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THOUGHT AS THE INSTRUMENT OF KNOWLEDGE

Study Topics

principles of thinking

3.0 Reflective Thought

The purpose of my reflection is to form concepts of the event. I try to add to the occurrence that runs its course without my participation a second process which takes place in the conceptual sphere. This conceptual process depends on me.

3.1 Observation Of Thought

Thought, as an object of observation, differs essentially from all other objects. I observe the table, and I carry on my thinking about the table, but I do not at the same moment observe this thought. While the observation of things and events, and thinking about them, are everyday occurrences filling my ongoing life, observation of the thought itself is a kind of exceptional state.

3.2 Formation Of Concept

I am definitely aware that the concept of a thing is formed by my activity, while the feeling of pleasure is produced in me by an object in the same way as, for example, a change is caused in an object by a stone that falls on it.

3.3 Thinking Contemplation Of Object

While I am reflecting on the object, I am absorbed in it; my attention is turned to it. To become absorbed in the object is to contemplate by thought.

3.4 Thinking Contemplation Of Thought

I can never observe the present thought in which I am actually engaged; only afterward can I make the past experience of my thought process into the object of my present thinking.

3.5 Know Content Of Concept

It is possible to know thought more immediately and more intimately than any other process in the world. Because we produce it ourselves we know the characteristic features of its course and the details of how the process takes place.

3.6 Guided By Content Of Thought

What I observe in studying a thought process is not which process in my brain connects the concept lightning with the concept thunder, but my reason for bringing these two concepts into a specific relationship. Introspection shows that in linking thought with thought I am guided by the content of my thoughts; I am not guided by any physical processes in my brain. Many people today find it difficult to grasp the concept of pure thinking.

3.7 I Produce My Content Of Thought

In thought I observe something that I produce. I give to my existence the definite, self-determined content of my thought-activity. From here I can go on to ask whether other things exist in the same or in some other way.

3.8 Remain Within Realm Of Thought

When I observe my own thought what hovers in the background is nothing but thought. I can remain within the realm of thought.

3.9 Create Before Knowing

What is impossible with Nature ---creation before knowing--- we achieve with thinking. If we refrain from thinking until we have first gained knowledge of it, then we would never think at all. We must resolutely think straight ahead and only afterward by introspective analysis gain knowledge of what we have done. We ourselves first create the object that we are to observe.

3.10 Self-Supporting Thought

Thought is self-supporting, not dependent on anything else. In thought we have the principle of self-subsistence. Thought can be grasped by thought itself.

3.11 Impartial Consideration Of Thinking

We must first consider thinking in an impartial way, without reference to either a thinking subject or conceived object. Before anything else can be understood, thought must be understood.

3.12 Application Of Thought

Thought is a fact, and it is meaningless to speak of the correctness or falsehood of a fact. At most I can have doubts about whether thought is correctly applied.

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3.0 Reflective Thinking

[1] WHEN I observe how a billiard ball, when struck, communicates its motion to another, I remain entirely without influence on the process before me. The direction and velocity of the motion of the second ball is determined by the direction and velocity of the first. As long as I remain a mere spectator, I can say nothing about the motion of the second ball until after it has happened. It is quite different when I begin to reflect on the content of my observations.

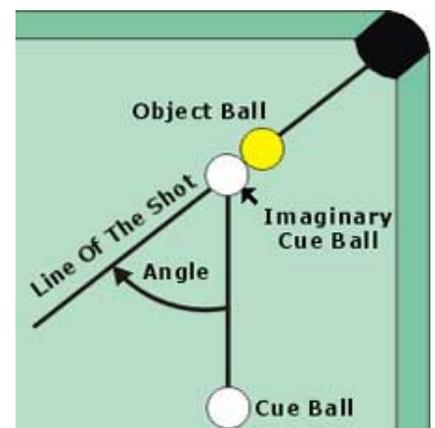


the purpose of my reflection is to construct concepts of the process

The purpose of my reflection is to construct concepts of the process. I connect the concept of an elastic ball with certain other concepts of mechanics, and consider the special circumstances which obtain in the instance in question. I try, in other words, to add to the process which takes

place without any interference, a second process which takes place in the conceptual sphere.

