once became entangled in unjustified metaphysical assumptions about the nature of the ego and fallacious arguments about the external world. Because we begin with individual experience we are not to make any assumptions about the nature of personality nor of reality. The question which we are discussing is one of logical order and procedure. Our *method* must be to begin with the immediate data of the individual's experience, the given element in his knowledge, and working upwards from that basis, to attempt to see how the organized development of knowledge has arisen on that foundation. We shall assert nothing whatever about the metaphysical nature or status of the given element. We shall assert only that it is a logical ultimate, an absolute premiss to knowledge, at which therefore we must begin our inquiries and our arguments.

It will soon become evident, as our inquiry proceeds, that given certain elementary data to start with, the mind creates out of these materials the whole structure of knowledge. We have already had occasion in this chapter to observe the difference between the original data and later elaborations. We have remarked that an impersonal and independent experience is not a datum; that the belief that your red is similar to my red is not a datum. These are later developments, the results of thought working upon its materials. And it will be part of our task to trace out how they arise.

Obviously our first step must be to sort out and separate the given elements of knowledge from the rest. If we are to begin with the data and proceed thereafter to the rest, we must first have a clear idea of what the data are. We can then make an attempt to see in what manner the mind builds on this foundation, and what principles govern its procedure.

Perhaps it will be objected that such a method is bound to have metaphysical implications, and that our hope of adopting a method without entangling ourselves in such

implications is a vain one. But this objection misrepresents our hopes. No doubt it is true that every method has its implications. We neither can nor do we desire to escape that necessity. On the contrary, what we desire is to hit upon the right method, the correct beginning, and then to draw out what necessarily follows. Admittedly all depends upon the beginning and the method. That is an argument for beginning in the right place and proceeding in the right manner. It is not an argument against beginning at all. And if it were a valid objection to our method, it would be equally valid against any method whatever.

And where else can we begin except with the given element in the individual experience of each of us? Consider any piece of knowledge taken at random, for example, that Sirius has a companion star which is a 'white dwarf'. Obviously this belief involves some general knowledge of astronomy, of the nature of double stars, of what is meant by 'white dwarfs', &c. It is an elaborate mental product. Now we may be asked two relevant questions regarding this product; firstly, how it arose, and secondly, how it is justified. These are two separate problems, but they are intimately connected. To solve either of them we must necessarily go back in the last resort to such given and immediate mental elements as the sensations which we receive through starlight striking the eye, the sensations of the colour patches which constitute the spectrum, and the like. On such immediate sense data is all our astronomical knowledge built.

This is accurate, however, only for an astronomer. He may get knowledge direct from the colour bands of the spectrum. But those of us who are not astronomers and do not know how to handle the spectroscope cannot do this. Our knowledge that Sirius has a 'white dwarf' companion is based upon the fact that the astronomer told us so, and that we think we have good reason to trust his opinion. In that case our knowledge goes back to the sound sensations which we received when we heard the astronomer lecture. Those sound sensations are among the data on which we built our knowledge. But the journey

from the beginning in sound sensations to the end, i.e. belief in the 'white dwarf' companion of Sirius, is a very long, difficult, and intricate one. For example, one of the stations through which we have to pass on the way is belief in the existence of another mind, that of the astronomer. But enough has been said to make it clear that, however we come by an astronomical belief, whether by our own researches or otherwise, the knowledge of each of us rests in the last resort upon the colour patches, sounds, and so forth, in *his own* experience.

It is not to be concluded that sensations are the only given elements of knowledge. That would be entirely false. They are, however, the most obvious of such elements and were taken for that reason as illustrations of our point. Our point was this. Whether the question before us be that of the historical origin and development of our knowledge, or that of its logical foundation, in either case we have to find the starting-point in the 'given'. How did our knowledge of the stars historically originate? From looking at the stars, i.e. from light sensations. What is the logical foundation of that knowledge? Again the light sensations from which all astronomical inferences arise.

Our method, then, will be to begin with an account of the given. This we shall attempt in the next chapter. We shall then endeavour to show by what steps knowledge has advanced beyond the given to something like its present state.

At once we shall be asked whether what we propose to trace out is the logical or the historical development of knowledge. For these, it will be said, are two very different things. It is one thing to inquire how the Greeks came to discover that the square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the other two sides. It is another thing to inquire how Pythagoras proved this proposition.

