Helping young children draw the human figure

Lorraine Ritchie

"Children's drawings have been studied and analysed over the years from a variety of perspectives. Early references to the work of young artists have been in the context of the discipline as a whole or as a description of the beginnings of a celebrated artist..."

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Historical Background

At about the beginning of the twentieth century there was growing interest in establishing a classification of children's art and so researchers began to probe the sequence of development and the accompanying cognitive processes. The work of Luquet (1913) and Piaget (whose work was influenced by Luquet), along with other cross-sectional studies, provided a foundation for the categorisation of children's drawings into a "series of distinct stages" (Thomas & Silk, 1990).

Since the end of the nineteenth century many educators have regarded artistic expression as playing a significant role in children's education and development. This century, Lowenfield is regarded as a pioneer in artistic circles for his belief that self-expression in art is essential for "healthy emotional and personal development" (Thomas & Silk, 1990, p.30). This belief arose from his experiences under the authoritarian German occupation of Austria in 1938 which led him to stress the importance of the right to freedom of speech and expression.

Arnheim (1970) is considered to have provided one of the most comprehensive theoretical accounts of children's drawing. He considered children's drawing to be a problem-solving activity and argued that education should place more emphasis on visual thinking. His belief was that children make sense of the world through their drawing and art activities by conceptualising the subject, and working out strategies of representation.
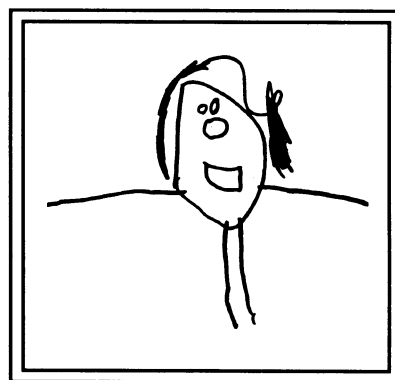
Developmental Sequence

There are four widely accepted developmental stages of children's drawing, although this is open to debate.

(i) **Pre-representational stage**
This consists of scribbles of varying kinds from which a variety of recognisable patterns emerge as the artist increases

eye-hand co-ordination. Children eventually interpret their scribbles as pictures (Arnheim, 1956; Cox, 1991; Kellogg, 1969; Thomas & Silk, 1990).

(ii) **Representational stage**
This begins at about two-and-a-half years when children see their drawings as representing certain objects. Children sometimes declare an intention of what they are about to draw but then change their mind when the drawing looks like something else.

(iii) **Symbolic realism**
In this third stage, described by some as symbolic realism (Thomas & Silk, 1990), children begin to make use of such shapes as suns, circles and radials. These shapes emerge from the pre-representational scribblings but become parts of the human figure in later drawings (Kellogg, 1969).

(iv) **Visual realism**
This fourth stage is typical of the drawings of children from about

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eight years to adolescence. Drawings become more realistic and represent a particular viewpoint, taking into account perspective and proportion as the child matures (Thomas & Silk, 1990).

Cox (1993) cited studies which challenge this developmental sequence. There has been evidence documented in which the drawings of the child participants contradict the notion of a stage-like progression. Cox (1993) cited the work of Golomb (1981) who noted that, in her study, 39% of two-year-old scribblers and 80% of three-year-old scribblers produced a representational picture on request (Cox,1993. p9). A number of other researchers have reported studies which demonstrated that children as young as sixteen months do draw with intention, regardless of their immature scribbles (Duncum, 1990; Freeman, 1980; Symington & Hayes, 1991). There are also other cases where either children or adults have been deprived of the opportunity to draw and have moved quickly from scribbling to drawing recognisable human figures without

passing through Kellogg's stages (Cox, 1993. p9).

Drawing of the Human Figure

In general, the human figure seems to feature in children's drawings when the drawings become representational. The puzzling absence of a torso in children's drawings of the human figure has been the subject of much discussion and theorising over the years. Early circle shapes quickly develop into 'people' symbols which have become known as

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'tadpole figures' and are drawn by almost all children (Cox, 1989). They are peculiar in shape because parts of the body are missing and others are attached in an unconventional way. A large circle seems to represent the head, there is no torso and the arms and legs, if there are any, are attached to the head. There has been a great deal of speculation about this early form of drawing in terms of children's perception, observational skills and ability to represent accurately.

According to Freeman (1980), drawing is a problem-solving exercise for children. One problem is when the child knows how to draw but is not quite sure of what the result should be, and the other is when the child knows what she is trying to draw but does not know

how to complete the task. Cox (1991) refers to this phenomena as the 'what/how' distinction, that is, the process whereby a child may know what an object looks like, but is only able to produce a stereotyped view in a drawing.