This latter process is dependent on me. This is shown by the fact that I can rest content with the observation, and renounce all search for concepts if I have no need of them. If, therefore, this need is present, then I am not content until I have established a definite connection among the concepts, ball, elasticity, motion, impact, velocity, etc., so that they apply to the observed process in a definite way. As surely as the occurrence of the observed process is independent of me, so surely is the occurrence of the conceptual process dependent on me.





[2] We shall have to consider later whether this activity of mine really proceeds from my own independent being, or whether those modern physiologists are right who say that we cannot think as we will, but that we must think exactly as the thoughts and thought-connections determine, which happen to be in our minds at any given moment. (Cp. Ziehen, *Leitfaden der Physiologischen Psychologie*, Jena, 1893, p. 171.)

Theodor Ziehen
1862 – 1950

For the present we wish merely to establish the fact that we constantly feel obliged to seek for concepts and connections of concepts, which stand in definite relation to the objects and processes which are given independently of us. Whether this activity is really ours, or whether we are determined to it by an unalterable necessity, is a question which we need not decide at present. What is unquestionable is that the activity appears, in the first instance, to be ours. We know for certain that concepts are not given together with the objects to which they correspond. My being the agent in the conceptual process may be an illusion; but there is no doubt that to immediate observation I appear to be active. Our present question is: what do we gain by supplementing a process with a conceptual counterpart?

[3] There is a far-reaching difference between the ways in which, for me, the parts of a process are related to one another before, and after, the discovery of the corresponding concepts. Mere observation can trace the parts of a given process as they occur, but their connection remains obscure without the help of concepts. I observe the first billiard ball move towards the second in a certain direction and with a certain velocity. What will happen after the impact I cannot tell in advance. I can once more only watch it happen with my eyes.

Suppose some one obstructs my view of the field where the process is happening, at the moment when the impact occurs, then, as mere spectator, I remain ignorant of what goes on. The situation is very different, if prior to the obstructing of my view I have discovered the concepts corresponding to the nexus of events. In that case I can say what occurs, even when I am no longer able to observe. There is nothing in a merely observed process or object to show its relation to other processes or objects. This relation becomes manifest only when observation is combined with thought.

[4] Observation and thought are the two points of departure for all the spiritual striving of man, in so far as he is conscious of such striving. The workings of common sense, as well as the most complicated scientific researches, rest on these two fundamental pillars of our minds. Philosophers have started from various ultimate antitheses, Idea and Reality, Subject and Object, Appearance and Thing-in-itself, Ego and Non-Ego, Idea and Will, Matter and Mind, Matter and Force, the Conscious and the Unconscious. It is, however, easy to show that all these antitheses are subsequent to that between observation and thought, this being for man the most important.

[5] Whatever principle we choose to lay down, we must prove that somewhere we have observed it, or we must enunciate it in the form of a clear concept which can be rethought by any other thinker. Every philosopher who sets out to discuss his fundamental principles, must express them in conceptual form and thus use thought. He therefore indirectly admits that his activity presupposes thought. We leave open here the question whether thought or something else is the chief factor in the development of the world. But it is at any rate clear that the philosopher can gain no knowledge of this development without thought. In the occurrence of phenomena thought may play a secondary part, but it is quite certain that it plays a chief part in the construction of a theory about them.



We constantly feel obliged to seek for concepts.

[6] As regards observation, our need of it is due to our organization. Our thought about a horse and the object "horse" are two things which for us have separate existences. The object is accessible to us only by means of observation. As little as we can construct a concept of a horse by mere staring at the animal, just as little are we able by mere thought to produce the corresponding object.

