ED 344 664   PS 020 359

AUTHOR   Dalli, Carmen
TITLE   Scripts for Children's Lives: What Do Parents and
                Early Childhood Teachers Contribute to Children's
                Understanding of Events in Their Lives?
PUB DATE   Sep 91
NOTE   21p.; Paper presented at the Early Childhood
                Convention (5th, Dunedin, New Zealand, September
                8-12, 1991).
PUB TYPE   Speeches/Conference Papers (150) -- Information
                Analyses (070)

EDRS PRICE   MF01/PC01 Plus Postage.
DESCRIPTORS   *Behavior Theories; Child Caregivers; Child
                Development; Day Care Centers; Foreign Countries;
                Interpersonal Competence; Parent Child Relationship;
                Parent Role; Preschool Education; Preschool Teachers;
                Role Models; *Social Cognition; *Social Development;
                Social Environment; Social Experience;
                *Socialization; *Social Theories; Teacher Role;
                Teacher Student Relationship; *Young Children
IDENTIFIERS   *Scripts (Knowledge Structures)

ABSTRACT
                "Scripts" are ways of describing the knowledge a
person must have in order to understand the appropriate response in a
given situation. In this document, literature on the ways in which
children acquire scripts for social behavior through interaction with
others is reviewed, and some departures from script theory are
discussed. It is noted that most theories of human development
acknowledge that interaction with adults is critical for a child's
social, emotional, and cognitive growth. Examples of studies that use
notions from script theory and a Vygotskian perspective to explain
children's understanding of social events are provided. The final
section of the paper describes a progress report on a project
investigating the contributions made to children's event scripts by
parents and by teachers in an early childhood center attended by the
children. The project began as an effort to study the idea that
parents and early childhood staff play complementary roles in
children's lives. The methodology took account of both psychological
and social processes. It was concluded that the event of becoming
part of a group might be a good context for studying the contribution
of staff and parents to children's understanding of the early
childhood center. Contains 29 references. (LB)

Scripts for Children's Lives: What do parents and early childhood teachers contribute to children's understanding of events in their lives?

Carmen Dalli

Victoria University of Wellington

(Paper presented at the 5th Early Childhood Convention
8-12 September, 1991, Dunedin, New Zealand)

Address for correspondence: Victoria University of Wellington
Education Department
Box 600
Wellington
New Zealand

BEST COPY AVAILABLE

The belief that parents and early childhood teachers separately and jointly play important parts in children's lives is a widely held one. Most theories of human development explicitly or implicitly state that interaction with adults is critical for the development and maintenance of social, emotional and cognitive growth in infants and young children (eg. Wertsch 1985, Bruner, 1968). In research on children's social development particularly there has been a growth in interest in how experienced social interactions mediate the development of social skills and of knowledge about the world (Light, 1987).

One concept that has acquired increased currency in this type of research is the notion of "scripts". Simply put, a "script" is a way of describing the knowledge a person must have in order to understand what a given situation demands in the way of an appropriate response. For example, Joan Grusec (1983) argues that in order for a child to engage in altruistic behaviour, such as showing concern for others, that child must first understand that a situation requires concern for others to be shown. The child must also know how that concern for others should be put into effect. In other words, the child has to have a 'script' for altruistic behaviour which specifies the appropriate sequence of events in a particular context.

This paper reviews some of the literature on how children acquire 'scripts' for social behaviour through interaction with others. Some departures from "script theory" are then discussed followed by a section which presents a few illustrative examples of studies that have used the notions described in the theoretical part of the paper. The final section is a progress report on a project seeking to investigate the contributions made to selected children's event 'scripts' by one of the child's parents and one early childhood teacher in an early childhood centre attended by the child.

The notion of 'scripts'

The first people to use the notion of 'scripts' in an attempt to develop a theory of how people organise knowledge to help them behave appropriately in a particular situation were Roger Schank and Robert Abelson (1977). Schank and Abelson distinguished between "general knowledge" and "specific knowledge".

"General knowledge" is the knowledge we use to understand those actions of others that arise because they, like us, are human beings who share certain needs that are fulfilled in certain standard ways. Schank and Abelson (1977, p. 37) give the example of a person asking for a glass of water. The person who receives the request need not enquire why the water is wanted; even if the water is later used for a non-standard but clear purpose, such as to be thrown in another person's face while that person's watch was stolen, nobody would have trouble understanding what happened. Though this particular sequence of actions may not have been witnessed before, our "general knowledge" about people allows us to understand why the water was needed and what had happened.

"Specific knowledge" according to Schank and Abelson (1977), is knowledge which allows us to understand and behave appropriately in events we have experienced many times. Detailed specific knowledge about situations makes us more efficient in processing information in frequently-

3

encountered events. An example of when "specific knowledge" is called upon might be in the situation of going to the theatre. Schank and Abelson (1977) argue that if we possess "specific knowledge" about the event of "going to the theatre" we will know that we need to show our ticket to be allowed in and that an usher is likely to direct us to our seat. Thus, if the person who looks at our ticket says "second aisle on your right" we are unlikely to answer "what about the second aisle on my right?" or "where is my seat?"; rather our "specific knowledge" about theatres allows us to understand and appropriately respond to what would otherwise be very cryptic and potentially confusing remarks.

