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THE QUALITY OF EARLY INTERACTION IN MOTHER-CHILD DYADS

Annotation. The roots of communicative skills develop during the earliest years of life. During a follow-up study the development of communication skills of six mother-child pairs were observed in a laboratory setting in free-play situations and the speech development of the children was videotaped at monthly intervals up until the age of thirty-six months. The results show that the quality of adult-child interaction responds to the level of language acquisition of the child. The attributes of the zone of the proximal development are discussed.

Theoretical background. In everyday practice it is often imagined that the preconditions for development are of internal origin. This point of view arises from the application of a genetic paradigm. Neuropsychological research describes the development of the central nervous system. However, the study of cells cannot reveal the actual causes of development. Such an approach also appears to deny us the possibility of influencing and promoting development. On the contrary, it is apparent that the significance and sense of early education research are based precisely upon the interaction of theory and practice as well as upon the possibility of creating models of practice and contexts beneficial to development [4].

Vygotsky realised that after research had passed through the behaviourist stage the subjects of research could no longer be divided into separate pieces. Units being examined had to retain the organic connections inherent in activity. Similarly, it was necessary to be able to examine through analysis the internal contradictions within development related factors [13,11]. Activity is never merely a matter of concern only to the being who acts. Rather, it inevitably affects the environment in which it occurs [7, p. 51]. All the activities of the organism must be seen in terms of the world of experience, even when the activity in question is, for example, a disturbance or some other special form of activity in the brain. The process of behaviour must be made into a unit of explanation [7, p. 52]. Dialogue, for example, may be difficult to realise or practise in role play situations if there is no partner with whom to discuss.

Child development cannot be separated from the *social context of development*. Vygotsky made use of this concept in his cultural historical theory of the special quality of the relationship between the child and his environment. A special social context of development is born afresh at the beginning of each new stage of

development and sets into motion those dynamic changes belonging to the stage in question [15, p. 198]. How should the social context of development of a small child be described with regard, for example, to the process of learning to speak? It has, indeed, been observed that we lack effective tools for describing such contexts [5, p. 452].

Vygotsky's concept of a zone of proximal development (1978, 86) refers to the distance between the actual developmental level (independent problem solving) and the level of potential development as determined through problem solving under guidance or in collaboration with someone more capable. According to Chaiklin (2003, 39) the concept is "more precise and elaborated than its common reception or interpretation". Valsiner (1987) added the idea of distinguishing between the child's own free movement and that activity specially supported by the adult. We need to investigate the individual quality of the context for each stage of development and the way in which this varies from child to child.

In particular, the *social context* of development [14] comprises those relationships, the changes within which are fundamental to the developmental process. Certainly the attitude and skills of the supervising adult together with the material environment forming the operational context are each a part of the social context. The child-adult-object triangle thus formed undergoes structural changes as development progresses.

By examining variations in performance occurring within differing contexts it is possible to try to understand how differences in ultimate levels of attainment in, for example, linguistic competence first arise.

The results of studies of a comparative nature tend to reveal differences which are easily linked to value judgements. 'Different' is interpreted as poorer. However, different situations require different skills and within the various cultural strata of a given society there exist differing traditions which find expression in the relationship between mother and child and in the adult's manner of determining the child's role and of controlling his behaviour [10].

The educational problem arises from the fact that by the time children begin school they are compared with one another usually without regard to their own personal contexts. This remains the case in spite of efforts made towards closer collaboration between home and school. The attempt is thus made to lead children on as members

of a year group, to inculcate in them sets of standardised skills and, still in many societies, to monitor progress largely through testing methods. The child whose home practice favours those skills required by school will, of course, enjoy a much smoother passage through school than the child whose home teaches quite different values. However, no categorical claims can be made as to the latter case being of indubitably lesser value than the former. One might, on the contrary, consider it to be a question of the plurality of cultural development, which, during a period of profound societal changes, constitutes a foundation for dealing with unexpected situations.

One might also think, however, that every human child should be given the opportunity to learn to use his own mother tongue as fully as possible. He should be able to have at his command a range of means by which he can manage both his own actions and relationships with others (communication) and which also partially determines the conditions for acquiring technical skills (technical control over the environment). There are plenty of studies, which confirm that individual differences present during the early stages are not only preserved but tend to increase.

Method. The task of the present work is to undertake an assessment of the quality of the social situation of development in terms of factors influencing the formation of linguistic competence. It comprises a pilot study-type analysis of material from a long-term observational project. The study focused on mother-child interaction and on the learning of children to talk from the pre-verbal stage up until the age of four years. During the first three years of observation six mother-child dyads paid monthly visits to the Didactic Process Laboratory where a purpose built play area had been

constructed. The mother-child pairs visited the laboratory one at a time. At the start of the observational period the children were six months old. By the end of this period they were aged three years. Each laboratory visit was divided into three parts: the mother and child interacting freely, the researcher interviewing the mother and, finally, the mother and child freely interacting in the presence of two researchers. As the child grew older care was taken to ensure that the play area and equipment it contained met his developing needs. In addition to these laboratory visits the researchers also paid visits to the children's homes throughout the various stages of the study process. The parents also undertook certain written tasks. The levels of language understanding and production of the children at the age of three years were tested using the Reynell (1985) Verbal Comprehension and Production Test [6]. During the fourth year of the study the children were video taped at home, both indoors and outdoors. Observational examples from this concluding stage allow for comparisons of linguistic competence in everyday practical situations.

