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TWO AUTISTIC ARTISTS

The Extraoridinary Drawings of Stephen and Nadia, two Autistic Children

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TABLE OF CONTENTS

		Page No
LIST OF ILLUST	RATIONS	з
INTRODUCTION		4
CHAPTER I:	The Drawings	5
	Comparisons - Normal Children: Use of Tokens Use of the Page Proportion and Perspective Knowledge of the Object Manual Dexterity Story-Telling and Expression Use of Line, Colour and Form Comparisons - Adults and Artists	
CHAPTER II:	Autism and Drawing Ability A description of Autism Eidetic Memory Ritual and Obsession Eticlogy	15
	Right and Left Sides of the Brain Language	
CHAPTER III:	Autistic Development and Symbol Use Sensorimotor Stage Pre-Operation Stage Concrete Operational Stage Formal Operational Stage Autistic Development	23
CHAPTER IV:	Stephen's and Nadia's Drawings and Creativity	31
CONCLUSION		34
RIBLINGRAPHY		35

LIST OF ILLUSTRATIONS

- Figure 1: The Circus, Bath, Stephen Wiltshire. (Casson, 1987).
- Figure 2: Horse and Rider, Nadia, (Selfe, 1977).
- Figure 3: Horses, Nadia. (Selfe, 1977).
- Figure 4: Cockerel, Nadia. (Selfe, 1977).
- Figure 5: Cockerel, Nadia. (Selfe, 1977).
- Figure 6: THe Dogs Palace, Venice, Stephen Wiltshire from <u>Stephen Wiltshire, Fleeting Cities</u>, Michael Joseph, 1991.
- Figure 7: Horse, Nadia. (Selfe, 1977).
- Figure 8: The Senate House of the University of London as traced on a window. (Gombrich, 1982, p. 194).
- Figure 9: The Visual Cone. (Gombrich, 1982, p. 189).

INTRODUCTION

Most adults claim they are unable to draw. They claim they couldn't draw a straight line and marvel at those who can. They see those who make realistic representations as having been blessed with a valuable gift. Many will buy all sorts of 'how to draw' books and attend art classes in the hope of sharing in this magic. I felt some of this wonder when when I first came across the drawings of Stephen Wiltshire and those of a girl called Nadia. These two children can create beautiful drawings - masterful drawings, and create them effortlessly.

Of course no child should be capable of this. Much has been written about the development of artistry in children and it has become accepted that children simply cannot deal with the problems of perspective, foreshortening, etc., needed for realistic drawing before the age of eight or nine, and even then, without great skill. But what is even more amazing is that these two children are seriously handicapped. They are autistic.

This paper will examine some possible explanations as to how these children have developed this amazing drawing ability. I will outline why I believe their level of skill is fundamentally, though perhaps not exclusively, attributable to their handicap. In studying these two cases I also believe we can learn a lot about artistic development in normal children and furthermore can learn much about the very nature of art.

CHAPTER I

THE DRAWINGS

'I always think it's rather like embroidery the way he draws, non-stop, like a sewing machine'. This is how Sir Hugh Casson described Stephen Wiltshire, now 16 years old, on the Q.E.D. programme 'The Boy who draws Buildings' on BBC television in 1990. This seems to me to be a very good description of what happens on the page when Stephen Wiltshire draws. He seems to start at one arbitrary spot and the drawing then spreads out from this spot across the page in a busy network of lines. He rarely looks up to observe his subject and often draws buildings from memory. The work is fast and confident.

His manner of working is very similar to that of our other autistic child, Nadia. Howard Gardiner has this to say of her in his book 'Art Mind and Brain':

Nadia was so in command of her medium that she was able to place one detail in one location on the paper, another detail in another, and then join them at a later point, serenely confident that the composite parts would fit. (Gardiner, 1982, p.187).

Like Stephen, she drew from memory, but unlike Stephen she could only work in this way; she could not copy a model drawing in front of her. Her drawings seem to refer, in most cases, to something seen some time before, recalled and given a new life beneath her hand.

The drawings of these two children are not only extraordinary in that they are the work of seriously handicapped children, but are skilful and beautiful drawings in their own right. The first thing to strike one about Stephen's drawing 'The Circus, Bath' (Fig. 1) completed when he was twelve, is his control of perspective. This curving facade, sweeping towards the viewer, would be a challenging task for even a trained artist, and yet



FIGURE 1



Stephen seems to have captured it intuitively and brilliantly. He even noticed the increasing slant of the top of the chimney stacks as they progress away from the viewer and around the facade.

Stephen's use of line is very economical; no lines are wasted and nothing is given more detail than it needs, even the person on the footpath. Stephen seems to have an intuitive sense of composition and balance, using his page well and not squashing things in as most people might be tempted to do.

The example of Nadia's work shown (Fig. 2) is, I feel, even more astounding. Again we see a highly developed sense of foreshortening and perspective and this drawing was done when Nadia was just five and a half years old! This horse, (Nadia's favourite subject was horses) is drawn from a very difficult angle, but this is no deterrent to Nadia. The page is filled beautifully and yet the drawing is not squashed in. The line flows confidently and if one line is deemed to be incorrect, another is quickly drawn; we can see this especially as Nadia tackled the difficult description of the horse's legs. There is also something strange about the drawing; a squirrel type figure can be seen on the horse's side, as can a face, and the man's eye is treated in a different way than the rest of the drawing.

