The ontological commitments of common sense psychology 5

Mental Events, Mental Acts and Imageless Thoughts

The concept of event

In Lecture 17 I drew a distinction between two types of occurrences, processes which involve continuous change over a period of time and events which involve a change which occurs at a specific point in time, but which is not extended over the time. I argued moreover, that an event in this sense always consists in termination of some state or process and the beginning of another state or process. Now while I would argue that this is the sense of the word 'event' which we need in order to distinguish mental events and mental acts on the one hand from mental activities, mental processes and mental states on the other, it must be conceded that the word 'event' is used in ordinary language in a rather broader sense than this so as to include occurrences which extend over limited periods of time and which by the criteria which I gave in Lecture 17 would count as processes. It is clear nevertheless that in order to count as an event, an occurrence must (a) have a clearly defined beginning and a clearly defined end, (b) stand out as figure against the background of antecedent and subsequent occurrences and (c) bring about some significant change as between the antecedent and consequent state of affairs. Furthermore in using the term 'event' rather than the term 'process' of such a temporally extended occurrence we are emphasising this change between the antecedent and consequent state of affairs rather than the sequence of changes which took place while it was happening which is what is emphasised when the term 'process' is used. By these criteria we can speak quite properly of the French or Russian revolutions as historical events; the Industrial Revolution on the other hand is a historical process not an event.

Although most mental event words refer to events of the instantaneous kind rather than to events which are extended over time, there is at least one idiom within the psychological language of common sense where a mental event word is used to refer to a temporally extended episode. This is the case where the verbs 'see' and 'hear' are used in the past tense to refer to a completed episode of watching or listening, as when we speak of having seen a play or film or of having heard a piece of music. We cannot however speak of the individual being engaged in seeing the play or in hearing the piece of music at the time. In describing what the individual is doing at the same time we have to use the mental activity verbs 'watching' and 'listening'.

Mental events as the interface between a process and a state

Much more common than the use of mental event words to refer to a completed episode or process is the use of a mental event or mental act verb to refer to the mental state which is brought in being the mental act or event in question. As I argued in Lecture 17, if we consider the standard cases of mental act verbs like 'see', 'hear', 'notice', 'perceive', 'recognise', 'recollect', 'realise', 'grasp', 'understand', 'judge', 'conclude', 'infer', and 'decide', which we can identify by the fact that such verbs take adverbs of instantaneous occurrence like 'suddenly' or 'immediately', we notice that they all refer when used in this way to

"instantaneous events which constitute the termination or culmination of a mental process or activity and the institution of a new mental state. Thus seeing in the ordinary visual sense, involves an antecedent mental process of looking, listening or otherwise attending and the subsequent and consequent mental state of knowing that there is something answering to the description in question in one's stimulus field. Perceiving consists in the coming about of the mental state of knowing something as a consequence of a variety of mental processes, all the way from looking, listening or otherwise attending to, thinking, pondering, calculating or even dreaming or daydreaming. Recognising consists in the acquisition of the mental state of knowing that something one is looking at, listening or otherwise attending to is something one has encountered on a previous occasion, while recollecting or remembering, considered as a mental act rather than as a mental state, consists in the acquisition of the mental state of being in a position to impart correct information based on past experience consequent on the mental process commonly referred to as 'racking one's brains'. Realising involves knowing that what is realised was, is or will be the case as a consequence of almost

any kind of antecedent mental process. Grasping or understanding, in the mental act sense of that word, involves the antecedent mental process of either reading what is written or listening to what is said and the consequent mental state of knowing what it means. Judging, concluding and inferring involves the antecedent mental process of thinking, pondering or calculating and the subsequent and consequent mental state of believing the proposition in question either to be true or at least to be a valid inference from the premises of the argument. Deciding in the sense in which it means something different from judging or concluding, involves as a consequence of the same sort of antecedent mental process, the mental state of intending to do something". (6, pp.421-2).