According to Schank and Abelson, this type of "specific knowledge" is possessed by every mentally competent person in the world. Furthermore, "specific knowledge" exists for every standard situation or event that a mentally competent person experiences many times. The form this "specific knowledge" takes is called a 'script' defined by Schank and Abelson (1977) as:

> "... a structure that describes appropriate sequences of events in a particular context. A script is made up of slots and requirements about what can fill those slots. The structure is an interconnected whole, and what is in one slot affects what can be in another. Scripts handle stylised everyday situations. They are not subject to much change, nor do they provide the apparatus for handling totally novel situations. Thus, a script is a predetermined stereotyped sequence of actions that defines a well-known situation. Scripts allow for new references to objects within them just as if these objects had been previously mentioned; objects within a script may take 'the' without explicit introduction because the script itself has already implicitly introduced them". (p. 41)

A few further notes about 'scripts' are worth mentioning at this point. Firstly, 'scripts' are held to be responsible for filling in the "obvious" information that is not explicitly stated within a given situation. For instance, in the statement "John went into a restaurant. He ordered a Big Mac" it is not stated what John ate but people familiar with the script of that statement would have no difficulty working out what John's taste buds had been treated to!

Secondly, every script has a number of roles associated with it. These roles are assumed whenever a script is called up even if no specific mention of a particular person occupying a given role has been made. Thus, to use the same example of the restaurant script discussed in detail by Schank and Abelson (1977, p. 38-50) in the statement "John went to a restaurant. He asked the waitress for coq au vin", the use of the definite article in "the waitress" is possible because by placing John in a restaurant, a script had been called up which implicitly included the presence of a waiting person.

Another important characteristic of scripts is that they are written from one particular role's point of view (Schank and Abelson, 1977, p. 42). Thus, in our use of the example of the restaurant script, we have operated with the customer's perspective of this script. The waiter, or the restaurant owner,

4

would each have their own different script of the restaurant which would all need to be considered if one wanted to achieve the 'whole view' of the restaurant. As Schank and Abelson (1977) point out, such a 'whole view' is hardly ever needed if one is only interested in producing behaviour appropriate to a given situation.

The use of script theory in developmental literature and some departures

In Schank and Abelson's (1977) work, the notion of 'scripts' was used as part of a model for a computer system for understanding discourse. In their model, a 'script' is the basic level of knowledge representation in a hierarchy of representations that proceeds upwards from 'scripts' to 'plans' and hence to the abstract levels of 'goals' and to 'themes'. They note that the notion of 'script' is not meant to characterise all social knowledge and this is why they use the other concepts; however, the notion of 'script' is one that they say is easiest to explain and describe.

The concept of 'script' is one that has appealed to many developmental researchers. According to Hartup et al (1983) the concept has now been "elaborated to denote hypothesized, abstract cognitive structures that, when activated, facilitate comprehension of a variety of event-based situations including ongoing social interaction" (p. 86). Collins (1983, p. 121) talks about scripts or "schemata" as "groupings of actions that are called into play when key parts of the action or characteristic settings are encountered" and Grusec (1983) says that scripts offer a way of understanding how children learn to behave in specific ways. 'Scripts' then are understood to include expectations about the sequence of actions; they also specify roles and propose and define obligatory and optional actions (Nelson, 1981).

An aspect that is emphasised by users of script theory is that a script, or script knowledge, is acquired through social interaction. Script theorists see adults as providing the structure which supports children's acquisition of scripts. Nelson (1981) reports that Jerome Bruner (1975) has recorded detailed observations of mothers engaging in give-and-take games and later structuring request sequences in which the child's part is gradually more demanding. Using babies as his subjects, Kenneth Kaye (1982) describes how parents create "frames" in which the infant can function. "Frames" refer to structures that initiate, maintain and support adaptive functioning in the infant and can be seen to be very similar in concept to 'scripts'. For example, within the "feeding frame" usually established within the first two months of life, the components of the "frame" or 'script' would include the role of parent who provides the food (action) as well as warmth and tactile stimulation (props). Katherine Nelson (1981) notes that adults outside the home also engage in similar structuring activities with children; she cites a study by Dore et al (1978) in which nursery school teachers could be seen to be consciously engaging in structuring situations for children and directing their activities within an overall school script. Nelson suggests that this structuring explains why very little of the day-to-day activity in day-care centres and nursery schools needs to be negotiated afresh. Each child, and adult, gets to know her/his part in the script. In this sense then, scripts may be seen as a mechanism through which children are enculturated into forms of behaviour and of relationships with others.

Scripts are thus seen to be a very efficient socialising mechanism. They provide a shared knowledge base on which interaction with both familiar and unfamiliar others can be conducted.

At the same time, scripts are also seen as very effic 'nt at the individual level: they are useful in simplifying the complexity of social interactions. B' sing scripts for frequently encountered interactional events or situations, the individual's attention is freed from the ongoing activity so that deviations from the anticipated sequence/routine can be more effectively focussed on (Hartup et al, 1983; Light, 1987).

Katherine Nelson, a notable researcher in the area of script theory, and Janice Gruendel, one of her students, have fui ther proposed that a script may be considered the prototypical form of a "general event representation", that is "memory for events that is not specific to a particular experience but is a kind of generalised knowledge" "a cognitive model for experienced events" (Nelson & Gruendel 1981 p 147, p 134). In this form they are seen as serving to guide action, discourse and even thought in given situations. Examples from studies by Nelson repo ted in Nelson and Gruendel (1981) will be given in the next section to illustrate the notion of scripts and generalised event representations.

These dimensions of script theory have made it possible to look at the development of social behaviour as a process independent from notions of sophisticated role-taking, which , since Piaget. have tended to dominate the field. Paul Light (1987) notes that if one accepts the idea of scripted knowledge, then it becomes reasonable to hypothesise that a child may participate in scripted interaction in which much social knowledge is implicit but of which the child is not necessarily aware. This means that the ability to engage in role-taking, and make role-taking inferences, may begin to be seen as the result of, versus the antecedent of, participation in social interaction.

