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ABSTRACT

This description of toddlers and preschool children emphasizes how young children think and describes the development of self-concept. Language development and antisocial and prosocial behavior are also discussed. The exploration of children's thought processes begins with two principles: (1) Concepts originate in activity; and (2) Motor development enhances cognitive development. Subsequent discussion focuses on concepts of physical causation and object permanence; the development and nature of symbolic thought; methods of transferring information; reversibility, associating, and classification; preconceptual and intuitive thinking; and practical applications of research into the cognitive development of young children. Language is discussed in terms of the role of action in language development, the young child's understanding of words, egocentricity, and influences of the home environment. Social behavior is discussed with regard to aggression, altruism, and empathy. Discussion of self-concept development includes consideration of origins; assertive behavior; discipline; self-individuation; the impact of adult imprecisions and taboos; reflected appraisals; influences of parental interest, security, and reference groups; and aspects of disruptions in self-concept formation. (RH)

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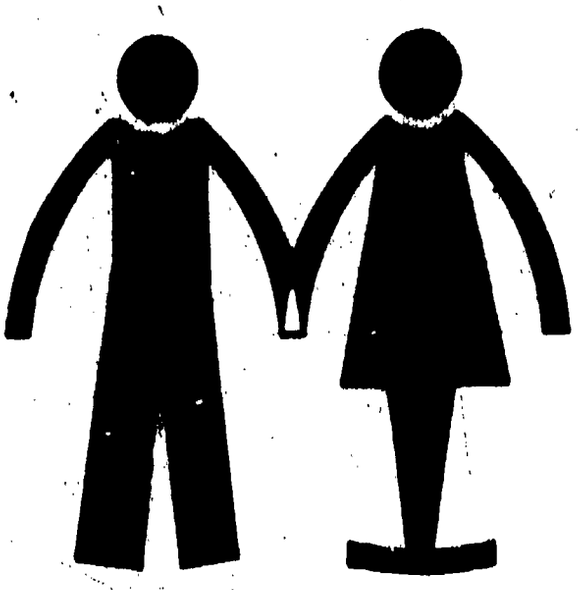

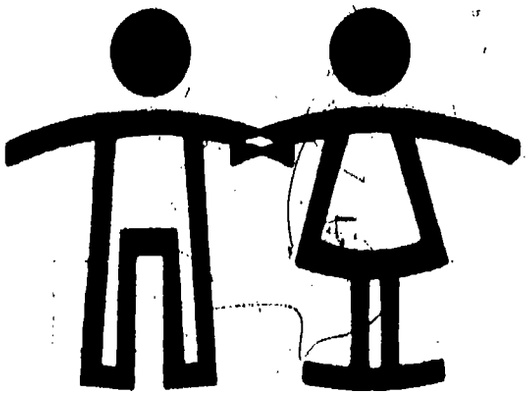

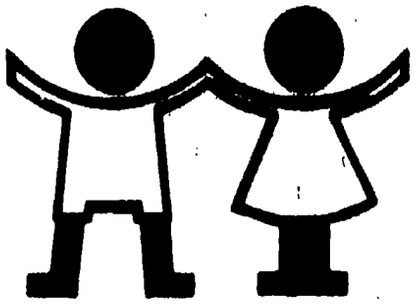

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THE TODDLER AND THE PRE-SCHOOLER

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THE TODDLER AND THE PRE-SCHOOLER

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Our culture is ambivalent in its attitude to children. On the one hand it tends to romanticise childhood as a marvellously carefree time and endeavours to withhold from children, important basic information about things that make adults anxious, such as death and sex. On the other hand it harbours some hostile attitudes toward children. Many of these hostilities stem from adult anxieties. For example, many arise from concern with power and control, and fears that children are out solely to get the better of adults. Some of these fears stem from confusion and lack of information about children's feelings and perceptions. Hence, in this the second of a series of papers on child development (the first is contained in *Do Babies Think? How Do Babies Think?* Selected Paper No. 23, Unit for Child Studies, 1982b), how preschoolers and toddlers think, how they see themselves and their social, language and moral development will be considered. The emphasis will be on practical application of the latest research in the area.

HOW YOUNG CHILDREN THINK

CONCEPTS ORIGINATE IN ACTIVITY

Most psychologists who are involved in research into the development of thought believe that thought is constructed, not only out of perceiving objects but also out of physical activities with them (Phillips, 1972; Nelson, 1973, 1974; Phillips, 1982b). It is also believed that this activity is of two kinds. First, there is exploration of the shape, contour and surfaces of objects by manipulation with hands and fingers, which provide a motor-sensory record of the object in the neural pathways of the developing cortex or the sub-cortex. Secondly, as the toddler approaches the second year, this exploratory activity is supplemented by organisational activity; building a tower of blocks or arranging them in rows informs about spatial relationships. At this stage toddlers enjoy bringing things together in an organised fashion and putting them apart, and this provides the necessary motoric basis for later understanding of adding, subtraction, and similar organisational aspects of abstract thought (Piaget, 1951).

This motor learning of concepts appears to be important throughout childhood. Saltz and Dixon (1982) have shown that motoric enactment (pretend play) of sentences facilitates memory for sentences and words in children aged 5-9 years. Visual imagery or explaining by pictures had no effect. The implications of this kind of research is that when parents and teachers are explaining things to young children they should encourage them to pretend or play or actually do the activities involved in the instruction. Under these conditions children will learn and remember to advantage.

Further, if, as Bruner (1964), Piaget (1962), Phillips (1972), and other cognitive psychologists have suggested, motoric factors are particularly important in establishing meaning for young children, then children who sit relatively still (as in school), and do not enact meaning, should be at a disadvantage.

MOTOR DEVELOPMENT ENHANCES COGNITIVE DEVELOPMENT

The process of establishing in the cortex or subcortex a familar physical record of objects is very much related to the child's motor development. In infancy, the roundness of a ball or the sqareness of a block is learnt as the motor skills of grasping, reaching and co-ordination of hand and eye are developed (Phillips, 1982b). By two years the advance in motor development permit the child to crawl under, over and around objects. This considerably increases the motor and physical conceptualisation of "inside", "outside", and "around". Toddlers enjoy putting things into and taking them out of large containers, pouring water, moulding clay, stretching and bending things and transporting items on toy carts, wagons or trucks. They explore, test and probe. In this way they enhance their concepts of physical objects.