Now since instantaneous events are not extended in time, it necessarily follows that their occurrence is already in the past by the time they come to be reported. Consequently an instantaneous mental event verb has no strictly literal use of the present tense. Where such verbs are used in the present tense they are used to refer either to what is about to happen, as when we say "His train arrives at platform 1', to the process leading up to the event, 'the train is now arriving at platform 1', when narrating what has just happened, as when the commentator says 'So Captain Christy wins the 1974 Cheltenham Gold Cup'. However since the occurrence of a mental event cannot be anticipated by its owner before it occurs and since only its owner is in a position to report its occurrence at the time, these uses of the present tense to anticipate what is about to happen or in the process of happening, or to narrate what has just happened have no application in the domain of the mental. Instead the present tense is often used in the way in which it is not normally used in the case of non-mental instantaneous event verbs like 'start', 'stop', 'win', 'catch', 'arrive', 'seize', 'discover', 'miss' and 'fail' to refer to the state of affairs which results from the mental event in question. This idiomatic feature is particularly striking in the case of such mental act verbs as 'understand', 'remember', and 'realise' where 'he now understands s' is equivalent to 'he has understood s', 'he now remembers that p' is equivalent to 'he has remembered that p' and 'he realises that p' is equivalent to 'he has realised that p'. There are also similar, though not quite so idiomatic uses of 'he infers', 'he concludes' and 'he judges'. The verbs 'notice' and 'hear' also sometimes occur in the present tense referring to the mental state that results from noticing and hearing rather than to the relevant mental act; but curiously enough, only in the first person, as when someone says 'I notice' or 'I hear that p' meaning 'I have noticed' or 'have heard that p'. There are also present tense uses of 'see' and 'recognise' which refer to a mental state or mental disposition, rather than to a mental act or event; but in these cases the mental state in question is not the mental state that results from the mental act of seeing or recognizing. To see qua mental state is the same thing as to realise or understand when used dispositionally; while to recognise qua mental state is to acknowledge. The one mental act verb which appears to have no present tense use, except perhaps in the context of a running commentary on something like a game of chess, is the verb 'to decide'. The reason for this appears to be that in the case of deciding to do something we have a special verb, the verb 'to intend' to describe the mental state which results from the act of deciding.

The problem of imageless thoughts

The account of mental events as the 'interface' between an antecedent mental process and subsequent and consequent mental state seems to work very well as an analysis of those active mental events which are referred by the mental act verbs which I have mentioned in this lecture and in Lecture 17. It works rather less well, at least at first sight, as an account of the kind of passive mental event to which we advert when we talk about a thought or an idea occurring to someone. For although there is a mental activity, the activity of thinking, pondering or calculating which is closely bound up with the occurrence of thoughts and ideas to the person in question, the relationship between the activity of thinking and the occurrence of a thought is quite different from the sort of relationship that holds between looking and seeing, listening and hearing, attending and noticing or calculating and concluding. For although the conclusion or consummation of a process of thinking is always the occurrence of a particular thought or idea, most individual thought occurrences constitute the component parts of a thought process rather than its consummation or conclusion. In other words the process or activity of thinking, as it is described by the thinker, consists in a sequence of discontinuous thoughts or ideas each of which constitutes an instantaneous mental event separated by a brief temporal gap from its predecessor and its successor.

Now, as is implied by the doctrine of the <u>Association of Ideas</u>, each thought occurrence which goes to make up a train of thought arises out of its predecessor by virtue of some kind of logical, quasi-logical or purely contingent connection or association between the two. To this extent therefore, each thought

occurrence may be said to arise out of the preceding thought process in the same way as does the thought occurrence which constitutes the conclusion or consummation of thought process in those cases where the thought process reaches a conclusion, instead of merely petering out or being interrupted by the need to attend to other matters, as it often does. But since the thought process, so described, consists of an intermittent sequence of discrete instantaneous events of the same kind as the particular thought occurrence which we are considering, it is obvious that the relationship between the thought process and the individual thought is very different from the relationship between the continuous activity of watching or listening and the continuous stream of visual and auditory experience resulting therefrom and the various momentary interpretations of different features of that stream of experience which, when correct constitute the individual's seeing or hearing various features of his stimulus environment.