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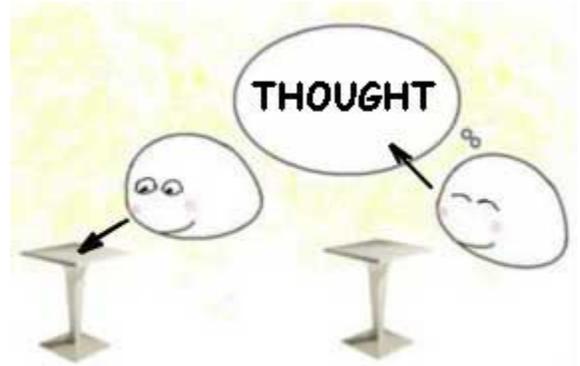
3.1 Observation Of Thought

[7] In time observation actually precedes thought. For we become familiar with thought itself in the first instance by observation. It was essentially a description of an observation when, at the beginning of this chapter, we gave an account of how thought is kindled by an objective process and transcends the merely given. Whatever enters the circle of our experiences becomes an object of apprehension to us first through observation. All contents of sensations, all perceptions, intuitions, feelings, acts of will, dreams and fancies, images, concepts, ideas, all illusions and hallucinations, are given to us through observation.

[8] But thought as an object of observation differs essentially from all other objects. The observation of a table, or a tree, occurs in me as soon as those objects appear within the horizon of my field of consciousness. Yet I do not, at the same time, observe my thought about these things. I observe the

the observation of the thought-process itself is an exceptional state

table, but I carry on a process of thought about the table without, at the same moment, observing this thought-process. I must first take up a standpoint outside of my own activity, if I want to observe my thought about the table, as well as the table.



Step 1: observe table

Step 2: observe thought about table

Whereas the observation of things and processes, and the thinking about them, are everyday occurrences making up the continuous current of my life, the observation of the thought-process itself is an exceptional attitude to adopt. This fact must be taken into account, when we come to determine the relations of thought as an object of observation to all other objects. We must be quite clear about the fact that, in observing the thought-processes, we are applying to them a method, which is our normal attitude in the study of all other objects in the world, but which in the ordinary course of that study is usually not applied to thought itself.



A feeling of pleasure causes a change in me like a falling stone causes a change in an object.

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3.2 Formation Of Concept

[9] Some one might object that what I have said about thinking applies equally to feeling and to all other mental activities. Thus it is said that when, e.g., I have a feeling of pleasure, the feeling is kindled by the object, but it is this object I observe, not the feeling of pleasure. This objection however is based on an error. Pleasure does not stand at all in the same relation to its object as the concept constructed by thought. I am conscious, in the most positive way, that the *the concept of a thing is formed through my activity*; whereas a feeling of pleasure is produced in me by an object in a way similar to that in which, e.g., a change is caused in an object by a stone which falls on it. For observation, a pleasure is given in exactly the same way as the event which causes it.

The same is not true of concepts. I can ask why an event arouses in me a feeling of pleasure. But I certainly cannot ask why an occurrence causes in me a certain number of concepts. The question would be simply meaningless.

In thinking about an occurrence, I am not concerned with it as an effect on me. I learn nothing about myself from knowing the concepts which correspond to the observed change caused to a pane of glass by

a stone thrown against it. But I do learn something about myself when I know the feeling which a certain occurrence arouses in me. When I say of an object which I perceive "this is a rose," I say absolutely nothing about myself; but when I say of the same thing that "it causes a feeling of pleasure in me," I characterize not only the rose, but also myself in my relation to the rose.

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3.3 Thinking Contemplation Of Object

[10] There can, therefore, be no question of putting thought and feeling on a level as objects of observation. And the same could easily be shown of other activities of the human mind. Unlike thought, they must be classed with any other observed objects or events.

The peculiar nature of thought lies just in this, that it is an activity which is directed solely on the observed object and not on the thinking subject. This is apparent even from the way in which we express our thoughts about an object, as distinct from our feelings

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or acts of will. When I see an object and recognize it as a table, I do not as a rule say "I am thinking of a table," but "this is a table."