CONCEPTS OF PHYSICAL CAUSATION AND OBJECT PERMANENCE

Research suggests that the concepts of cause and effect and the appreciation that objects continue to exist when they are out of sight or that they are still the same, even when in different positions, have to be learnt (Phillips, 1982b). By two years children begin to explore cause and effect in simple situations. For example, they experiment with balls by rolling them, hitting them with a stick or kicking them to see the outcomes.

At this stage or earlier, toddlers will also search for hidden objects in one hiding place after another which is something the infant does not do (Phillips, 1982b). This searching activity suggests they have a concept of the object which they can hold in their minds and that they can imagine where the object might be found (Le Compte & Gatch, 1972). This suggests that by two years the child possesses symbolic thought.

THE DEVELOPMENT OF SYMBOLIC THOUGHT

The emergence of pretend play also suggests that the child is beginning to be able to represent the immediate physical environment symbolically. This process probably begins at twelve months (Phillips, 1982b), but by two years children are much advanced in their ability to pretend that an object is something else. The pretend play of two-year-olds is dependent on the actual presence of objects (such as toy telephones, toy trucks, or toy cups and saucers) that are similar to real things. As children grow older, pretend play gradually becomes more detached from the specific properties of objects. Thus, by three years they can pretend a stick is a telephone or a doll and a leaf is a cup or a plate (Fein, 1978).

At this age a much more complex form of pretend play is also appearing, namely sociodramatic play. Allowing this kind of play to flourish provides children with important opportunities to develop symbolic thought. Children's play tends to be disrupted and inhibited when strangers are present or primary caregivers are absent. Children's play also becomes inhibited when adults tell them how to play. "Play flourishes in a familiar environment in which material resources are interesting and diverse, in which the child commands the initiative and adult expectations are scaled to the child's capacities" (Fein, 1978, p 157).

Most child developmentalists (Piaget, 1962; Hetherington, Cox & Cox, 1979) believe pretend play and play which involves fantasy is essential to the child's emotional growth. Many aspects of the adult environment are difficult for a toddler or a pre-schooler to understand, and the child's capacity for self-expression is limited. Through fantasy play the child can act out events,

learn about them, or how to cope with conflicts. For example, giving a doll a spanking may help relieve children of the fear of receiving one themselves.

THE NATURE OF SYMBOLIC THOUGHT. HOW DO YOUNG CHILDREN THINK?

In summary, the appearance of memory for hidden objects and the appearance of fantasy in play suggests the child is thinking symbolically. It should be stressed that this is not the same thing as thinking concretely or abstractly as adults do. The conventions of adult logic have yet to be learnt. Symbolic thought is representational and perhaps rather like simplified and schematised idiosyncratic picture records of objects and events (Fein, 1978). Deduction, induction and understanding of psychological complexities are not part of it.

In order to interact successfully with children, one needs to understand this clearly and not egocentrically believe young children see things as adults do. This misconception can be the basis of unrealistic demands in parenting and teaching practices.

Although pre-schpolers do not think with the same logical conventions or operations in thought, which the adul has learnt, it is evident that they do construct a logic in the process of endeavouring to make sense of the world. This endeavour is enhanced by the development of symbolic thought. Perhaps some of the most interesting features of the pre-schooler's symbolic logic can be seen in their reluctance to transfer conclusions from one set of circumstances to another, the predominance of perceptually-based judgements and their spatial associations and classifictions. More mature integrated mental structures for handling these processes in thought are defined by Piaget as operations (1969). The pre-schooler's symbolic thought is described as pre-operational. Some of these pre-operational modes of thinking in pre-schoolers are described in the following sections.

THE YOUNG CHILD'S METHODS OF TRANSFERRING INFORMATION

The abstract operations of transitivity in adult thought is best illustrated in the following situation:

> *Mr Digby, the baker, regularly weighs loaves of bread when he is costing them before they go into the shops. He weighs a long flat-sided loaf of bread (B1) on the baker scales and is able to balance the scales with another loaf of similar appearance (B2). Thus B1 = B2. He then selects a round loaf (B3) and weighs it along with B1 and finds they are the same weight. B1 = B3. From this he can easily deduce that B2 also weighs the same as B3 without actually weighing them together. However, neither his 4-year-old son nor his 7-year-old son will accept this deduction. When B1 and B2 are weighed together in front of them they agree that they weigh the same because the scales balance perfectly. In similar circumstances they agree that the long loaf (B1) weighs the same as the round loaf (B3) but they will not accept that, therefore, B2 and B3 weigh the same. "They look different", they argue. "B2 is longer. It must weigh more". The fact has to be visually demonstrated to them before they will accept it.*

Both these children do not operate deductively because deduction is an operation one carries out abstractly in the head and they rely heavily on perceptual evidence. Therefore, they do not transfer information from one set of circumstances to others which are perceptually different. This explains many "discipline" problems with toddlers and pre-schoolers.

Joanne was born at the beginnign of a drought. Although she was three she had never seen it rain. She was familiar with the water in the basin in which she was bathed. When, at last, it did rain, she jumped up and down in a muddy puddle outside her house, testing to see what it was. She was spanked "Because", said her father, "you know water makes you wet". However, questioning indicated that Joanne had not transferred the experience of the water [illegible] to the water in the puddle.

This inc[illegible] transferring information from one situation to another also e[illegible] social rules have to be explained to toddlers and pre-schoolers in each new setting. Thus, they may learn that you do not snatch things from b[illegible]by sister or Billy next door, by constant repetition of the fact. However, they will not necessarily transfer the rule to cousin Jane unless it is carefully explained over and over again whenever she appears. By practically and constantly demonstrating that things are similar in different settings, the adult encourages the development of transitivity in the pre-schooler.