Our answer must be that we are concerned essentially with the logical development of knowledge, and that to unfold its history is not our business. That must be left to psychology, anthropology, or whatever is the appropriate

empirical science. And yet we shall urge that the difference of the logical from the historical, however plain it is in theory, may be, and often is, exaggerated in practice. The two are *in fact* intertwined. The logical is in the last resort the marrow of the historical.

But postponing this latter point for later consideration, and concentrating for the moment only on the logical issue, we may say that our method will be as follows. We shall take our starting-point from the given. For the given can neither be explained nor disputed. It is *there*. And not even the most ingenious sophist can deny that it is there. He may dispute the existence of the world, or of the ego. But he cannot dispute the existence of the sensation of red when he has that sensation. This shows that the given is the logical foundation of knowledge, whatever may be its historical beginning. The given is what is *certain* in knowledge, what cannot be disputed. And it is immediate, not the result of a logical process. It is therefore the only possible logical foundation of knowledge.

We shall next ask ourselves what can be deduced from the beginning. Granted that the given is certain (whatever the given may be), what is the next step? What are the inferences by which, one after another, we build up and justify the elaborate structure of knowledge?

It will be seen that our method is the same as that of Descartes. But unfortunately Descartes took as his ultimate certainty, his datum, his starting-point, what is anything but a primal certainty, the ego as a substance. And he proceeded at once to make deductions regarding the external world which were fallacious. His method was correct, and rested on the most fundamental insight in modern philosophy. His application of the method was a series of blunders from the very outset.

We shall take as our beginning not the ego, but the given. I see a green patch before me. A foundation of knowledge, an indisputable certainty, is this simple experience of the green patch. *Not* the ego which is supposed to experience it, but the experience itself.

But what about the steps which are to follow? Descartes assumed that they must all be logical *inferences*. Now one of the first lessons which we shall learn is that from the given *nothing* about the external world can be *inferred*. (We can infer, I believe, something about the existence of other minds and their contents. But I am now speaking only of our knowledge of the external world.) Certain elementary acts of abstraction and conception, which we shall call 'the concepts of the given', will be found to be logically possible. But they will amount only to the classification of what is given. They merely enable us to arrange the elements of the given in helpful patterns. They do not enable us to advance to any kind of objective existence superior to the bare given. We cannot, for example, advance by any process of inference from the bare momentary experience of the green patch to the belief in the independent existence of a permanent external green *object*. We shall find, if we rely on logical inference alone, that we can never reach that point. We shall find ourselves shut up, each within his own private world of phantasms, and unable to get out of it. The wonderful fabric of knowledge can never, as Descartes thought it could, be built up in that way. By his method of inferences we shall begin with the given, and shall stay there for ever. We shall find that any inferences which have been supposed to lead from the private given to the public world of science and knowledge are utterly fallacious.

Shall we then conclude that our method is wrong? Shall we conclude that the mind has not actually started from the private experience of each individual and worked outwards? Shall we throw this overboard and hunt about for some other starting-point and method? By no means. For we shall find that there are other logical steps possible besides inferences, namely, *mental constructions*. We shall see that these mental constructions are the great instrument by means of which knowledge has advanced from its starting-point to its present state. It will be found that logical inferences are apt to be subordinate to them, to be no more than a means of co-ordinating our constructions,

of ensuring that they are consistent with themselves and with one another.

That constructions are common in the higher reaches of science has long been suspected. That they permeate all knowledge, even in its most rudimentary stages, that no ordered world of any kind would be possible without them—this, I think, has not yet been realized.

We cannot yet say what is the logical nature of construction. Nor is it possible at this stage to solve the all-important problem of what is the criterion by which a true construction is distinguished from a false one, or to know what constructions can legitimately be embodied in knowledge and what cannot. These are matters for our future study. But glancing ahead from our beginning we may say this: we shall not expect to advance from the bare given even to the common belief in an external world, in the existence of objects, without the use of logical constructions which are quite other than inferences. We shall find that the material which is given to the mind is surprisingly meagre, and that out of this material it has built, by means of constructions, the entire universe.

It was because he did not understand this that Descartes failed. He could not advance one step from his beginning by legitimate inferences. And so, since he was unaware of the mind's use of imaginative constructions, he attempted to advance by means of illegitimate inferences, fallacies.