Clearly there is something special about the work of Stephen and Nadia. As shown they are highly accomplished in skills needed for realistic representation, but this is not the only way in which they differ from normal children in their artistry, and indeed from adults. The drawings seem to lack references to the child's life, people he or she knows, emotions, stories and so on. The following pages will concentrate on comparisons with the work of normal children, adults and artists.

COMPARISONS: NORMAL CHILDREN

What is most surprising about Stephen's and Nadia's drawings is that they seem to have absolutely nothing in common with the drawings of normal children. They have not gone through any of the same developments or seem to Perform the same functions. There is, at this time, a recognised pattern of development that children's artistry goes through, marked by stages which correlate to the child's motor and intellectual development. These stages are set out below:

- 11 At the age of about 18 months the child's motor development is advanced enough for him or her to pick up a crayon and make scribbles, straight or curly across the page.
- 2] By the age of about two years the child is more precise with his or her placement of the scribble on the page. The scribbles will also be more varied, due to the child's continuing motor development.
- 31 Circles, crosses and mandalas generally emerge at about two and a half years and are soon followed by the most important development naming. A child may draw a circle with a few other lines and dots, point to it and say 'Mama!' Symbolization has begun.
- 4] From about three years onwards these symbols become more and more developed. First additions are often eyes, then legs and so on.
- 5] As the child's language use progresses, as does his or her knowledge of the world, the drawings begin to show more detail; eyelashes, buttons, fingers, (often in profusion), etc.
- 6] Between five or six years picture-making begins; arranging numerous objects on the page, setting a scene or telling a story. These drawings are full of insights into the child's world and this stage has been called the golden age of children's art.

- 71 At about eight years the child becomes increasingly aware of other People's pictorial representations, and begins to recognise that his or her perspective may be lacking, and tries to improve it.
- 81 This continuing striving for realistic representation meets a climax at early adolescence and the child's artistic life goes through a crisis. The child may overcome this in various ways:
 - (a) He or she might cease drawing altogether.
 - (b) The child begins to take on board many technical devices, tricks, formulas, etc. Such as geometric perspective, shading, etc.
 - (c) He or she may indulge in a neo-primitive style, drawing in a purposely childish way.
 - (d) The child's art degenerates into facetiousness or silliness and may become comical or gruesome.

Neither Stephen nor Nadia went through these stages in this way. Nadia drew well from the outset, her earliest drawings being very accomplished; the horses in Fig. 3 were done when Nadia was three. Stephen also showed great promise from the start. The following is a comparison with normal children in various areas of drawing, showing where Stephen and Nadia are very advanced and also importantly, where they are lacking.

Use of Tokens

It is a well-known statement to say that children draw what they know rather than what they see. Tokens make up the main bulk of children's art. If a child wants to draw a tree, he or she draws a simple symbol; a mass of foliage on top, two lines for a trunk underneath. It is, of course far removed from the reality of a tree, as indeed is the word 'tree', but nonetheless, as such this use of tokens is very useful. The child has no need to closely observe and draw a particular example of a tree, and indeed lacks the motor skill, practice and patience to do so. Once he or she



FIGURE 3



knows about it, can extract its most vital features, and make a symbol that other people can recognise, then the drawing can do the job the child asks of it. For the young child, drawing has a much more important function than being a very good likeness; it must convey information, remind the child of particular feelings, show something of its life.

There is no doubt that Stephen's and Nadia's drawings are very different in this respect. There is absolutely no use of tokens, as described, in the work of either child. Stephen's buildings are far removed from the familiar child's drawing of a house. His drawings are of particular buildings, seen from particular angles and only include exactly what can be seen of that building from that spot. He doesn't even use tokens for such details as doors and windows but sketches exactly what each individual door etc. actually looks like.

Nadia's case is slightly different. It is true that she did not use simple tokens similar to those that normal children use, but at the same time her drawings are not usually directly observed from a subject. Instead they seem to come from earlier sightings of the subject, often already in graphic form. What Nadia does is to 're-present' these images, sometimes reversing them, and as seen from various, sometimes unusual, angles. Not only can she reproduce the drawing, but also has an excellent sense of form and shape and so can rotate an object in this way. (See Figs. 4 and 5).

Use of the Page

At first the normal child places his or her shapes arbitrarily on the page, usually near the centre. The same can be said for the early symbols, people, houses, etc. When, at the age of about six, the child starts picture-making, the child is very conscious of the page and will often

produce delightful compositions. Everything fits neatly into the rectangle, everything is where is should be; the ground on the bottom, the sky on the top. Nothing is ever left out or cut short by the edge of the Page. Stephen and Nadia both seem to also have this awareness of the page, and seem to know from the start that their drawing will fit. However, there is an important difference. If either runs out of space at the edge of the page, the drawing will simply have to bleed off the edge, never would something be squashed in, destroying the proportion or shape of the object.

Proportion and Perspective

It is not usually until adolescence that children actually master perspective, if at all, but nonetheless they seem to feel the need to tackle it from the age of eight years or so. Stephen and Nadia had a good, if not perfect, sense of perspective from the outset. This, of course, is more obvious in Stephen's drawings, as linear perspective is needed to make good representations of buildings (Fig. 6). It seems to come to him quite intuitively, without the geometry that most adolescents are taught to grapple with. Younger children have no interest in perspective and when they do start to feel a need for it they are naturally hindered by their knowledge of the world. They know that the tops of buildings don't slant down towards the ground. They know that the doors further up the street are the same size as the nearer ones. Somehow Stephen and Nadia seem to have overcome this and can draw what they actually see. Consider the sketch shown (Fig. 7). The horse's mouth, teeth and nostrils are drawn larger because they are nearer to the viewer than the rest of the horse's head. Nadia drew this when she was five years old. Clearly there is something very different going on here.



