SYSTEMATICS

THE JOURNAL OF THE INSTITUTE FOR THE COMPARATIVE STUDY OF HISTORY, PHILOSOPHY AND THE SCIENCES

VOL. 9. No. 3 DECEMBER, 1971

THINKING

A. G. E. Blake

A phenomenological-hermeneutic exercise

Phenomenological	- because I begin by entering into phenomena and their arising in my experience.
Hermeneutic	- because I interpret my descriptions of phenomena and how I enter into them, and seek behind my interpretations for their foundation.
Exercise	- because this paper is not an end-point, a set of conclusions, but a process in which the reader can participate (for those who do not participate, the paper is useless).

"The inward way is the reverse of the outward way. Instead of going out endlessly and dissipating and exhausting itself, the mind turns inwardly to see what is behind all this endless procession of things. It does not stop the movement in order to examine what is there. If it does, the movement ceases to be a movement; it turns into something else".[1]

INTRODUCTION

I begin with a small number of phenomena. The consideration or contemplation of these phenomena (including of necessity the way they are said) constitutes all that is discussed in the first section.

The phenomena evoke questions. My response to these questions provides further material which in its turn is to be interpreted (or ‘read'). The activity of interpretation gives rise to awareness of other phenomena, in their turn evoking questions.

This whole first section is an exploration of the inside of the outer surface of thinking.

It gives way to another section in which various ideas are put forward which constitute the basis for an interpretation of thinking phenomena. The phenomena in question are indicated by a set of exercises which, ideally, should be worked through in parallel with the text.

The ideas put forward can be considered as fictions since they will appear to `explain' phenomena. In reality, they are offered as a way into the kind of activity which I consider to be of value in understanding thinking. As far as practical methods of thinking are concerned, those are outlined in the last section.

Thus the second section offers an ideology for the interpretation of the first section and also lays the ground for understanding the practices advocated in the final part.

[1] D. T. Suzuki "Awakening of a new consciousness in Zen". `Man and Transformation' in Eranos Yearbooks Vol. 5. 1967 p. 181.

CONTENTS

SECTION ONE - Thinking as it goes on

The Phenomena

1. While looking at something, I can think of something else. Attention can go from one to the other.
2. Seeing something can initiate a chain of associations.
3. I can think about what I see.
4. I can change my mode of seeing.

Each of the phenomena should be verified by the reader here and now (thinking about whether they are `true' or not is useless).
Look at your hand and think about what has happened so far in the day.
Scan the room for some object that 'triggers' off memories or feelings and let them roll awhile until you find yourself looking at some object again.
Look at your hand and bring to mind all that you know of its construction and history.
Work on the third dimension or ‘depth' in your visual field until it becomes stronger and dominant.

A Question

Do I have the same problems in expressing mental images as I do perceptions? Actually, I do not describe perceptions, but what I see. Similarly I describe what I think.

The referent of my description is only ‘that': it cannot portray the organization according to which my description works. True for perception and thought alike.

Why is it that the support of words is required for thought?
(1) Is it that thought comes about in the form of words?
(2) That words can combine and cohere and hence provide a vehicle for the activity of thinking?
(3) That thought is a substance which becomes visible in words? When I write or speak, I give up my thought to the nature of language and words.

While writing, there is the very clear sense of a still `idea' in the mind which is all the time present while the sentence unfolds. I can also `hear back' the words as they are written; it seems that these are heard in short phrases which overlap on either side of the actual words being written. My thought `takes' from these something which forms into other ideas. For example (and to make a record here) the clear sense of a phrase gives rise to the idea of an intermediary level between the relatively still pattern of thought or idea and the flow of words. Further, on account of listening to what has just been said, I see that thought works discretely and that the sentence and phrase reflect this. As an abstract question, I can pose this: is it, though, not the sentence which makes my thought discrete?

I am reminded of the daily flow of experience, wherein my thought or awareness of thought is fragmented. Thought corresponds to my total awareness or my 'whole-consciousness' as a representing power. Perhaps, then, thought stands between my whole-consciousness and the perceptible activities. But of what kind are these latter?

As I write, various groups of words act as terms which are in some way deliberately made to point out something to my mind. They are operative symbols, such as the last sentence in the above paragraph which is both a trace of something and a vector of enquiry aligned for a future moment.

In this light, language becomes a means for supplementing such powers of thought. Much depends on the intentional use of language and the discipline behind that - if the thought is to be usefully preserved. That qualification must be made, for there is a use of language which is to develop the powers of thought themselves by an operational network which somehow enables errors and limitations to be seen. So, for example, I could return to the beginning of this text and be enabled to judge whether my present thought forms a coherent whole with how I began. I reflect, recalling the thought-shape of the first paragraph through the reminder given by the rough memory of the space of words, which conjures up again the thought present then; and I see a general pattern of the relation between the still thought and the moving words which applies also to the complex of thoughts-taken-as-a-whole which produce a space of words.

A Question

What happens, then, when I reject the words, to which my thought has become accustomed, and turn instead to purely non-verbal instrumentalities of my thought? First, how do I begin?

I explore my awareness for forms. They mostly concern ‘myself', itself a form. This can be changed in character to become ‘this region of mind tomorrow in relation to today': but the relation is such that it can only be seen in my awareness now and not described. In my awareness it is something operational, in my language, it is a trace of that mental activity only, and in this case adds nothing to my thought. I do not see what operations are really possible. There is a kind of experimentation which is open to me here that is not to be found in using words. It calls more directly upon my decision.[2]

Reflection

In reading through and reflecting upon what I have written so far there comes to my mind this phenomenon: that something concrete which `was then' can be subsumed now under a bare concept; and that this concept is already there in my mind, but without richness. It seems that this concept is a kind of classification which belongs only to a certain domain of mental operations. The concept in question is that thought is expressed in words and is something in the mind; the actuality of consciousness is taken for granted. The difficulty I find in making clear this concept begins to change the mode of my mentation. It arises when I turn from regarding the writing in terms of the concept to examining the concept itself. In the first case, I can ‘mentally name' the situation; in the second, I begin to actively think. The operation of ‘mental naming' (a concept which of course I must reflect upon) is very akin to that which is at work in most ordinary thinking.

In the perception of something, there is often that same ‘flatness' as with thinking: when I see various things with their names mentally attached: plant, grass, bee. There is something here which does not even involve any grammatical holds on my mind.

There is that operation whereby each word thought, spoken or read, ‘signifies'. But now, I ask, whether this is anything more than that which operates in the perception of anything? When I see any object, I recognize it as ‘that' even without verbally naming it; I ‘mentally name' it. But in language, then, is this operation not reversed? There is the name, and my mind must provide the content: I move from name to mental name.

An Interpretation

I cannot avoid the thought that, together with my actual perceptions, there is a more mental experience which constitutes ‘mental names', 'concepts' and so on. And these correspond to abstractions from a large span of experience; in which, for example, many phases and situations of an object are contained, which are then summed up in the mental ‘thatness' or concept. Thus, when I point to the ink bottle and say `That is an ink bottle' I can recognize that I do not speak of that immediate perception, but of the object as it exists in my human world, which enables me to know of what is inside it and its uses, something which my immediate perception cannot give me. Here the concept clearly includes perceptual elements: from this aspect it is a sum-percept. The transition from actual impressions to the sum-percept is not, it seems to me, one of a change in a particular something, it is, more

[2] This question eventually gave rise to the working out of non-verbal exercises which opened the way to new forms of ideation.

likely, the result of a coupling between two modes of operation. The substance wherein the sum-percept inheres exists within the substance of immediate perception. The two substances coalesce so that the immediate perception is integral with a corresponding mental sum-percept. This integrality is a recognition. There are occasions when it does not occur. In drug-taking, I presume, the coupling becomes such to produce distortions and hallucinations, or dissociation. But in low degrees of awareness, the two are not distinct and spurious mental sum-percepts can overlay the immediate impression. In this state, many things looked at are not seen. On the other hand, more intense states of awareness can so separate the two that operations can be made upon the coupling.

Thus, 'intuitive' judgements of space can be altered; or mental images can be projected on to the real world.

A Phenomenon

The coupling which is a recognition is like this:

that	impression
the thing that is so	sum-percept
it is that (I see)	recognition

What is ordinarily taken to be the immediate awareness of myself is nothing more than a dim awareness of the distinction between the immediate perception and the sum-percepts of the mind. In states of active thinking, the two become quite distinct.[3]

Interpretation

But I have not explicated the distinction between the actual immediate impression and the sum-percept; neither have I dealt with what is involved that goes beyond a summation of perception; these two omissions can be met together, at least it seems so.

The summation, of course, is not an addition of impressions together; which could only result in an extra strong confused impression, too solid to give any information.[4] It is not itself an impression at all; it does not, after all, arise through the same operations. Further, I cannot really assert that anything is actually `seen' at all. But it gives me a means of recognizing things: it enables me to direct the perceptual operation. The first is a simple linkage of the 'mental-naming'; the second is the `concept-percept' Linkage which I am treating in terms of the sum-percept. When I am looking at something, the impressions provide the field wherein to build up and see a `book' or `chair'. If I am looking away from the perception of objects, I still use mental images `leached' from my sensory memory: there is a mode of operation which enables mental forms to actualise as impressions, but weakly; in perception, *the apparatus is more developed.*

There are three things: the sum-percept, the actual perception and the remembered image. The sum-percept is abstract as a thing in itself; but its nature is that of an operational means. It enables me to link together the immediate perception with past perceptions and future perceptions and operations (opening the book in order to read). But, it does remain in itself as a form; something looking far more coherent and organized than the actuality before me.[5] I look at the book and think of the inside pages. My impression is of a region of the top page, which my mind knows as being above others and so on. In this sense, it is not abstract.