The number of rules taught should be restricted according to the young child's memory capacity. A three-year-old, for example, can not cope effectively with more than three or four simple rules, and these need to be reinforced constantly so that they are incorporated into motor behaviour. This necessity for constant repetition is where the extended family has an enormous advantage. Aunts, uncles, and grandparents, can all share in the constant repetition required to familiarise young children with rules.

REVERSIBILITY

a) The Young Child's Perception of Physical Events

The pre-schooler's perception of changing physical events is demonstrated by Jean Piaget's well-known water pouring task for children. Young children will agree that two tall thin glasses contain the same amount of water, but if the water from one glass is poured into a wide, short dish, they will not agree that the quantity of water remains the same (Piaget, 1969). They may say there is less because it is "not as high". They cannot reverse in their heads the transformation which the water has undergone or equilibrate in their heads the compensations in length and height.

If young children were able to consider mentally all the relationships, that is both height and width, as well as the reverse of the action (which would happen if the water were poured back), they would recognise that the quantity of liquid remains the same and thus, be able to "conserve" it mentally. In other words, the children would be thinking in terms of a system of relationships or operations. However, they attend to or "centre" upon but on aspect of the change. If they concentrate on the height they ignore the width. The transference from centering perceptually on only one feature to a stage where the child reasons with respect to both relations in the change is essential before the child can conserve constant quantities of substances such as plasticene or liquid despite changes in their shape.

According to Piaget, typically, children deny the conservation of substance until approximately seven years but recent research suggests enormous variations and that children with plenty of opportunity to explore and experiment with everyday objects may construct the concept of conservation of substances and liquids by their own activities at an earlier age.

In all fields which involve continuous or discrete quantities one comes across the same phenomena. Pre-school children believe two sticks of equal length are equal if their end points coincide, but if one is pushed a little way in front of the rest, they then believe that particular stick is longer. Similarly, they may agree that two rows of counters or sweets are the same if arranged in correspondence, but if one row is then bunched up together they will not agree that the number remains the same. Hence, they cannot conserve number because conservation of number involves recognition that quantity is preserved even though the perceptual array is modified.

Temporal relations provide similar data. Time for the pre-schooler is tied to particular objects or movements. For example, if two toy trains are observed to leave the same station, travel at different speeds, and arrive at two different places at the same time, 4- and 5-year-olds acknowledge the simultaneity of the departure, but usually contest that of the arrivals, although this is easily perceptible. They recognise that one of the trains ceased to move when the other stopped, but refuse to grant that the movements ceased "at the same time" because, to preschoolers there is, as yet, no time common to different speeds.

Ideas concerning age give rise to similar statements. Although pre-schoolers will recognise that they were born after an elder sibling, that does not exclude the possibility for them that they might catch up or even overtake the age of the older sibling or parent (Piaget, 1969).

b) The Young Child's Perception of Events

There are two aspects of the operation of reversibility. One concerns the perception of changes in physical events which has just been considered, and the other involves social perspective. According to Piaget (1969), young children tend to concentrate on their own perceptions and not distinguish between them and the perspective of other people. He defined this tendency as egocentricity. An illustration of his definition can be seen in the following task. Children are placed in front of a scale model of three mountains and asked to select a photograph showing how the mountains would look from another position, such as the opposite side (Piaget & Inhelder, 1956). Young children tended to select the photograph showing the mountains the way they themselves see them.

Similarly, if a child encourages another child to build a stack of blocks in the way he or she has, and the stack is hidden from the view of the other, they are apt to give instructions which are tied to their own point of view, and are unable to take the point of view of the listener. They may instruct the child, who is a stranger, to select a block that looks like "my Mummy's hat" (Krauss & Glucksberg, 1969). Only through extensive play with other children using objects and games which have rules, can pre-schoolers become practised in taking another point of view. However, the fully-fledged ability to do this does not usually develop until late adolescence, and in some cases, never.

Taking another person's point of view involves very abstract processes which include the ability to see oneself as others see one. Thus, it is unrealistic to expect a three-, four-, or five-year-old to understand adult feelings, perspectives and emotions. They can understand sadness in their parents only if it is of the same nature as the sadness they undergo. Thus, pre-schoolers who are exceedingly distressed at the loss of a father may define their sadness in terms of the mutual games or bedtime stories they miss. This does not mean that children's depression and anxiety are not as great as those of an adult, rather that it may be defined and acted out differently (Phillips, 1981).

The egocentric perspective of pre-school children is also seen as the reason why they tend to invest physical events and inanimate objects with the same processes that they undergo themselves. The wind may be described as being "in a hurry", the rainy day as "the sky crying", and a doll may be invested with the child's own motives and concerns. However, it is difficult to say whether or not these egocentricities are a product of cultural trends in our manner of communication with children or are an inevitable aspect of the developmental process.

ASSOCIATING: THE YOUNG CHILD'S SYMBOLIC ASSOCIATIONS

Young children associate and relate things differently from adults. An activity which indicates the differences runs as follows:

> *Three balls of different colours - red, blue and green - are placed in that order in a cardboard tube, so constructed that the balls cannot change their relative positions. The child observes the order in which they are placed in the tube and well before 4 years can predict the order in which they will emerge from the other end (that is, the original order). Predicting the order if the balls are rolled back is usually beyond young children until 4 or 5 years of age. If the cardboard tube is turned through 180 degrees (reversing the order in which the balls emerge), children aged 4-7 years are unable to foresee what the result will be. Moreover, children of 4 to 5 years, after seeing the red ball and sometimes the green ball coming out first, imagine that blue will also have its turn as leader, not appreciating that, of necessity, the blue must always be between the red and the green. In this way they often apply a special logic which invests the order of the objects or events involved, with their own wishes and motivation. Thus, since they like to have their turn as leader, why should not the balls in the tube feel likewise?*

This activity demonstrates the difficulty pre-schoolers have when activities and rules which involve sequences are re-oriented or presented in a different order. Eventually, through ample self activity, the child discovers the physical and logical necessities of sequence.