And yet what we are to study will be primarily the *logical* nature of the procedure of the mind, not merely its psychological development in time. For the construction, though it is to be sharply distinguished from inference, yet has its own logical structure, which we shall have to study. We shall begin at the logical beginning, the given. We shall attempt to advance to belief in an independent external world. We shall detail the steps by which this advance is made, and shall find that they are constructions; although, when once constructions are set up, inferences from them and between them come into play. We shall attempt to follow the mind further in its journey, beyond

the common belief in an external world to more advanced scientific and philosophical knowledge. And we shall hope that by these means light will be thrown both upon the nature and structure of knowledge and upon its validity.

We have stressed the logical character of the mind-process which we are about to study and have distinguished it sharply from psychological and historical development. This is essential to our purpose. And yet it must be recognized that the historical is in many cases based upon and follows the logical. We must believe that in such cases each mind actually in some sense goes through all the logical stages required to arrive at a belief, though this process is implicit, unconscious. This assertion seems to require both explanation and defence; which I will now do my best to give it.

If we are asked, 'Why do we believe that there is an external world?' the question may have two meanings. It may mean 'What valid reason is there to believe it?' The question then concerns the logical steps which justify the belief. Or it may mean 'What is the psychological history of the belief?' Now what I wish to assert is that the psychological way in which a belief is actually reached is often identical with the logical way (notwithstanding that the two aspects are rightly distinguished), or in other words that the mind has actually arrived at its belief by a process of reasoning which is identical with that which it would adopt if it had to justify its belief. This is not always true. For example the Greeks may have known empirically the truth of the theorem of Pythagoras before Pythagoras discovered its logical proof. But in many important cases, and especially in the kind of cases we shall be dealing with in the next few chapters, it appears to me to be true.

How do I know that the world is round? Because the astronomer says so. This is clearly an account primarily of the psychological origin of my belief. And yet, assuming that I do not know enough science to understand the astronomer's reasons, his authority becomes validly *my* reason. I argue, 'The astronomer is a clever fellow who

understands these matters. He says the world is round. Therefore that is probably true, and I will believe it.' This is a perfectly sound logical justification of my belief so far as it goes, though it does not carry certainty. Thus the answer, 'because the astronomer says so' really gives both the logical and the psychological origins of my belief. They are in this case identical.

Similarly the answer which we give to such a question as 'Why do we believe in an external world?' is likely to combine both the logical and the historical aspects. The actual workings of each mind in arriving at the belief will be that particular mind's reasons, valid or invalid, for accepting that belief. And if we find that the logical path which leads from the given to the belief in an external world is a plain and open one, there is no reason why that path should not be the one which the human mind has actually followed in history. But its thoughts and reasonings will have been implicit and unconscious. No one except a philosopher has ever explicitly asked and attempted to answer the question why we believe in an external world. The plain man will probably think the question simply silly. Yet the logical train of thought which the philosopher makes explicit may well be precisely that which has lain, deeply buried, in the subconscious mind of the race these many ages. I believe that, in a sense, mind developing from its animal to its human stage must actually have gone through the reasonings and arguments, the inferences and constructions, which I shall elaborate in the coming chapters. I believe that Pithecanthropus and his successors thought out these syllogisms, gradually constructed these beliefs. And if this seems fantastic, this impression will vanish when the statement is understood. The primitive savage or half animal mind must have had these mental processes unconsciously within it. But it was not *aware* of them. It had not the brains to understand its own thought.

It is no longer possible to believe in a complete hiatus between the mind of the animal and the mind of man. If we accept the theory of evolution we have to believe that

the one shades off into the other. That reason is the exclusive possession of man, that there are no beginnings of it to be found in the animal mind, is itself an irrational view to put forward. A great advance there certainly has been, but I should say that that advance has consisted, not in the acquisition of reasoning as a new power in man, but in the conscious realization of it. Reasoning is implicit, unconscious, in the animal mind. It has become partially explicit and conscious of itself in man, so that reasonings which previously went on in the darkness have now emerged into the full light of consciousness. This is the same as saying that the essential advance of man on the animal consists not in his rationality but in his self-consciousness.