I am tempted to conclude that both the impression and the sum-percept appear abstract when separated out. *They are operative only together and the operation is mutual*. I can spin my head and have only a blur of impressions-but *my mind remains in the room* and I see a room. This correlates with the work which has been done on the perception of things where the impressions have been made artificially scant. `Meaningful' things are picked out in such a way that it must be the case that they are `already present' in the mind and operate within the sensory activity. `Meaning' here corresponds with the 'mental-naming' and 'sum-percept'. The first gives the recognition; the second, the organization of perception.

[3] Take the phenomenon described and enact it. Then reverse the sequence. Finally, enact it as before. Reflect on your experience of yourself while doing this. This phenomenon holds the key to very much.
[4] Verify this. Look at a chair and try to see it mentally from all sides at once!
[5] Hence all the trouble with Descartes. The `actuality before me' is in fact a dead perception with the life gone out of it.

Interpretation Continued
To consider further the organization of perception. There are at least two kinds. The first is the `manipulative perception'. In seeing a book, my hands and eyes are prepared to open it and read it. Thus every organization of my perceptions *is an organization of my body-state*. The state may or may not actualize. The `manipulative perception' may extend to influences upon the pattern of sensation in my body. It certainly includes the orientation of my sense organs. The second kind I will call ‘cognitive perception', wherein *I am prepared to know*. This is much less in operation than the first kind. It comes into play in trying to find out what something is.

Phenomena
Cognitive perception also enters when I try to produce richer perceptions: for example, the super-imposition of a mental image of the cup upon the cup itself. In that example, there is a feeling of touch about working with the mental image which enters into the total, apparently, ‘visual' perception.

Thought involves an inner perception, but this is coupled with the outer; and, indeed, the images of both are of a kind. If I look at the cup and imagine a vase then the vase appears where the cup is. It does not appear as the cup appears, but can be recognized quite clearly.

Interpretation Continued
This means that the power of seeing is prior to its mode: it is exercised both through the sense organs and through the *sensus internus*. The power can be differentially disposed between the two.

Now we come to the crux of the matter. The operations which work between these two modes belong to thinking proper. 'Mental-naming' is a linkage between seeing and looking through an intermediary image. It is not necessary that there should be a distinct awareness of the image. The `sum-percept' is a pattern awakened by the power of seeing: it is both a way of looking and a summation of seeing. This combination gives some material which might enable me to distinguish the nature of the sum-percept from that of impressions. There is a proximity of the sum-percept to thought which I call "knowing what one is looking at". The multiple actions of perception are found internally and suggest that thought should be considered in a multiple way also. There is, for example, the relation between sum-percept and concept which still awaits investigation.

Descriptive Analysis
My awareness cannot do better than my perception. My sense-perception is representative of what my mind is capable of. What can change, however, is the degree of structure introduced into the arena of perception. In the case, again, of perception of an object, there are at least three contributing elements.

(1) Actual impressions: focal and peripheral
(2) Images: integral and fragmentary
(3) Sum-percept: the structuring of (1) in (2) and (2) in (1)

The third corresponds in part to Kant's intuitive categories through which a world can be perceived, i.e. it does not entail the holding of the precise shape, colour, texture, etc., of the object, but its *possibilities of appearance*. However, it does entail the cognitive element. It is this which stirs up in (2) verbal associations and connections between them. (3) is constructed in the mind in a coalescence of (1) and (2). The sum-percept is not `inherent', nor an aggregation of (1). It is *an interpretation* engendered with respect to the arena.

Every actual perception is unique. There is, however, the possibility of `looking at' the sum-percept in itself. This means to look behind the fluctuating perspectives of the images and their `montage' to the interpretation itself. This is quite a different kind of operation. It involves the arena as a whole.

That is why it brings up very strongly the sense of the wholeconsciousness. It is like trying to be aware of an object as a whole, wherein I have to go beyond looking at the seen. What is then looked at cannot, therefore, be an image. This can to some degree be demonstrated by combining together structures of images. The images are seen, but their synthesis is not.

Now, my mind has been trained such that the impact of a word entails a complex of activity in the field of internal images and serves to locate corresponding sum-percepts. The sum-percepts here are the material of concepts.

Words can operate together so that the flow on the level of images, immanent in the arena, follows verbal structures. For abstract words, such as `structure', particular sum-percepts are further modified to produce a complex sum whose origin is difficult to disentangle. It is an extreme form of short-hand. It is a particular way of using the arena to reflect what lies beyond it.

Words produce their own organizing influence on perception and recognition: or, rather, the concepts which arise out of them. As the sum percepts are consolidated out of the arena so concepts are consolidated out of the association together of words and the secondary images. There are three components again.
(1) Actual words and their automatic linkage.
(2) Associative images including other words.
(3) Concepts.

In both cases, the requirement for real thinking is to apprehend what lies beyond the arena. This means to be able to distinguish (1), (2) and (3). Combining perception and language there are four fields.
(1) Actual impressions
(2) Actual words
(3) Attendant images
(4) Associations within the arena

At the periphery, there are

(1) Sum-percepts
(2) Concepts.

Beyond the arena there is something else!

I would say that the sum-percepts and concepts are entities which are only present by means of (or within) impressions, words, images or associations. It must be that the sum percepts and concepts can be grouped according to more general forms: e.g. all flowers are like flowers.

The step from the actual form to the sum-percept can be called a step of synthesis. In the case of the flower, when I consider in my mind the variety of flowers and bring them together something emerges. This emergence is the concretion of the sum-percept.

A Question
What is it that can govern this activity of concretion? Is it entirely empirical?

Interpretation
In producing the concretion, the operational network can be influenced by verbal structures. Ordinary perception automatically integrates over the fluctuations of the senses to give distinct things. The extension of this to the life history of a flower, for instance, is a defect. The integrality there, is that of a distinct sum-percept which is not identical with any one state of the flower.

The relation between them is conceptual and enters into language. How it is treated has an influence upon how the mind usually perceives the flower: whether one can see the flower in the bud and the seed in the flower. For instance: how do we speak in English of the flower at the stage of the bud? (How can we speak?).

Language enables us to put together images in a way which extends beyond the boundaries of the actual impressions of the arena. The arena has the property of enabling this. It enables images to be compresent which are derived from impressions themselves separated. The language and its patterns of concepts, enable a compatibility to be set up which can then give way to a compresence of images. This is the proper role of language. It demonstrates how the structure of language dwells in our thinking (or the reverse!).

Extension of the Interpretation
Language is more than syntax, which corresponds to ordinary actual perception. I am reminded here of the notion of ‘system of representation'. This can be interpreted as: the means whereby all the accumulated data can be integrated into ‘one world'.

A world is more than what is actually here and now or then and there: it is the totality of all moments. According to the system of representation, the world is seen as a transcendental in-itself; or as an aggregation of point events; or as an organism and so on. For my part, I would wish to admit a multiplicity of totalities. Questions of the `total world' reach the limit of possible knowledge and conception. Insights into the unknown reveal something other, not a simple integration of more. How little we acknowledge the integral role of the power to know, to experience!

I should also add here that the system of representation enables me to know myself. It is no wonder that men consider themselves as objects when the same language has to be used for both knowers and knowns. In thought, it is also the case that seeing the patterns which are thoughts enable me to see the patterns of my mind itself. Mind in knowing does know itself. As I penetrate into the depth of what I know I meet my own mind as well as what I have known about; but only my mind, only that part of myself. I am here reminded of the notion of whole-consciousness.

Return to the Interpretation
Language does have the role of controlling the inner imagery. A description heard is effective because the listener can form a picture of the scene described. It is also an aid to memory, in that if the words can be remembered, then the corresponding images can be made available. So it is when reading about certain ideas, where to our minds there come images, which, in their organizations, correspond to the ideas. The inner imagery provides an intermediary between the actual impressions of the words and the concept-patterns.

There is a degenerate situation when the concept-patterns become, in effect, means of organizing words to form them into verbal perceptions. Here, I can know what is being said, but not what it means. For the latter, a certain independence of words, images and concepts is required. To form a clear idea from words is not easy. The reason for this is that the `clear idea' is a concretion made out of images such as to reveal a pattern. If I read an account of some machine such as a computer, I have to concrete out of images and concepts. Below concretion, I can have particular images of the appearance of the machine or its parts, or a representational grasp of one of its modes of operation. At concretion, one has the idea of the machine.

In a particular experiment that I did with students, a machine such as a railway locomotive was visualised and then that which is in it because of the human world, its function, was abstracted. None of the students saw that the machine falls to bits.

When students are asked to consider a concept and deal with it, either (a) they form a picture, or set of pictures, or (b) form verbal structures. Thereby, something conceptual becomes embodied and manifest, but they are not examining the concept as a pattern itself. In other words, they do not work with the mental forms, but under their influence. Here we can note that a person's grasp of language is the same as his dwelling in the forms of his thinking.

INTERLUDE 1-The Idea of Concretion

The mental forms are like an aroma given off by the perceptions or images. Similarly, concrete visualisation produces a tactile impression of an idea.

The main idea seems to be this: that in ordinary thinking, perceiving and language there dwell certain patterns. In higher thinking, or clear thinking, these patterns become concrete. They undergo a transformation which is more than a clarification, more than a change: it is an act of concretion. The task is to find a way in which that which is ordinarily taken to be abstract in our experience is made concrete for us as individuals.