On the other hand, I do say "I am pleased with the table." In the former case, I am not at all interested in stating that I have entered into a relation with the table; whereas, in the second case, it is just this relation which matters. In saying "I am thinking of a table," I adopt the exceptional point of view characterized above, in which something is made the object of observation which is always present in our mental activity, without being itself normally an observed object.



As long as I think about the object, I am absorbed in it.

[11] The peculiar nature of thought consists just in this, that the thinker forgets his thinking while actually engaged in it. It is not thinking which occupies his attention, but rather the object of thought which he observes.

[12] The first point, then, to notice about thought is that it is the unobserved element in our ordinary mental life.

[13] The reason why we do not notice the thinking which goes on in our ordinary mental life is no other than this, that it is our own activity. Whatever I do not myself produce appears in my field of consciousness as an object; I contrast it with myself as something the existence of which is independent of me. It forces itself upon me. I must accept it as the presupposition of my thinking. As long as I think about the object, I am absorbed in it, my attention is turned on it. To be thus absorbed in the object is just to contemplate it by thought. I attend not to my activity, but to its object. In other words whilst I am thinking, I pay no heed to my thinking which is of my own making, but only to the object of my thinking which is not of my making.

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3.4 Thinking Contemplation Of Thought

[14] I am, moreover, in exactly the same position when I adopt the exceptional point of view and think of my own thought-processes. I can never observe my present thought, I can only make my past experiences of thought-processes subsequently the objects of fresh thoughts. If I wanted to watch my present thought, I should have to split myself into two persons, one to think, the other to observe this thinking. But this is impossible. I can only accomplish it in two separate acts. The observed thought-processes are never those in which I am actually engaged but others. Whether, for this purpose, I make observations on my own former thoughts, or follow the thought-processes of another person, or finally, as in the example of the motions of the billiard balls, assume an imaginary thought-process, is immaterial.

I can never observe my present thought, only my past thought

[15] There are two things which are incompatible with one another: productive activity and the theoretical contemplation of that activity. This is recognized even in the First Book of Moses. It represents God as creating the world in the first six days, and only after its completion is any contemplation of the world possible: "And God saw everything that he had made and, behold, it was very good." The same applies to our thinking. It must be there first, if we would observe it.

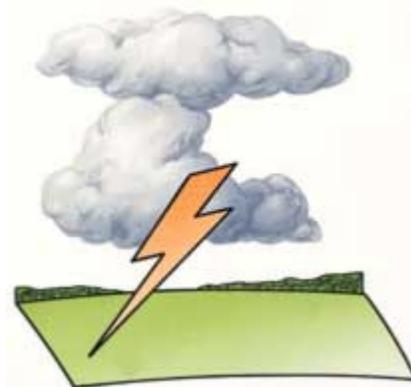
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3.5 Know Content Of Concept

[16] The reason why it is impossible to observe the thought-process in its actual occurrence at any given moment, is the same as that which makes it possible for us to know it more immediately and more intimately than any other process in the world. Just because it is our own creation do we know the characteristic features of its course, the manner in which the process, in detail, takes place. What in the other

know thinking more immediately and more intimately than any other process

spheres of observation we can discover only indirectly, viz., the relevant objective nexus and the relations of the individual objects, that is known to us immediately in the case of thought.



I do not know off-hand why, for perception, thunder follows lightning, but I know immediately, from the content of the two concepts, why my thought connects the concept of thunder with that of lightning. It does not matter for my argument whether my concepts of thunder and lightning are correct. The connection between the concepts I have is clear to me, and that through the very concepts themselves.