CLASSIFICATION: THE YOUNG CHILD'S WAY

Preschoolers and toddler do not classify as adults do. Children aged 2-3 years are not concerned whether the snails found in several garden beds are one individual or a class of distinct individuals. They cannot yet cope with general classes, being unable to distinguish between "all" and "some". Piaget has described this thought as pre-conceptual. At this age young children can put objects together in terms of their resemblance in colour and size, for example. However, as the task proceeds, they tend to put things together one after the other on the basis of their spatial proximity in linear and two-dimensional arrangements. They may also lose sight of their classification procedure and tend to end up with a "train" or a "house".

Even between 5 and 7 years the child is still having trouble with the conventionalities of simple class inclusion. Around 6 years they may already understand that all ducks are birds, but will yet maintain that you take away all the birds and there will still be ducks. The quantitative aspect of class inclusion in which, if all ducks are birds then birds include ducks, depends upon the understanding of class hierarchy. Everything seems to show that children of this age do not hold the whole class in mind while attending

to part of it.

This tendency also explains why pre-schoolers have trouble with adult rules and explanations. It does not necessarily follow that he/she will recognise that a cut crystal glass upon first sight can be included in the class of breakables. To punish the toddler or pre-schooler for picking up such an item rather than explaining over and over the similarity to other breakables again may be a reflection of adult egocentricity.

PRE-CONCEPTUAL AND INTUITIVE THINKING IN YOUNG CHILDREN

The pre-school years when children do not think with the adult's conventionalities of logical operations are known as the pre-operational period. The pre-operational stage is characterised by a transition from thinking with the body to thinking with representational symbols in the mind. This stage extends approximately from the age of 18 months to 7 years, although these are only rough guidelines. It is often divided into two parts - the preconceptual (2 to 4 years) and the intuitive (5 to 7 years).

The characteristic of the preconceptual stage is the emergence of symbolic thought and language; there is little concern with adult type classification and thinking is animistic. A child of this age may become upset if someone steps on a stone that he or she is using to represent a turtle (Elkind, 1968). The stone has been invested with life and the child's own tendencies. Similarly, a preconceptual child cannot grasp the purely representational nature of words. The word "cat" is part of being a cat. It could not be given by another name.

Further, at this stage, nothing is seen by the child as occurring by chance. The world is organised intentionally and probably created by parents or someone like them. The stars are to warm us, clouds to make night, mountains to climb upon and lakes for boats to sail on. The toddler and very young pre-schooler is unable to think about anything existing without a conscious goal. Piaget calls this artificialistic thinking (1975). Of course, many religions and philosophies hold this view, and it is difficult to assess clearly how much cultural practices with children encourage this artificialism.

Intuitive thought which begins roughly at 5 years, can, unlike preconceptual thought, distinguish between the inanimate and the animate and the artificialism is not so pronounced. However, intuitive thought makes an immediate interpretation of phenomena without the constraints of transitivity, reversibility, associativity, and hierarchical classification. Explanations are found in connections which constantly contradict one another rather than in logical necessity and general laws. Causation is taken from the appearance of things. For example, a child will argue on the one hand that small boats float because they are light and on the other hand that large boats float because they are heavy and carry themselves. This is described as transductive thinking (Piaget, 1951).

WAS PIAGET RIGHT? A DISAGREEMENT

However, in many of these experiments performed by Piaget, Margaret Donaldson (1978) believes the child did not understand. Also, many of the Piagetian tasks do not encompass the child's direct experience. The mountain task, for example, which was used to demonstrate the egocentric thought of the child is abstracted from the acute interest of 3-year-olds. It also involves concepts such as in "front" of or "behind" and the problem may really be one of grasping spatial relationships rather than an outcome of egocentric

mental processes.

Young children asked to hide a toy boy from a toy policeman are able to co-ordinate two different points of view (Donaldson, 1978). Notice that we cannot appeal to direct experience. Few, if any, children have ever tried to hide from a policeman, but we can appeal to the generalisations of experience: they know what it is to try and hide. The situation is within the child's experience and the motives and intentions are comprehensible even to a child of three. Another example of the ability of young children to decentre is seen in their accommodation to their toys and their sensitivity to the limitations of toy animals as such.

Even the question of object permanence needs some caution. Bower (1977) argues that children's concepts of objects are bound up with location and movement. Thus, the same objects in a different place, or in motion, may be seen as different objects (Phillips, 1982b). Donaldson is similarly critical of much of Piaget's questions in relation to class inclusion and believes that the children did not properly understand the question asked. She thinks that the conclusion that they cannot consider the whole when attending to the part is based on tasks not suited to the cognitive developmental stage of the child.

Where the contrast between the whole and the part is made clear by the use of an adjective that has meaning for the child, results indicate the child can classify. For example, if asked whether there are more black cows or more cows children make the mistakes suggested by Piaget. But if the cows (three white and one black) are laid on their side and the child is told they are sleeping, so that the emphasis is on the total class and then asked: "Are there more black cows or more sleeping cows?" the ability of 6-year-olds to classify increases dramatically (Donaldson, 1978).

It is a common but naive assumption that the understanding of a word is an all-or-none affair and that you either understand it or you don't. This is not so. The correct interpretation of the word on one occasion by a young child is no guarantee of full understanding on another. Donaldson quotes the following conversation with a small boy who came home bad-tempered from school:

> *"What's the matter, love? Didn't he like it at school, then?"*
> *"They never gave me the present."*
> *"Present? What present?"*
> *"They said they'd give me a present!"*
> *"Well, now, I'm sure they didn't."*
> *"They did! They said "You're Laurie Lee, aren't you? Well just sit there for the present.""*
> *"I sat there all day, but I never got it. I ain't going back there again!"* (1978, p 17)

Thus, those working with children need to be especially careful that they are not egocentric and unsympathetic in their interpretation of children's behaviour and conversation. Further, to assume that because pre-operational children think differently from adults they are not intelligent is one of many adult egocentricities in relation to children. Pre-operational children are working hard and intelligently at understanding things.

PRACTICAL APPLICATIONS OF RESEARCH INTO COGNITIVE DEVELOPMENT IN YOUNG CHILDREN

The previous discussion of how toddlers and pre-schoolers think has many practical implications for those working with children, not only in educational but also in medical, legal and welfare settings, as the following examples illustrate.