It is of course perfectly true as is implied by James's concept of the Stream of Thought (4), that the brief intervals of time which separate the individual thought occurrences, are completely filled, as far as the introspective observer is concerned by a continuous flow of experiences, both sensory experiences and mental images, just as the intervals between acts of sense perception are. But whereas there is an obvious causal connection between the changes that occur in the individual's sensory experience and the different interpretations of the environmental situation which the individual makes from time to time as the panorama unfolds, the connection between the experiences which fill the gaps between thought occurrences and the thought occurrences themselves is often very much less easy to discern. It is true that in many cases, in particular when one is trying to think out what to write or say, the gaps between thought occurrences are filled by a more or less sub-vocal, more or less schematic attempt at a verbal formulation of the thought that has occurred to one. On other occasions the occurrence of a thought may take the form of a mental image or a series of such images whose occurrence is necessarily extended over time and may fill up the whole period over which the train of thought extends. But as Külpe and his students at Würzburg first demonstrated in their pioneer introspective studies of the thought processes (3) thoughts of very considerable logical complexity, not only can occur without any such accompanying words or images, but in so far as the Würzburg experiments are typical, would seem to be the rule rather than the exception.

Two typical reports from a study by Bühler, published in 1907 (1) are quoted by Humphrey (3) as follows: (Dürr) Is this correct?: 'The future is just as much a condition of the present as of the past'? "Answer: No" (10 secs.) "First I thought: that sounds like something correct (without words). Then I made the attempt to represent it to myself. The thought came to me: Men are determined by thoughts of the future. Then however, immediately the thought: that the thought of the future should not be compounded with the future itself; that such confusions however, constitute a frequent dodge in philosophical thought. (Of words and images there was throughout no trace). Thereupon the answer: No."

Another protocol (Külpe) (Do you understand?) "When you think of purpose you must also think of chance and folly?" ... "Yes" (11.5 secs). "It was difficult and strange (ungeläufig) for me to bring purpose into contrast with the two others. That is to say, the thought darkly emerged, that the two others must be presupposed by purpose, in the same way that not - A is by A. Folly I succeeded, without more ado, in bringing into this scheme; with chance I did not succeed. Then I had the thought how, with Darwin, chance is considered an explanation of purpose. (There were no images, not a trace of the word Darwin, this is the first time I have spoken the word. It was an immediate, quite clear Knowledge (knowing). Then I said with a measure of uncertainty for the second part: Yes. The task has a strong echo, it has not left me yet, because I am not yet finished with it." (p. 58).

The reluctance of Wundt and his lieutenant Titchener to accept these results as showing that thoughts can occur without being expressed at the time either in words or images was based, not so much on a deep rooted prejudice in favour of a sensationalist theory of the composition of mental life, as on a reluctance to accept the fact that there are aspects of our mental life of which are conscious in the sense that we know that they exist or are the case, but which we cannot in any intelligible sense by said to observe, witness or inspect. But as I argued in Lecture 18, this problem becomes at least very much less intractable once we draw a distinction between the experiences which we observe and the meaning they have for us or the way we interpret them, which we necessarily do not and cannot observe and about which we come to know in a non-observational way. As I put it in a recent paper:

"This analysis of mental acts [as the point of intersection between antecedent mental process and a subsequent and consequent mental state] also throws light on the paradoxical situation to which Meynell draws attention whereby

'there are some mental states, processes and events which cannot be said to be the objects of experience, at least in quite the usual sense; but of which we can properly be said to be conscious' (5, p. 44).