This view, of course, is consistent with theories of human development that posit interaction with more knowledgeable others as the basis for development. I am thinking here particularly of Lev Vygotsky's view that all knowledge is embodied in the action, work, play, technology, literature, art and talk of members of a given society (Wertsch, 1985). These elements of a culture are "psychological tools" which children can acquire through interaction with those members of society who possess them - the more "knowledgeable others" or, to use Jerome Bruner's (19) term - the "vicars of culture". These notions link also to the socio-psychological writings of George Herbert Mead (1934) in which the individual's personality is seen as evolving from social experience which is internalised to produce the 'I' - 'me' system:

> I talk to myself, and I remember what I said and perhaps the emotional content
> that went with it. The 'I' of this moment is present in the 'me' of the next
> moment. There again I cannot turn around quick enough to catch myself. I
> become a 'me' in so far as I remember what I said. The 'I' can be given,
> however, this functional relationship. It is because of the 'I' that we say that
> we are fully aware of what we are, that we surprise ourselves by our own
> action. It is as we act that we are aware of ourselves. It is in memory that the 'I'

6

is constantly present in experience. We can go back directly a few moments
in our experience, and then we are dependent upon memory images for the
rest. So that the 'I' in memory is there as the spokesman of the self of the
second, or minute, or day ago. As given, it is a 'me', but it is a 'me' which was
the 'I' at the earlier time. (Mead, 1934, p. 174)

In Mead's view then, the 'I' - 'me' system is the mechanism by which the person relates to
society. It is what gives people the ability to be self-reflexive as well as the ability to take on social roles.
Mead himself did not often discuss how children develop; however, the implications of his thinking for
a theory of (social) development are becoming increasingly discussed (eg: Valsiner, 1989; Light,
1987). Light (1987) indeed suggests that it is likely that the search to understand social behaviours
such as role-taking will lead back to social interactional theories like Mead's rather than to cognitive
ones like Piaget's.

This brief discussion of Mead's view of the interaction of the individual with the social
environment may seem somewhat incompatible with the understanding of scripts that has been
outlined so far in this paper. The discussion so far might have suggested that the notion of scripts
implies that a person needs simply to follow the script and act out a part in it. In Mead's view, on the
other hand, the individual is engaged in a reflexive process in which the self is fed from, as well as
feeds into, the individual's social interactions. Thus, in Mead's view of social interaction, the individual
does not simply follow a pattern or script specific to an event or situation, but is also engaged in
constructing the situation, the meanings within it and one's self.

This point is one that Winegar (1   ' recognises and suggests must be borne in mind if one is
interested in studying children's *understanding* of social events rather than their memory or
knowledge of them. Winegar argues that studies that have looked at children's knowledge of social
events have typically used methods which have required children to recall events and recount them.
The descriptions children have provided of those events can indeed be analysed in terms of script
components (see for instance Nelson & Gruendel, 1981; Collins, 1983) and have thus been
characterised as flowing from "generalised event representations". Yet. as Winegar (1989) notes,
children's recounting of events should more properly be regarded as a verbal expression of their
memory of events rather than an indication of their understanding of them. He cites studies which
have shown that there are important differences in how children report what happens in an event
depending upon how the question is asked, who asks the question and the mode of child response.
He further says that evidence is increasing that there is very little that is predictable in the relationship
between what children say happens in an event and what children do in that event (Damon, 1977;
Kassin & Ellis, 1989, cited in Winegar, 1989, p. 47). This leads him to note the importance of
considering children's knowledge of events as context-relative; children's descriptions of events are
not a simple expression of what resides in the child's head about the event - they are "active

negotiations between a child and his or her social environment" (p. 47) and this includes who asks the questions and how they are asked.

The implications of these ideas for the study of children's social understandings are numerous. The acknowledgment that, as Mead has long held, meanings are socially constructed, implies that we have to treat "understandings" as similarly socially constructed. In turn, this implies that if we are to study children's understanding of events they meet, then we must do this while children are actually involved in the events. While children sometimes encounter events vicariously. such as through listening to a story or watching a televised incident, more usually, children learn about events through what Katherine Nelson (1981) terms "participatory interaction":

> Although this is not the only type of learning that leads to script knowledge. it
> is clearly a very important type. Although adults direct the action and set the
> goals, they do not necessarily provide direct tuition for the child; rather they
> provide conditions under which the child fills in the expected role activity.
> (p. 106)

Winegar (1989) argues that "participatory interaction" as a type of learning is not restricted to the acquisition of knowledge about events but is a common method for the acquisition of cultural knowledge. Children, he says, learn from interaction with more expert others, usually adults but often peers, who may at times offer explicit instructions and explanations but more usually provide only the minimal information to enable the 'novice' to find her or his way.

The intellectual roots of this reasoning are clearly in the sociogenetic theory of development associated with Lev Vygotsky who in turn has much in common with George Herbert Mead's interactionist perspective on development outlined above (see Valsiner & Van der Veer, 198). Winegar's argument also suggests that although in script theory the expectation is that children will "learn a part", the lack of direct tuition and the fact that the 'novice' or child is allowed to find its own way, indicate that this perspective is still a useful one for investigating children's understanding of social events - provided the method used in the investigation is one that

i)   allows for children's participation in events to be observed directly and

ii)   recognises that understanding, and its expression, is constructed and given meaning within social interaction.

Among other things, this last point means that the nature of the social interaction of the study itself and its influence on the expression of children's understanding must also be considered:

> "Children are meaning-makers. Just as they try to make sense and construct order out of
> kindergarten daily routines, trips to museums, and trips to the store, they similarly try to make
> sense out of investigative interviews" (Winegar 1989 pp 44-48).