> *Three-year-old Cathy developed measles. The doctor came and went. The child was given every care but she wept profusely. At first it was concluded that the child was overwhelmingly ill but careful questioning brought forth the following question: "Will I always have these spots?" The child had seen pierrots, leopards and cats with permanent spots and markings and had concluded she was so marked for life. Egocentrically, the parents and the doctor concluded that because they understood the child also understood.*

Similarly, many children protest violently if taken to hospital. They have seen or heard of grandma and neighbours going to hospital and not returning. When asked what a hospital was, several six-year-olds said "It's a place where you get killed".

In a similar way the pre-school child's concept of death reflects how young children use their own experience to interpret an unfamiliar phenomenon. Research suggests that until the age of 5, the child considers death as temporary, rather like a sleep or a journey and that, not only is coming to life again possible, but that it may also be seen as a rebirth with the possibility of making all past wrongs and sorrows right. Many a child who tells a parent they wish they were dead really means "If you lie down and have a good sleep you'll be nicer to me afterwards." (Phillips, 1981).

During the divorce of parents, pre-schoolers who have not yet achieved the multiple perspectives of abstract thought may similarly see themselves and their actions as central and hence, they may feel guilt and think their naughtiness, or lack of demonstrated affection, is responsible for the departure of the non-custodial parent (Phillips, 1982a). Due to this view and to distress at the loss of the non-custodial parent they may experience nightmares, depression, eating problems or bedwetting, their play may become less imaginative, less co-operative and constructive, and they may become dependent and naughty (Phillips, 1982a).

Thus, in summary, to better understand children and their behaviour, much less egocentricity, and more insight into how children think is required of parents, pre-school teachers and adults who work with children. One also should not assume that because children use adult words, they understand them. Children's language is closely linked to their stage of cognitive development and careful interpretation is needed. This is discussed in the following section.

LANGUAGE

Language is another aspect of symbolic thought and enables the young child to represent in a word something that is not immediately present and also the past and the future. The emergence of language thus allows the child to operate on a new level. However, caution is needed when adults converse with children. For the pre-schooler, words and symbols refer not to the actual objects but the child's knowledge of these things. On the other hand they have a remarkable and creative ability to synthesise information that astounds and

amuses adults. One boy, for example, began to call horses "forses" when he observed that horses have four legs (Fein, 1978).

THE ROLE OF ACTION IN LANGUAGE DEVELOPMENT

Researchers in the Soviet Union, led first by Vygotsky (1956, 1962), describe the very young pre-schooler's or toddler's language as a means of expressing activity. It appears to be tied to action. For example, if a 2-year-old is asked to put a doll on the bed, he or she will do so. If the child is told "don't put the doll on the bed" he or she will probably still do so, even if asked to say the words. It appears that language can direct action but not non-action. The child must be able to dissociate language and action before language can guide behaviour. For instance, Tikhomirov (1958) found that not until a child is 4-4½ does the verbal direction "don't press" actually direct him or her not to press a bell. Even as a 3½-year-old, using self-instruction, said "don't press" she pressed the bell.

The meanings of word such as "in", "out", "to", "from", "near", "far", "over", "under", "up", "down", "inside", and "outside", are learned directly with a child's own body (Weikhart, Rogers & Adcock, 1971). Weikhart and associates suggest that the usual progression is for children to learn a concept first with their bodies (crawling *under* a table) and then with objects (pushing a toy truck *under* a table). Later, they learn to identify the concept in pictures (see the boat go *under* the bridge) and are able to verbalise it.

Parents often teach children to count or recite the alphabet and boast of the child's prowess. Actually, such feats often indicate a child's rote memory and the parents' persistence but not the child's understanding of qualities and the meaning of letters and words. Only with a wide variety of concrete experience with objects and activities will the child learn to conceptualise "too many", "how much", "what kind", "where", and "when". Teaching must proceed at the child's pace and interest and according to the child's capacity for, and way of thinking.

THE YOUNG CHILD'S UNDERSTANDING OF WORDS

As indicated earlier, use of words does not necessarily indicate that a pre-schooler understands them in the way an adult does. For example, a 2-year-old boy may use words that seem to indicate a knowledge of time and space: "later", "tomorrow", "last night", "next time". However, words are defined in terms of specific experiences. Thus "afternoon" may be nap time, and if the nap is omitted then afternoon does not come (Craig, 1979). Concepts of weeks and months, minutes and hours, are quite difficult for a young child to grasp. Similarly, in the beginning, the use of the words "cause" and "because" may have little to do with the customary adult usage. The same is true of "why" - the 4-year-old's favourite word.

Child: When is Grandma coming?
Father: Not until tomorrow.
Child: Why?
Father: Because Grandpa is sick.
Child: Why?
Father: He caught a cold.
Child: Why?

It may seem to the parent that the child is being deliberately annoying, but the child may be repeating the question in an attempt to understand words such as "until" or "caught". What the child may be trying to say is that Grandma usually takes her to the beach and does her not coming mean she will

not. Since she is not able to understand concepts of "cause" and "effect" and "until" and "tomorrow", she is unable to ask the precise questions that will elicit the information that she needs.

EGOCENTRICITY OR NOT?

According to Piaget, as indicated earlier, young children have trouble conveying information because they are firmly tied to their own point of view. He characterises the speech of young children as egocentric. However, many recent researchers question Piaget's theory in this as in other areas. For example, Shatz and Gelman (1967) point out that pre-school children have been known to "talk down" to younger children and use shorter and simpler utterances than when talking to adults. Clearly, young children can adjust their speech to the listeners. But this ability is evident only when they are talking about objects and events that they understand.

THE HOME ENVIRONMENT

There is no question that the home environment is a fundamental factor in the child's language development (Fein, 1978). But what exactly do parents do to influence language and cognitive development?