Reason in the animal world is not a rare exception. It is not a question of hunting out marvellous stories of unusual animal sagacity. Unconscious reasoning takes place in the daily operations of the lives of at least the higher animals, as for example in their acts of vision. The brute recognizes objects by sight. It also sees things at a distance and judges the distance for the purposes of a spring, or to regulate its movements. But the operations of sight are well known to involve trains of logical operations. Both recognition of objects and judgement of distances necessitate inferences which are often wrongly drawn, so that the organism makes a mistake of some kind. The mistake is not in the immediate apprehension, but in the inference from it. The mind of the brute therefore argues and infers. But the brute is not aware of its own reasonings. The reasoning is implicit, unconscious.

There is nothing remarkable in this. We can trace in ourselves innumerable unconscious reasoning processes similar to those which we assert in the brute. Human beings, though capable of conscious and explicit reasoning, also reason unconsciously. We do so in the phenomena of vision. We do so in all the manifold trifles and details of daily life. From the faintest flicker of the eyelid of our friend we infer that he is angry or hurt. But we may have seen the flicker of the eyelid without noticing it, and

have made the inference without being aware of it. Unconscious reasonings are frequently mistaken by the credulous for 'intuitions', and are then regarded with great awe. And this mistake is the foundation stone of much muddled philosophical thinking and of whole systems of erroneous philosophy.

The reader will be aware of the controversy as to whether we come to know the existence of minds other than our own by direct apprehension or by inference from bodily behaviour. Without at the present stage going into the merits of the dispute (which we shall have to do afterwards), one can see that those who believe in inference from bodily behaviour must refer to unconscious and implicit inference. No one supposes that the human child, growing out of infancy, solemnly and consciously goes through the steps of an argument by analogy before coming to the conclusion that his mother is alive and conscious. The reasoning, in all save philosophers, is unconscious and instinctive. But it is perfectly reasonable to hold that the argument by analogy from human behaviour is not only the logical justification of our belief in the existence of other minds, but is also its psychological source. In fact if we rule out the theory of direct apprehension, no other psychological source except an unconscious inference seems possible, and we are compelled to think that the oft-described argument by analogy from bodily behaviour is actually, though unconsciously, gone through by every mind as it develops. I am not trying to pre-judge the issue as to how we discover other minds. I am merely trying to show that unconscious reasoning in the matter must always have been believed in by those philosophers who accepted the usual inferential theory, and that it is not, therefore, a revolutionary or novel suggestion.

The aim of this discussion has been to show that, although the distinction between logical and historical order is a real and important one, yet they do not always lie apart, but quite frequently coincide. Logic is the soul of history. And much that has just been said of our knowledge of other minds may very well be true also of our

knowledge of the external world. In the following chapters we shall attempt to trace out the logical steps by which the mind, starting from what is given, arrives at and justifies its belief in an external world. But this logical process may be also the psychological history of our beliefs. The individual and the race may actually reach this belief by passing subconsciously through these stages of argument. If so, the process of the child-mind in infancy will be not unlike the development of the embryo which, in the womb, traverses the stages of earlier evolution. What we shall lay down here, therefore, is not a set of barren sophisms, the solution of idle academic puzzles. It is the process of thought which the human race, and every individual mind, must actually have pursued. It claims to be, not the ingenious logic-chopping of an idle philosopher, but the laying bare of the living tissue of human thought, the ideal history of the human mind.

As already stated, the progress from the given to belief in an external world will not be found to be a series of inferences, but a series of mental constructions. The adoption of this view will cut out the appeal to 'primitive belief' and 'instinctive belief' which is relied upon by some realist writers. They perceive that our belief in an external world cannot be justified by any valid inference from what is given in consciousness. They are unwilling to subscribe to the view that it must therefore be a mental construction. And as they can accordingly give no rational account of it whatever, or show it as the result of a logical process of any kind, they are compelled to set it down as primordial, given from the beginning, and call it an instinctive or primitive belief. But this is mere mystery-mongering. A primitive belief is no more than a belief which we have held for a long time, and it may as likely as not be false. Nor is it reasonable to point to instinct as a source of our opinions in such matters. An instinct is some kind of tendency to action, directed perhaps towards an end which is not realized in consciousness. It is impossible to see how it can be a valid source of any beliefs except perhaps blind prejudices. At any rate

to *justify* one's beliefs by an appeal to instinct does not seem to be a course which either science or logic could approve.