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3.6 Guided By Content Of Thought

[17] This transparent clearness in the observation of our thought-processes is quite independent of our knowledge of the physiological basis of thought. I am speaking here of thought in the sense in which it is the object of our observation of our own mental activity. For this purpose it is quite irrelevant how one material process in my brain causes or influences another, whilst I am carrying on a process of thought. What I observe, in studying a thought-process, is not which process in my brain connects the concept of thunder with that of lightning, but what is my reason for bringing these two concepts into a definite relation. Introspection shows that, in linking thought with thought, I am guided by their content not by the material processes in the brain. This remark would be quite superfluous in a less materialistic age than ours. Today, however, when there are people who believe that, when we know what matter is, we shall know also how it thinks, it is necessary to affirm the possibility of speaking of thought without trespassing on the domain of brain physiology.



Jean Cabanis
1757-1808

Many people today find it difficult to grasp the concept of thought in its purity. Anyone who challenges the account of thought which I have given here, by quoting Cabanis' statement that "the brain secretes thoughts as the liver does gall or the spittle-glands spittle, etc." simply does not know of what I am talking. He attempts to discover thought by the same method of mere observation which we apply to the other objects that make up the world. But he cannot find it in this way, because, as I have shown, it eludes just this ordinary observation.

many people today find it difficult to grasp the concept of pure thinking

Whoever cannot transcend Materialism lacks the ability to throw himself into the exceptional attitude I have described, in which he becomes conscious of what in all other mental activity remains unconscious. It is as useless to discuss thought with one who is not willing to adopt this attitude, as it would be to discuss colour with a blind man. Let him not imagine, however, that we regard physiological processes as thought. He fails to explain thought, because he is not even aware that it is there.

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3.7 I Produce My Content Of Thought

[18] For every one, however, who has the ability to observe thought, and with good will every normal man has this ability, this observation is the most important he can make. For he observes something which he himself produces. He is not confronted by what is to begin with a strange object, but by his own activity. He knows how that which he observes has come to be. He perceives clearly its connections and relations. He gains a firm point from which he can, with well-founded hopes, seek an explanation of the other phenomena of the world.



Rene Descartes

1596–1650

[19] The feeling that he had found such a firm foundation, induced the father of modern philosophy, Descartes, to base the whole of human knowledge on the principle "I think, therefore I am." All other things, all other processes, are independent of me. Whether they be truth, or illusion, or dream, I know not. There is only one thing of which I am absolutely certain, for I myself am the author of its indubitable existence; and that is my thought.

Whatever other origin it may have in addition, whether it come from God or from elsewhere, of one thing I am sure, that it exists in the sense that I myself produce it. Descartes

there is only one thing of which I am absolutely certain, for I myself am the author of its indubitable existence; and that is my thought

had, to begin with, no justification for reading any other meaning into his principle. All he had a right to assert was that, in apprehending myself as thinking, I apprehend myself, within the world-system, in that activity which is most uniquely characteristic of me.

What the added words "therefore I am" are intended to mean has been much debated. They can have a meaning on one condition only. The simplest assertion I can make of a thing is, that it is, that it exists. What kind of existence, in detail, it has, can in no case be determined on the spot, as soon as the thing enters within the horizon of my experience. Each object must be studied in its relations to others, before we can determine the sense in which we can speak of its existence. An experienced process may be a complex of percepts, or it may be a dream, an hallucination, etc. In short, I cannot say in what sense it exists. I can never read off the kind of existence from the process itself, for I can discover it only when I consider the process in its relation to other things. But this, again, yields me no knowledge beyond just its relation to other things.

My inquiry touches firm ground only when I find an object, the reason of the existence of which I can gather from itself. Such an object I am myself in so far as I think, for I qualify my existence by the determinate and self-contained content of my thought-activity. From here I can go on to ask whether other things exist in the same or in some other sense.

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3.8 Remain Within Thought

[20] When thought is made an object of observation, something which usually escapes our attention is added to the other observed contents of the world. But the usual manner of observation, such as is employed also for other objects, is in no way altered. We add to the number of objects of observation, but not to the number of methods. When we are observing other things, there enters among the world-processes —among which I now include observation — one process which is overlooked. There is present something different from every other kind of process, something which is not taken into account. But when I make an object of my own thinking, there is no such neglected element present. For what lurks now in the background is just thought itself over again. The object of observation is qualitatively identical with the activity directed upon it. This is another characteristic feature of thought-processes.