The "meaning-making" characteristic of children is what also makes them constructors of understanding within interactional situations. Winegar (1989) uses the terms "differential constraining" and "progressive empowerment" to describe the complementary behaviour that goes on in social interactions between the 'expert' other and the 'novice'. Until the novice gains expertise in performance, the 'expert' other tends to adjust the level and form of support he or she provides to 'empower' the novice to perform in a progressively more socially acceptable manner. The expert's actions are termed 'differential constraining' because they are continually readjusted as the novice's performance improves. With more experience, novices internalise the environmental supports and constraints originally provided by experts and eventually become self-constraining. Winegar notes, however, that the internalisation of constraints should not be seen as suggesting a passive replication of the rules of social exchanges in children's understanding of social events. Work done by Wozniak (1986, cited in Winegar 1989 p 50) shows that children construct their understanding of an event using both information from their environment and understanding from previous experience.

In this sense then, children's understanding of an event is not a direct copy of experiences of instances of an event. Rather, their understanding is a construction from experience and environmental information. Moreover, children take an active part in creating the 'environmental information': by using language and action to participate in events, children contribute to the construction of meaning that as Mead has argued, is inherently part of every social encounter.

In the next section two studies in which Winegar used this perspective will be outlined by way of examples.

Winegar's view is very closely related to a theoretical framework that Jaan Valsiner (1985; 1987; Valsiner & Hill 1989) devised in the mid-1980's and has been fruitfully using to study children's socialisation into culturally-acceptable ways of acting in given situations. The framework, like Winegar's view, is strongly based in the tradition of Vygotsky's thinking but draws also from the field theory methods of Kurt Lewin (1939). In Valsiner's framework, children's development of acting and of thinking is explained through the mutually related functioning of three zones. The first zone is called the "zone of freedom of movement" (ZFM), a concept borrowed from Lewin's field theory. The ZFM refers to the structure of the environment that is functionally available to the developing child at a given time. The limits of this zone are negotiated with the caregivers and change as the child develops or moves into an area with a different physical structure. For example the ZFM of a child may be the playpen in the lounge, or the front yard .

The zone of promoted action (ZPA) comprises the set of objects and actions that the child's social environment actively promotes to the child to use and perform. The ZPA may be observed in the parents' and others' people preference structure of the child's different actions. As the child develops, he or she internalises the social expectancies communicated through the promoted actions and thus gains knowledge about the acceptable and expected way of acting in a given situation. Once gained, this knowledge may be used in any way by the child. Valsiner & Hill (1989 p 165) give the example of an adolescent who in a social situation knows the rules of courtesy well but decides to not act

appropriately and instead "cuts" another. Valsiner (1985) calls the ZPA an important "selective canalizer of the child's actions" but also says that the structure of the ZPA can undergo dynamic transformation because it is negotiated in adult-child interaction. (The parallel with the notion of Mead and Winegar that the meanings of events are negotiated in interaction is clear here).

The zone of proximal development (ZPD) is a well-known Vygotskian term and refers to the subset of ZPA actions that could be actualised with the help of other people. The difficulty with this zone is that often one cannot know which actions actually constitute the ZPD since the existing structure of the ZFM and ZPA may restrict the opportunities of testing the limits of the ZPD. For instance, if the act of holding a fork is not within the ZPA or ZFM of a 16-month-old, it may not be possible to see if the 16-month-old child is physically capable of holding the fork (Valsiner 1985). Thus the ZPD-ZPA relationship is seen to determine what the child can cover next and what she cannot.

The theoretical framework developed by Valsiner (1985) is in line with the methodology, newly articulated by Valsiner (1989) but devised by Vygotsky, which attempts to understand the dynamic nature of developmental processes without disturbing them. He emphasises the active role of the child in reorganising any context he or she is in. Vygotsky calls his method the method of "double stimulation". In this method, the researcher sets up a structured stimulus field and within it inputs a complex stimulus situation. The subject is then put into the stimulus field thereby varying the stimulus field structure. The subject has freedom to act in any way on any part of the stimulus field. She/he can replace the researcher's goal with a personal one or even create an instrument to achieve the task set by the researcher.

Valsiner notes that the method allows the subject to be creative and innovative because the subject comes to the situation already equipped with semiotic capabilities that may be used to organise itself and the task, or even to go beyond the task . The method, therefore, eliminates the idea that the subject can be controlled; it brings back the notion of free will and allows behaviour to be observed in its natural state.

Valsiner has used these notions in conjunction with his theoretical framework in a number of studies. I shall refer to one of these by way of example in the following section.

Examples of studies which have used notions from Script theory and from a Vygotskian perspective to explain children's understanding of social events

Example 1:   "Scripts" and "Generalised Event Representations". Nelson & Gruendel (1981).

In Nelson's first study using a script theory framework (Nelson 1978 cited in Nelson & Gruendel 1981 p 135) 20 preschoolers were asked to recount what happened during a number of events such as "during lunch at the day-care centre" or "at McDonald's". General probes were used

such as "anything else?" and later more specific questions such as "what happens next?" or "How do you know when it's lunchtime?" Some examples of the children's responses are reproduced below.