It seems particularly difficult for 'tad-pole' drawers to rethink their tad-pole figure to include a torso. Cox (1993) argues that children are not able to modify a recurring procedure if the modification is required mid-procedure. Maybe children do not know how to draw a torso (Cox, 1993).

The literature contains a number of studies in which children have been provided with cardboard models of separate body parts and asked to assemble the person. The body parts varied between studies in terms of shape and size, with some including features to identify the part of the body. The participants varied in age but were all at the 'tad-pole' stage. Generally, the results indicated that children can assemble a conventional human figure using recognisable body parts. Cox (1993) wrote:

> Although the manikin task is a construction task and not a drawing task, the fact that tad-pole drawers can construct a conventional figure shows that they can modify their pictorial representation of a person.....
> (Cox, 1993, p38.)

The evidence presented in the literature confirms the view that 'tad-pole' drawers are extremely reluctant to relinquish their tadpole form. They will position a torso if it is provided in a construction task but fail to include it in a dictation task. Cox (1993) believes that the most likely explanation for the omission of the torso is that children
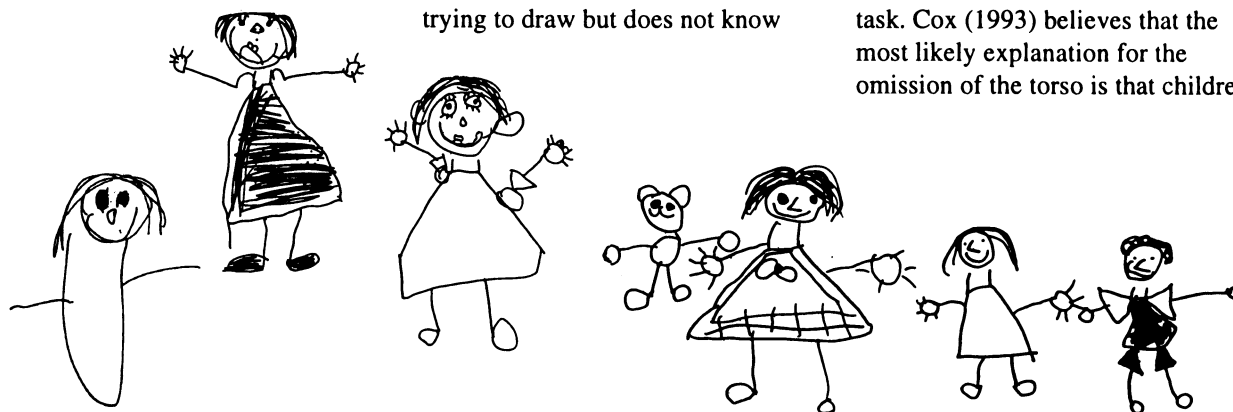
"...traditional assumptions about children's progression from intellectual realism to visual realism are, it seems, an oversimplification"

have not constructed a schema for it.

Visual Thinking

Art is a problem-solving activity (Arnheim,1966;1970; Freeman,1980; Gardner,1980; Sedgwick,1993; Wright, 1991 and others). Arnheim (1970) argued that drawing is a vehicle for thinking and, as such, interacts with perceptual concepts to seek solutions to representational problems - "...image making serves to make sense of the world" (p257). There is an important interaction between the child's ideas and her skills. However, ideas can be well ahead of the skills the child is able to use, and this can be frustrating (Eisner, 1979). This is when adults can assist the child to find a solution by extending language and facilitating the cognitive process. Eisner (1979) suggested that children's drawings are the same because they are repeatedly confronted by the same problems and have no help to find the solutions. An example of children accelerating their drawing skills is provided by Thomas & Silk (1990) who carried out some research between 1986 and 1988 which suggested that children as young as three-and-a half years are capable of portraying size scale. That is, with appropriate 'scaffolding' by an adult, children in their

study drew pictures of a man and a dog in the correct proportion to one another. Because children have seldom portrayed size in a visually realistic way, it has been assumed that they do not have the capacity to do so.

These traditional assumptions about children's progression from

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intellectual realism to visual realism are, it seems, an oversimplification (Thomas & Silk, 1990). Symington and Hayes (1991) attributed the expectation that children will develop their artistic skills when they are ready, to the proponents of developmental stages. Teachers, they wrote, have taken a relatively passive role and tended to be "interested spectators" rather than encouraging and facilitating progress (Symington & Hayes 1991).