FIGURE 6

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Knowledge of the Object

Children draw what they know, not what they see. Normal children only include in their drawings that which they know, and usually even less than that, including only what is important to them. Children rarely include anything that is beyond their immediate experience. Obviously neither Stephen nor Nadia could draw things that they hadn't seen, but they have drawn things which are beyond their first-hand experience, things which they have seen but may not have understood. Nadia included bridle equipment on her horses, tongues in her cockerels mouths. Stephen includes almost everything there is to be seen, but doesn't worry about the function of each detail, he simply records the visual experience of seeing it.

<u>Manual Dexterity</u>

The child's drawing is greatly affected by the degree to which his or her manual dexterity has developed. The very young child's hand can manage scribbles, then circles and so on. If you ask a four year old to join two dots on a page you will see how poor eye and hand co-ordination is at this age. Even at six or seven years when the child is probably in the most productive stage, he or she is still quite clumsy with a pencil. This was not the case with Nadia. Even though she was generally under-developed in her general motor skills, when she had a pen in her hand she showed the dexterity of an artist. It is likely that this skill came from the obvious enjoyment she got from drawing, and consequently the practice she had. Stephen was not quite as well-developed at such an early age as Nadia, but nonetheless at the age of eleven he showed much more fluency of hand than would be expected.

Story-Telling and Expression

It is in this area that Stephen and Nadia show huge differences to the normal child. From the outset, children's drawings tell something about the child's world, his or her experiences, loves and fears. By the age of about six years the child's drawings are a wonderland of expression. The child uses drawing as an aid to story-telling, and making sense of the many feelings that can be experienced at this age.

An artistic medium provides the means for coming to grips with ideas and emotions of great significance, ones that cannot be articulated and mastered through ordinary language. (Gardiner, 1982, p. 90).

This the main function of drawing at this age, not creating an illusion of reality. One look at any of Stephen's or Nadia's drawings makes it clear that their drawing concerns are very different. They seem to be working out visual problems, telling visual stories, dealing with the world in visuals alone. We see no story-telling, no friends or relatives, no moods, no relationships. This is a central and fundamental difference and will be at the heart of my discussion of possible causes and theoretical questions.

Use of Line, Colour and Form

As a child draws, he or she is greatly influenced by what he or she has already put down, and quite often any line will do; the simpler the better. Stephen's and Nadia's drawings use line in a very different way. The use of line as a medium to explore the form of the object, creeping all over the page. If a line looks wrong, another is drawn, until the right one is found. Inaccurate lines don't seem to affect the continuing drawing. If you place a sheet of glass in front of the face and 'trace', without moving the glass or your head, the scene in front of you, onto the glass with a marker, the result will be remarkably similar to the drawings of Stephen and Nadia (Figs. 8 and 9). The drawing will have the same perfect, even



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FIGURE 9

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apparently exaggerated perspective and will have the same fluent gliding, Confident line work.

Colour is totally lacking in Nadia's work. Stephen sometimes uses it, but with none of the imagination, bravura and excitement that normal children show when they use colour, as they love to do. Normal children's drawings are primarily made up of simple shapes, put together to make pictures. Hence they often exhibit a certain flattened quality, very much in contrast to the work of Stephen and Nadia. I do not mean, at any stage, and this is important, that Stephen's or Nadia's drawings are better than normal children's drawings, but want to point out where they differ and what questions this poses.

Comparisons with Adults

Most adults never progress beyond the crisis point they experience in their drawing at adolescence. In my experience of teaching adults art at evening classes, I found this was very much the case. They grappled with proportion, falling into many of the pitfalls in drawing people that children do. Their line work was stiff and unassured and erasers were quickly worn down. Perspective and proportion was incredibly difficult for them and could only be tackled by use of various tricks and techniques. I refer to these problems of representation because this is what occupied the minds of my students. They wanted to make their pictures look 'real'. Nothing else would do. Something had happened along the way. There was something quite uncreative about their attitude to art, even though they all had huge potential. Compare this to Stephen and Nadia, to whom representational skill comes without effort, but will probably never really be creative.

Artists

Nadia and Stephen are also quite different from adult practising artists. It is rare for artists to draw as well as Stephen and Nadia do from memory. Stephen and Nadia do not seem to be driven by the same motives as artists. While not trying to finitely define what are the motives of an artist, we can at least say that he or she is involved with some kind of communication process, of his or her view of the world, with other people. Autistic people are marked by their lack of desire to communicate.

Other Autistic Children

It is worth comparing Stephen's and Nadia's work with the drawings of other autistic children. Gerhard Bosch says in his <u>Infantile Autism</u>:-

We must also mention that the drawings of autistic children are all rigidly schematic and devoid of human figures. (Bosch, 1970, p. 111).

At this stage we can now see what is meant by saying that these children's drawings are truly extraordinary. And so now the question 'how is this possible' begs to be answered. Is this drawing ability instrinsically linked to the handicap, autism? And what can we learn about normal artistic activity by asking these questions? Before we go any further a closer look at the condition of autism is required.

CHAPTER II

AUTISM AND DRAWING ABILITY

A Description of Autism

The following is a very concise description of autism as laid out by G. O'Gorman.

