

A Study of the differences in the Imaging Process between Readers and Non-readers using the Lowenfeld World Technique

During clinical work as a Child Psychotherapist, my attention has been drawn to particular elements in the play of children whose emotional disturbance is coupled with severe learning disabilities.

Characteristically confused concepts of space, and of movement as direction with duration, emerge, and together with degrees of failure to hold points of spatial reference, to relate or differentiate parts and wholes, or to comprehend time or sequencing, are accompanied by high levels of anxiety.

As adequate spatial concepts are prerequisite to skills in literacy and numeracy, these children appear handicapped from the start, however intelligent they may be.

I was very interested when colleagues confirmed the existence of similar difficulties in children attending the Schools Psychological Service Reading Centre for specialist remedial help, and that improvement in reading was generally accompanied by improvement in these areas.

Gulliford (1971 p.94, 96), suggested that possible causes of learning difficulties could be related to "weakness inner languages", i.e. the imagery by which sensations are recalled, the attachment of meaning to symbols and other representation, the importance of movement to a system of reference for spatial awareness, as well as the expressive and receptive aspects of language.

Lowenfeld (1931, 1937, 1964), was also concerned with failures arising from confused levels of non-verbal imagery, and in the restoration of such inner languages and their meaning through play (1969), and particularly, through material such as the world Technique(1977), which allows for movement, three-dimensional structure and changes

over time, together with the emergence of a descriptive language.

Although Lowenfeld's theoretical writing remained incomplete and did not do justice to her clinical insights, aspects of her approach, ill-received in the 1930's, are now found in current thinking and research, as Trevarthen (1979): "When he plays on his own a child communicates with himself.... He is in effect trying out his ideas on himself"; as in the recognition of the emotional component in cognitive development, (Shields 1978, and Kimball 1980); and as in an approach to the transitions between non-verbal representation and the emergence of language found in Lock (1978).

I would therefore hope that a study of imaging viewed as a potentially integrative process, in which non-verbal concepts can develop and link with language, might help our understanding of primary learning disabilities.

Research programmes:

1. Review of the literature regarding non-verbal thinking and learning disability including Lowenfeld.
2. Experimental study of a series of worlds produced at regular intervals over a period of 4-6 school terms by:
 - a. 20 children aged 9-12 years (from a total of 70 children aged 6-16 years) attending the Schools Psychological Service Reading Centre, Hounslow.
 - b. A matched control group of children (20) from the same schools, who have achieved literacy.

World-making to be recorded by video, and by observer's notes, drawings and photographs.

The products of the two groups would be analysed for:

- i. Distinctive elements in, or development of, content and structure of World Material per se.
- ii. Distinctive structure and content, both explicit and inferred, of themes and stories verbally elucidated by the child.
- iii. Evidence of the child's cognitive and affective processes while making the world; interaction with his own ideas.
- iv. Concurrent behaviours and their relation on to the world material, and to the adult/observer present at the time.

Profiles of individual series thus obtained, to be compared:

- a. Within the groups and
- b. Between the groups, and
- c. In relation to profiles drawn from objective tests, i.e. WISC to be administered as pre-test and post-test, and the Standard Reading Test by Daniels and Diack and the Neale Analysis of Reading Ability]
- d. With reference to the records of remedial teaching session kept by the teachers, with particular note of shifts in reading ability.

References:

Kimball R.	1980	Affective and Cognitive Development: the Psyche and Piaget, in Toward a Theory of Psychological Development. NFER Pub. Co.
Lock A., Editor	1978	Action, Gesture and Symbol; the Emergence of Language. Academic Press.
Lowenfeld M.F.	1931	A New Approach to the Problem of Psychoneurosis in Childhood
	1937	A thesis concerning the Fundamental Structure of the Mento-Emotional Process of Children
	1964	The Study of Preverbal Thinking and its relation to Psychotherapy
	1969	Play in Childhood

	1977	The World Technique
Shields M.M	1980	The Child as Psychologist. In Action, Gesture and Symbol
Trevarthen C, and Grant F	1979	Infant Play and the Creation of Culture

All the terms here refer to functions in their most fundamental or primal forms, as observed in children with severe reading disabilities.

1. Confused concepts of space

The failure to acquire adequate perceptual concepts of space would appear to lie in defective representation of sensory information received by the child of himself as a body in space, and in relation to other bodies in space.

In behavioural terms, he continually gets lost in familiar places. Exploration does not result in a stable image(s) of the spaces in which he lives, the interior and exterior of buildings and surrounding locality.

In operational terms, he uses a strategy of trial and error, or acts upon cues in the current situation which, due to some partial similarity of context or content, are associated with representation or image of some other place.