INTERLUDE 2-a cybernetician's view of thinking

> Following this discussion of the basic programs of human behavior, the concept of "thinking" should not present any great difficulty nor should it require extensive explanation.

Thinking is a process of information reprocessing within the human brain. It is accomplished with close interrelation of various levels of the conscious and subconscious, this occurring according to general principles of hierarchical programming.

I have already mentioned the concept "thought". This is simply a cortical model to which attention is drawn at a given time, that model which demands the greatest potential in comparison with all others. This model can be related to different codes, levels, programs; it can reflect a perceived influence at any given moment or a recollection of previous activity.

It is wrong to identify a thought with words or phrases which are pronounced "to one's self". It is only necessary to observe one's self briefly to be convinced that we do not always think in terms of words. Frequently, an idea is an image, a sensation derived from one's activities or some model in terms of a higher level code-a concept, an abstraction which may subsequently be expressed in words but sometimes is never so expressed. Phrases which are mentally pronounced are incomplete and in the great majority of cases are reduced to simpler concepts.

As yet there is no way to determine the expenditure of time on any of these specific aspects of thinking. One can assume that our attention is frequently attracted by "suppressed" activities, this including the speech which occurs in terms of internally verbalized thoughts.

Primordial program exists in the cortex as is true of any informational system -"stimulus-activity". According to this program, every image of the external world has connections with models of some programs of activity. Most frequently there are models for the pronunciation of words which designate the name or property of the object under consideration. Therefore, having seen an object, we first recognize it and then automatically pronounce its name or designate its qualities mentally. Thought in terms of words is nothing more than suppressed speech. The ability to suppress movement is a consequence of upbringing. Small children chatter incessantly and cannot sit quietly in any one place. The ability to restrain one's movements comes only with time and with some difficulty.

A thought may be viewed as a real object which has been reflected in the cortex. That is, the activity of a model excited to reach the level of consciousness as a result of the influence of other models via its connections can be almost as great as the event of excitation of this model in the process of reception and recognition via a sense organ. In both cases the model is, so to speak, "illuminated" and moves from permanent memory to temporary memory where it can function as a source of excitation for other models which have well-utilized connections with it. In particular, one can separately identify hierarchical models and supplementary codes-qualities as in the case of sensing the external environment. In essence, programs of imagination are built upon this.
(*Modeling of Thinking and the Mind* by N. M. Amosov, Spartan Books, 1967, pp. 140-1).

INTERLUDE 3- a List of Exercises

1. Straight visualization-practice in organizing the arena
    (a) of an object such as a sphere
    (b) of a quality such as red or a note of a particular pitch
    (c) of the location of objects - as in the room or in some other space
    (d) of a whole scene with sound and movement.

2. Re-organization of actual perception.
    (a) Reversal of Kinetic framework, e.g. making the room turn and the body remain still
    (b) Change of colour sensations, e.g. reading the colour of a red book as green
    (c) Separation of sight space from hearing space
    (d) Rapid contact with objects so that each is an instant impact without time for recognition
    (e) Concentration on the instant - a ‘now' that has no duration.
    (f) Reversal of interpretation---e.g. objects are seen as intersections of light not as the source of light rays

(g) Intentionality brought to optical illusions, e.g. the cube which seems to go into the page or out is seen in alternate ways rapidly.
(h) Induction of optical illusions, e.g. use of horizontal lines to induce planes, depth, etc.

3. Mental Forms-grasping organization in itself
(a) What makes a triangle a triangle? (any image is rejected as irrelevant, similarly no verbal construct is allowed; the result is a form which can somehow be expressed, e.g. ‘the linkage of 3', ‘rigidity' etc.)
(b) What is a ½? (The main work here is to reach detachment from the state of tension that is set up).

4. Complex operations-enriching the way in which the arena is looked at
(a) Grasping the space-time extent of the present moment: what are the phenomena of now?
(b) Reversing the solidity ‘given' in habitual perception and looking at the mental forms of alternative worlds (e.g. matter as the vacuum of the spiritual world)

5. Language-experiencing the limits of expression and perception
(a) Describing an experienced action without use of tenses
(b) Describing the content of a room-including the states of feeling, physics, history of what the room 'is' - to really grasp that we are under the spell of limited categories.

6. Seeing concepts-working on the way that looking is blind to itself
(a) Looking at how we understand some aspect of a theory such as that of relativity: when we say
to grasp that this is because we see it that way and that we do not know why we so see (in other words, we tend to look at what we see; we are hypnotised by our seeing); when we throw up a concept, to check whether we see the concept in all its parts and to investigate what this could mean; grasping that concepts are treated as representations whereas their origins are in possibilities of looking; etc.
(b) Transferring concepts into concrete models- e.g. trying to visualize what wave and quantum theory say about light. (c) Trying to represent operations rather than static situations, e.g. impulse, remembering, growth, change of state.

7. Utilization of structure of arena-awakening ‘whole consciousness'
(a) Breaking down thinking- e.g. trying to speed up thought; trying to think about one topic for a few minutes.
(b) Divergent practices - quieting the mind and just registering any image that comes; stopping and catching the present image; writing out sentences properly constructed in which one allows words to form without any concern with meaning.
(c) Concrete visualization- e.g. representing a waterfall sensually, participating in it in the feelings, asking what it essentially is.
(d) Placing notions in an arena and experiencing their activity in the ‘theatre' of the mind.
(e) What am I?-making as many different kinds of representations of oneself as one can.

8. Concretion-the annihilation of logic and of thought as anything in itself.
(a) The contemplation of oneness amongst the diversity of things seen.
(b) Looking at an idea as more concrete than objects.
(c) Seeing our thought as emerging from our physical presence. (d) Realizing that we think nothing new and asking the question why do we think?
(e) The steady contemplation of our experience to grasp what it is that is more, that is not thinking.

SECTION TWO-Ideology of the Interpretations

Preamble to the main themes - reading what has been said.

Concreteness and clear ideas

The present enquiry is directed towards clarifying the complexity of thought in terms of different kinds of operation and different modes of concreteness. An ‘operation' is anything which produces a change in a situation. A mental operation changes the content of the mind, both within and outside the region of operational awareness. `Concreteness' means any individuation. In the realm of mental activity, a ‘thought individual' has a history as well

as an intrinsic identity: it is involved in development as well as being recognizable. Philosophers in the past have often referred to concreteness as 'clarity'-thus the ‘clear idea'. In my approach, the clarity of an idea is a personal achievement, a development of concreteness. This will have important implications for the meaning of `abstraction', a badly used word covering a confusion of ideas.

Mind is more than it sees

There is a peculiar property of mind: it is able to establish an experience in which itself and the world of body and environment coalesce. This means that the differentiations inherent in the environment - such as those of time and space - do not apply to the mind. Yet, the mind is no eternal consciousness; it is involved in the changing environment and is a constant web of inner operations. Mind is present in the whole of experience, whereas the environment and the body enter it as components or particulars. Such considerations follow from the impossibility of locating mind in the way in which an object can be located. Similarly, it is not possible to `time' a change of mind: for example, an act of noticing is discontinuous. Changes of mind entail translations between distinct configurations of perceptions, imagination, feeling or thought.

Seeing as coalescence

Experience has the property of replicating its structure on every scale. My perception of a book on the table is representative. It appears to me as a composite thing, consisting of outer surfaces, containing this paper sheet, and imprinted with letters. It is, yet, a whole: all the component parts, both apparent and assumed are coalesced. I notice `the book'; my gaze turns away from ‘the book'. Similarly I see the title or notice the colour of the dust jacket; or the shadow it casts and so on. In each instance, there is both a composition and a unitariness that amounts to coalescence. Recognizing an object, then, is an act of perceptual coalescence. Through childhood and onwards, the ability to establish perceptual coalescences is developed in us by living in a human environment and has a culmination in the observational power of the scientist and the creative perception of the artist. More practical observations on this are provided in the section on Exercises.

A book and a packet of cigarettes cannot be recognized in a unitary way unless there is a special mental orientation. For instance: if I am looking for the cigarettes and know that they are on the book, the two are unified by the book being the subordinate component affording location for the cigarettes. In this case, the two objects are compresent only, since my intention is to grasp the cigarettes. Another possibility is that I am exercising my perception by attending to the visual field in what the two objects are focal regions. Here, there can arise aesthetic coalescence. If I were considering two books, then in the case where they both dealt with something of interest to me of that moment, I can recognize the two in a unitary way as part of a single field of discourse. Then, they would belong to a conceptual coalescence. I would see them as expressions of one idea. More often, any two objects are amongst others and share in a general compresence of objects. The compresence of objects around me fluctuates in content as I shift my gaze and attention. In this, however, there remains the coalescence that is the room.

Background to Seeing

So far, I have considered the coalescences or recognitions that constitute objects of unitary features of my environment; their compresences and the dominating coalescence of my awareness of the room. Side by side with these, I am also vaguely aware of forms of possible perception-such as my awareness of the geometry of the room and its relation to the house. The form of objects is correlative with my ability to look at them in many ways; and, in fact, with the whole structure of expectation in perception, including the underlying gestalt of my perceptual set in entering new situations. These, too, form a set of unities that are unities of compatible perceptions. This becomes clear in such situations as designing the interior decoration of a room, where a specific intention is established at some point of decision as to the set of compatible perceptions to be aimed for-in other terms, the `criteria' of compatibility is decided.