The point here seems to be that to say that someone is conscious of his own mental states, processes and events is merely to say that he knows that they are the case, are occurring or have just occurred when in fact they are the case, are occurring or have just occurred. It is only in the case of mental processes and then only in the case of certain mental processes, such as sensations and mental images, sometimes referred to collectively as experiences, that the individual who has them knows that they are going on when they are going on by, in some sense witnessing or observing the mental process as it occurs. In the case of other mental processes like the mental activities of looking, watching, listening, paying attention and picturing things in the mind's eye, the individual recognises their occurrence from their effect on the experiences which they control or create. In the case of mental states if, as I maintain following Ryle, they consist in dispositions to behave in a variety of publicly observable as well as privately witnessable ways and not in any actual occurrence or categorical state present in the here and now, it is hardly surprising that the individual's knowledge that they are the case does not depend on any kind of witnessing, observing or inspecting of the mental state in question, since on this view there is or need be nothing there for him to witness, observe or inspect. This conclusion will only appear paradoxical if we insist on clinging to the empiricist dogma that it is only through some kind of observation that we can come to know any matter of contingent fact. Yet because we can know what our beliefs, desires and intentions are without observing either the beliefs, desires or intentions themselves or the behaviour which constitutes their exercises or expressions, it does not follow that our knowledge of our own mental states is based upon some kind of mysterious and inexplicable transcendental intuition. As I see it, to say that we know or are conscious of what we believe, desire or intend is merely to say we are in a position to give a correct statement of what we believe, desire or intend. Now on the dispositional theory of mental states to believe, desire or intend is to be in a position to say and do certain things under certain circumstances; and among those things that one is in a position to do by virtue of believing, desiring or intending is to specify what it is that one believes, desires or intends. In other words, stating one's beliefs, desires or intentions is one of the characteristic exercises of the disposition in which the mental states of believing, desiring and intending on this view consist". (6, pp. 422-3).

This account of our knowledge of our own mental states, though primarily concerned with the mental states of believing, wanting and intending which result from mental acts like seeing, hearing, recognising, realising, concluding and deciding, applies equally well to the mental state of understanding, interpreting or construing something in a particular way which is the kind of mental state which develops by virtue of the occurrence of a thought and to which 'introspective protocols' like those reported by Bühler give expression. Indeed the principle whereby the disposition to say something, which is established by the occurrence of the thought, only becomes manifest when the subject comes to report what he has been thinking could not be better illustrated than by Külpe's observation that there was at the time of the thought's occurrence, "not a trace of the word Darwin, this is the first time I have spoken the word".

The suggestion that the imagelessness of imageless thought could be understood in terms of the dispositional character of the thought was in fact made at the time by no less a person than Wundt himself when he argued that

"a thought is not first formed when one speaks the sentence, but that it already stands as a whole in our consciousness before we begin to fit words to it. With this whole there is nevertheless, present at the focus of consciousness none of the verbal or other representations which form during the development and the linguistic expression of the thought; but only at the moment when we develop the thoughts are their separate parts successively lifted to clear consciousness". (9, quoted by Humphrey, 3, pp. 110-111).

The suggestion that the subsequent report is a kind of unfolding in the form of a set of verbal utterances of what was present only as a potentiality or disposition at the time when the thought first occurred solves part of the problem of imageless thought, but only part of it. The problem that still remains can perhaps be best expressed by describing the occurrence of a thought in the traditional language of the logician as the act of entertaining a proposition. This way of describing a thought occurrence has the virtue