A longitudinal study of mother/child interactions by Hess and Shipman (1968) between 1965 and 1969 suggest the most effective teaching strategies were those in which the mother accompanied her instruction with reasons, used praise, and gave the child specific feedback. More recent research by Streissguth and Bee (1972) supports these findings and suggests that mothers who used more questions, and who intruded less often in the task which their children were given, had children who were more persistent, better able to profit from instructions, better able to think before making a choice, and more imitative of an adult model.

These findings which emphasise the need for adult sensitivity and restraint from intrusion into children's self-learning activities are supported by recent research in the Soviet Union. Children trained in handwriting before they showed especial interest in it, lose interest, become frustrated, learn much more slowly and attain a lower final performance level than those who are trained when they indicate eagerness and have begun self instructional methods (Craig, 1979).

Children who have an encouraging environment with lots of everyday objects, open space to explore, and a variety of other people to imitate, will often pace their own learning. They will imitate what they see others do and repeat a task endlessly until they have achieved a sense of competence. Three and four-year-olds learn most effectively through active imitation. It is not until 5-6 years of age that pre-schoolers can attend closely to a purely verbal instruction (Zaporozlets & Elkonin, 1971).

Language is also learnt by imitation and in communicative families it enhances and enlarges the child's means of social interaction. This relates to another important aspect of development - the emergence and encouragement of anti- and pro-social behaviour.

AGGRESSION

Parents and society at large hold ambivalent attitudes about aggression in children (Phillips, 1982c). They forbid it, encourage it and are anxious about it. Of particular concern to parents is the two year old's and the four year old's tendency to seemingly aggressive negativism. Yet, quarrels and temper tantrums are common at these ages because the child is learning new skills and frustration is difficult to handle. These tantrums decline as the child acquires a sense of competence in the later pre-school years.

It certainly seems that reinforcement aids the development of aggression. Some of this is inadvertent. For example, the teacher who otherwise ignores a child yet repeatedly scolds whenever his/her behaviour is aggressive, may be rewarding the child for attention-seeking behaviour. Aggression in children also reflects the way they are treated by parents and later, teachers. Children who receive little affection or attention and who are often criticised and scolded tend to be hostile in their relation with others (Fein, 1978). But parental attitudes and double messages can encourage aggressiveness in children who are loved and receive positive attention from their parents, by indicating that they admire children who are aggressive. Some parents punish aggression but fail to teach the child socially desirable alternative behaviours. The child knows what he or she should not do but has very little idea of what kind of behaviour will win approval (Feshbach & Feshbach, 1972).

It also appears that punishment does not reduce aggression. Instead, children imitate their parent's aggression (Feshbach & Feshbach, 1972). The most effective means of controlling aggression is the use of affection and reasoning (Baumrind, 1967; Feshbach & Feshbach, 1972; Phillips, 1979). If the child has constant patient and repeated explanation of the effects of his/her behaviour on others, together with a feeling of being loved, he/she will, by the school years, have developed a conscience and a sense of guilt for wrong-doing and hurting others. This will often operate as a self-disciplining device although the behaviour must be maintained by reinforcement and explanation.

At the toddler and infant stage, firm, swift removal and diversion are the best techniques along with a consistent and business-like instruction to avoid encouraging negative behaviour. Toddlers' moral behaviour is encouraged by their making motor responses in the desired direction and receiving approval for simple pro-social behaviours such as giving a sweet to another child, helping to carry toys, or picking up rubbish. The repetition acts as a conditioning device and, at this stage, is necessary since the child understands largely at the motor level as indicated earlier. Attention should be directed toward approving positive behaviours rather than concentrating on negative behaviour. For many children, negative behaviour is the only way they can get attention from their parents.

However, aggression is often misnamed in children. Much of it could more precisely be called self-assertiveness as the infant or child becomes a separate person. Further, the factors of altruism, empathy and understanding the motivations of others are often given insufficient emphasis in the study and encouragement of social behaviour in children.

ALTRUISM

Parents and pre-school teachers tend to be more concerned with aggressive behaviour and not take so much notice of altruistic behaviour. Yet altruistic behaviour has been observed in very young children and needs much more reinforcement than it receives in our culture. Some children begin to show concern for others by the age of 2. If a child falls down and cries, another child may spontaneously offer a toy. These kinds of behaviour need positive encouragement from parents if they wish their children to be generous.

By the age of 5 years children become more aware of motivation in others. For example, they begin to learn to distinguish between what others intend to do to be kind as opposed to what they do "by accident" (King, 1971). Younger children judge both as equally generous.

Several factors appear to play a major role in the acquisition of altruistic behaviour. These are cognitive development, as discussed earlier, and the related ability to see the other's point of view. Also important is adult nurturance and altruistic adults on whom children can model their behaviour. What an adult model says is less influential than what the model does (Bryan, 1975). When adults do one thing and say another, children do not seem to be bothered by the contradiction. They tend to do what the model does and say what the model says without recognising the incongruity. However, there is evidence that inconsistency reduces the model's later ability to influence the child (Bryan, 1975).

EMPATHY

Another much-neglected pro-social behaviour is empathy. According to Borke (1971), even 3-year-olds are aware of other peoples' feelings, but their ability is global rather than acute. Thus, they can distinguish broadly between happy and unhappy feelings in other people, but not finer nuances. Borke found that between the ages of 4 and 7 there is increasing accuracy in children's identification of situations that evoke fear, sadness and anger in others. But it is believed that this involves pinpointing but not necessarily sharing these feelings, which is the essential definition of empathy.

Hughes, Tingle and Swain (1981) found that older children (8 years) were more likely than younger children (5 years) to cite personal cues and psychological reasons, rather than situational factors, in their explanation of other's emotions and their own empathetic response. They are able to do this because, with the experience of supportive social interaction and discussion, they come to understand and describe the variation in their own feelings and hence, in others. Thus, older children, in observing children in happy situations such as on birthdays or in situations where they are sadly excluded by playmates, are able to put themselves in the other child's place in terms of their own feelings and to explain the causes of these empathetic feelings.