If I consider the whole-perception; then the compatibility corresponds in a rough fashion to Kant's `forms of intuition'. I would like to add, however, that compatibility is not without a content, though it is not that of actual impressions. It is my `underlying picture of the world' which is the referential framework for what I recognize and discern around me now. I cannot insist too much that this is no eternal pattern, but variable in scope and historical in nature. It applies equally to my awareness of the whole building as to my awareness of the universe and both these instances have developed over the years of my life.

What is the Inside of Seeing?

l. In speaking of an `actual perception' I have been using a linguistic convenience too hastily, for it requires certain explanation. If I endeavour to cut between what is `in my mind' and what is `given by my senses', utilizing the discoveries of experimental psychology, then I reach no atomic sensations but a bewildering blur of impressions which have no coherence in time and space. But, between the fluctuations of my eye alignments and focus, and the variabilities introduced (but also cybernetically controlled) by the chemistry of my retina and the structure of my neurological activity and the things I see, falls the well known shadow which is nothing else but the act of making that cut.

In epistemology, it is rarely noticed that that there are objects is grasped in a different way to what these objects are.

In ordinary terms, when I look at the book I can be aware both of it and how I look at it. These two together make a unitary whole within the coalescence of my active mind. In that experience, the actual perception and how my mind is knowing about it are distinguishable as two foci of concreteness.
The distinction between the two foci, their inner organization and relationship towards each other are determined by the mind-operation which establishes the over-all coalescence. This includes the influence of `style', of perceiving. It is in this context that I say that the mind is present in what we perceive.

2. I should add a comment on the phenomena of irreducible coalescences. It is often assumed that objects are irreducible perceptions, but it is possible to 'destructure objects' by work on habits of attention[6]. What does seem to be irreducible, however, is a certain extension in time and space. It is not possible to hear only a single note at one moment in a passage of music. When I listen, I hear the duration of a short phrase as one moment of sound. Similarly with spatially-qualified vision: I cannot reduce the solid angle of my visual attention below a certain limit. As I reach that limit, fluctuations of gestalt-operation shift my attention to and fro between particular small shapes either present or fabricated out of random arrangements.[7]

This is not a trivial observation. These limits are indications of the ultimate atom of our perception. In my view, these ‘irreducible coalescences' are expressions of our physical presence. These are properties representative of `the mind', which embraces an operational network which includes external action as well as inner mentation. The quantization of mind in perception gives rise to the well known 'specious-present' and also explains the balance of detail and comprehensiveness that is usually expressed in terms of `focal' and `peripheral' awareness. Similarly, the balance between inner imagery and external impressions is a quantitative one: strong inner associations remove awareness of the environment; and everyone knows of the discontinuity in awareness which we call `suddenly noticing where we are' after being last in reverie.

This does not exhaust the possibilities. The strength of the coalescences within the active mind is variable. In ordinary terms; I would say that the depth and coherence of my perception is directly related to my mental concentration. If my mind is full of imaginary situations, my actual perceptions pale into an unstructured sameness.
The degree to which independent mental activities can be brought together (compresence) and coalesced indicates the operational power of the mind.

3. Many have described our perceiving as an activity of the mind. This has suggested the possibility of recognizing mental constructions which are immanent in what we perceive. I have tried to avoid making a cut that puts all mental construction in opposition to an influx of fragmentary sensations. The constructions in the mind require their own kind of investigation, different from that applicable to the world around me which I can explore with hand and movement and a multitude of recurrent operations. There are also many similarities and the most fundamental of these is that both perceptual objects and mental constructions are historical.

Again, I must explain this term, though more fully than before. Historical entities are not eternal objects but subject to change and they carry with them traces of their past. They are also neighbours of similar entities and so have and require a place in a complex of entities: they are in a ‘world'. Further, such entities have a characteristic significance which arises in our experience as an act of recognition.

[6] That is, phenomenological reduction
[7] These phenomena demonstrate that it is only possible to see wholes. In this case the wholes are those of automatic recognition.

THEME 1-the experience of a whole thing

When I recognize the book, I can distinguish between the actual perception of the moment - the book seen from this angle in this lighting - and the mental construction which enables me to see it in the round as an object situated in the world. Consider the well-known phenomenon of seeing the wheels of cars as circular no matter what the angle of view might happen to be. The actual perception is of an ellipse, yet it takes a special effort to see it so and separate this actuality from the mental construction which represents it as the circular form that it is. These vistas ‘in the round' I call sum-percepts, to indicate that they are constructions built up of actual perceptions.

Consider my paradigm case of interior decoration at the stage of inspecting the room. I can never actually see the whole room, but only partial views. I have to form a mental construction which is of the room as a whole. The various views first form a compresence in my mind and are then coalesced as a sum-percept which I can never be actually aware of as a perception in the ordinary sense.[8] To `know' a room means more than to know what it looks like. This is necessary to the good interior decorator, who, if he deals only the compresence of partial views, can only by chance find an effective unity of treatment. It is also necessary to every perception to some degree.

What seems to occur is that, while actually looking at some view, the mind provides other, complementing views, to make a coherent whole. It requires careful attention and study to recognize that what we ordinarily take to be three-dimensional vision is largely an aspect of the coalescence of actual perceptions with mental constructions. I can add, incidentally, that this ubiquitous coalescence is responsible for our usual persuasion that our minds are located `behind' our eyes.

To say that our usual visual perception is two-dimensional and that the three-dimensional experience we have is due to the intervention of mental constructs may seem strange. The strangeness can only be dissolved by attention to fluctuation in the character of actual perception. Actual awareness of depth, when it occurs, is a strong and impressive experience, quite distinguishable from the usual awareness. It as associated with a different awareness of self-presence.

Poincaré pointed out long ago that our spatial awareness is constructed out of bodily experiences gained through movement and manipulation. But there is also an element due to language and our human environment. We see the kind of thing we expect to see and this is greatly influenced by our habits of representation, which are most dominated by language. I have been deeply struck by the instance of Giacometti the sculptor, famous for his pin-headed statues of people walking: he claims that he actually sees people with pin-heads. I tried the experiment of attending to the actual size of people's heads as I passed them in the street and found the kind of thing he described and portrays. Here is a case where the subject has become free of the organization of certain perceptual conventions which exert their influence through communications between people in a society. I can say that the approaching man gets nearer, but I can also simply say that he gets bigger. The latter is the most direct way of describing my actual perceptions.

Similarly, the ‘distortions' of modern representational painting are really only different styles of perception, attending to different features of what we actually see and using different mental constructions to those habitually used. I would even say - and speak in accord with many others - that the recognition of the subject of a photograph is an acquired mode of seeing requiring a particular mode of mental construction.

The sum-percept then is as much a matter of mental organization as of actual perceptions. But it is present in our awareness in coalescence with actual perceptions. In order to see it independently, the coalescence must be broken down to a compresence. In psychiatry, this is recognized in the phenomena of dissociation when objects and intentions cannot be recognized at all. When it is done intentionally, the field of awareness is divided into two domains where one is recognized as `imaginary'.

The imaginary domain has peculiar properties. Not only has it to represent a manifold of views, but a manifold of environments. These can be abstractly described as time and space-wise manifold. The manifolds are not coalescent

[8] Some people are able to perceive the actual dimensions and structure of an object as if the object were their own bodies, e.g. Lawrence Bragg, the great crystallographer

unless there is attachment to an actual perception or a special mental operation. The latter, `seeing an object as one whole', I shall refer to as unification by form: I have to grasp the construction of the object before the manifold of the sum-percept in the imaginal domain coalesces.

This step away from actual perception is an action of thought.

I can make a similar phenomenological analysis for what we commonly called `universals' such as ‘book in general'. Such a mental construction can only become concrete by a special mental operation such as thinking about what constitutes a book: this means the formation of a concept.

As it coalesces with actual perceptions of books, the universal has no concreteness of its own. It is truly abstract. It is an inner operation that transforms the compresence of mental constructions of books into a coalescent concept. A little reflection will show that it is not necessary to have such a concept in order to recognize and perceive books. In this pre-coalescent state, the concept is constituted as a compatibility only. My inference is that abstraction is in general constituted by the state of compatibility. That state fully enables me to classify objects; but, in order to think about them, my mental constructions must be made more concrete and this is done through imaginal compresences transformed into coalescences.[9] (Such is the way in which the theoretical entities of science such as `electrons', `fields' and so on become accidentally reified). I must insist, however, that the coalescences of our perception are not totally different in kind. What I see and what I think are equally entities `in' the mind; only in their mode of coalescence do they differ. Perception can be as equally creative as thought as is obvious in art and love alike.

THEME TWO-Language and its Influence

It is impossible to speak of our habitual modes of thinking without speaking about language. 1 might well describe language as a substitute for thought: it is putting a name to compatibilities that gives an illusion of handling concepts and persuades us that thinking is abstract. I would not deny that ordinary language is a precious instrument in ridding us of much unnecessary mental effort. It is, indeed, profitable to be able to deal with situations without being aware of how they are constructed. In this way, nearly all the transactions of our lives are conducted without thought and hence are really suited to computerisation. But we encounter difficulties in such fields as art criticism, and scientific discourse is riddled with fundamental ambiguities. An understanding of the nature and right use of language is indispensable to the development and progress of thought.