TABLE 4.1
Examples of Cookie and Birthday-Party Scripts from 3–8 Years

Making Cookies
Well, you bake them and eat them. (3;1)

My mommy puts chocolate chips inside the cookies. Then ya put 'em in the oven... Then we take them out, put them on the table and eat them. (4;5)

Add three cups of butter... add three lumps of butter... two cups of sugar, one cup of flour. Mix it up... knead it. Get it in a pan, put it in the oven. Bake it... set it up to 30. Take it out and it'll be cookies. (6;9)

First, you need a bowl. a bowl, and you need about two eggs and chocolate chips and an egg-beater! And then you gotta crack the egg open and put it in a bowl and ya gotta get the chips and mix it together. And put it in a stove for about 5 or 10 minutes, and then you have cookies. Then ya eat them! (8;8)

Birthday Party
You cook a cake and eat it. (3;1)

Well, you get a cake and some ice cream and then some birthday (?) and then you get some clowns and then you get some paper hats, the animal hats and then and then you sing "Happy Birthday to you," and then then then they give you some presents and then you play with them and then that's the end and then they go home and they do what they wanta. (4;9)

First, uhm... you're getting ready for the kids to come, like puttin' balloons up and putting out party plates and making cake. And then all the people come you've asked. Give you presents and then you have lunch or whatever you have. Then... uhm... then you open your presents. Or you can open your presents anytime. Uhm... you could... after you open the presents, then it's probably time to go home. If you're like at Foote Park or something, then it's time to go home and you have to drive all the people home. Then you go home too. (6;7)

Well, first you open your mail box and you get some mail. And then you see that there's an invitation for you. Read the invitation. Then you ask your parents if you can go. Then you... uhm... go to the birthday party and you get a ride there, and after you get there you usually wait for everyone else to come. Then usually they always want to open one of the presents. Sometimes then they have three games, then they have the birthday cake, then sometimes they open up the other presents or they could open them up all at once. After that they like to play some more games and then maybe your parents come to pick you up. And then you go home. (8;10)

These types of responses raised a number of questions in terms of the structure of the task given and how the responses could be interpreted. It was unclear whether a verbal recount would accurately reflect the underlying representation of the event. Furthermore it was necessary to decide what to look for as characteristics of scripts. In the end it was agreed that since scripts represent events that occur over time and in a causal relationship, temporal and causal structure was a characteristic - even though in some scripts temporal sequence and causality were more problematic (eg: there is very little causal structure in a birthday party script - many actions,such as singing "Happy Birthday" or opening presents, can happen in more than one order). In analysing children's responses, it appeared that children did link together acts that were in causal or enabling relations more than sequences that were simply temporally linked.

Another finding from Nelson's studies was that children reported events in a general form that provided a frame and specified slots to be filled but did not necessarily specify what would or could fill those slots on a given occasion. For instance children used the general pronoun 'you' as well as the tenseless verb - eg "you eat" or "you throw away plates". Also, in a further study by Nelson and McCartney (1981, cited in Nelson & Gruendel 1981 p 146), during which 5 to 7-year-olds were asked to retell a story after a short delay, children seemed to recall the main acts, particularly those identified as such, much more than the details of a story. The older children also remembered more details about the script than younger children. This tends to support both the notion that generality of scripts is a salient characteristic as well as the idea that with age, children's scripts become more complex and capable of specificity rather than becoming more general.

Nelson and Gruendel (1981) cite a number of other studies they carried out in order to answer questions like "how do scripts develop?", "What is the role of scripts in memory?" as well as whether generalised event representations could be seen as the basic building blocks of cognitive organisation. Their relevant conclusions for the purposes of our discussion are :

i)   What gets represented from experience in a script is only a partial copy of that experience. It provides a context for a child to act and think in that and similar situations. Different people's representations of the same event will vary depending on previously established schemas.

ii)   Scripts are outcomes of the analysis of representations of experience. They incorporate notions of who, what, where, when, why and how in sequentially structured relationships. These notions are the categories children use in understanding events.

Example 2:   "Differential Constraining" and "Progressive Empowerment": Winegar (1989)

Winegar (1989) reports two studies he conducted in which children's participation in social events, and their understanding of them, are investigated through focussing on the role that the more expert others play in facilitating participation and understanding.

In the first study he used an experimental repeated-measures design in which he controlled the adults' actions and noted the actions of the child during a series of visits to a store to purchase a toy. Through videotaping the transactions and coding children's actions, Winegar was able to show that children did indeed use adults for cues on their performance but with repeated experiences of the event, this use declined. Winegar therefore concludes that the study provided preliminary support and illustration of the processes of "participatory interaction" suggested by Nelson (1981) and the processes of "differential constraining", and "progressive empowerment" which he sees as the medium through which children's understanding of social events emerges.

However, he was concerned that by controlling the adults' actions and focussing on the child's he had created an artificial situation which did not reflect the interdependence of social interaction. Methodologically it was also very difficult for the storekeeper to keep her actions within the limits of the experimental script and yet readjust them to the child's actions.

In the second study Winegar (1989) therefore used a totally naturalistic design in which eighteen children in a preschool setting were observed interacting as a group during snack-time over a one-year period. Three teachers were observed and videotaped with the children. All teacher and child actions and statements were coded in order to enable relations between teacher actions and child actions to be assessed. The results indicated that the number of teacher-initiated actions declined over the first three weeks of school while the number of child-initiated actions increased over the same time period. Furthermore, the number of teacher directive statements declined over time while non-directive statements increased particularly between the third and the eleventh day of school. Winegar suggests that these findings show that the processes of 'differential constraining' and 'progressive empowerment' as well as 'participatory interaction' were taking their course. He further concludes that the study illustrates both the "intraindividual" and the "interindividual" co-constructive nature of children's understanding of social events. He notes that children came to snack-time with previous experiences of meals and eating so that the teachers' actions did not need to be geared to instructing children on how to eat or drink. Instead adults' activities were geared towards leading children to a set of actions that were preferred in that particular environment. The teachers' goals and actions were not always accepted by the children. Winegar (1989 p. 63) argues that this is an indication that the children's understanding of the snack-time situation was an "intraindividual" co-construction based on the children's understanding of meal-times from previous experiences and from information gained from the actual environment of snack-time at school. The "interindividual' co-constructive nature of children's understanding of the snack-time event was illustrated in children's negotiations of their actions and goals (through their language and behaviour) with other participants in the event. Winegar concludes, therefore, that children's understanding of social events is a process of co-construction both *within* and *between* individuals.