The research suggests that spontaneous games such as imagining themselves as another, helps encourage empathetic responses in young children. There is also evidence that encouraging children to focus on their own feelings results in increased understanding of the emotions of others rather than in increasing the likelihood of a more egocentric orientation. However, the stress here should be on spontaneous play and not laboured emotionally-charged demands from egocentric adults.

The complicated and abstract processes involved in empathy have much to do with the development of the self-concept which is considered in the next section.

The self-concept is generally defined as how one sees oneself and one's abilities, disabilities, characteristics and values. It is believed that the self-concept emerges as a result of learned experience and how significant others, such as parents and teachers, appraise one (Hamachek, 1978).

BEGINNINGS

The indications are that at the beginning of life there is no sense of selfness and that the baby has to first learn a sense of physical separateness (Phillips, 1979, 1982b) and a comfortable sense of bodily awareness. As stressed throughout this section this occurs at the sensory motor level because, at first, the infant thinks through his/her senses. Simple games with adults, in the form of dropping and picking up objects or playing "peek-a-boo" are the beginnings of social interaction and are important also in developing the ability to "expect" what the other will do in relation to self. This ability also depends on the development of symbolic thought and a rudimentary understanding of self and space.

At 12 months infants demonstrate the beginnings of self-choice and preference (Phillips, 1982b) and may suddenly and energetically refuse a food they have previously liked, protest loudly at bedtime, or resist getting dressed or placed in a high chair.

ASSERTIVE BEHAVIOUR

This self-assertion increases by 19 months to two years. Toddlers may reject attempts to help and insist on doing things for themselves and throw temper tantrums when they attempt tasks beyond their capability or cannot satisfy their curiosity. Temper tantrums are not only common at two but also at 4 years, as indicated earlier. They seem to peak at a time when toddlers and pre-schoolers are extending their curiosity to new horizons and developing and trying new skills and endeavouring to achieve that sense of competence which is so important to the developing self-concept.

These assertive behaviours reflect a milestone in the child's self-concept development and should be a cause of satisfaction about developing individuality. However, caretakers who are unable to see the child as separate from themselves, may see these positive developments as negative attempts to engage in a power struggle or as an indication of "natural naughtiness". They may attack the child for his/her early attempts to be individual and separate from them. Caretakers who are not threatened by these developments, where necessary, confidently help the infant, the toddler, and the pre-schooler to his/her own solutions, or they may, if appropriate, use diversion, rapid unemotional removal or turn the infant, toddler, or pre-schooler's defiance into a game. In this way, safety routines and needs are attended to effectively. The child does not learn to regard his/her individuality negatively and as something that occasions hostility in others. Constant battles may intimidate infants or encourage aggressive responses. Much also depends on the temperament of the child.

DISCIPLINE

Discipline at this stage should be of the motor kind. As indicated previously, repetitious pretend games which act out disciplinary procedures "be gentle with this", "carry this carefully", are the best suited to developing the child's understanding. Very young children tend to find it difficult to

stop their ongoing activities with negative verbal instructions because up until about 4 years of age words are linked to actions. Thus, the use of the positive instruction (wipe your feet) rather than the negative instruction (don't come inside with muddy feet) will achieve the best results.

The toddlers developing sense of competence can be disrupted by too many verbal rules and unrealistic expectations. Two or three single positively expressed rules demonstrated and carried out in activity are the limit of capacity at this age. We now know that toddlers can suffer depression in the form of head banging, gastric and eating disturbances (Phillips, 1981, 1982b) if overwhelmed by frustration and expectations beyond their developmental capacity.

FURTHER SELF INDIVIDUATION

Body and Mind

At 2 years of age toddlers can associate different parts of their bodies with words and when asked to touch their nose, for instance, will be able to do so.

Having attained this bodily sense of self awareness, we find that the major task for the pre-schooler is to develop awareness of the separateness of their minds and perceptions from others. As indicated earlier, they tend to believe that others see and "know" what they know. Andrea, aged 3, was overheard telling her playmate "My mother knows everything you think". Not until Andrea was five and had done many naughty things without being discovered and played endless games, where she took the roles of others such as mothers, butchers or postmen, did she learn that her "thoughts" were hers alone.

The Effect of Having a Name, Possesions and a Family

A child's name is very important in providing a sense of separate self. "I'm Mary, she's Jane". Similarly a few simple possessions aids the sense of separateness (Fahey & Phillips, 1981) as delineated in "my toys", "my clothes" or "my bed". Having a family has a similar effect. "My daddy", "My mummy". Thus, self is extended to include "me", and "mine" (Bee, 1978).

Time and Space

Pre-schoolers begin to represent themselves in terms of space and accompany the positioning of self by saying "Here I am!" and enjoy playing hiding games with parents and playmates. In this way, they learn about themselves in different spatial positions. Similarly in the temporal sphere a pre-schooler develops a sense of age and knows how old he/she is and whether he/she is older or younger than others.

Activity and Control

Activity and physical skills are central in self-concept descriptions at this age (Keller, Ford & Meacham, 1978). "What can I do?", "Where can I go?" "What happens if .... ?" Through their developing activities and skills pre-schoolers also begin to develop a sense of competence and power in relation to objects and events. "I can!". However, they are powerless in many situations and imaginings of magical achievements are ways of handling these frustrations and inadequacies (Weiner & Elkind, 1972). They may also try out their powers in relation to adults, testing whether they can break a rule, or achieve something they want. Pre-schoolers and toddlers need to develop some sense of

control in relation to others (Craig, 1979). Thus, parents and pre-school teachers need to distinguish what matters from what does not matter. For example, eating is not a good scene for battles of will. If the toddler or pre-schooler orders a banana with his/her breakfast cereal and then refuses it, it may be easy for many parents to accept. However, running out on the busy road is certainly a situation where the adult rule must hold firmly. Again, the instruction is better worded positively.

THE IMPACT OF ADULT IMPRECISIONS AND TABOOS

The defiance of a toddler or pre-schooler may be an indicator of confusion about achieving a positive self-concept. He/she may be bewildered, as indicated earlier, as to what behaviours are expected, lack any positive behavioural models or be a victim of double messages.