There are three distinguishable levels in reading. On the lowest, we read only words and are not aware of their significance at all. This is more common than most people suspect even though it is more noticeable in situations where we read in a state of mental distraction. On the second, we are aware of what the words mean. That is, there are present in our minds mental constructions, corresponding to sum-percepts, which coalesce with the words and enable us to recognize their import. In reading a descriptive passage, I can then build up a mental picture corresponding to the description written. In reading of something concerning a topic in physics, I can locate the field of discourse in my mind and have available acquired data relevant to the topic.

On the third level, we are aware of what is being said, that is, of the concrete idea which gives a specific unity to the passage. This may require repeated reading. For example, I required two or three readings of the passage in Joyce's *Ulysses* describing the scene in the pub at the time of the woman in labour in order to really grasp the total structure as a coalescence of modes of English usage and description. On the third level, we can make progress in our mentation on the theme of the discourse. The recognition inherent in the second level enables us to be truly literate but does not constitute thinking.

There is, however, a special class of linguistic sequences which are designed to establish in the mind a certain definite idea. Not, I must make clear, a static form on analogy with usual representations of unchanging eternity. The idea of a myth, for example, has the same kind of dynamism as a mathematical method which is a structure of operations. Complex ideas such as these of ancient stories and modern algebra can elude concretion in the mind but nevertheless make a contribution to our thought. The story or the formalism forms a mental construction capable of influencing our apprehension of situations. That is to say, they can exert an organizing influence on our perception and inner imagery. In coalescence with actual perceptions and concepts, the imagery of the story of formalism is

[9] As in *gedanken* experiments

hardly present in itself. It is as if the intellectual power of the mind becomes focused by means of such constructions: the lens casts very little shadow!

A set of mental constructions develop which are peculiar to the operations of language. It is a set that overlaps and mingles with those affiliated to our actual perception, often with a resulting confusion. I look at the chair and encounter something that coalesces with the universal mental construction of ‘chair' and the sum-percept of that particular chair. As I attend, I become aware of the iron frame and the seat and back padding, the particular kind of shape it has and the traces on it of being struck on the legs by careless human feet. Then I say to myself, "The chair is blue" and watch my mental constructions. I see that the iron of the frame, the kind of padding, the shape and the blueness of the chair become equivalent items in a cluster of `attributes' unified by reference to a being ‘chair'. My mind is representing the chair in terms of ‘substance and accident'. In other words, in terms of Indo-European syntax. In Hebrew, the word ‘to be' is withheld from every being save God so that there is no representation of a linkage between attribute and being; the two are apprehended as a perceptual type of coalescence. But I can attend more actively to my mental operations and bring about a certain degree of concretion corresponding to the form of constructions of the chair. This I would find difficult to express. It has to do with grasping the construction of the frame with respect to gravitational forces, the position of the back with respect to the construction of the average human spine and so on. It is, indeed, the recognition of the chair as a human object designed for a certain human purpose-and what that entails.

To become aware of the influence of language upon mental constructions is not very difficult, but is greatly neglected in usual courses of education. In many instances, the situation is so bad that people do not even intend to communicate their mental constructions but only the words of the language, working with a minimal, but invisible, set of mental constructions. Or else, the discourse is conducted in dissociation from the mental activity and it is not even noticed that this is the case.

The exercise of becoming aware of the mental activity underlying linguistic communication is important in any group. It is widely recognized that in groups, people are not aware of thought which is then expressed. Mental constructions, speech and listening arise together. Often, it is the listener who is more aware of the inner representations in the speaker than the speaker himself. In dialogue, the more intelligent man is he who is able to concretise the mental constructions of the other and express these to him, or concretise those he finds in himself. In these operations, thought is made and, of course, is more than a representation of the automatisms in mind engaged in habitual associations and patterns of verbalization. Thus, the Socratic dialogue can be understood as a transformation of thought. Only by such a transformation does the notion of awakening the mind of the participant to ideas make practical sense. The ideas are not phantoms in the mind waiting to be noticed, but entities that come into mental coalescence through a complex of operations. As I shall later elaborate, an integral part of this is the attunement of the mind so that it is able to recognize ideas and even look for them intentionally. A special kind of training is required for this, even though its most immediate source is the intellectual power innate in the mind itself. It is usually the case that mental constructions have to be built up by the aid of communications and exercises in order to receive the formative power of the intelligence.[10]

The ignorance obscured by language is .far-reaching in its negative effects upon our thinking. So many words that we use serve as ciphers in an algebra where they have a minimal content. Such a word is `time'. This word is used in all the actual sciences, in everyday life; indeed, in every field of discourse. I have met few, however, who can give any explication of the word beyond pointing to a clock and saying: `that measures time' which is a manifest absurdity. I can find more sense in Shakespeare's "Oh, how can Summer's honey breath hold out against the wreakful siege of battering days". There is considerable ambiguity about the correlations of the parameter t in quantum mechanical formulations with macroscopic time-values. I have read scores of books supposedly at some point explicating the meaning of the word `time', but have never found anything but the crudest mental constructions

[10] Some of these ideas apply to individuals. Recent studies of 'problem-solving' show quite clearly that most people's so-called thinking is nothing but the triggering off of a set mechanism which is uncontrolled because there is no awareness of the processes at work. c.f. *Problem-solving and Reasoning* by P. C. Watson, British Medical Bulletin, 1971, 27 (3).
1. "The initial response to a problem either gives it arbitrary meaning, or changes its structure, without full awareness on the part of the subject."
2. "Both projects here show a strong tendency for subjects to verify rather than falsify, to believe rather than doubt; and they have shown the domination of verbal processes by a relatively unchanging conceptual process."

which pre-suppose some prior intuitive cognition. The word we use is there, in our language, before we form any idea of it: as a social convenience, as part of a technical terminology. Experiences cluster around it of railway time-tables, hours of work, measurements in a laboratory, the constructed emotions, from the poetry we read or dream. The word designates no object, but how many students studying natural science would fail to speak of some `flow' objectively occurring in the world which was time, curiously echoing the words of Newton: "Absolute time flows uniformly on everywhere"? Is not the assumption of a linear time an intellectual_ invention? Are there different kinds of time for different cultures?[11]

The mysteries of time are hidden in the mysteries of our language, since it is only through language that such a thought can arise. It has to do with the connections between things, how we group and analyse the elements of our experience and what constitutes an element for us. There is a great difference in conception between a view that dwells in instants of world configuration (Laplace) and one that dwells in a medley of on-going cycles (mostly in the cultures of the Turanian languages.) The difference, however, is usually an invisible one. It is only when time is confronted as an idea that we have to reflect and concretise the implications of our linguistic usage. This is the work of poets and philosophers, but also men concerned with the implications of time for human life and human change. One of the most revealing discourses on time that I have read came from a Sufi source.

The truth is that our language is full of words and forms for which we are able to form no clear idea (i.e. mental coalescence) and if we wish to do so, must make a special effort. Such a use of language is purely functional, and can serve only for the ordering of external activities. In that image, we are devoid of thought. This is no great import to us unless we realise that, for example, an understanding of time is essential to understanding how human nature can be transformed, or how evolution can occur; or an understanding of space is essential if we want to understand how people can communicate together.

Language is a very special kind of mental apparatus. Many times I have in exasperation over some difficulty of mental clarity turned to making abstract drawings as a focus for my thinking. Each time, I have recognized again the unique power of words in being an instrument of thought. At the same time, I have also seen that such representations as I have attempted reflect the same kind of construction as that utilized in language and that it is capable of development for certain mental purposes. The hold of speech upon thought can be easily verified by the practice of denying oneself certain words from one's customary vocabulary. For example, removal of the word `fact' from a conversation on scientific method can prove most salutary. It can have a positive benefit in aiding the development of clearer ideas on what scientists actually do. Another field of investigation is in discourse concerning works of art-which are fully intelligible in their own right and in terms of their own `language'. I have observed often in myself that tendency towards verbal representation which I find so pathological in art critics when I look at paintings which do not arouse in me an immediate emotional response. One of the most interesting experiments done in this field has been the `functional analysis' of Hans Keller who produced expositions of musical compositions entirely in terms of musical sound. I still remember clearly the new vista opened up for me by him on one of Mozart's later string quartets! In recent years, workers in the field of linguistics have pointed out not only the influence of linguistic structures on our thinking; but the very form of the verbal medium itself, such as the printed page. A new vista is opening up of non-linear, non-quantized language, where the visual recognition is no longer dominant.

Without language we could not begin to think, but if we do not become free of language, master of it, then our thinking remains childlike. A very important part of our early development is the acquisition of the ability to manipulate words, but this should give way to the acquisition of the ability to manipulate thoughts. The two are not concurrent operations. There is also the fact that peoples not dominated by language in their thinking are able to ‘read' situations, i.e. be aware for example, of the ‘emotional overtones' of a conversation in a very precise way. Another example is that special development of intelligent perception peculiar to people living close to natural phenomena.[12]

---

[11] ". . . they are models which simulate the fixated and repetitive tendencies which are known to occur in human thought" Watson loc. sit.