Pure Thinking

When we make them objects of observation, we are not compelled to do so with the help of something qualitatively different, but can remain within the realm of thought.

[21] When I weave a tissue of thoughts round an independently given object, I transcend my observation, and the question then arises, what right have I to do this? Why do I not passively let the object impress itself on me? How is it possible for my thought to be relevantly related to the object? These are questions which every one must put to himself who reflects on his own thought-processes. But all these questions lapse when we think about thought itself. We then add nothing to our thought that is foreign to it, and therefore have no need to justify any such addition.

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3.9 Create Before Knowing



Friedrich Schelling
1775-1854

[22] Schelling says: "To know Nature means to create Nature." If we take these words of the daring philosopher of Nature literally, we shall have to renounce for ever all hope of gaining knowledge of Nature. For Nature after all exists, and if we have to create it over again, we must know the principles according to which it has originated in the first instance. We should have to borrow from Nature as it exists the conditions of existence for the Nature which we are about to create. But this borrowing, which would have to precede the creating, would be a knowing of Nature, and that even if after the borrowing no creation at all were attempted. The only kind of Nature which it would be possible to create without previous knowledge, would be a Nature different from the existing one.

[23] What is impossible with Nature, viz., creation prior to knowledge, that we accomplish in the act of thought. Were we to refrain from thinking until we had first gained knowledge of it, we should never think at all. We must resolutely think straight ahead, and then afterwards by introspective analysis gain knowledge of our own processes. Thus we ourselves create the thought-processes which we then make objects of observation. The existence of all other objects is provided for us without any activity on our part.

[24] My contention that we must think before we can make thought an object of knowledge, might easily be countered by the apparently equally valid contention that we cannot wait with digesting until we have first observed the process of digestion. This objection would be similar to that brought by Pascal against Descartes, when he asserted we might also say "I walk, therefore I am." Certainly I must digest resolutely and not wait until I have studied the physiological process of digestion. But I could only compare this with the analysis of thought if, after digestion, I set myself, not to analyse it by thought, but to eat and digest it. It is not without reason that, while digestion cannot become the object of digestion, thought can very well become the object of thought.

[25] This then is indisputable, that in thinking we have got hold of one bit of the world-process which requires our presence if anything is to happen. And that is the very point that matters. The very reason why things seem so puzzling is just that I play no part in their production. They are simply given to me, whereas I know how thought is produced. Hence there can be no more fundamental starting-point than thought from which to regard all world-processes.

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3.10 Self-Supporting Thought

[26] I should like still to mention a widely current error which prevails with regard to thought. It is often said that thought, in its real nature, is never experienced. The thought-processes which connect our perceptions with one another, and weave about them a network of concepts, are not at all the same as those which our analysis afterwards extracts from the objects of perception, in order to make them the

object of study. What we have unconsciously woven into things is, so we are told, something widely different from what subsequent analysis recovers out of them.

[27] Those who hold this view do not see that it is impossible to escape from thought. I cannot get outside thought when I want to observe it. We should never forget that the distinction between thought which goes on unconsciously and thought which is consciously analysed, is a purely external one and irrelevant to our discussion. I do not in any way alter a thing by making it an object of thought.

I can well imagine that a being with quite different sense-organs, and with a differently constructed intelligence, would have a very different idea of a horse from mine, but I cannot think that my own



Archimedes needed a point which was self-supporting. In thought we have a principle which is self-subsisting.

thought becomes different because I make it an object of knowledge. I myself observe my own processes. We are not talking here of how my thought-processes appear to an intelligence different from mine, but how they appear to me. In any case, the idea which another mind forms of my thought cannot be truer than the one which I form myself. Only if the thought-processes were not my own, but the activity of a being quite different from me, could I maintain that, notwithstanding my forming a definite idea of these thought-processes, their real nature was beyond my comprehension.