of drawing our attention to the linguistic fact that thoughts, as we ordinarily characterise them, are propositional attitudes. In other words, as Geach (2) has pointed out, we characterise our thoughts as we characterise judgements and beliefs by means of a clause in the oratio obliqua or indirect speech which mentions the kind of statement or assertion the individual would make if he were to adopt the view, which at present he only tentatively entertains, as his considered judgement. Now as Geach points out the actual sentence which occurs within the oratio obliqua clause in such a case does not represent the actual words which the individual in question did or would use, if and when he came to put his thought into words. It merely expresses the gist or sense of what he actually said or would say. In any case, as we saw in Lecture 2, a proposition though we characterise it by means of a particular sentence in a given natural language, refers to the meaning or sense of the sentence rather than to the particular form of words in which it is expressed. It could equally well be characterised by any other sentence which is equivalent to that sentence. A sentence, in any case, is nothing more than a set of conventional signs or symbols which have a standard use within the natural language to which they belong. There is therefore, no reason in principle why any other set of discriminable features of one person's behaviour should not be conventionally understood by another person in precisely the same way as a given sentence in the natural language. Moreover once we move from the situation where two people are communicating with each other to the situation in thinking, where a man is in communication only with himself, there is no reason why he should not take any feature of his experience to mean for him whatever he chooses to make it mean. There is therefore no reason in principle why an experience like Titchener's image of the incoming tide should not be understood by him in the same way as he would ordinarily understand some English sentence asserting a proposition about the way science progresses without any of the English words composing that sentence, occurring to him at the time. Equally to use another example from Titchener (8) quoted in Lecture 18, there is no reason why "a quiver in the stomach" should not be understood or interpreted by the thinker in the same way as the sentence 'I have seen that shade of grey before' or in the case where "the grey was recognised without words; without organic sensations, kinaesthetic or other; without the arousal of a mood; without anything of an appreciably conscious sort", why the visual experience of the grey sheet of card itself should not alone and unaided carry the same interpretation of meaning. (8, p. 179).

In all these cases however, there is something, however nebulous or obscure, which bears the meaning that is later expressed by a fully formed sentence in the natural language; and it is the apparent absence of any such bearer of the meaning which is subsequently expressed in the sentences of the introspective protocol which makes the notion of imageless thought as described by the Wurzburg school so difficult to accept. This indeed was precisely the point that Titchener was making when he accused the Würzburgers of overlooking the various kinaesthetic sensations and kinaesthetic sensations which his own students at Cornell were able to report in great profusion and which, according to Titchener, serve in the context of the thought process as signs or symbols with the same semantic function for the individual as the sentences which he subsequently uses in making his thought intelligible to others (3, pp. 119-122).

Titchener unfortunately spoils his case by talking as if this private language of kinaesthetic sensations and kinaesthetic imagery actually <u>is</u> the meaning or interpretation that the individual is putting on other experiences he is having. If he had treated it merely as a system of signs which have a determinate meaning for the thinker in the context of the particular thought process, but whose having that meaning for him consists in his being momentarily disposed to 'go on', both verbally and non verbally, in a complex variety of ways, his thesis becomes at once more plausible and more interesting. For, on this more charitable interpretation, what Titchener is arguing for is the view that when the thinker is not using specific words and images to stand for the ideas or meanings that occur to him, he is using a kind of <u>ad hoc</u> private language composed of any odd scraps and features of sensory and para-sensory experience that happen to occur which, as far as the thinker himself is concerned, can come in the context of the thought process to stand for just about anything he chooses.

Now it is perfectly true, as Titchener himself would have been the first to admit, that when the man in the street reports his thought processes he makes no mention of this fleeting background of sensations and images which, according to Titchener, carries the sense of what he is thinking; but then there is no reason why he should. After all the only thing that is of interest both to the thinker and to the person to whom he communicates his thought is what the thoughts meant; what the various proposition he entertained were. How he managed to represent those propositions to himself without having to formulate any actual sentences at the time is a matter of interest only to the psychologist and the philosopher. Furthermore even

though their introspective protocols do not advert to this background flux of experience to which Titchener attached such importance, the Würzburg psychologists would not have denied that this background flux sensory experiences formed part of their total consciousness during the period over which the thoughts were occurring to them. The only important difference between Titchener and the Würzburg school on this point lies in their respective assessments of the causal relationship between these two features of what goes on during thinking. According to Titchener the thoughts can only occur as interpretations of selected features of the background sensory and para-sensory experience. As the Würzburg group saw the matter the background experiences play no part in the thought process, which moves from one thought, idea or proposition to another thought process, which moves from one thought, idea or proposition to another solely by virtue of the logical and semantic connections between them.