- 1) Withdrawal from or failure to become involved with reality, in Particular failure to form normal relationships with people.
- 2) Serious intellectual retardation with islets of normal, near normal or exceptional intellectual function or skill.
- 3] Failure to acquire speech or to maintain or improve on speech already learned, or to use what speech has been acquired for communication.
- 41 Abnormal response to one or more types of sensory stimulus (usually sound).
- 5] Gross and sustained exhibition of mannerisms or peculiarities of movement including immobility and hyperkinesis and excluding ticks.
- 61 Pathological resistance to change. This may be shown by:
 - (a) Insisting on observance of rituals in the patient's own behaviour or in those around him.
 - (b) Pathological attachment to the same surroundings, equipment, toys and people (even though the relationship with the person involved may be purely mechanical and emotionally empty).
 - (c) Excessive preoccupation with particular objects or certain characteristics of them without regard to their accepted functions.
 - (d) Severe anger or terror or excitement or increased withdrawal when the sameness of the environment is threatened (e.g. by strangers).

(G. O'Gorman quoted in Bosch, 1970, p. 123). Bosch also suggests that this list should include:

71 Apparent unawareness of the child's own personal identity to a degree appropriate to his age. (Bosch, 1970, p. 121).

This is a very clear and concise description of the characteristics displayed by autistic people. It must of course be kept in mind that there are varying degrees of autism, showing various extents of the above characteristics. Looking at this outline we can immediately see some clues as to where the drawing ability shown by Stephen and Nadia might originate from.

In point no. 2, O'Gorman refers to 'islets of normal, near normal or exceptional intellectual function or skill'. The Q.E.D. programme for B.B.C. television, <u>The Boy who Draws Buildings</u> showed two such autistic savants apart from Stephen. One was David Kid, who showed the remarkable ability to say what day any date from any year would fall. In spite of this, he had great difficulty in completing simple sums. The other case was that of Noel Patterson who could play a tune perfectly, note for note, on the piano after only one hearing. It would seem, especially in Noel Patterson's case, that they possess some kind of photographic memory. Music and numbers may not have the same meaning for them as they have for us, but yet they have an extraordinary capacity to remember them. This photographic memory is called Eidetic Memory by psychologists.

Eidetic Memory

Look at [a] picture for 30 seconds, then look at a blank surface and try to project the picture on it. If you have good eidetic memory, you will be able to see the picture in detail. (Coon, 1986, p. 243).

Is it possible that this is how Stephen and Nadia draw? Do they project a

memorised image onto a page and then 'trace' around it? It is clear that Stephen and Nadia both have a very good visual memory. Nadia drew the cockerel (Fig. 4) some time after seeing the drawing that probably inspired it, and reproduced it with considerable accuracy. Stephen could draw buildings from memory very accurately and performed very well on visual memory tests. So is there a case for this being some kind of explanation? Hardy; 'Eideticers are not noted for outstanding drawing ability in general' (Selfe, 1977, p.113). It should also be remembered the difficulty that most people have even in drawing from an image that is right in front of them. Stephen's and Nadia's drawings are more than tracings from reality. Stephen was unable to reproduce perfectly from memory an abstract shape shown to him, so his drawings must also draw on his knowledge of Nadia did not simply reproduce the pictures she had seen, but buildings. used them as a starting point for a whole series of drawings, showing great understanding of depth relations, etc. It would seem that a good visual memory is of great help to Stephen's and Nadia's drawings, but it does not go far enough towards elucidating these two cases.

<u>Ritual and Obsession</u>

Points 6(a) and (c) describe how the autistic child may become obsessed with some particular ritual or object or characteristic of an object. This could also be contributing to the children's drawing ability. Drawing becomes their main interest. They become fascinated by their favourite subject. They draw often and so become better and better. This tendency, like eidetic memory, would obviously contribute to the children's abilities, but cannot be the whole story.

Etiology

A closer look at what are the suspected causes of autism might help us

understand the situation better. One of the first questions to be asked should be: 'Is autism due to genetic factors?' The evidence for this is slight. There have been cases of identical twins with one twin becoming autistic. Less than 2% of all autistic children have autistic siblings. The case for the possibility of brain damage being at the root of autism is stronger. In Bosch's study of 33 autistic children, he found 12 to have definite evidence of there having been brain damage and 12 to have some slight evidence of brain damage. He found that 10 had experienced birth complications, nine had experienced pre-natal damage and four had suffered emephalitis; swelling of the brain in the first year of life. Nadia shows some evidence of brain damage, as does Stephen, and although at an incidence of about 50%, brain damage is not a conclusive explanation o f autism, it could shine some light on Stephen's and Nadia's abilities. Certain functions are located in certain specific areas of the brain, and damage to such particular areas gives rise to specific difficulties. It would seem that in Stephen and Nadia's cases some damage may have occurred in those areas related to language functioning, but not representational ability. These two functions are primarily located in opposite hemispheres of the brain.

The Right and Left Sides of the Brain

Much has been written about the different functions of left and right hemispheres of the brain. A lot of it is speculation and wishful thinking, but nonetheless there are some things which we can now say for definite. The left hemisphere controls the right hand side of the body. It is responsible for language, especially in the formation of consonants and grammar. The left hemisphere codes sensory input in terms of linguistic descriptions. The right hemisphere controls the left hand side of the body. It is responsible for spatial tasks and fine sensory descriptions. The right hemisphere codes sensory input in terms of shape. It must be

remembered that it is not a case of having two separate brains. The two hemispheres interact all the time. For instance, in the case of drawing the left hemisphere concentrates on fine details and internal elements while the right hemisphere concentrates on the overall contour and shape.