Example 3: Social behaviour as "promoted action" within the "zone of freedom of movement": Hill & Valsiner (1989)

Hill and Valsiner (1989) used Valsiner's theoretical framework of three mutually-dependent zones to study the socialisation of eighteen North American toddlers to wave "bye-bye" to departing visitors. Hill and Valsiner explain how the structure or script of the event of waving goodbye fits within the theoretical framework devised by Valsiner (1985). Waving bye-bye is within the ZPD of most toddlers aged 1-2 years and learning to wave good-bye involves narrowing of the ZFM of the child by its caregiver who might pick up the child and take it closer to the departing visitor. The efforts of the

13

caregiver, and often the departing visitor's as well, to make the child wave goodbye would constitute actions within the ZPA.

Hill and Valsiner observed children in their families and videotaped their behaviour between the arrival of the first experimenter and the departure of the second experimenter who was 'the visitor'. The first experimenter took in the camera, was greeted briefly, and proceeded to set up the camera and start recording. Then a stranger, the second experimenter, arrived who was 'the visitor'. Introductions were made and the visitor remained open to child contact; if the child did not initiate contact, the stranger did. After some time (6-20 mins) the visitor would declare the intention to leave so that the departure ritual was set off. Videotaping continued for 5 to 10 minutes after the visitor's departure.

Having compiled and analysed a total of 48 departure episodes, Hills and Valsiner concluded that adults do structure settings in line with their socialisation goals. Adults were observed to selectively exclude some action opportunities from the ZFM of the child, such as when they moved the child closer to the departing visitor. Also, adults specified the expected ways for the child to act (the ZPA) by practically bombarding the child with demands for bye-bye waves. Through these processes most children were led or moved into waving bye-bye (i.e. an action from their ZPD was actualised) though four children in the study were not observed displaying 'bye-bye' in any form during the study. However, even in these cases, the adults did engage in "social canalisation", as Valsiner calls it. Sometimes children were observed to act in ways that did not produce a wave but still indicated understanding that the visitor was about to leave. For instance, one child toddled over to the front door when asked to wave bye-bye. At other times, the mother would either assist the child to wave its hand, or provide a simplified vocal model for saying bye-bye, indicating that the child is still considered incapable of performing these actions independently.

Finally, Hill and Valsiner comment that the event they analysed was highly culture-specific in its form; in some cultures for instance, children might not be considered serious interaction partners so that there might not be a great deal of effort expended in getting young children to say goodbye. However, their example in a good illustration of how "children (within one culture) construct their understanding of polite conduct in the course of childhood years, using adult models in innovative ways, in conjunction with their personal experience"(p163). As such, it provides empirical support for the theoretical explanation Valsiner offers for how understanding of social events develops.

The current project

The current project started out as a wish to investigate the meaning behind the oft-repeated phrase that "parents and early childhood staff play complementary roles in children's lives". The questions I have as a researcher include:

i)   how do children understand the contributions in their life of the parent and the early childhood teacher?

ii)   Does each adult contribute different things or do the contributions overlap?

14

iii) Where are the areas of overlap or divergence?

iv) If there are divergencies, are they complementary in some way or are they simply differences?

v) Where, if at all, do divergences arise from?

vi) Can knowledge in this area help early childhood teachers in their practice?

At the background of these questions there is of course the notion that the ideal form of non-parental early childhood education should work in partnership with parental care of children. This assumption has been responsible for many an early childhood project to date. For instance, discussions on the effects of centre care on children's social development are often based around measures of children's attachment to their primary caregiver with any weakening in a child's attachment to its primary caregiver often being viewed with dismay (e.g.: Belsky, J., 1986). The assumption of this view clearly is that centre-based care should support the parents' goals of secure attachment to the parents.

A similar rationale underlies the comparison of the language used by children in early childhood education services to the language children use at home. Such studies often include discussions of cognitive gains children appear to be making in each setting (e.g.; Tizard and Hughes, 1984) and of ways in which the structure of adult-child conversation varies from one setting to the other. For instance, Wells (1978) notes that in the Bristol project in which samples were taken of the spontaneous use of language by preschool children at home and in the infant school, school talk was marked by a high proportion of teacher utterances that were questions while in 'home talk' "one of the chief characteristics of effective conversation is a reciprocity in the shared construction of meaning" (p.27) In other words, while questions did occur at home, their frequency was not so high as in the infant school, their use was distributed more equally between adult and child and they occurred because the asker was seeking information which she believed the other could supply. Many teacher-initiated questions showed little evidence of this reciprocity. Clearly, one of the themes that run through studies such as these is the contribution that adults in the two contexts of the home and the school/preschool make to the quality of interaction that goes on in the two contexts with the implied ideal being that they should either be as good as each other or at least complementary to each other.

Another theme underlying research of this kind is the concern with how language contributes to the structuring of children's experience of the world and their understanding of events around them. Wells (1978) says:

> Everything that happens in a child's daily life is a potential subject for the sort
> of talk that facilitates attention, interpretation and evaluation, but parents
> differ in the use they make of these opportunities. In some homes, events
> are taken very much for granted, each one receiving the same sort of passing
> comment, whereas is other homes there is a much greater selectivity, some

events being discussed in considerable detail and connections made with the wider context in which they occur. As a result of such different experiences, the internal models of the world that children are constructing take on their particular shapes and textures and come to be more fully developed in some areas than others" (p. 19)

I found this theme an intriguing one since its connects with both the sociological literature that tries to explain the sources of inequality among individuals (eg: Bernstein's view of the development of elaborated and restricted language codes which dispose speakers to orient themselves differently towards power and roles in society) and the developmental literature which looks at interaction among individuals as the basis for development (eg: Vygotsky 1978; Wertsch 1985; Valsiner 1989; Winegar 1989). The ⁻* action of these two connections was that it became possible to see that what children und⁻ʳ⁺ about the adults in their lives could be studied not only in terms of psychological processes ᵇ ⸱ in terms of how cultural and social factors might mediate those processes.