The idea that drawing pictures may facilitate thinking is not new. Many researchers have written about the complexity of children's drawings and the links to cognitive development (Arnheim, 1969; Cox, 1993; Eisner, 1979; Freeman, 1980). Some maintain that all thinking is perceptual and involves images, so that appropriate visual experience is essential for effective education (Thomas & Silk, 1990). To take this argument further, there is the possibility that children will

benefit from drawing their own images because the thinking and problem-solving involved is likely to enhance their general cognitive development.
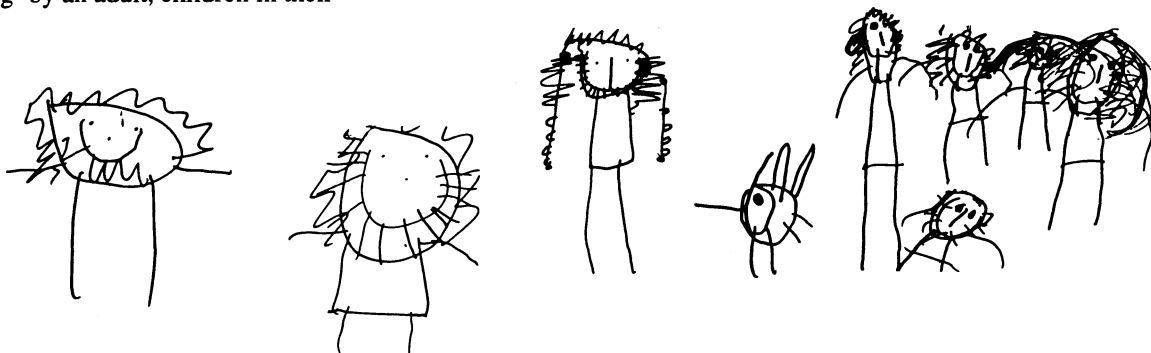
Zone of Proximal Development

The theories of Vygotsky have become increasingly visible in recent years. His theory accords importance to social and cultural experiences in children's development. Social experiences fashion the individual's way of thinking and making sense of the world with language playing a crucial role. Fundamental to Vygotsky's theory is that all distinctly human, higher forms of mental activity are facilitated in children through dialogues with another person. A concept central to this idea refers to a range of tasks which the child cannot achieve alone but can accomplish with the help of adults or more skilled peers - the zone of proximal development (Berk, 1994). Vygotsky wrote:

> .....the use of the word is an integral part of the developing process, and the word maintains its guiding function in the formation of genuine concepts to which these processes lead. (Vygotsky, 1986. p145).

Many share Vygotsky's the view that all children have the potential for development in collaboration with others, particularly adults (Davis & Gardner, 1993; Donaldson, 1978; Fielding, 1995; Fisher, 1990; Thomas & Silk, 1990). Within the context of Vygotskyen theory, Fielding (1995) argued that socially stimulated learning is the key element to progression from one developmen-

tal level to a higher level. If movement in cognitive development of individuals to a higher level is the result of social interaction, and artistic thinking is a problem-solving activity then, according to Fielding, artistic development should also be largely a result of social interaction. It would seem that the most efficient way for children to acquire more advanced concepts and skills required for artistic expression is through purposeful instruction (Fielding,1995). Vygotsky expressed this concept as follows:

> It is obvious that first we must put before a child a problem which he is incapable of solving and afterwards induce him to solve it by means of some methods which are brought to the surface and registered in detail.
> (Vygotsky 1994, p.50)

Educationally, it is more enlightening for a teacher to know what a child is able to achieve with some assistance than to know what s/he succeeds at unaided. Donaldson (1978) suggests that the significance for the teacher is knowing what help to give, when to give it and which strategies are the most effective. Should a child appear to be hard to help, then maybe she or he is not ready to learn a given skill. On the other hand, maybe the child who is difficult to help needs more help (Donaldson, 1978). According to Vygotsky, social experience without changing anything in the intellectual structure of the child merely provides just another experience in daily life and is purposeless. When the child begins to master a situation with the help of speech, new organisation of behaviour appears as well as new relations with the environment (Vygotsky, 1994). This argument contradicts the belief that children will reach their potential if left to their own devices in appropriate environment.

The idea that children's representation skills should be coached (Arnheim, 1966; Kellogg, 1969) is congruent with the 'scaffolding'

strategy proposed by Vygotsky, and the suggestion by Thomas & Silk (1990) that cumulative effects of drawing may be crucially important in the development of early intelligence and later competence in a variety of activities.