Language

The most metable characteristic of autistic people is their difficulties with language. Language seems absolutely vital to what we call thinking. It encodes our memories into manageable bodies of information. It sorts information into useful meaning. Language also establishes a common or shared world between people. Through language we gain communion with others and can believe that they experience the world in a similar way. Language enables us to let our feelings be known and enables us to act upon the world. In short, language enables us to take the infinitely complicated array of objects and ideas that is the world and create a sense of reason from them.

In spite of all of this, it is language which hinders the ability to draw realistically. In the vast majority of people, the left side of the brain in the dominant one. It is not known whether this is a result of, or causes, the high degree of right handedness in the population but it would seem that the two are related. The left hemisphere has no patience for the concentration on shape, slant and proportion that is needed for drawing. The left hemisphere will assert itself, name the object, infer its function, and as far as it is concerned, that is that. Once we have named an object, we know what it is, we know what it is for and most importantly, we know what it looks like. E. H. Gombrich paraphrases Ruskin in <u>Art_and</u>

Illusion:

It is our knowledge of the visible world that lies at the root of all the difficulties of art. If we could only manage to forget

it all, the problem of painting would become easy - the problem, that is, of rendering a three-dimensional world on a flat canvas. (Gombrich, 1977, p. 250).

In order to do this, to draw realistically, we must make a switch. We must try for a while to suppress our dominant left side and let our right side have a go. The artist:

Must find means of battling down his knowledge of the familiar meaning of things and look only at shapes and tones projected onto an imaginary plane. (Gombrich, 1977, p. 256).

Some people can do this effortlessly, quite unaware that they can. Some People may be right side dominant anyway, which is likely among left handers, but is it also possible to learn how to do this. Betty Edwards has written a best-selling book, a 'how to draw' book with a difference. In her book, <u>Drawing on the Right Side of the Brain</u>, she goes into, at length, this subject of the right and left hemispheres. She then guides the reader through some very interesting exercises, designed to promote this left to right switch. The exercises included drawing from a fairly complex image, turned upside down, which has not been seen the right way up. In this exercise the would-be artist has no idea of what it is he or she is copying. They find themselves becoming lost in the attention to shape and line, and may even experience some stress, as this is a task which the brain is definitely not accustomed to. Another exercise she describes is to make a drawing of one's hand, a very detailed drawing, done very slowly, without looking at the page, only the hand. At first the left side cries 'It's a hand! We know what it's for, we know what it looks like!' But as the person's eye slowly creeps along the contour, the drawing hand (out of sight) following, the mind forgets this exclamation, and the right side gets into gear; observing contours, shapes, etc. Yet another exercise was to create a drawing entirely by observing, with as critical eye as possible, the slant of every line in the scene.

I tried these exercises with my class and met with great success,

especially with the upside down exercise. At first I was met with disbelief and bewilderment but afterwards with pleasant surprise. Their drawings were, on the whole, very close reproductions of the model, and without doubt, far better than they would have done on a right way up model. So now, let us imagine a situation where, for some reason a person's development of language is suppressed. Imagine a situation where the world is not conceptualised in the usual way, and so, normal knowledge of the world is limited. Such a situation occurs in autism:

It should be noted that autistic children often score highly on tests of analytical perception, not because they have analysed that the picture of the (e.g.) pram contains triangles and squares, but because they have synthesised the triangles and squares to form a pram in the first place! (Jordan & Powell, 1990, p. 9).

Imagine, then, a right hemisphere allowed to work unhindered, or a right hemisphere which is particularly well developed. Then you have the perfect representational drawing mechanism. It is possible that this is the case with both Stephen and Nadia. Howard Gardiner observes in his book <u>Art, Mind and Brain</u> towards the end of his chapter on Nadia, that some people seem to be born with inbuilt, highly tuned 'computers' which can enable the child to become a prodigy and so on. He suggests that if there were such a 'computer' for drawing skill and if it were to be found in a person free of the usual hindrances, the feats of Stephen and Nadia would indeed be possible.

Nadia may be a rare example of a child, undominated by language who found a purely visual and perceptual means of communication or representation. (Selfe, 1977, p. 105).

But having said this a very important point begs to be made. Selfe puts it thus:

Throughout there has been an implied value judgement that one of the important aims of drawing is to be able to reproduce the appearance of the real world. (Self, 1977, p.98).

She goes on to say:

Drawing is also significant as an activity in which children draw their concepts as symbols in which they express what they know rather than what they see. It is also significant as a means of expressing emotion. In these respects Nadia's drawing is totally anomalous. (Selfe, 1977, p. 98).

We must remember that the quest for realism is relatively new. For centuries schematic equivalence was enough to fulfil the function of art.

The artistic achievement emerges as intensely personal social an act that arises from the most profound levels of one's own person and is yet directed to others in one's culture. (Gardiner, 1982, p. 102).

Nadia's and Stephen's drawings seem to be quite removed from some of the most basic qualities of art. Stephen shows no interest in capturing ideas, feelings, concepts, etc. Nadia's drawings lack originality, tension and emotional range. Aside from their ability to make a convincing illusion of three dimensions on a two-dimensional surface, one might wonder whether Stephen and Nadia may be classed as artists at all.

In this chapter, I have not yet resolved the question of what it is that most likely causes autism. In the next chapter, I will look at normal child development in terms of socialisation and symbol use. If autism is caused by some fundamental mal development in these areas, we might be able to understand better this strange impersonal quality of Stephen's and Nadia's work.

