

Study of Non-Verbal Thought

A Reading by Margaret Lowenfeld

Although it is impossible, because of the width and variety of its range, to devise a formal definition for thought, it is generally held at present that there is an indivisible bond between thought and words. If this be true then without words there can be no thought, and since a mastery of language sufficient for use for interior speech, for the description by the self to the self of what is happening in the self is not present before 7/8 years then it must follow that the power of thought begins in those years and is not present before.

It is our purpose tonight to consider whether this is true and what means can be used to investigate its truth or error.

To begin with however difficult, it may be to confine 'thought' within the limits of a definition we know one central fact about it that it is spontaneous. To think, I must be willing to think and consciously set about to do so.

But play, not speech, is the spontaneous activity of children.- several years elapse before they achieve a working use of speech and if we are to take the word of our educationalists it is 7/8 before a child has a sufficient mastery of language to be able to use it for the setting out of even a rudimentary essay. The question therefore is whether during these 7/8 years any process to which the term 'thought' can be given is taking place in these years and if yes what is its nature?

The large mass of material concerned with the study of children tell us the relevant facts -

- (1) That children do and say, and apparently formulate in some way within themselves, ideas, statements and pictures that seem to adults bizarre - from this come the 'quant sayings' of children.
- (2) That round about the age of 5 some children propound questions of profound difficulty, such as 'Mummie if God made us, who made God?' which suggest that a process of reflection is going on within them which can be expressed in words.
- (3) That children 'make up stories in their heads' and invent imaginary companions which sometimes reflect real life but often do not.

To this mass of material Psychoanalysis, working backwards from the experience of adults has added the concern of phantasy. A phantasy, when used in this sense is an imaged satisfaction of an instinctive drive. The question of thought therefore does not come in here.

The main obstacle to independent investigation of the processes going on within children is that of the means to be used. In both drawings and speech, a child

has to find a way to put the processes going on spontaneously within him into modes of expression which are governed by external rules and demand skill for their use.

Piaget in his intensive and ingenious thirty years study of children has confined his attention to the child's mode of apprehension of the external world and has as elaborate a description to offer of the child's mode of learning the nature of the outside world as the psycho-analysts have of the interior affective world. Do these cover the ground? For a 10m time it appeared that they did but the uncomfortable thought obtrudes itself. Can there be structure without friction? Can those parts of the brain in which thought takes place remain inactive for 7/8 years? or conversely can't it be shown that areas of the brain come into action or that new functions appear at about the 7/8 years. Since the answer given by physiology to both questions is in the negative and since constant contact with disturbed children made clear that there was a lot happening in and with them that we did not understand, it seemed worthwhile to attempt an investigation of this problem.

Now the first desideratum in any scientific investigation is the devising of means by which contact can be made with the phenomena to be studied. In our case there means there must have certain characteristics.

a) They must be attractive to children and call out free spontaneous use by them of it.

b) They must at the same time be of definite structural form which present the same material situation to each child studied.

c) They must be new to the child and contain as little associative material as possible and at the same time be evocative of as many potentialities and aspects of experience as possible.

If such means can be devised it will be clear that if the children's use of them be recorded, these records will produce material which can be analysed either in regard to the differences between the responses of different individuals to the same stimuli or in relation to the nature of the use made of the possibilities of the provocative means as facts in themselves.

Four such tools have been designed which have been used by myself and my colleagues was now for a long space of time. In regard to one, the Mosaic Test, a textbook descriptive of the test and the responses made to it by children and adults, is now available.

This tool is maximally abstract and the relations of the items composing it to each other, those of geometry and of the primary colours. The second tool I have here, and it is termed The Kaleidoblocs Test. This was designed during World War II and a good deal of preliminary work done with it. Difficulties of manufacture then put it, for a time, out of use and it is just being reissued with a new manual. This material is in three dimensions combining qualities which stimulate imaginative use in children with qualities of exact form and arithmetic and geometric interaction. It has been used by members of the Staff of the Gesell Institute for the study of children from 2 to 7 with interesting and suggestive results.

The third tool is a box of bricks also brightly coloured (displayed) and with internal geometric correlations which evoke the building and constructive element in children and which is used by them often in surprising ways in this figure constructed by a boy of:

The fourth which is the one I intend to make use of tonight is the World.

To these four is added a specialised use of drawing to which I shall refer later.

All these five are used by myself and in the institute of Child Psychology in the daily study and treatment of children from 1½ to late adolescence and by myself in the study and treatment of adults and the responses made dram, described, and the reactions and an account given of them by users recorded. It is from these records that the conclusions of which I wish to give some account are deduced.

The first impact made by the responses to the possibilities of the World is one of complexity. The range and variety of the Worlds recorded needs to be seen to be realised, which after all as natural since, if as was conjectured as it was defined, this apparatus is able to present all aspects of personality, their presentation would be as bewildering in its many sidedness and complexity as human nature itself and it was many years before a tenable classification was worked out.

When, however, this was done a certain block of material emerged which would not fit into any of the flown categories. This block had three characteristics. It fell into two groups.

- I. Constructions appeared in the responses of subjects differing from each other in age, personality, intelligence, and a mental and emotional state which nevertheless closely resembled one another, and which bore definite characteristics which ultimately made them easy to recognise.

These recognisable forms recurred in the productions of single individuals in series showing changes which indicated evolution and this evolution followed lines which gradually became recognisable.