Rationale for the research study

The literature clearly demonstrates the vital role of artistic activities and drawing in children's cognitive development (Arnheim, 1966, 1970; Cox, 1989, 1993; Fielding, 1995; Fisher, 1990; Thomas & Silk, 1990). Most early childhood programmes provide an environment and resources which allow children to pursue artistic activities in a child- centred fashion. By and large, however, the children are left to produce their own representations. These are acknowledged by adults as worthwhile accomplishments, and the children encouraged to label their pictures, or sometimes dictate a story to the teacher to describe them. Vygotsky believed that children need more than this. For children's art experiences to be more meaningful than just another pleasurable experience, adults need to firstly, facilitate the solution of representational problems through appropriate verbal interaction, and secondly, maintain the level of instructional activity ahead of the child's existent stage to where the content of the problem is partially formed, that is, the zone of proximal development (Fielding, 1995). Fielding(1995) also believed that it is at this advanced level that the real learning occurs.

Thomas & Silk (1990) expressed their belief in the benefits of children's drawing activities in their comments that, "children's drawing is an activity of hitherto neglected developmental significance" and that, "there are so many promising lines of enquiry to pursue" (p.159). Most researchers who have studied children's drawing comment on the need for more research to enhance the understanding of this cognitively complex activity.

There have been a number of

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studies which have investigated children's transition from the 'tadpole' stage to the inclusion of a torso in their drawings of the human figure (Cox, 1989, 1991, 1993; Freeman, 1980; Freeman & Cox, 1985; Kellogg, 1969; Thomas & Silk,1990). Researchers have used a variety of methods to examine this puzzling stage in children's artistic representation of people, with an extensive and sometimes contradictory range of results. Cox (1993) used a dictation task in which she asked six children to draw parts of the body in response to her instructions. Only one artist produced a figure which included a torso; the others drew their normal 'tadpole' figures. She also cites other investigations pursued by herself and others which required children to complete pre-drawn figures with parts of the body missing. Most of the children omitted the torso in traditional 'tadpole' fashion, while others located it in positions which indicated a transitional stage, that is, at the lower portion of the head or between the legs.

Cox (1993) suggested that although children are able to point to their own body parts correctly, they fail to draw a human figure accurately because they do not know how to. Cox & Parkin (1986) designed a method of investigation which provided children with cut-out shapes and asked them to construct a manikin. Among the six 'tadpole' drawers, just one constructed a conventional figure (Cox, 1993). Bassett (1977), cited in Cox (1993), obtained much better results using the same task, with all twelve of her 'tadpole' drawers producing conventional figures. Cox (1993)

attributes this success to two things: the differences in shapes used - Cox used two circles for head and torso whereas Bassett used a round and an oblong shape - and the difference in age of the subjects.

The purposes of the present study were twofold:

(i) to examine the applicability of Vygotsky's theory to artistic learning and development by encouraging children at the 'tadpole' stage of drawing to draw a human figure which includes a torso, and

(ii) to use a mirror, as well as dialogue with an adult, to encourage the transition from the 'tadpole' stage to the stage of producing conventional figures.

Research question

If young children observe a reflection of themselves, and experience verbal interaction with and guidance from an adult, will their representation of a human figure increase in accuracy?

Methodology

A group of six children (three boys and three girls) at the 'tadpole' stage were selected for the study. I worked with each child on four occasions over a period of six weeks. The children were asked individually to draw themselves, then encouraged to observe themselves in the mirror. Together we reflected on the differences between the mirror image and their drawing, discussed these in detail, then the children were asked to draw themselves again. The differences formed the focus of a final reflective discussion for the session about this drawing. This procedure was repeated for two more sessions. To find out if the children were able to generalise their skills to drawings of other

human figures they were asked to draw a picture of their family.