Since no thought ever occurs without some kind of background of sensory experience or mental imagery, the crucial experiment which would be needed to decide between these two views cannot in the nature of things be performed. It may be argued in favour of the Würzburg view that as far as ordinary introspective observation is concerned the background experience appears to have no function and to be quite irrelevant to the thought process which is in the focus of consciousness. On the other hand it can be argued in favour of Titchener's view, not only that it brings the story as far as thoughts are concerned into line with the account that needs to be given of other mental events like sense perception, but also that the failure of the normal thinker to notice the causal role of the experiential background in his thinking is readily intelligible in terms of the classical introspectionist theory of observation as I presented it in Lecture 18.

Our knowledge of our own mental events

In order to explain why it is reasonable to expect that a thinker should not normally be aware of the alleged causal relationship between his thoughts and the background sensory experience which accompanies them, it will be helpful to consider <u>what</u> it is that an individual comes to know when he comes to know that a mental event, such as a thought, has occurred to him and how it is that he comes to know these things.

The view for which I have been arguing, according to which a mental event consists in the coming into being of a new mental state as a consequence of an antecedent mental process, implies that the truth conditions governing statements asserting the occurrence of a mental event are a matter of some complexity. To say that someone saw, heard, realised, recognised, remembered, inferred or decided something or that a particular thought occurred to him, entails on this view: (1) that he was engaged at the time and for some period before that, in some kind of mental activity such as looking, listening, concentrating or pondering; (2) that from the moment in question, but not before he was, at least temporarily in some kind of mental state such as knowing, believing or intending something or interpreting something in some way; (3) that the mental state came into being at a specifiable point of time; and (4) that there was a causal relationship of some kind between the antecedent mental process and the subsequent mental state. Now once we separate out these different constituent assertions involved in the assertion that a given mental event has occurred, it becomes apparent that, in terms of the account we have given in previous lectures of our knowledge of our own mental states and mental processes, the grounds we have for making these different constituent assertions are different in each case. Thus, on the account I suggested in Lecture 18 of our knowledge of our own mental processes, we should have to say that we know that the antecedent mental process involved in a mental event has occurred by witnessing or observing the experiences which it controls or produces, in the case of a mental activity, or in which it consists, in the case of a mental process which is itself an experience. Similarly in the case of the subsequent mental state, we know that this exists by virtue of the propensity to assert certain propositions in which the mental state at least partly consists. However the fact that, when we come to report the matter, we find that we have some kind of disposition to say certain things, gives no indication as to how long that mental state has been in existence or about when it first came into existence; and unless we know that, we have no basis whatever for making a judgement about what it was that brought the mental state into existence.

Now on the dispositional theory of mental states for which I have been arguing, there need be nothing either in the individual's current experience or in his current behaviour to indicate or mark the presence of such a mental state. Consequently, in specifying the point in time at which a particular mental state came into existence, there would seem to be only two possible indicators of temporal position on which the individual can be supposed to rely in making such a judgement. One is the logical order of the propositions making up a train of thought and the other is the initial occurrence of particular sensory

experience or mental image whose interpretation either constitutes or has an obvious logical connection with the mental state in question. In practice what seems to happen when we reconstruct a sequence of events such as a train of thought is that we begin by tying it into the objective series of temporal events by means of our own perception of one such event (e.g. hearing someone say something) and then proceed to spell out the subsequent thought occurrences in some sort of logical order, without attempting to specify the duration of the intervals between them, until the sequence can again be tied back into the objective time sequence by the perception of another event in the external world. When as in dreaming and day-dreaming there is often little by way of a logical connection between different thought occurrences, judgements about the precise temporal order of events are often difficult to make, although the frequent occurrence of imagery in this type of thinking makes it possible for the individual to reconstruct the temporal sequence when reporting his dreams or daydreams by recreating the sequence of mental images that comprised his experience at the time.