Examples of Empirical Observation. Detailed observation of examples of two mother-child dyads reveals great situational differences between the ways in which the mothers deal with their children. When the linguistic understanding of these two children was tested a developmental age difference of one whole year was recorded. Examples of episodes from six months to eighteen months in three different situations are given below. Tables 1-3 contain summaries of 'Mari' and 'Ida' and their respective mothers' actions (mothers' typical behaviour) in three different situations. These were the placing objects in the mouth, movement and the bringing of objects.

Table 1

Placing objects in the mouth

Actions of Mari and her mother	Actions of Ida and her mother
<p>From the very outset of the study Mari's mother reacted each time Mari put something in her mouth, trying to prevent her through a variety of means. These were chiefly</p> <ul style="list-style-type: none"> -direct prohibition: "Don't put it in your mouth!", "You'll have an accident!", "It's dirty." etc.; -removal of the object from Mari's mouth and replacing it with some other object. For example, a cardboard book cover was exchanged for a rattle ("You can put this in your mouth." This was heard during the first visits but this permission was also gradually withdrawn.) -replacing the object with a rubber dummy. 	<p>A typical example of how Ida's mother felt about her putting objects into her mouth involved a ball of wool (Ida was six months at that time). Ida played with the ball of wool with both hands until the wool became knotted. She then put in into her mouth. According to her mother the wool then had to be washed before it could be used. At the same time mother said that it was nice to suck the instructions label and rubber band from the packaging of Ida's doll. Mother told Ida in encouraging terms of how nice it was to fiddle, taste and suck the packaging: the silk paper could be crumpled up and put in her mouth.</p>

Table 2

Movement

Actions of Mari and her mother	Actions of Ida and her mother
Mari's mother restricted her movements by a number of means, including -directing her attention towards nearby objects ("Look! There's a teddy in the pram!" when Mari was standing about in the play area, surveying its contents), -direct prohibition (when Mari was experiencing the joy of moving around and exploring the various features of the play area, -offering something else with which to play	Her mother's encouraging attitude towards Ida's movements was apparent in various contexts. Characteristically, Ida's mother reacted to her moving during play. For example, at 17 months Ida pushed the pram in which the teddy bear was sitting. Ida started to head out of the play area towards the general area of the laboratory. Mother waved and said: "Bye, bye! Are you off for a walk?" However, Ida then noticed something more interesting and went no further.

Table 3

Bringing objects

Actions of Mari and her mother	Actions of Ida and her mother
Mari took first the doll and then its pillow, bringing them one at a time to her mother. Mother accepted the objects but eventually commented to the effect that it was Mari that should be playing with them. Throughout the entire stage that Mari brought objects, her mother's reactions were of discomfort and stress, sometimes even repelling Mari's proffering ("Don't give them to me! Go and play on the floor!"; "Don't start bringing me all that lot! Am I supposed to play with them?")	Typically, Ida's mother continued the bringing of objects as a game. For example, Ida took a telephone off the shelf and brought it to her mother. Mother asked, "Who's there? Is it daddy? Hello, hello! Thanks. Yes. Oh! You want to talk to Ida? Here she is!" Mother then passed the receiver to Ida. Ida took the receiver, put it to her ear and with her other hand turned the dial.

Conclusions

The above examples describe differences between the zones of proximal development of two children. Differences can be seen also in the area of imaginary play. If these differences were presented in Valsiner's terminology we should say that a large proportion of Ida's activity is supported and that her mother also allows her to move freely.

Mari's mother severely restricts her free activities during this stage of development by directing her attention towards nearby objects, through direct prohibition or by offering some substitute object. Neither does her mother support her attempts except in exceptional cases. On the contrary, she tries to prevent her child's actions.

If we wish to further analyse the features of proximal development we might consider its quality of empathy (warm – distant). Although the two mothers belong to the same social group, the social relations within their families represent two extremes. In one a lively interaction between the generations characterises the family situation. In the other family the social network is sparse. The vocations of the mothers also influence the mothers' behaviour as do the mothers' own childhood experiences and other factors of which we are not yet fully aware.

Ida's zone of proximal development is open, supportive and bright. Mari's zone of proximal development is hazy. In other words, her mother provides only weak support to the chief activities of

proximal development. She does not help the child to carry out her intended actions. Thus, *the diffuse intentionality* [1, p. 25] inevitably continues. It may thus be concluded that an individual-orientated approach to the description of development fails to fulfil those requirements of analytical units, which provide information of relevance to early education. Children's actions must be examined along with the mutual compatibility of operational models of children and adults.

Wertsch (1984) has employed the concept of '*completely differing situation definition*' when no common ground is shared between the orientations of the adult and the child. According to Wertsch, more or less skilled actions become increasingly similar as a result of changes in situation definitions. This is a typical learning situation in children.

But what about during the pre-verbal language stage when the mother's situation definitions should carefully fit in with those of the child? This, however, does not happen if the object of attention is quite different and if, for one reason or another, the mother frequently tries to direct the child's attention elsewhere, so interrupting his present activity. We know that development of communication is supported by a sensitive parental interactive style [3; 8].

The quality of the social situation of development determines the outcomes, in this case of, for example, the communicative skills of the child. Personnel working in early education should be able to analyse the quality

of the developmental situation in order to improve the organisation of their own work and to provide support for parents. The concepts used to describe the social situation of development should be further defined.

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