[12] Suzuki in his "Awakening of a new consciousness in Zen" gives an interesting footnote (p. 201).
"It may be primitive, but to locate 'thinking' in 'the belly' or 'the heart' or the 'diaphragmic region' is quite significant. There is a sort of 'thinking' which is done with the whole body or the whole 'person', and this thinking is beyond conceptualization. If we do this thinking, it is transferred into the ordinary place of consciousness which we locate 'in our most dignified head'. The

THEME THREE-Aiming at Concreteness

The formation of clear ideas concerning events in the past is a very special task, but the goal is the same as in all real thought: concreteness. In this case, the degree of personal involvement is considerable and it is often said that all true historians are changed by their studies.[13] I have never, however, come across any guide to how I might develop this power in myself. As with all true processes of thought, they are assumed to arise spontaneously by exercise in the particular field. But the step from utilization of the specific apparatuses of the field to concrete realization can surely be intelligently guided, since it is by the innate intellectual power of certain men that they are able to come to it themselves? It is too often assumed that mental operations which are not explicitly anchored to external apparatuses are purely private affairs and cannot be guided. I must add, though, that one does encounter and hear of men who, thoroughly versed in the thought of their fields, are able to convey by personal contact something of the way to mental concreteness.

Take the word ‘flower' and draw into the awareness all the diversity of imagery which the word conjures up. Attend very carefully to the centrality of the idea, that is, to there being a unity of thought 'flower'. Draw the compresent elements in the mind together until they fuse into coalescence. As this happens, there is a mental shift and the subjective experience of new solidity. Recalling the word reveals the presence of a clearer thought than before, an added dimension of meaning. There may or may not be any imagery. Such an intentional exercise follows three stages. The first stage is the stage of abstract thinking. It is able to facilitate the correct use of words and direction of mental attention. The second stage, that of compresence, opens up the possibility of mental work. It becomes possible to assemble mental configurations in correspondence to the linguistic structures actually perceived. This state of mental operations corresponds to mental representation whereby one is able to form an image of events which are not perceptually present, and even not perceptually imaginable. The third stage is that of ideation where a word can be used by the person who can see the thought he has concerning that word, a thought that he himself has brought to concreteness.

Not single words, or words alone, exhaust the domain to which this analysis applies. It is compatible with every explicit discipline. Consider a discipline of the natural sciences and the particular component which is named `theory'. Many are able to handle theoretical language well enough to pass examinations, all without any material with which to be able to form mental constructions reflecting the structure of the situations out of which the language was developed. Hence the fruitless suppositions of 'truth' and 'untruth' rife amongst students when they are asked to discuss questions touching upon scientific theorizing. It requires a great deal of mental work leading to concretion for a person to grasp the ideation of theoretical science. In this process, the original formulation and subsequent (and even antecedent) formulations coalesce into a personal interpretation that is authentic by its mental concreteness. It is then possible to realise that a `theory' is neither a `thing' nor an 'abstraction' but an evolving mental entity. This is understood by participation in the process. The theory is individuated in persons. There is a wider coalescence in the scientific community at large, where a differently constructed theoretic individual is present.

THEME FOUR-Thought as thought

It is not inevitable that thought arises by the support of perception or language. The mental constructions which I have in writing or intelligently responding to my perceptual environment have an inner play representative of something always present though often invisible to me. It is the occasion of the surprise I feel in bringing to expression the dim thoughts revolving about some set of linguistic forms which define and elaborate a concept or a situation. For many people, the experience of this has led them to suppose the working of an `unconscious mind' a region only to be encountered in manifest patterns of feeling or some form of expression. There is something valid in this notion.

---

diaphragmatic thinking is not an 'emotional thought’; it does not belong to the psychological categories we usually use in our textbooks. If we are to find a place at all for it, we would call it psychometaphysical."

[13] c.f. Toynbee’s *Study of History*.

All that I perceive, verbalise, imagine, feel or think is within my mind. This total mind contains all the multifarious moments belonging to different parts of mental experience and action. Such a view does not necessarily entail any suppositions concerning an underlying `self' or unity that is only apparently changing and diversified. Our attention is usually held to an actual occasion such as an actual perception. On change of occasion, the gestalt of mental experience changes. Such are alternations between different emotional sets and contacts between contradictory ideas held on separate occasions is determined by the structure of will of the person. Two ideas, for example, are only contradictory in terms of an intention towards clarity of mind. Lacking that, there can be a fragmentation of intention into divorced regions of mind.

Accompanying the actual occasions, in which fragments of active mind inhere, is an operational region and assemblage of mental states whereby they are linked together. It may not enter the awareness of a person that he has a particular mode of dominance-wish towards people, yet this will group his actual mental fragments according to this characteristic motivation. A similar representation can be made for people endeavouring to think creatively concerning some subject. Outside of any actual mental occasion, there is an organization of mental activity which is the guiding influence towards a new insight. In both these instances, the actual coalescences are accompanied by an organization of compresent mental states. When a mental transformation takes place, there is coalescence on a wider scale and fragments of active mind fuse together in true ideation.

The situation is, of course, exceedingly complex. Contrary to classical notions of the simplicity of reason, we acknowledge evidence of a bewildering diversity of possible operations and states of mind. Nevertheless, it seems to me that a recognition of different states of concretion in the mind is the basis for the removal of much unnecessary confusion-of both language and thought. But one of the features of the complexity of mind is that in order to advance towards an ideational coalescence, there must be a disruption of the actual coalescences to which thought is attached. And even ideational coalescence must be disintegrated if it is to be itself transformed. I propose that there are at least three levels of concretion, each with a different relation to awareness. In the coalescence of the actual occasion there can be no doubt of the important role played by mechanisms of which we can have no direct awareness. The mechanisms of perception are deduced from complex experimentation. However, it is significant that most expositions on the nature of perception are composite in nature: they are a mixture of external observables and, subjective reportings.

The transition from mechanism to awareness is an unfilled gap. To refer to actual perceptions as coalescences explains nothing but acknowledges a fusion of disparate kinds of operation. Mind meets body in the experience of sensation; mind meets the world in the coalescence of perception. They are of a kind. My perception is more than I see because I am not able to see the transformation of information and activity that is automatically carried out. Yet it is my awareness as a something that enables there to be perception at all and I have already elaborated how this perception is to be regarded as an activity of mind. My conclusion is that my awareness of the perceived is only part of the coalescence that is perception.

This becomes apparent in the coalescence of thought, which I affiliate to the second level. On this level of coalescence, I can become aware of the mental activity that engenders the form of my perception. In the previous case, I can see, touch, hear, smell, taste something tangible. Now, I can be aware of my mind at work in this: I can begin to reflect in the midst of the actual experience and not merely `after the occasion'.[14] I can even direct the organization of my perception and so change its significance. For example it is then possible to intentionally inform the mind to form an aesthetic gestalt out of actual perception and observe a definite corresponding change in the significance of the environment.

I have also spoken of ideation in such a way as to place it on this level. To form an actual idea brings home the `awareness of the unperceived' that is a property of true consciousness. Many people have denied that an `image' can be formed in the mind corresponding to a true conceptional idea but have then concluded that ideas can have no mental concreteness. Such a conclusion I believe to be false, while agreeing that the concrete idea is not of a kind with perceptual images, even though these may accompany it. Perhaps the most essential part of exercise in ideation

[14] Ted Matchett "Idea development and advancement in Engineering" *Systematics*, 8 (3) p. 281. "The kind of attention required . . . Monitoring, including the regular and frequent assessment of the content, quality, direction and achievement of successive elements of thought that is actually in progress.... "

is in learning to attend to the form behind the images which fuse together in the mind in mental work. People are often surprised to find that attention to a mental form detached intentionally from images can be very effective in organizing the mind towards a specific task corresponding with that form. This phenomenon is important for groups engaged on understanding ideas which involve practical action.

At the same time, I must point out that the intentional construction of mental images belongs to this level also: a useful criteria is the degree of mental work involved, since many people can automatically conjure up pictorial images as easily as words. A very important field of application of intentional mental imagery is in the development of historical ideation.

The view I am putting forward is that if thought becomes self-directing, as in ideation, it must entail awareness of its own activity. However, that awareness must be of a different kind to that entailed in actual occasions of mind such as habitual use of words and passive perceptions. I am therefore hypostasizing two levels of awareness: the extended awareness of perception and imagery and the non-extended awareness in depth of self-reflection. The two are coalesced in every act of ideation, but in varying combinations; and the number of combinations is greatly increased on account of the possibilities of coalescence with actual occasions of varying constitution.

This last point is important. It implies that, compresent with actual occasions of mind there can be a mental activity that is beyond the actual awareness belonging to these moments. The fragmentation of intentionality of mind can entail more than a coalescence of actual separate occasions. There can be a `weak coalescence' of ideation that is unnoticed by the dominant awareness of the actual occasion, or just dimly felt: "the nagging thought", "the hunch", "the unquiet feeling of something being forgotten". A coalescence between the two levels is like the second coming to life within the first. The occasion of such a coalescence can be an acute recognition of being on the ‘outside' of one's own thought. In certain features, the two-level coalescence corresponds with individuation as it is known in psychology.

An important possibility on the second level is the condition in which the ordinary activity of the mind is objectified. If I detach the engagement of my interest (an emotional influence) in the content of this activity, I am able to a lesser or greater degree to observe my associations as if they were perceptions of my actual environment. I see that this activity ‘goes by itself' and that it has the property of diluting mental coalescence to a chain of minute occasions. Of great importance is the separation of mental associations from `I-feeling': when these are intermingled I am really dreaming, though I may be simultaneously efficient in finding my way around a world of actual perceptions. On attempting detachment there arises a force which is the collapse into first level coalescence. The energy of that force is needed for ideation.

The practice of the ‘still attention' that can be compresent with ordinary mental activity is of great value. This is akin to an open decision of thought and is the necessary condition for second level development. The open decision of thought is towards a communality of mental content of which I need not be directly aware. An illustration of this is the setting of one's mind towards the notion of ‘goodness', wherein words and images dissolve before the still attention that seeks a content beyond visible forms (it is a receptive condition).