It is an ancient and sound insight that we can have no knowledge of the outside physical world save through the physical senses, that there is nothing in mind which was not in sense. It is true that mystics claim to have knowledge of divine things by the medium of some kind of super-sensuous intuition. But no one has yet claimed that we have knowledge of chairs and tables through such a source. And if it is admitted, as surely it must be, that our knowledge of the external world can only come to us through sense, or through what the mind makes out of sense-material, then everything we believe about the external world must be either (1) a mental report of what is directly given, or (2) an abstraction from what is given, or (3) an inference from what is given, or (4) a mental construction.

Those who appeal to primitive belief must argue as follows: 'Our belief in an external world is not a mere report of the given. It is not a mere abstraction. For the 'object' is not a common element in the sensuously given, but something more than is given, something which lies behind the given as its supposed cause or ground. Nor is it an inference from the given. For it is generally admitted that all such inferences are invalid. Therefore it must be a belief of mysterious origin, a primitive or instinctive belief, of which no further account can be given, and of which no logical justification is possible'. But this is no more than the unphilosophical appeal to intuition. In opposition to this, our argument will be as follows: 'Our belief in the external world is not a mere report of the given. It is not an abstraction nor an inference. Therefore there is only one thing it can be, namely, a mental construction.'

We can cut away appeal to 'primitive belief' and 'intuition' by the application of Occam's razor. Why, when we can give a rational and logical account of a belief as a mental construction, need we assume these mystical sources?

We have spoken here chiefly of our belief in an external world. That is the first problem we shall have to face, and perhaps it is the most difficult. But it is far from being the only problem. We begin with the bare given. We pass from this by a somewhat difficult passage to belief in an independent external world, the common world of objects, 'things', &c. From that we shall have to pass on to the more advanced knowledge contained in science. But the method which we have outlined will cover our investigations in the whole field of knowledge. All truth, all knowledge, we shall find, takes its origin from the given, is built thereon as a fabric of interwoven constructions, inferences, and abstractions. The constructional element in especial will be found to permeate all knowledge from the bottom to the top.

Our method is empirical, and the philosophy to be expected in these pages will be an empirical philosophy, in accordance with the English tradition.

In medical science the word 'empirical' is loosely used as importing knowledge gathered from experience without any understanding of underlying causes. It is then opposed to 'deductive'. But for us the word 'empirical' is opposed, not to deductive, but to 'transcendental'. I mean by empirical that which does not attempt to transcend the bounds of experience. I mean by transcendental that which does attempt to do so.

Geometry, although it is wholly deductive, is an empirical science because it takes from experience its subject matter—spatial magnitudes and figures—without question. But a branch of knowledge which sought to get behind the space which we experience and to explain it as a form of our perception, or as the self-limitation of an infinite mind, would be transcendental.

Epistemology is an empirical science on a par with biology. Biology examines the structure of the organism, and the functions of its parts. Epistemology will examine the structure and functions of knowledge in an exactly similar spirit. But the essential point in which its empirical

character comes out is this. It takes the data of experience—colour patches, sounds, and other sense data—for granted without seeking to inquire into their transcendental origins. I am now seeing a green patch. That is for epistemology an ultimate fact. Epistemology does not seek to know, as a transcendental philosophy would, how and why the data of sense have arisen, whether, for example, they are the projections of a cosmic mind into individual experiences (whatever that may mean), or whether they are the results of 'divine imagining'. It does not seek to know whether the existence of the green patch which I am now seeing is rational, or can be deduced from the Idea of the Good. It simply takes the green patch for granted as a fact.

It is a common mistake to suppose that an empirical philosophy and a transcendental philosophy necessarily contradict one another. This is not so, although it is true that they are apt to be somewhat opposed in spirit. They might perfectly well exist side by side. They do not usually contradict one another because they are not on the same ground. They are concerned with different problems. There is nothing in Kant's 'transcendental aesthetic' which contradicts anything in geometry, mechanics, or any other science which deals with space or time. Or at least this was true in Kant's time. And if the reader happens to believe, with Hegel, that the world of sense issued out of the womb of an Absolute which consists of pure thought, or if he believes with Plato that it is a copy of the world of forms, there will be nothing in this book with which he need necessarily quarrel. Our empirical philosophy simply does not deal with these problems. It takes the world of sense, or at least the sense data, the colour patches, sounds, &c., out of which the world of sense is constructed, as ultimate facts of experience, and does not seek to go behind them.