AN INVESTIGATION OF THE DYNAMICS AND STRATEGIES USED WITHIN PEER INTERACTIONS OF YOUNG CHILDREN IN EARLY CHILDHOOD SETTINGS: THE ROLE OF DISEQUILIBRIUM

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ABSTRACT
The various strategies that young children use to control their lives within their peer culture can be complex, sophisticated and realistic within their own peer culture. This ongoing qualitative research, which spans two countries to date, will report on the ways in which various groups of young three and four year old children within their block play, learn to cope with acceptance and rejection and the general mores of their specific peer culture. Special emphasis will be made on the role of "disequilibrium" and how the young children in this qualitative study, developed strategies to cope with conflict and the impact of their peer's various interactions.

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The strategies that young children are capable of using within their own peer culture interactions should not be understated or even underestimated. In-depth ethnographic study in naturalistic settings as
evidenced by Corsaro, (1985, 1994) clearly indicates that preschool children are well able to negotiate, manipulate, and defend their interactive space in the context of their specific peer culture. They are able to control their own lives at their level of understanding. In the context of this study which takes on a constructivist and interactionist perspective, the child is very much an active participant in his/her learning. The constructivist point of view, refers to the child gradually constructing and acquiring adult skills and knowledge by observing, participating, with and imitating others. In this way children construct their own social world as well as interacting with and learning from their environment. The term interactionist, refers to the child developing knowledge and becoming involved in the process of interacting with others. Children's perspectives are never static. By the very interaction with their environment, children are continually changing their point of view as they progress through their individual development (Corsaro 1985, Cannella 1993).

Corsaro (1994) states that friendships are a reflection and an interpretation of the values and the practices of the culture in which the children live. The conflicts in themselves, according to the Piagetian viewpoint are valuable in the way that disequilibrium is created thus 'forcing' further cognitive growth during the process of conflict resolution.

Friendship patterns of acceptance and rejection within the realms of peer culture and the processes of coping with different personalities who may or may not accept or reject them are all important social milestones in the development of social competence in preschool children (Corsaro 1985, 1994, Rubin 1980, Ladd et al 1988, Rubin and Coplan 1992, Kantor et al 1993). Even further, the role of conflict and disequilibrium and the dynamics involved in the lives of children under five years of age are increasingly regarded as being important in the development of sociocognitive and language skills and the overall socialisation process (Corsaro, 1985, 1994, Shantz 1986, Shantz 1987, Rubin and Coplan 1992).

This paper will outline work that has been carried out by the present writer in an ongoing research project on the role of conflict as a socialising function in the peer culture of three and four year old children as observed in preschools in naturalistic settings. Issues to be discussed will relate to the concept of disequilibrium, conflict, and the strategies that young children use to resolve these within their peer culture during play.

An interpretation of equilibrium as noted by Berk (1991 p.121) which fits neatly into the context of this study has been identified as a means for an individual to 'interpret reality'. The key feature in
relation to this present study refers to a situation where a new event such as another child disputing leadership of a game, does not fit comfortably with existing cognitive structures. This "clash" of wills leads to an uncalled for state of disequilibrium or cognitive discomfort which "forces" those concerned to find relief and resolve the conflict in some way according to their cognitive capabilities and social knowledge. Attempts can be made by an individual to overcome the shortcoming between the situation and the present schemes. This attempt to restore equilibrium signals a stage of maturity in a young child especially if it involves another person. A development towards perspective taking of another point of view is an important milestone in the development of socialisation. An advantage of this cognitive discomfort is that it produces cognitive change or growth. McNally (1973) aptly summarises this 'dilemma' in the following statement:

Education is "growth leading further to new growth." The central idea here is one of continuous and progressive development as the individual builds on the results of prior experience. What Dewey and he experimentalists would describe as growth leading to further growth' Piaget would refer to as the equilibration; or the coming into balance of accommodation and assimilation to achieve a dynamic equilibrium. This dynamic equilibrium is of course preparatory to a new disequilibrium as the environment and organism interact and the organism is forced to accommodate, assimilate and equilibrate in the continuous process of differentiation and generalisation of the developing cognitive structures' (McNally 1973, p. 88).