- II. The second group was formed by a number of Worlds carrying a single characteristic, that of being a collection of entirely unconnected groups of objects and figures.

The determinative characteristic of these Worlds was that in the first type no associative links could be traced between the production in the sand tray and the maker and in the second though associative links appeared with some, they were of a different kind than those usually found in 'phantasy' and the separated groups did not fall into any recognisable or interpretable form.

When thinking out this lecture I had first intended to illustrate what I wanted to say by drawings of two such Worlds made by one of the intellectually most brilliant boys I have ever known - a boy who walked off the Terman Merrill Scale at 11 and

yet made fragmented Worlds as his first and second response, but I find that in order to make it intelligible too much surrounding material would have to be given and too much time consumed, and I intend therefore to attempt a generalised description of group I. and then to use a more easily intelligible series of drawings to illustrate Group II-

Now the essential quality of group I is its demonstration of dimensions and directions and to do this I want to consider for a moment our perceptions of time and space.

To an adult it is perfectly clear that there is a difference for example between movement up and movement down, that within is not the same as without; that the glove is not the same as the hand. We know these things because they are external happenings; they are relations in the World outside us and relations that we constantly experience. Similarly know that our body trunk intervenes between our head and our nether end and that these two are different in function and in character. We know further that if we vomit, matter rushes from within us to without and we swallow it goes from without within. That if we fall in a range, feeling wells up within us but nothing material leaps out, and that if we are hurt with an unkind word or look, nothing material again goes from without knowledge of the external world makes a distinction clear to us.

Now a small child, when he has recovered from the trauma of birth, begins his conscious life in mid-air. He is carried from place to place and for him there is no 'above' or 'below', only motion, appearance or disappearance. Things appear within his area of sight, smell, taste or touch and disappear again. He has no notion of the causality of either. They are; they are pleasant, neutral, unpleasant they have certain qualities which his sense register, and then they are not. They have vanished, stopped, as far as he is concerned totally out of existence. Similarly, with states within his own body (only he does not know there are 'within'), they are, and they are not, they come and go, as external objects come and go, only as we well know there is no difference as yet to his awareness between 'within' him and 'without'. There is in him a centre of awareness with a relation to things that happen, and, I submit, the nature of these happenings to that centre is indistinguishable the one from the other.

Similarly, when he gains the personal power of movement this is for him for a long time only in one place, the horizontal. Here things roll away but do not come back, though a cry will bring larger human objects back, the cry having apparently power over their movement and that perhaps of household pet, but not of other objects. Similarly, he begins to find certain 'inside' feelings can be called up but personal attempts, cries and so on, and certain others, hunger, sleepiness, anger, come and go on their own. There is no order and no coherence in this universe.

Not a child, like an adult, endeavours to master his experience by grouping it but in life this is a task of formidable difficulty. There is first of all this floating mass of impressions, experience etc. that has no definable structure,

This globular mass of experience and concept is dynamic.
It presses always towards expression in action,

- a. To relieve the tensions of excitation
- b. In order that by externalisation it may be realised and absorbed into the total psyche.

Sensation and experience can only be expressed in terms consonant with it. One cannot, for example, express shapes in music. The nature of early experience is such that sensation affect, concept, memory and feeling all coalesce into indivisible whole. For expression of it, there is therefore needed a medium which is itself plastic, multi-dimensional and indivisible.

It appears therefore in Worlds in two forms. The first being the presentation of individual facets of this globular mass or 'cluster' of experience held together by the unity of the tray and the second the combination of a number of aspects which to the adults are separable and separate in a single structure.

What then is the child doing in making in either of these types of worlds?

I submit that what he is doing is what we, any of us, do in the use of our powers of thought to separate out the items of our experience, outing down first the separate aspects as we perceive them, isolated and separated as they are, and secondly counting together into wholes certain general features that run through the whole.

But there is an essential and crucial difference between the two procedures. In adult thinking qualities of fundamentals are perceived as qualities of given fundamentals which can be abstracted from the fundament and opposed or recombined leaving the fundament untouched. This process of abstraction is made possible through previous experience of the fundament which makes it possible for the mind to recognise it and to know other things about it than the possession of the quality to be abstracted.

Children are not in this position, they have no previous experience of the fundamentals we are considering, common qualities therefore fuses them into an inter-identified mass or cluster which carries all the qualities of its component parts.

Moreover, careful examination of the correlates educed in adult life brings up the fact that it is the external and use aspects of objects and experiences which appear to the adult mind as the essential aspects of objects and experiences and which become embodied in the language in a word. Not so with children, they have no 'use' experience and the factor that combines their clusters is the subjective one of the effects in themselves. The perceptions are correct the mode of combination wrong.

As this mode of combining is so individual and personal it is impossible for any adult to foresee what groupings are going to come about. The essential is that these are to the make self-evident facts about life, himself and his World – facts to which he reacts. The reaction would again be appropriate if the facts were true, but in correct combinations acting as stimuli to affect produce the result so familiar to us of the apparently, causeless fears, phobias and bizarre reactions of children. When, however, these are first presented in material capable of such representation so that

they can come within reach of careful analysis shows them to have the same structure as that of adult thought but applied to such totally different material as to appear in itself different.

The significance for all of us of these facts is that children do not, as we have thought, grow out of.