The achievement of second level coalescence is a highly technical process and does not come about by ordinary training of the mind. The pressure of training in ordinary education is centred on the first level of coalescence, but the quantity required may force individuals into ideation. The limit of second-level coalescence is the awareness with no content, i.e. with awareness so detached from actual occasions that it holds no representations. Nevertheless, it is not empty: as a coalescence, it cannot be. It is simply that the relation 'awareness-of' breaks down and becomes a relation of ‘identity'. I am not so much speaking of contemplative states as of the realization that, in the midst of our ordinary awareness, we can have the thought that our awareness is more than it is aware of.

In actual occasions, mind is identified with appearances; and thought is amalgamated with actual perception. With reflection, the world or anything other is represented; but then we are outside of the object of our thought. However, in ideation, the object becomes our very thought and we realise that we cannot think what cannot be thought.

In thinking, the object of thought is, first of all, a project. I set my mind towards an idea which is not in my actual awareness. Throughout my phenomenological description I have endeavoured to emphasise that concrete ideas are not actually present in the mind independent of the mental operations which are at work, to be encountered, studied,

used, conjoined with others or ‘applied'. The concrete idea is made in every moment of ideation; before that action, it is only latently present as a compresence of items organised according to a pattern, awaiting individuation. Even that compresent state requires some definite alignment of the mind, involving recourse to memory, imagination, association and so on. But what is the state in which I set my mind towards an idea, refusing to be occupied in my awareness by the clustering of content that accompanies any set of mental operations?

The vacuity of this state can be easily verified by setting oneself some fundamental question such as: what is space? and refusing verbal content. The alignment of the mind towards something that is not in actual awareness suggests an `anticipation' of the coalescence. It appears to involve a reliance on ‘unconscious processes’. But I have distinguished actual awareness from consciousness. What lies outside of actual awareness, normally referred to as the `Unconscious mind', can involve the very reverse of sub-actual activity. In this case, it must be so. The alignment of an open decision made ‘in the mind' is a conscious act which may be quite outside of actual awareness, or imperfectly reflected in terms of the attendant compresence of images.

Then there is the situation of spontaneous alignment. It is in the sense or feeling that "the answer is there if I could only find it". The extreme case is where the ideation coalescence is made and only then does the mind become aligned and grasp the ideation or goal corresponding to the arising of the idea. In this instance, we have a case of creative thought.

This spontaneous element must be something that we are not aware of in its workings. I wish to go further and say that it is not possible to be aware of it for its origin lies in a third level of coalescence that is beyond the awareness with no content. The Vedantic notion of the consciousness of the atman in deep dreamless sleep (in this tradition, to exist is to be asleep) comes closest to the notion. In the Vedantic system, ‘mind' is itself unconscious, and it is through the inner consciousness of the Self that it becomes capable of awareness. In the Western tradition, the third level was known as Intellect.

The creative act is a coalescence which operates on the two lower levels. But the condition for this is the freedom of alignment of the mind on the second level. This requires an occupancy of the first level (neutralization) and what can be called `inner play' or spontaneity of mind. Unfortunately, the operation of inner play is rather obstructed by the over development of the first level of coalescence, which ‘tethers' the second level. If mental effort is channelled exclusively into actual occasions, then spontaneity ceases to operate. One of the most obvious manifestations of this spontaneity is in the flexible interpretation of situations, the ability to see different forms simultaneously, which is the basis of humour. Another is the ability to ask questions. The general characteristic is the spontaneity of mental alignment. If attached to actual occasions, mental alignment assumes `mental set' well known in its properties through experimental psychology.

My goal has been to prepare the way for speaking about a coalescence which encompasses the mind as a whole. That coalescence is a source of structure. In thinking about a problem, I can receive the means for putting everything in its place. My meaning here can be illustrated by the following case. One of the possibilities of the second level of operation is doubt; not idle scepticism, nor mere uncertainty concerning evidence, but the kind of doubt that can be enacted before the whole testimony of the senses: what is the reality of my perceptions of the world? Simultaneously with this is the ordinary certainty of actual occasions such as recognizing a table. The most overwhelming doubt before the evidence of the senses cannot remove the table from my actual perception. The two, inner doubt and outer certainty, form a tension of meaning that cannot be 'solved' in terms of either, or by their addition together. Each puts the other into perspective, enhances the other, is necessary to the other. A frequent (inauthentic) outcome of the experience of the tension is some theory of perception, or choosing between theories; or a view on the workings of the mind; or an epistemology, etc., etc. Sometimes the result is a work of art that seeks to overcome the tension by filling it with an emotional pattern, as in the paintings of Salvador Dali. Amongst such things, there are a few that do not remove the tension of meaning, nor seek to annihilate its objective significance by feeling; which involve not a duality only but an added dimension of significance. It is not a meta-system to something that is a composite of the two elements, for these are incompatible in terms of any representation that can be made in the mind. It can work only by enabling the mind to change and find a new kind of certainty.

The proper goal for doubt is the preparation of the mind to receive a new kind of certainty. When I speak of ‘doubt' and `certainty' here, I do not mean to awaken in the reader ordinary images of sophistication and belief, but to name actual operations of the active mind. At the basis of my descriptions has been the notion of mental operations that

evade any possible representation, that are to be understood as coalescences of active mind itself. These operations directly pertain to the will so that they should be expressed as `I doubt' and `I really see'.

For the sake of completion I will say that operations corresponding to the third level of coalescence can be characterized as ‘certainty'. Certainty cannot be interpreted, for it is the source of all reasonings. Between the second and third levels of coalescence `falls the shadow' of the will, the operation upon operations. In the example, `I doubt' is the act of will that opens the mind to real certainty. It is the active complement of the still attention that detaches from the succession of actual occasions. The 'quiet mind' too is able to respond to the operations of the higher level.

I have tried to explicate a theory of three levels of mental coalescence -actual perception, ideation, certainty-in terms of concrete mental operations. I have found no means for laying these out in a precise and orderly fashion.

I wish to bring out that between the three levels of coalescence there are two regions of operation. The first is that of the imagination which is instrumental to perception as well as the means of visualization. The second is that of alignment which is the way for all states of being certain. These also constitute the two modes of awareness which interpenetrate in second level coalescence. In childhood, the imagination is exercised by fluctuations in alignment to produce active dreaming. The child knows that he is dreaming. At the stage of conceptual development, there still can be such an inner play: I can remember the times I spent reconstructing experiences, trying to visualize the ideas of physics, as well as the self-dramatizations and sexual dreaming. By the end of childhood, the active dreaming has given way to struggling with verbal and symbolic representations or has been channelled into regions associated with fixed patterns of feeling. For most products of modern education, there is a great deal of remedial work to be done. The freeing of the imagination is necessary to ideation. Ideally, the imagination should be like water, a presence that continually relinquishes itself. Its characteristic is that of diversity, its sole criterion being the compresence of diverse elements. We could not experience ourselves in a world without this imagination-it is, however, an ecology rather than the property of a spectator; the expression of our presence with other beings.

In serious conversation, the imagination becomes the substance of the discourse through the process of expression and re-expression. It is furthered more deliberately by the individuals working on the concretion of the ideas in the realization that the verbal activity is an outer representation of the ideational process. This means that the verbalizations are treated as expressions of the monitoring activity of the individual-it is irrelevant that his words seem to describe an idea. Then, the group of people can co-operate on alignment: dialogue is for finding the way, not for the exchange of thoughts.

Alignment is the activity of the understanding. Understanding can never be specialized-it can be looked at as ‘correct use of mind'. This involves the regulation of the coalescence of mental occasions and for that it is apposite that there are in operation the two kinds of awareness. These, by their very nature, constantly pose the question `What am I?'

INTERLUDE 1--a declaration

There is a world of contacts which is my sense-perception. Possibly also a world of informing that infuses a quality into the forming of my thought. Then thought appears as a middle realm.

What does thought in fact do for us? What is it as part of us? And what can it work in us?

As a function, there is a criterion of correctness: the sense contacts are coupled with an activity whereby they are ordered into definite or pseudo-definite patterns. Thought is then mediated by instruments of action. Instruments of action include speech as well as other motor powers which affect the external world. Thought is the region influenced by memory and expectation; it keeps track of time and space. It is like an imaginary perception.

There is more than temporality. This is affirmed in every idea. Mostly, we are in the realm of opinion where ideas convince us, but we do not have the means of finding conviction upon which to found ideas. Ideas are taken to be elements of the functional activity. They can be represented. This links them with the ordering function of thought which deals in representation. When, however, the representing of thought is itself represented, we begin ideation. The reason for this is that an idea is brought into the mind as a substance of the mind itself. We no longer look out

through the image but attempt to grasp the meaning of the image. 'What is the truth of this seeing of my mind?' or: `What is the being of my thought?'

The threshold is when we regard the image and seek in our minds for the substance constituting the idea and not the representing surface. The coalescence of the idea requires an act of certainty in which `I' is present. The fusion of `I' and the idea goes beyond ideation to a link with the reality behind the idea. It is a total realigning of the mind. It can be called `vision of truth'.

The threshold here is the realization of the nature of thought itself. In this way, the true idea is true in being the coalescence whereby the mind can be changed.

This means: the presence of 'I' `in the mind' will be changed.

INTERLUDE 2-a question

Chinese poet Lu Chi (about A.D. 300) poem Wen Fu, the last Section of his `Essay on Literature').