The child carries the same responses and strategies into the learning situation, unable to relate his spatial approach to a page with any constancy, or to relate shapes within the page; he is unable to maintain a consistent approach to a task.

His own body image, as reflected in drawings, etc., may be as vague and distorted as his imaging of his surroundings. Clumsiness, so often attributed to minimal brain damage, could well result from a perceived permeability or fluidity of boundaries between himself and the world around him, and therefore difficult to locate.

Complementary forms may remain undistinguished from each other, or be used as equivalent, particularly where made by a simple gesture on the part of the child, such as a hollow and a mound in the sandtray. "In" and "out", "back" and "front" are interchangeable terms, as are the mirrored letter forms that are so subject to reversals.

Case example:

Ian, I.Q. 118, when he began to attend the Reading Centre at the age of 7 yrs. A very verbal child with an excellent vocabulary, he despaired at the difference between what he claimed to "imagine in my head" and what he could achieve in any form of spatial functioning.

Failure to predict through which door his parents would enter the waiting room to collect him, would raise his anxiety levels to near panic (see below; Anxiety). After 4 years of weekly visits, Ian remains uncertain as to the location of his teacher's room particularly when stressed, and the number on the door is the only substantial clue. Bizarre attempts have been made to create a house in Lego, with base and walls and roof all quite out of alignment. A similar display of difficulty occurs when relating himself to his clothes and shoes; going forward into his coat sleeves when someone held the garment ready, was as likely and the other way about.

Writing posed comparable problems in terms of handling a pencil, locating marks on paper, etc.

2. Confused concepts of movement as direction with duration.

Exploration of space which assists the formation of perceptual concepts, involves movement through that space in a particular direction for a particular length of time, often leading to the location of an object. Movement, even while being enjoyed as a sensation in itself, is linked with intention, has being and end, and as such becomes a dimension on spatial representation.

At an undifferentiated level, movement may just be a “Going-along”, and any moment in this movement is equivalent to any other moment, as in rocking or other perseverative activity, or as in an endless flow.

If its character should change, if it be stopped, started or interrupted, or the quality of sensation alter, those points of change may be differentiated from the main event but not from each other across the span of time; like the hollow and the mound, they are equivalent or interchangeable.

At a basic body image level, the child may be confused about alimentary sensations, their direction inside him, and the top and bottom of himself.

Writing may be comprehended as flowing without layout, onto the page, and this was demonstrated by one little boy in a seemingly endless, spiralling horizontal scribble.

Or the letters may flow equally in either direction or be written with either hand as most convenient, as one little girl showed, while perched on a chair in front of a blackboard; the flow ended only when the writer could extend her arm no further without falling off.

For another child, the act of writing could arbitrarily proceed from any point and in any direction.

Reading strategies may follow suit and the layout of print on a page or from page to page, has no imaged structure.

In ‘World’ play, the chosen moving object, often some form of transport, or the child’s own hand, will move over and under sand and water and up into air, as if all direction and all elements, were equivalent.

Regression into perseverative movement or. Restless flitting around the room, may also be considered as fight from an anxiety-provoking situation (see below: Anxiety).

3. Failure to hold points of spatial reference.

Even when a child has some sense of which direction he is going, in what type of space and for how long, he may have difficulty in holding an image of a series of points of reference which will link a series of movements, or a series of changes within a single movement. His difficulty may be reflected in his failure to negotiate his way around a building, not because of total block or no idea where he is going, but because he has lost his place just as he will do when reading. Or just as he may fail to join up the dots, following the maze or copy a geometric shape with any accuracy.

The complexity of points of spatial reference, whether in spontaneous drawing of in "Worlds", may indicate how much the child's performance in formal reading and writing skills is related to his general spatial concept formation, and how much to more specific problems related to anxiety levels and the task, (see below: Anxiety).

Where a child is inconsistent in his holding of points of spatial reference, his efforts become fragmented or disjointed and lack fluency. Words which describe extensions in space, such as above, below, beyond, or which reflect conservation of objects, such as in front, behind, underneath, on top, lose accuracy of meaning or are incomprehensible.

4. The failure to relate or differentiate part and wholes

The child's ability to form perceptual concepts of elements which may be parts in one context and wholes in another, implies a fluency of imaging and a preparedness to meet change. Meanings become altered as forms shift, and the familiar itself becomes changed when it accommodates new elements.

As such operations are entered into in order to make sense of the internal and external world, to find the meaning i.e. expressive significance, structure and meaning have therefore to be repeatedly held together and stabilised after each conceptual shift.