[28] So far, there is not the slightest reason why I should regard my thought from any other point of view than my own. I contemplate the rest of the world by means of thought. How should I make of my thought an exception?

[29] I think I have given sufficient reasons for making thought the starting-point for my theory of the world. When Archimedes had discovered the lever, he thought he could lift the whole cosmos out of its

hinges, if only he could find a point of support for his instrument. He needed a point which was self-supporting. In thought we have a principle which is self-subsisting. Let us try, therefore, to understand the world starting with thought as our basis. Thought can be grasped by thought. The question is whether by thought we can also grasp something other than thought.

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3.11 Impartial Consideration Of Thinking

[30] I have so far spoken of thought without taking any account of its vehicle, the human consciousness. Most present-day philosophers would object that, before there can be thought, there must be consciousness. Hence we ought to start, not from thought, but from consciousness. There is no thought, they say without consciousness. In reply I would urge that, in order to clear up the relation between thought and consciousness, I must think about it. Hence I presuppose thought.

One might, it is true, retort that, though a philosopher who wishes to understand thought, naturally makes use of thought, and so far presupposes it, in the ordinary course of life thought arises within consciousness and therefore presupposes that. Were this answer given to the world-creator, when he was about to create thought, it would, without doubt, be to the point. Thought cannot, of course, come into being before consciousness. The philosopher, however, is not concerned with the creation of the world, but with the understanding of it. Hence he is in search of the starting-point, not for creation, but with the understanding of the world.

It seems to me very strange that philosophers are reproached for troubling themselves, above all, about the correctness of their principles, instead of turning straight to the objects which they seek to understand. The world-creator had above all to know how to find a vehicle for thought, the philosopher must seek a firm basis for the understanding of what is given. What does it help us to start with consciousness and make it an object of thought, if we have not first inquired how far it is possible at all to gain any knowledge of things by thought?

[31] We must first consider thought quite impartially without relation to a thinking subject or to an object of thought. For subject and object are both concepts constructed by thought. There is no denying that thought must be understood before anything else can be understood. Whoever denies this, fails to realise that man is not the first link in the chain of creation but the last.

thought must be understood before anything else can be understood

Hence, in order to explain the world by means of concepts, we cannot start from the elements of existence which came first in time, but we must begin with those which are nearest and most intimately connected with us. We cannot, with a leap, transport ourselves to the beginning of the world, in order to begin our analysis there, but we must start from the present and see whether we cannot advance from the later to the earlier. As long as Geology fabled fantastic revolutions to account for the present state of the earth, it groped in darkness. It was only when it began to study the processes at present at work on the earth, and from these to argue back to the past, that it gained a firm foundation.



As long as Geology fabled fantastic revolutions to account for the present state of the earth, it groped in darkness.

As long as Philosophy assumes all sorts of principles, such as atom, motion, matter, will, the unconscious, it will hang in the air. The philosopher can reach his goal only if he adopts that which is last in time as first in his theory. This absolutely last in the world-process is thought.

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3.12 Application Of Thought

[32] There are people who say it is impossible to ascertain with certainty whether thought is right or wrong, and that, so far, our starting-point is a doubtful one. It would be just as intelligent to raise doubts as to whether a tree is in itself right or wrong. Thought is a fact, and it is meaningless to speak of the truth or falsity of a fact. I can, at most, be in doubt as to whether thought is rightly employed, just as I can doubt whether a certain tree supplies wood adapted to the making of this or that useful object. It is just the purpose of this book to show how far the application of thought to the world is right or wrong. I can understand anyone doubting whether, by means of thought, we can gain any knowledge of the world, but it is unintelligible to me how anyone can doubt that thought in itself is right.

I can, at most, be in doubt as to whether thought is rightly applied