The principles of script theory, the notions of 'differential constraining' and 'progressive empowerment' in the context of 'participatory interaction' and Valsiner's three-zone framework suggested that the development of children's understanding could be studied using a methodology that took account of both psychological and social processes.

Methodology

The project has been planned over two phases. Phase 1 is now completed. Phase 2 is described below as it was originally planned. Now that Phase 1 has been completed, the approach at Phase 2 is being reconsidered.

Phase 1: Staff in 4 early childhood centres in Wellington were asked to participate in a group interview during which the researcher tried to identify which events staff thought might be useful contexts for observing the contribution of staff and parents to children's understanding of those events (see Appendix 1: Framework for group interview with staff in early childhood centres).

Phase 2: Events were then to be chosen that could be observed occurring naturalistically using Vygotsky's method of double stimulation articulated by Valsiner (1989). For this phase at least two events were thought necessary. The subjects would be 20 preschoolers from a total of 5 early childhood centres with a socially-mixed intake of children. Permission to conduct the study would be sought via an initial visit to the centres during which the researcher would ask centre managements for direction on how they would prefer her to proceed - by letter to parents or verbal communication on a group basis or one-to-one. Staff's participation would be sought in a similar manner.

The total sample would consist of 20 parent-child pairs and 20 staff-child pairs. Total participants would be 20 parents, 20 children and a maximum of 20 early childhood teachers; the number of early childhood teachers could be less if a teacher participated in a child-staff pair with more than one child.

Each child would be observed interacting once with the parent and once with the early childhood teacher during each of the two events.

The interactions of child-parent and child-teacher would be video-taped and analysed by the researcher in terms of their underlying script and an analysis attempted of how children's actions were being "canalised" by the adults.

The researcher's construction of the adults' behaviour would then be shared back with the adults (teachers' scripts with teachers and parents' scripts with parents). Their reaction to the researcher's interpretation would then be sought. This would allow both parents and staff the chance to think about the underlying expectations and cultural knowledge behind their individual interactions with children. It was expected that this would reveal the goals or objectives each adult would have operated with during the two events.

Further analysis of this feedback will be undertaken to determine whether complementarity existed in the goals that adults have for children as well as in the methods they use to achieve them.

A further analysis would be done of children's actions during the events and an attempt made to present the researcher's construction of the child's understanding of the given events.

Progress Report

Phase 1 has now been completed. Extensive notes were taken during the group interviews and events mentioned were grouped as follows:

		Number of Centres which named the events
A.	Events using general social skills	
	leave-taking from parents and staff	3
	greeting visitors	1
B.	Events requiring knowledge about how to behave in groups	
	reading stories in a group	3
	mealtimes	4
	sharing toys/objects	2
C.	Housekeeping Events	
	toileting routines	4
	handwashing routines	4

sleep-time routines	3
helping to tidy up	3

D. <u>Events enabling one-to-one interaction</u>

getting organised for sleeptime	3
when a child is ill	2
times at beginning or end of day	2
nappy-changing	2
dealing with behaviour problems	3
learning a new skill - eg: using scissors,	
using puzzles, writing letters	3
putting on items of clothing	2
when a child is upset }	
encouraging eating }	
going out for walks }	1
reading a book alone with adult }	
helping adult in the kitchen }	

E. <u>Other events mentioned in only one centre</u>

learning appropriate behaviour around

    different activities eg: dough play, sandpit,

    plastic bars, swings, painting, water play, carpentry

transferring child from highchair to small chair

road crossing when out as a group

behaviour at the library

visiting the dental nurse

behaviour during evacuation drills

going shopping

The four group interviews were all held in childcare centres either after hours or, in one instance, as part of the activities during a programme-planning day. The staff in all centres seemed very interested in what my investigation could show. Over and above the discussion on events, two points came through very clearly during the discussions.

The first relates to the difficulty that staff in all four centres said they encountered in spending time in one-to-one interaction with children. In all four centres staff emphasised that the group situation put definite limits on how much time staff could spend with individual children. Indeed, as the events mentioned in category D above indicate, most opportunities for one-to-one interaction seemed to occur either during compulsory care activies such as in nappy-changing, or in getting children ready for

sleep-time, or during 'crisis' situations such as when a child is ill or needs disciplinary attention or when, for some reason, the demands of the group have lessened - as when a small group goes out of the centre for a walk.

The other major point that deserves mention is that the staff of two of the four centres emphasised greatly the importance of the settling-in period and how this should be preceded by a period during which children visit with a parent so that both the child and the parent would learn to feel comfortable in the centre. The staff in these centres suggested that the settling-in period might be a good one to study as a context in which the contribution of staff and parents to children's understanding of the early childhood centre experience might be observed.

Discussion and the way forward

The intention of the Phase 1 interviews was to identify events that might provide a useful context for exploring the contribution parents and early childhood teachers make to children's understanding of events around them. In the interviews with teachers, I was particularly interested in events that children might meet for the first time in the early childhood group setting. The idea behind this was that if events were new ones, then in observing child-parent and child-staff pairs within these events, one could expect that the parent and the early childhood teacher would each have the same background of experience in that event with the child. I was also interested in events which could occur naturally, or be set up in a naturalistic way, in either the home or the centre situation.