Where a child is unable to differentiate reliably and consistently between wholes and parts of fundamental as the image of his own body in relation to its parts and its boundaries in relation to the environment, or as himself as a person in relation to others, confusion can reign on the printed page.

How difficult it then becomes to understand that letter combine to make words, that words form sentences, sentences form paragraphs, and that having achieved these structure within structures, you are also expected to hold the flow of meaning which expands with the form. It may be even more difficult to find a small word with one meaning within a larger word which carries an entirely new meaning, or by the mere alteration of a letter, change one object for another.

Peter, aged 9 years, of above average I.Q. could read "rat" but was unable to remove the "r" and replace it with "f" to make "fat". The child may well conclude that it is enough to struggle with the mechanics and leave the comprehension to look after itself.

The apparently simple strategies applied to parts and wholes, adding, subtracting, etc., are confounded when a child is operating an idiosyncratic system, aspects of which do not necessarily tally with generally-held meaning.

A common part-object, part conceptual process, or part symbol, may represent for the child a unique whole, the tip of a very personal iceberg which is present if unseen and always makes itself felt whenever the part/process is used.

Some such "clusters" (Lowenfeld) may be quite benign and owe their continued existence to the fact that no one has listened or helped the child to test their meaning against the common one.

Other "clusters: may have been distressful, become encapsulated in anxiety (see below: Anxiety), and be subsequently avoided.

Phrases denoting strategies, such as 'taking away', 'putting together', may be caught up in the adverse context, and come to stand for the distress image **and** the strategy, both bound by the original anxiety, resulting in G block.

It is also necessary to include, under this heading, the child as a (part) person in relation to other individuals and to groups. The imaging and the spatial character involved are a powerful and often affect-laden factors, as is demonstrated in the Kinetic Family Drawing test. It brings to our attention the global nature of these fundamentals spatial concepts

5. Failure to comprehend time or sequencing

The conceptual failures in spatial terms would appear to have their temporal counterparts. The relation of time to movement has already been discussed above and is perhaps the most elementary concept. The broader failure is the lack of any measure of change, or a patterning of events in time, either cyclic or linear.

The child may live in a kind of 'global' moment which can obliterate the need to maintain coherent links between internal or external events.

The words, for example, for the days of the week, the months, the seasons, remain devoid of any meaningful relation to the child who fails to extend himself into past or future with any consistency, and this is as true of his intimate, daily routine as of important seasonal events.

Points of temporal reference cannot be held securely. Repetition of events past, present and anticipated, which have impressed the child, may become blended; any vividness of recall is equated with the possible immediacy of the event, so that if a past exists, it happened 'yesterday'.

Parts and wholes are similarly affected as they are combined to form sequences extending in time. The progression of one event to another within a story, the retention of

instructions, the shaping of future action or the planning of work, are all subject to disruption which inevitably leads to loss of meaning.

It may be that in some children, there is an active resistance to continuity, to the restoration or discovery of meaning that follows and that this is related to levels of anxiety as discussed below.

Failure to comprehend time or sequencing appears common to all the children attending the Reading Centre and improvements in these areas have been found to be reliable indicators of improvement in reading.

6. Anxiety

Anxiety is a very persuasive affect and is seen in all the children that attend the Reading Centre.

It is here considered as a complex response of fear and apprehension to situations that might in some way ultimately threaten survival. It may be seen that poverty in imaging can severely handicap a child's construction of a predictable, meaningful world, so that a state of apprehension may become habitual. It is difficult to assess which comes first, the inhibitory anxiety or the failure in imaging, and may go far back into infancy. Ian's panic as described in 1. is a case in point.

Parents and teachers raise their expectations of a child's ability to predict, as he grows up, and those children who fail, meet test situations in ordinary everyday events. Anxiety spirals as failures bring special assessments in their wake. The child then has to deal with secondary provocation of anxiety and develops strategies to meet it.

From the denial of a boy, aged 15 years., "I don't care, I won't need reading when I leave school!" to well-developed avoidance techniques such as nonstop chatter or apathetic withdrawal which leaves the onus of any decision-making with the teacher.

Other reported behaviours indicative of anxiety are numerous, such as yawning, sighing, trembling, masturbating, blushing, restless fidgeting and overconcern for extraneous noises and activity.

Avoidance behaviour may become attached to activity other than the formal learning situation, and in its extreme forms, play is disrupted as soon as any imaging emerges, and so the child breaks off any communication with his own ideas.

Teachers at the Reading Centre have observed such behaviour in nearly all children attending. Anxiety is also present at a high level in the parents, particularly the mothers; sometimes the child with reading difficulty appears to be the focus of anxiety for the entire family. (See also criteria for selection by Educational Psychologists for the Reading Centre, attached).