> *Andrew, aged 4, was a problem at pre-school. Four-year-olds can be very aggressive, but Andrew was excessively and negatively so. He bullied and hit the other children. He could not even occasionally co-operate with others and kicked and spat whenever he did not get his own way. The mother blamed the pre-school. The pre-school teacher blamed the mother. The mother herself was a very aggressive person and observation revealed that she punished Andrew physically for his aggression, but made it quite clear that she admired anyone who demanded and got his/her own way by whatever means. In fact, she was pleased with Andrew's aggressive behaviour and was reinforcing it in ways not even apparent to herself. Being a bright child he had ascertained this and was living up to his mother's expectations.*

Children in this period are also often confused by adult sactions. A two-year-old, for example, is a very sensual creature, deriving pleasure from messes, sounds, lights, tastes, and smells. This sensuality extends to the anal-genital area and masturbation and sex play are very common among pre-schoolers. The way the culture and the family react to this sensuality can affect the child's self view in relation to bodily functions (Craig, 1979). They may learn to see this aspect of themselves as dirty or disgusting and this view is incorporated into the self-concept.

REFLECTED APPRAISALS

During the early years, the appraisal of others is especially important in building a child's self-concept. This process is one of the child incorporating the repeated views of significant others about his or her attributes and abilities into the self-view. "You are a good girl", "You are very helpful and clever", "You are a good runner, and sew very well".

Sometimes, much-needed positive appraisals and realistic feedback are missing and the child does not incorporate a feeling of worth and acceptance by others into his/her self view. Almost unwittingly, parents, teachers, and playmates may induce a child to see himself/herself as clumsy, stupid, or inferior.

If told often enough that they are bad, children will incorporate "badness" into their view of themselves. One of the sad things about abused children is that they often believe that they deserve the punishment they get. Without abstract thought processes they are unable to judge those who judge them. Pre-schoolers are very much of the impression that adults are infallible and are very much under adult constraint. Significant others such as parents become a mirror in which the child sees himself/herself reflected and approved

of, accepted or rejected.

Parents, in particular, are in a position to build traits and characteristics into a child's self-concept by repetitive descriptions (Phillips, 1979). Some children are constantly ignored or spoken in front of as though the child is not there. Said one father whose boy was being coached by a school teacher to play football: "He's not much of a goer. You'll need to make a man of him". The boy was spoken about as though he was not present and hung his head in embarrassment. Other children are told constantly: "I never had migraines before I had you", "If you hadn't been born we could go out more", "Go away", "Are you here again?" (Canfield & Wells, 1976).

Discipline for children in anglo-saxon cultures is often negative. "You are so stupid you always forget to shut the door". "You are late again and never think of me", "You look untidy. Why can't you be tidy?" Children have to be given negative messages in order to condition their curiosity and activity to the constraints of social living. However, negative messages can be given positively (Canfield & Wells, 1976). "You forgot to shut the door, but I know you can remember to do it. Here, let's do it together." "You look untidy. You are pretty good at smartening yourself up so let's to to the bathroom and see what you can do." These endlessly repeated positive suggestions, associated with positive activities, are suited to the nature of the pre-schoolers symbolic and activity-based thought and help develop in him or her a sense of competence and self-esteem. Constant repetition is necessary and praise should be genuine. Through positive appraisals and activities the pre-schooler learns special qualities about themselves: "I am good", "I have rosy cheeks", "I have fair hair".

INTEREST, SECURITY AND REFERENCE GROUPS

The amount of interest shown in them by parents appears to be positively related to children's self-esteem. In this, the role of the father seems especially important (Santrock & Warshak, 1979). The degree of security a child feels in the family, also seems important. A child who feels he/she is accepted, can tolerate parents' and teachers' off-days and occasional outbursts. A child who feels rejected expects ill will in every remark (Phillips, 1979).

Reference groups are also important in a pre-schooler's self-concept development. To be over or underpraised in relation to another sibling can lead to unrealistic or defeatist views of self.

> *There are two boys in the Z family - Billy and Brad. Brad was regarded as the clever one by the parents. The parents were oriented toward academic things and the fact that Brad had learnt to count and write earlier than Billy influenced their judgement. Billy was a creative child and good at drawing and imaginative games. The parents were not tuned to these talents and continually praised Brad as the clever one and repeatedly talked about this to neighbours and friends in front of the children. By the time Billy was six he had become quiet and withdrawn. These behaviours were indicators of his poor self-esteem.*

ASPECTS OF DISRUPTION IN SELF-CONCEPT DEVELOPMENT

Because pre-schoolers are so much under adult constraint, the demands to be good may overpressure the developing self-concept. A pre-schooler has to learn social rules, learn to handle feelings, affection, anger, fear, jeal-

ousy, independence, and to restrain emotions. They must learn to relate to authority figures (those who are boss, or who are bigger) the nuances of the adult world and to cope with the guilt and anger provoked by being dependent. These things affect the feeling of self-competence and some researchers believe it may express itself through childish fears of ghosts or imaginary tigers. Not infrequently, it may also express itself in depression and, in particular, loss of appetite. This is fairly common at six-years-of-age in our society (37% in girls and 29% in boys) according to a study reported by Costello (1980). Lapouse (1966), in her study of six- to twelve-year-old children, concluded that symptoms of depression occur in twenty to forty percent of normal children. This feeling of incompetence may be expressed in aggression, hyperactivity, crying, sleep disturbances, psychosomatic disturbances, hypochondriasis, temper tantrums, disobedience, restlessness, and will encompass all children at one time or another.

These symptoms at six are often classified by medical practitioners as "normal". Costello (1980), feels that it is important that we do not become too nonchalant about problem behaviours in children, no matter how prevalent or transitory they may be. Rather, we should turn ourselves to positive steps. Here, self-esteem building techniques are especially important (Maron, 1979).

Much more research is needed to assess whether the depressions of the pre-schooler, toddler and infant are typical of other cultures or a result of prevailing trends in our child-rearing practices. Perhaps our way of life loads children with too much guilt, or maybe the confines of the nuclear family are unduly demanding of the pre-schooler's developing emotional interactions and self-concept.

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