This account of how the individual locates his mental events in time pre-supposes that in the case of sense perception and mental imagery, the causal connection between the experience and its interpretation is not in doubt. It presupposes that if for example, I have the visual experience which I describe by saying that I am looking at a table in the middle of the room, there is never any doubt that my belief that there is a table in the middle of the room is causally dependent upon that experience. Clearly if there were any doubt about the causal relationship in such cases we should not be able to characterise our experiences, as we do, in terms of the way we are typically disposed to interpret them. Nevertheless it is worth pointing out that the causal relationship in such a case is obvious because we have learned through years of experience to interpret experiences like that in this particular way, so that given that we believe that there is a table in the middle of the room and that we are having or can remember just having had the sort of experience we are accustomed to interpret in this way, the hypothesis that the two are connected is automatic and irresistible. If however an experience, like Titchener's quiver in the stomach serves to elicit a particular interpretation on one occasion only and does so, in the way Titchener describes, by virtue of the total thought context in which it occurs, what is there in this situation to tell the thinker that such a causal relationship exists between the experience and the proposition or meaning which in fact it carries?

The symbolic nature of thought

But not only is there no reason why the thinker himself should be aware of this causal connection even if, as Titchener claims it in fact exists, there is also no reason on Wundt's theory of experience to expect that he would notice the fact that such an experience had indeed occurred. For it is characteristic of the vast majority of the experiences that we use in any kind of abstract thought that their interpretations are symbolic interpretations rather than what we may call direct or perceptual interpretations. This distinction is well illustrated by Titchener's example of his mental image of the incoming tide which stands for the progress of science. Here the direct or perceptual interpretation of the experience is the interpretation of it as 'the tide coming in over a sandy shore' which is the interpretation which would be appropriate in the case of the kind of sensory experience which it resembles. The symbolic interpretation is the interpretation of it as standing for 'the progress of science'. A mental image or sensation which is symbolically interpreted in this way is understood by the thinker in the way that a conventional sign or a string of words is understood; whereas when it is interpreted directly or perceptually, it is understood in the way that an imitation of a dog's bark is understood. Perceptual interpretations are the basic interpretations of experience that we learn when we are in sensory contact with concrete situations in the stimulus environment. Symbolic interpretations we learn when we begin to use and understand words and other conventional signs to stand for objects and situations which are not part of the current stimulus environment.

Titchener's example of the incoming tide also illustrates the point that an experience which has a symbolic interpretation also usually, if not invariably, has a perceptual interpretation and that when we want to describe the qualitative characteristics of a sensation or mental image as opposed to its symbolic significance, what we have to do is to interpret the same experience perceptually instead of symbolically. This means that in order to be able to notice and describe an experience which is interpreted symbolically qua experience we are necessarily committed to this double act of interpretation, the symbolic interpretation and the perceptual interpretation, of the same experience. But unless the thinker happens to be someone like an artist or a musical composer who is trying to work out how to create a particular sensory effect, it is the symbolic interpretation and not the quality of the experience and its description in terms of its perceptual

interpretation which has a functional utility for the thinker. Consequently unless he is asked to do so by a psychologist or philosopher, the man-in-the-street has no reason ever to make this second perceptual interpretation of his experience which he would have to make in order to be able to say what sort of experience it was, which symbolised for him some abstract concept like 'the progress of science'.

This I suggest may well be the real explanation of that 'puzzling element in the notion of thinking' which Ryle (7) describes as follows:

"When I recollect, however clearly, a stretch, however recent of my musing or pondering, I do not seem to be in the same way (as I am when singing or writing) primed with answers to questions about the concrete ingredients of the thoughts the having of which I have no difficulty in recounting. I tell you for example, '... and then the idea occurred to me that, since it was Sunday I might not be able to get petrol in the next village.' If now you ask me to say what concrete shape the occurring of this slightly complex idea had taken, I may well be stumped for an answer, so stumped, even as half to resent the putting of the question". (p. 131).

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