CHAPTER III

AUTISTIC DEVELOPMENT AND SYMBOL USE

In the hands of a 10 month old a rubber ball is an object to squeeze and throw, a cup is something to hold and put in the mouth. However, by the second birthday children invent new and often original uses for these and other objects. They may treat a ball as a piece of food, a cup as a hat, a plate as a blanket, or a ball of yarn as a balloon. In other words, children are now capable of symbolisation; they can both create and accept an arbitrary relationship between an object and an idea. (Mussen, et. al. 1990, p.180).

The above describes what is perhaps the most amazing and most important of all human capabilities; the ability to symbolise. It seems to be exclusive to humans except perhaps for a very limited ability displayed by some chimpanzees. This chapter will examine how this is believed to come about and also what might happen in the case of this ability being impaired.

Children at different ages construe the world in ways that are fundamentally different from those of adults. This was the basis of Jean Piaget's work on the intellectual development with which he concerned himself from the 1920s until his death in 1980. His basic ideas are still widely accepted today, even taken for granted, although some argument does occur over details involved. He described a series of stages which all children go through, and in a particular order, since each stage builds on the one previous. The four stages are set out below:

Sensorimotor_Stage

'During the sensorimotor stage cognitive growth is based primarily on sensory experiences and motor actions'. (Mussen, 1990, p.294). This is the stage, described above, where, for the child, a ball is something to squeeze and throw, and no more. The child does not distinguish between him or herself and the world. The child has a symbiotic relationship with the

world, where he or she can only know the world through his or her own immediate perception and action on it; everything pertains to the child.

Pre Operational Stage

Between about 18 months and two years the child enters the pre-operational stage. This is a very important transition. The child now has the ability to:

Think about objects and events that are not present in the immediate environment. The pre-operational stage also marks the beginning of the ability to use and manipulate symbols. (Mussen, 1990, p. 294).

Because of its importance to the discussion. I will return to this stage after a brief description of the two remaining stages.

Concrete Operational Stage

At this stage, arrived at between six and eight years, the child can now think in a truly flexible way, and can perform the mental skills set out below. The child can:

- (a) Decenter; focus on different qualities of an object at once.
- (b) Use logical principles; observe that some qualities of an object remain the same in different situations.
- (c) Seriate; arrange objects according to a given dimension.
- (d) Think rationally; appreciation that objects have relationships as well as absolute qualities.
- (e) Appreciate class; realise that objects can fit into one or many categories.

It is worth noting that both Stephen and Nadia are quite impaired in their ability to think in these ways.

Formal Operational Stage

This stage begins in early adolescence and enables the child to see things from many perspectives. The child can now manipulate symbols and ideas about hypothetical situations. The child can now 'pose and solve scientific problems that require the manipulation of relevant variables'. (Gardiner, 1982, p. 9).

Let us now return to the transition from the sensorimotor stage to the preoperational stage, and examine how this comes about. The most important development that makes this break from a sensorimotor existence possible is that the child comes to appreciate object permanence. In the world of a one-year old, out of sight is very much out of mind. Once an object disappears from view the child will not look for it. The first object to break with this out of sight, out of mind situation, is that of the mother or carer. The child comes to associate the mother with care, attention, food, pleasure, etc., and learns that she is usually available, even when she cannot at first be seen. It is vital that the child establishes this conception of the constancy of the mother if he or she is to have any sense of security and safeness. From this, he or she can begin to appreciate that other objects also continue to exist while not in the child's view.

This appreciation of object constancy is vital for the development of symbolisation. If the child cannot grasp the existence of an object removed from sight, he or she definitely cannot grasp that something could 'stand for' it. Again, it is the mother figure which first comes to be symbolised.

Aspects associated with the mother take on a special meaning for the child - a picture of her, an item of clothing, the mention of her name; these activities herald the advent of symbol use and the possibility for art. When the child relates these materials to his mother, or perceives aspects of her personality in the objects she has made, he is adopting an aesthetic attitude. (Gardiner, 1973, PP. 92-93). The child's first uses of symbols are attempts to sum up large amounts of information in one word or gesture. For instance, at first 'Mama' may refer to all that is positive while 'Nana' may refer to all that is negative.

The word 'Mama' isn't only expressive of the child's state of distress or contentment, but it also beings to express the feelings aroused in him by things external to himself. (M. Lewis guoted in Gardiner, 1973, p. 138).

And so, once the child can symbolise, he or she can begin to construct a world beyond the sensorimotor plane. Symbols are vital for almost every aspect of life. Only the symbol user can leave the world of his or her direct experience and establish encounters with people, encounters that function beyond the symbiotic state.

'One of the most characteristic aspects of artistic activity is the investment of particular meaning in certain objects'. (Gardiner, 1973, p. 83). The use of symbols is fundamental to children's art, and indeed to all art. A child can draw a circle with a few lines and dots and tell a whole story about it. Story-telling and play also require a well-developed symbolisation ability. So just what level of symbolisation and artistic activity are children between the ages of two and five capable of? Howard Gardiner and his colleagues devised a series of tests to examine this and are described in his book <u>Art, Mind and Brain</u>. They covered four areas of symbol use:

- 11 Language (story-telling).
- 2] Play (using blocks that could represent anything.
- 31 Two-dimensional depiction (drawing).
- 41 Three-dimensional depiction (modelling).

Each child was given four tasks to do in each of these four areas above:

- (a) Spontaneous production.
- (b) 'Finish' an incomplete work.
- (c) Assemble a work from given parts.
- (d) Copy or reproduce.