The events identified by the staff certainly suggest a number of possible events that would fit the requirements .For instance, any of the following events would be worth following through:

leave-taking from parents and staff
greeting visitors
helping to tidy up
learning a given new skill
putting on an item of clothing
helping adult in the kitchen

However, as the interviews with staff were proceeding, I became increasingly impressed by how salient the characteristic of being in a group situation seemed for staff. During numerous points in the interview, one or another member of staff would comment on how "being in a group" was possibly the most important thing the child had to get used to when it first joined the centre. In the two centres where settling-in procedures were extensively discussed, this point was even more strongly made. In one centre particularly the staff had a lot to say about the importance of both parents' attitude to using childcare for how well-settled a child was, and for how the child came to view his or her experience in the centre.

These strong views have caused me to reflect again on the best way forward into Phase 2.

Part of the rationale for this project is that it should produce knowledge that will be of use in the practice of early childhood education. The views staff expressed in the group interviews have suggested to me that the best event to study would be the event of settling-in in the centre.

This suggests that Phase 2 of the project needs to be re-designed in a way that would meet this alternative objective.

REFERENCES

Belsky, J, (1986) 'Infant Day Care: a cause for concern?" Zero to Three, Vol VI, No 5, pp 1 - 7.

Bruner, J. (1968) Processes of Cognitive Growth: Infancy USA: Clark University Press

Bruner, J. (1975) "From communication to language - a psychological perspective" Cognition, 1975, 3, pp. 225-287

Collins, W. A. (1983) "Comprehension of social portrayals over television" in Higgins et al (1983)

Damon, W. (1977) The Social World of the Child San Fransisco:Jossey-Bass

Dore, J., Gearhart. M. & Newman, D. (1978) "The structure of nursery school conversation" in K. E. Nelson (ed) Children's Language (Vol. 1) New York: Gardner Press (cited in Nelson, K., 1981, p. 107)

Grusec, Joan E. (1983) "The Internalisation of altruistic dispositions: a cognitive analysis' in E. T. Higgins, D. N. Ruble & W. W. Hartup (eds) Social Cognition and Social Development Cambridge: Cambridge University Press, pp. 275 - 293

Hartup, W. W.; Brady, J. E. & Newcomb, A. F. (1983) "Social Cognition and social interaction in childhood" in E. T. Higgins, D. N. Ruble & W. W. Hartup (eds) Social Cognition and Social Development, Cambridge, Cambridge University Press

Higgins, E. T., Ruble, D. N. & Hartup, W. W. (eds) Social Cognition and Social Development, Cambridge: Cambridge University Press

Hill, P. E. & Valsiner, J. (1988) "Getting to know Strangers: Toddlers' Construction of relationships" in J. Valsiner (ed) Child Development within Culturally Structured Environment Vol 1, Norwood:Ablex.

Kassin, S. M, & Ellis, S. A. (1988) "On the acquisition of the discounting principle: an experimental test of a social developmental model" Child Development, 59, pp. 950 - 960.

Kaye, K. (1982) The mental and social life of babies Chicago: Chicago University Press

Lewin, K. (1989) "Field theory and experiment in social psychology: concepts and methods" American Journal of Sociology, 44, 868 - 896.

Light, Paul (1987) "Taking Roles" in J. Bruner & H Haste.(eds) Making Sense London: Methuen, pp 41 - 61

Mead, G. H. (1934) Mind, Self and Society Chicago: Chicago University Press

Nelson, K. (1981) "Social cognition in a script framework" in J. H. Flavell & L. Ross (eds) *Social Cognitive Development* Cambridge: Cambridge University Press pp 97 - 118.

Nelson, K. S.; Gruendel, J. (1981) "Generalised Event Representations: basic building blocks of cognitive development" in M. E. Lamb & A. L. Brown (eds) *Advances in Developmental Psychology*, Vol 1, pp 131-158 Hillsdale, New Jersey: Lawrence Erlbaum Assoc Inc.

Schank, R. C.; & Abelson, R. (1977) *Scripts, plans, goals and understanding*. Hillsdale, New Jersey: Lawrence Erlbaum Assoc.

Tizard, B. & Hughes, M. (1984) *Young Children Learning* London: Fontana

Valsiner, J (1985) "Parental Organisation of Children's Cognitive development within Home Environment" *Psychologia*, 1985, 28 pp 131- 143.

Valsiner, J. & Hill, P. E. (1989) "Socialisation of American Toddlers for Social Courtesy" in J. Valsiner (ed) *Child Development in Cultural Context* Toronto/Lewiston, N.Y. Hogrefe & Huber Publishers.

Valsiner, J. & Van der Veer, R (19__) "On the Social Nature of Human Cognition: an analysis of the shared intellectual roots of George Herbert Mead and Lev Vygotsky" in *Journal for the Theory of Social Behaviour* 181 pp 117 - 136.

Valsiner, J. (1987) *Culture and the development of children's actions* Chichester: Wiley.

Valsiner, J. (1989) *Human Development and Culture* Massachusetts/Toronto: Lexington Books.

Vygotsky, L. (1978) *Mind in Society* Cambridge: Ma: Harvard University Press.

Wells, G. (1978) "Talking with children: the complementary roles of parents and teachers" *English and Education*, Vol. 12, No 2, Summer, 1978

Wertsch, James (1985) *Culture, Communication and Cognition: Vygotskian perspectives* Cambridge: Cambridge University Press.

Winegar, J. T. (1989) (ed) *Social Interaction and the Development of Children's Understanding* Norwood: New Jersey, Ablex Publishing Co.

Wozniak, R. H. (1986) "Notes toward a co-constructive theory of the emotion/cognition relationship" in D. Bearison & H. Zimiles (eds) *Thought and Emotion: Developmental Perspectives* (pp 40 - 64) Hillsdale: N J Erlbaum, cited in Winegar (1989 p 50)