> Behind a trembling veil Truth seems to shimmer, yet over more evasive,
> And thought twists and twists like silk spun on a clogged wheel.
> Therefore, all one's vital force may be dispersed in rueful failure;
> Yet again, a free play of impulses may achieve a feat without pitfall.
> While the Secret may be held within oneself,
> It is none the less beyond one's power to sway.
> Oft I lay my hand on my empty chest,
> Despairing to know how the barrier could be removed.

SECTION THREE-Expression and re-expression as a way to Thought

What we find already formed in our heads, the very things we are likely to call `thoughts', are in reality the opposite pole to our own authentic Thought. The things in our heads are residues of conditioning processes; the words, images and associations which have cycled through our cortex often enough to have carved a niche for themselves. They are like the petty officials at the gate of the Palace, inspecting the impressions which come in, allowing nothing to pass which does not in some way conform to their own image or interests. Thus every impression that is allowed in has to play mute because our officious thoughts believe only themselves to be capable of speech. Many impressions have to play at invisibility because they are not wearing any clothes and according to the thoughts might offend those within. The petitioning impressions are sent wandering to all sorts of odd corners of the Palace and most are quickly lost in the vast spaces and intricate ways.

Thoughts are always writing speeches for those within the Palace. Not that they have been so commanded, but they take it as their due and duty to perform this function. Since they are in fact not in communication with those within they find themselves moved to read some of these speeches in order to keep up appearances. Their feelings are not ignoble, for in their eyes it would be a betrayal to allow the world to believe that the Palace was empty. They do not even see that what they are doing is to defend their own bureaucracy.

In reality, thoughts are strangers. They are not indigenous to the Kingdom but have drifted in and settled to their role. Possibly they come from very barbaric lands or were banished once upon a time from their own Kingdom. They pile themselves before the doors of the Palace so that there can be little traffic between the Palace and its Kingdom. Seeing them produces a sense of decay.

Those within the Palace cannot act ignobly, that is they cannot use the means of control which the officials use. Though their authority is higher, they have relinquished the lower orders of power. Indeed, the King is totally humble, totally emptied of force and partiality; he can only act as himself even when this might appear as inaction or silence.

The King is our own Thought. In the eyes of the thinking officials the impressions of the Kingdom are trying to gain audience with the King; what the officials do not realise is that the King dwells within the people of the Kingdom and the impressions are the King.

The King is not sufficient to himself though he might live beyond eternity and the dissolution of a thousand Kingdoms. It is His will not to be sufficient, it is His decision to have need of Kingdoms and the lives of impressions, it is His act to love what is there.

Revolts and revolutions come and go, making their way through the changing balance of forces at work in thoughts. For a time, revolutions always succeed, the main reason being that the thoughts are not in communication with each other, but eventually they fail, since all the thoughts are essentially concerned with maintaining the status quo and having the same aim they must eventually gain some semblance of concerted action. Occasionally, a simple message escapes from the Palace, not addressed to anyone in particular and incomprehensible to most who receive it: `Speak'. People are confused; they ask each other who they should address, where they should be going, what form of address to take and what they should speak about. All these considerations have been well instilled by the activities and example of the officious thoughts sleeping and haranguing in front of the Palace. By the time these matters have been discussed and rediscussed few people can even recall the original message and the fact that it appeared to everyone in a mysterious fashion so that no one saw where it originated.

All that can be said is the speech of the King, but for the King to speak, his Kingdom must become articulate. This need is not understood, for the multitude of impressions are already laden with speech and the thoughts at the Palace doors confuse speech with speeches and the idea that only those within the Palace can have anything to say.

The expression of Thought is in saying and reading what is said

The description that follows bases itself on a complete rejection of the concept that people have ideas in their heads which are then translated into language, or `expressed'. Such a concept is full with all kinds of vicious closures around our mental horizon, in particular the separation of a `thinking activity' from a `speaking activity'.

If we reject the concept and its closure we must begin with the phenomenon of expression itself. The term `expression' is used to imply something said which is capable of interpretation. Hence expression in this sense reveals the pervading significance of reading.

An expression is a text. Within, over and besides what is said in the text is that which enables interpretation and which emerges by reading. When we regard the purely interpretational role of reading, we can speak of finding or having disclosed the ideology of the text. The ideology of the text is an intermediary to the authentic thought that is within it. Working on the ideology should disclose the nature of interpretation in hand with that particular text. The ideology is a mirror to the action of interpretation and it is in grasping the reflections of interpretation that it is possible to declare the Thought.

As in music, revelation is made by expression, modulation of the expression and re-expression. The finding of an ideology is part of this. What is important throughout is clarity on what it is that is being done with the text, while it is being done.

To grasp the reflections of interpretation, it is useful to modulate the original expression or parts of it. This may entail more than the variation of the elements of the original expression: the very manner of saying of the original text may be transformed by applying a rule of statement. When saying is modulated in this way, the inherent variety of the original text reveals itself, and the movements of interpretation become the more evident.

There remains a final step in which the Thought of the original expression is to be declared. This declaration is made from the depths of interpretation and through the complexities of modulation. The character of the declaration, however, is open, not determined by anything said. It may be an `answer' to the text, a `rebirth' of meaning, the `soul' of the text, or whatever.

1. Heterogeneous Expression (writing out)

The theme is made a subject of description. It can be represented from a number of viewpoints where these viewpoints are taken as points of departure for a movement of description. A viewpoint is useful also as a means of focusing the descriptive activity on making statements rather than explaining or arguing.

The text that is generated in this process of writing out is the first expression and constitutes the original text. It can, as it stands, become the immediate subject of an ideology. However, it is usually the case that a further step of expression is needed. This can take the form of selecting a number of the statements of the first expression, or it may require a re-expression of the statements themselves.

It is necessary that all the statements address the same subject: they describe a single element or type which is the truly representative atom of the situation. Thus the heterogeneous origins of the writing out should achieve homogeneous expression, or find homogeneous expression.

2. Ideology of the text (finding ideas)

The set of statements is read as an expression of a set of ideas. These ideas are given expression and the relation between the ideas and the statements of the first expression is explored. It is required that every idea be the expression of more than one of the original statements; that is, it should be a unitary notion gathering together what is said in several statements.

The ideas should form a community: that is, the meaning of any one of them is there to be read only when the ideas are read together as a combination: or, put another way, each idea is in some way capable of expressing the others.

The ways of arriving at the ideology of the first expression are various. It may be possible, or sufficient, to simply read the ideas in the set of statements taken together as such. The ideas can be referred to as `categories', `notions', `suppositions', or whatever, according to what is read. The delineation of their character sometimes has importance.

It may, however, be necessary to go through a more elaborate procedure, one which begins by an activity of distinguishing in the set of statements. The activity of distinguishing is that in which those statements which most evidently assert, take a stance, posit, or pronounce judgement are distinguished from the rest. The statements so distinguished become the set of statements which are read as the expression of ideas, and the work of uncovering the ideology proceeds as in the simpler case.

3. Modulated Expression (representation and reasoning)

The forms of modulation are various. A simple form of modulation can be applied when the ideology of the original set of statements is read. The ideology gives a framework in which the original set of statements can be re-arranged- so that the statements follow one another in their groupings around the set of ideas. It can then follow that each statement is re-expressed, and each repetition also, to more clearly reveal the idea under which it stands. This re-expression may also serve to render the first expression more precisely homogeneous.

The resulting statements may then be modulated further by arranging them in groups according to similarity and difference: statements are grouped together when they can be read as descriptive of the `same thing'; the commonality of the group given expression; and the ways in which the statements in the group can be interpreted as being distinct, described. These groups of statements will then be represented as expressions of parts of the ideology. But the material generated by the expression of similarity and difference may reveal a content that goes beyond the ideology, yet is seen as an integral part of the first expression and not as just `further thoughts'. This extra content will then reveal additions to the community of ideas that constitutes the ideology.

When there has been distinguishing in the first expression, and the ideology has been read from the distinguished set of statements, the ideology can be represented in terms of the residual statements. When the residual statements are interpreted as expressions of the ideas, the interpretations are reasoned out and stated.

4. Declaration of the Thought (expression)

The final expression is a declaration of the essence of all such thoughts as those of the original expression. The points of departure for the final expression are various. It may suffice to declare the ideology as such, for example, in the form of a ‘model'. For other situations it may be seen that the modulations of expression reveal a ground that

needs to be declared, a depth or starting point for which the modulations, including the original expression, are the ‘surface'.

Declaration is an act of the interpreter, one in which he plunges into his subjectivity and grasps the phenomena of his thinking. However, it is not the subject's subjectivity or thinking which is declared but their living presence within the theme. The content of the declaration is the theme originally described. There is no reference to a psyche or to thoughts. Rather, it is as if the situation itself has revealed itself in its essential articulation. There is no rule here other than seizure: declaration results from a seizure of the essence of what has been said.

> "Later, when Rinzai became a full-fledged Zen master, he gave a sermon to the following effect. ‘Over a mass of reddish flesh there sits a true man who has no title; he is all the time coming in and out from your sense organs. If you have not yet testified to the fact, Look! Look! ‘A monk came forward and asked, `Who is this true man of no title?' Rinzai came right down from his straw chair and taking hold of the monk exclaimed: `Speak! Speak!' The monk remained irresolute, not knowing what to say, where upon the master, letting him go, remarked, `what worthless stuff is this true man of no title! ‘Rinzai then went straight back to his room.”

"Awakening of a new consciousness in Zen". D. T. Suzuki loc. sit.