The most striking feature of the results of the tests was the huge scope for individual differences. These differences can be modified into various opposing groups. There were 'verbalisers' who showed a tendency towards use of language in all categories and 'visualisers' who showed a tendency toward the visual, gestural and tangible, (more boys than girls in this group). There were self-starters and completers and there were 'people oriented' and 'object oriented' children. In the end Gardiner commented on the 'richness and complexity of a child's early products'. (Gardiner, 1982, p. 120).

Let us now try to imagine how Stephen and Nadia would do at these tests. It is likely that they would perform poorly on all but a few tasks. Stephen has a certain limited capacity for repeating stories (as shown in his recounting of a scene from the film <u>Rainman</u> on the Q.E.D. programme). Nadia would not be so successful, only perhaps being able to parrot back a few short sentences. (Autistic people are noted for their ability to repeat a story word for word but being unable to tell a short summary of it or to tell it in their own words). Nadia and Stephen would both do well in section 3(a), i.e. to produce a spontaneous drawing, but their scopes of reference would both be very narrow, both having their favourite subjects. Gardiner and his colleagues noticed a common occurrence of persistent themes among the children they examined. These seemed to point to some unresolved area of conflict or an intellectual fixation.

The child seems to be gaining comfortfrom the mere ritualistic repetition of a certain motif. In fact, in the case of one three year old, the recurrence of a rigidly drawn princess figure learned from an older child - may have sheltered the child from struggling with the variety of types of human figures engaged in a range of activities; and the fixed theme in this case constituted an obstacle to experimentation and growth. (Gardiner, 1982, p. 119).

Stephen and Nadia show such fixations, Nadia with mainly horses, Stephen with buildings. It is possible that what Gardiner says here of normal children is true also for Stephen and Nadia. Both children definitely seem to find the comfort of familiarity that autistic children crave. Stephen and Nadia might also do well in section 3(d), to reproduce a drawn image, although Nadia would not produce it then and there, and might not at all. Clearly, Stephen and Nadia are both quite handicapped in their ability to use symbols. There is a possible cause of autism which I have not yet mentioned which might help to explain this.

If we take another look at the various characteristics of autistic people, and at the four developmental stages outlined by Piaget, it will become clear that the autistic child fails to progress properly from stage one to stage two, and onwards.

We found that the children were embedded in close symbiotic links with their surroundings in a form of existence comparable to that of the first months of life. (Bosch, 1970, p. 113).

As a result of this failure, if this is what happens, the child must construct its world in a very different way from the normal. If the child cannot grasp object permanence he or she will be unable to form normal relationships with people and will not develop a proper sense of self. The child will not develop a proper capacity to use symbols and so will not develop language. The child might develop a pathological resistance to change and develop obsessions because he or she has an underdeveloped sense of the permanence of the world. The world will not make sense to the child, so he or she will try to force structure upon it with ritual.

So what was it that enabled the normal child to move from stage one to stage two? I have suggested that it is the identification of a mother or carer figure and the attachment of great importance to this person that is at the heart of this transition. If the child were to withdraw from this person, and indeed all people, and the world, then all further development would be impaired.

We believe that it is not by coincidence that the usual age for the appearance of secondary autism is from 14 to 20 months of age. The failure to internalise a maternal image produces arrest of further emotional and cognitive development, object loss or inconstancy, and ego function regression. The normal beginning environmental demands for separation, frustration tolerance, impulse control, mastery and learning are then felt to be overwhelming and are reacted to with autistic negativism avoidance and withdrawal. (Bertram A. Ruthenberg in Churchill et. al., 1971, p. 156.)

In his book, Bosch refers to a case which would seem to qualify this. Δ Jewish child was left with friends in Nazi Germany as her parents fled. The child was kept locked away in a dark cupboard so as to avoid detection for the months surrounding the stage one to stage two transition. The child received minimal attention and hence became autistic. It is an unnerving idea to consider that autism might be, at least partially brought about by factors following birth. Perhaps the child is particularly sensitive or vulnerable to external stimuli beyond its control. Perhaps the world becomes a very frightening place for the child and its life a series of traumas. Alternatively, the child may experience one extreme trauma which is not resolved in the child's mind. He may withdraw from the world and this initial withdrawal may be aggravated by an unresponsive mother, reacting only humanly to an unresponsive child. This theory is, understandably, not well received as Bronwyn Hocking discovered, when her book which takes this view was published. It seems to put the blame on the parents. But parents should not feel responsible as the development of autism is attributable to many factors working together and no parent sets

out to handicap his or her child.

It is possible this withdrawal from people and reality as described as the central handicap of autism, from which the other characteristics stem.

I regard the language defect here as merely one result of this failure at a deeper level to develop social contact, even though it is the most detrimental of all the consequences. (Bosch, 1970, p. 136).

If we consider the interests and achievements that come to the fore in autistic children we find that they may all be classified as being of the type that to a large extent require little or no objectivisation within a common world. (Bosch, 1970, p. 111).

SUMMARY OF CHAPTER III

Looking again at Stephen's and Nadia's drawings, we can perhaps now have some idea of how it is possible for these children to draw in this extraordinary way. Due to insufficient development of normal relationships with other people and with reality, the child fails to develop properly the ability to use language and other symbols. If these children were in possession of highly tuned right brain associated capacities, an excellent visual memory, well-developed motor skills and was not hindered by language and conceptualisation in the way that most of us are, then these drawing skills would indeed be possible.