Results

All six children made rapid progress. Leanne's first drawing was an elongated tadpole figure with no legs. This is unusual in itself as it is more usual for children to include legs rather than arms on
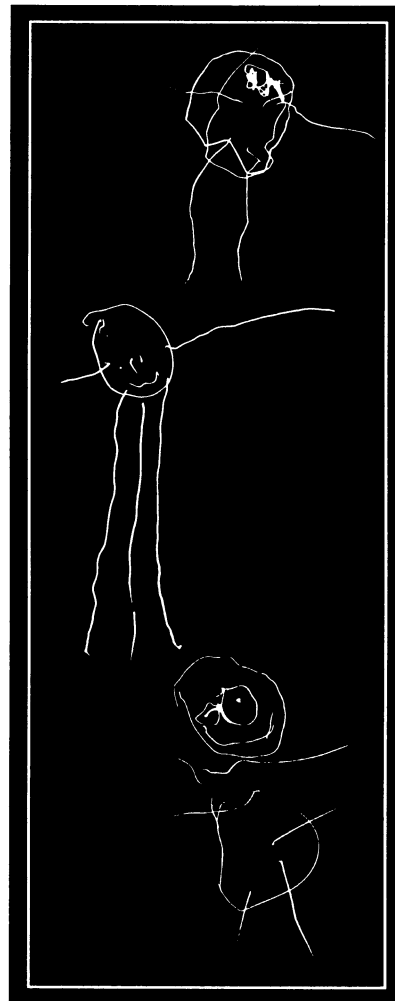
their figures (Cox, 1993; Freeman, 1980). Leanne advanced markedly when the mirror was introduced. She was encouraged to observe herself in the mirror and then managed to name each part of her body, noting the sequence and proportions. She drew the head first with the usual features. Then, after examining her own reflection, she drew a neck. Next she said, "Now the dress." She was asked, "Where's your body ?" to which she replied, "No, I just draw dresses." She drew the dress, decorated it with colour and spots, added shoulders, arms

and hands with five fingers carefully counted, then needed to be reminded to add legs and feet. All Leanne's drawings in subsequent sessions included a neck and a torso represented as a dress.

Jacqui's drawings progressed in quite a different way. Her first 'tadpole' shape was a head, long legs and two short arms. When she observed herself in the mirror and discussed what she saw she drew a square body, arms still projecting from the head and legs to the bottom of the page. The next session followed the same pattern - a more rectangular body this time, with legs drawn to the bottom of the page. When asked about feet she replied, "No room." She drew shoulders at the side of the head and suspended the arms from them. She responded to the suggestion of drawing hands and fingers by drawing loops down each arm. After a discussion focussed on the positioning of hands and fingers as observed in the mirror, Jacqui was asked if she would like to have a try at drawing them again. "No I can't," she said, so the session came to an end. The inclusion of a torso occurred with the drawing of her family on the next occasion but still no feet and, on this occasion, no hands or fingers either.

Emma had considerable difficulty with the concept of the torso positioned outside the head. When she had observed and discussed the positioning of her 'tummy' on her reflection she drew it in the middle of the head shape. After further discussion she tried again. This time she drew an elongated head shape with a neck under the mouth and the 'tummy' in the middle. Her subsequent drawings were consistent with

this pattern until, interestingly, her family drawing, when she drew all members of the family except herself, with a neck and a torso outside the head shape.

Jeremy's 'tadpole' consisted of a head and long legs with short arms protruding from the head shape. His first attempt to include a torso was a scribble pattern between the legs but this time the arms were at shoulder height. The next session saw a shift in the positioning of the legs from the head to the base of the torso. He needed reminding about the inclusion of arms. Jeremy was absent for the final session so it was not possible to test for transfer to his family.

Due to a chicken pox epidemic in the kindergarten, Patrick was not able to complete either. He made significant progress in the three sessions he did complete though. When asked to draw his 'tummy' in the second session he drew a straight line between the legs and as long as the legs. Extensive discussion and observation resulted in Patrick drawing a neck (horizontal line below the head) and a separate round shape for the torso. Arms were now correctly positioned, namely off the torso. It would have been interesting to test for transfer.

John differed from the other two boys in that he insisted on including detail such as fingers, hair, feet and toes. He also became absorbed in the task, obviously thinking and trying very hard. He made three attempts, after looking in the mirror during the first session, to improve his representation. The difficulty was the conceptualisation of the positioning of the legs. He finally solved the problem by drawing a horizontal line between the legs half-way down. Unfortunately John also succumbed to chicken pox which meant a gap of two weeks between the second and third sessions. He drew a traditional figure with a small circle shape for the torso at the bottom of the legs, then drew two more straight lines descending from the base of

the torso. This did not transfer to the family drawing, however, where he located all the torsos between the legs.

It was interesting to note the sequence in which the children approached the task and the satis-faction they displayed when they were successful. It seems apparent that children do respond to adult discussion and guidance in accord-ance with Vygotsky's theory. However, it is not clear whether the mirror is necessary. Perhaps the children would have made progress purely as a result of the social interaction with an adult. Further study with a larger group may help to clarify this.

Implications of the study

Although limited in scope, this study suggests that for professionals working in early childhood education:

(i) children's artistic development is likely to be enhanced with the help of an understanding teacher or adult who challenges them to consider the various elements involved;

(ii) development could stagnate if children are left to their own devices (Fielding,1995);

(iii) art and drawing are problem-solving activities that form an essential component of the educational curriculum (Eisner, 1979; Fisher, 1990; Gardner, 1980).

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