CHAPTER IV

STEPHEN'S AND NADIA'S DRAWING AND CREATIVITY

Art is normally directed at other people and uses a common frame of reference and symbol system. Indeed, if you cannot read a child's drawing correctly, he or she will be quite annoyed and will tell you about it or try again. Stephen's and Nadia's drawings lack this social function. They are intensely personal, Nadia's even more so than Stephen's, and they seem to do them purely for the enjoyment of drawing. If they do carry some deeper significance for them, it is very difficult for us to know what it is. Perhaps they function in the same way as the normal child's first allencompassing words.

We should note that art can also be expressive. In coming to know his or her own feelings, the feelings of others, and then perceiving these feelings in objects, the child has begun the artistic process. Stephen and Nadia do not experience quite such a broadening of their understanding of feeling. They do not meet other people in the same personal way. They have an underdeveloped sense of self and others and so have a vague view of common or shared emotions. And so their drawings lack the emotion and human interest which is so prominent in the work of normal children and adult artists.

(The arts) have allowed groups to define themselves and to assert their relationships to other groups, and they have provided a means whereby individuals within a group can affirm their own solidarity. (Gardiner, 1982, p. 36).

This is how Howard Gardiner describes Claude Levi Strauss' view of the arts.

He goes on:

Art in the modern era (since the Renaissance) has disrupted this traditional mission through its increasing focus on the individual and its insistent pre-occupation with representational fidelity. (Gardiner, 1982, p. 36).

The spirit of having mastered representational fidelity is summed up in this quote from Roger Frv in E. Gombrich's Art and Illusion.

Gradually the symbolism approximates more and more to the actual appearance, but the conceptual habits of life make it very difficult, even for artists, to discover what things look like to the unbiased eye. Indeed it has taken from Neolithic times to the 19th century to perfect this discovery. (Roger Fry, <u>Reflections on British Painting</u>, quoted in Gombrich, 1977, p. 246).

This view of the history of art as all the time trying to get nearer and nearer to the truth (i.e. representational fidelity) is, of course, naive. We must realise that even the most faithfully rendered painting, or even a photograph, is still very far removed from the 'reality' of the world. Representation is always incomplete and often owes more to other representations than it does to the real thing. In the end realistic representation is a science, a craft, not to be underestimated, but which is not the whole story of art. Stephen and Nadia have mastered this craft and their works are highly valued. Dermot McGinley, a business man, paid E800, £900 and £1,000 for three of Stephen's drawings; representational art still holds a fascination with the public. So are these works to be called 'Art'. Dr. Neil O'Connor had this to say of Stephen:

I am not saying that Stephen is as great a draughtsman as Picasso, but clearly he has that tendency, whereas, of course, he will not be able to do the things with his talent that Picasso could do. (Neil O'Connor, Q.E.D., B.B.C., 1990).

What qualities does a truly creative individual display? The artist is strongly motivated to excel. He or she is possessed by a powerful vision and feels compelled to express it. He or she must be willing to live with uncertainty and to risk failure. The creative person has:

A persistent, active and fully engaged personality. Darwin marshalled endless lists of thoughts, images, questions, dreams, comments, arguments and notes to himself, all of which he continually organised and re-organised. (Gardiner, 1982, p. 353).

The creative individual experiences a strong primordial tie to the subject

of his or her curiosity. He or she comes to love the work and cannot thrive without it. The artist can express aspects of his thought, personality or feeling, by incorporating them into a medium and must be aware of the arts as a communication process.

When he is capable of expressing within a symbolic medium those ideas, feelings, or experiences that have affected him he has realised the essential function of the artist. (Gardiner, 1973, p. 168).

At first glance the drawings of Stephen and Nadia do not seem to fit these ideas about creativity. But who can really say what is the motivation behind their activities? Obviously, they are not working in the normal way and they do not seem to be involved in the normal artistic process, but nonetheless we must keep in mind that it is possible that drawing holds a far greater significance for these children than perhaps we realise.

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CONCLUSION

This paper has been about drawing and about children, so perhaps it is fitting to finish by talking about children. Through writing this paper I have come to be marvelled by the achievements of children; their drawings, their stories, their games. It seems increasingly miraculous to me that children can learn so much in so little time, and can continue to surprise and astound adults. And what of Stephen and Nadia? As Nadia grew older, past the age of nine, she drew less and less, and showed no further improvement. It is likely that this falling off in drawing is due to her widening horizons now that she is progressing in language and social skills. If she is to lose her drawing gift in order to take a few steps away from the lonely world of autism, then so be it, and maybe her artistic activity has helped her there. In the case of Stephen there is little doubt that his artistry has helped him to develop.

The attention is constant, the stimulation and novelty intense; could they be contributing to any fundamental changes in Stephen and his condition. (Q.E.D. for B.B.C., 1990).

I was actually quite surprised when I saw Stephen on the Q.E.D. programme, as it had been quite a few years since I had seen him on a previous programme <u>The Foolish Wise Ones</u>. He was considerably more sociable and articulate than I had expected and it is very attractive to believe that his improvement has been due to external influences because of his drawing ability. Such a possibility would seem to brighten the future of all autistic people, suggesting that there is some hope of reaching them.

I am sure that these savants would profit from attention in the way that I think Stephen has. And one ought to say that all talents, I think, should be helped and educated, and probably it would be a very good idea if more attention were given to all savants, and their skills developed. It doesn't lead to a onesided development; it leads to the general development of their other qualities as well. So that Stephen's capacity to communicate more freely is probably the result of all the experience he has had, travelling around the world, and seeing new things and drawing them. (Dr. Neil O'Connor, Q.E.D., B.B.C., 1990).

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