Meadows (1993, p.203) refers to the term 'perturbations' as being synonymous with conflicts which stimulate the cognitive abilities of the individual. This in turn causes the individual to create automatic adjustments in order to cope with these conflicts. Meadows claims that the individual could return to the original equilibrium or an improved one and notes the following:

'It is the actual non functioning of a cognitive scheme which both signals the presence of a 'perturbation' and is the sole motivator of efforts to seek a new equilibrium, but the non-functioning does not of itself indicate what the conflict is or how to solve it' (Meadows 1993, p.203).

Another important point noted by Meadows (1993), relates to the fact that in order to resolve disequilibrium in the direction of cognitive growth, an individual needs to be aware that they are in a state of disequilibrium. There could be instances where many suitable choices may be available to resolve this state or, even none at all. It could
also be said that being in a continual state of disequilibrium where the contradiction never seems to be satisfactorily solved could cause the individual undue stress with traumatic results. Meadows (1993) cites Piaget who claims that there are some equilibria that are 'better' than others, however, Meadows finds that this explanation difficult to explain in behavioural terms.

Cannella (1993, p 429) cites Piaget (1928) who says that interaction with peers can 'create internal individual disequilibrium' implying that cognitive conflict helps in the development of social understanding and learning. In relation to equilibrium Piaget noted that:

'One may conceive of cooperation as constituting the ideal form of equilibrium towards which society tends when compulsory conformity comes to break down' (Piaget 1932, p.334).

However, cognitive conflict as created by another person who provides a differing point of view, may or may not provide an opportunity for cognitive growth for the reciprocal partner. This would depend on the cognitive levels of those concerned and the type and degree of problem to be solved. The implications for early childhood educators and parents is that by studying the strategies of prosocial, confident and socially able young children within their own peer culture, these observations could help those children who need special help in the development of their social skills.


An interesting point has been raised by Rubin (1980) who cites Matthew's (1978b) naturalistic study of the sex roles of preschool children, in which conflict itself does not actually occur in young children's fantasy play. The dramatisation or imitating past experiences involving observed conflict is not regarded the same as actually having a dispute. Rubin (1980 p. 81) claims that once conflict comes into the play situation, the children take a "frame break" from their dramatic role play to try to settle the differences.

If a resolution of conflict can be achieved the children are able resume their play.

Work on disequilibrium within preschool peer culture is also emerging (Rubin, 1980, Corsaro 1985, Selman & Schultz 1989, Rubin & Rose-Krasnor 1992). In relation to the context of problem solving and conflict resolution, more naturalistic studies within free and spontaneous play
situations need to be carried out specifically with children under five years of age. (Corsaro 1985, Cannella 1993).

Rubin & Rose-Krasnor (1992) cite extensive work carried out by Selman (1980), who formulated a theoretical model of interpersonal negotiation and communicative competence (social perspective taking). Selman's model incorporates four progressive levels which account for children's understanding of strategies for conflict resolution. Starting from Level 0 at the early childhood level where the processes are egocentric and undifferentiated to the fourth and highest more sophisticated cognitive level occurring at the beginning of adolescence. Rubin & Rose-Krasnor's explanation for interpersonal negotiation strategies is noted as follows:

"...a subset of social problems solving strategies, differentiated by the context of an ongoing relationship and the presence of emotional disequilibrium (Rubin & Rose-Krasnor 1992, p 16)."

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Whereas Vygotsky emphasises the importance of interaction with adults in relation to the development of the learning processes, his tenet concerning the value of more capable peers is also worthy of note. Social interaction in this context is invaluable as both children can learn from each other. Even the more capable children can learn from these situations. As noted in other research, these learning experiences need not be confined to older children. Preschool children are quite able to observe and learn unobtrusively from each other as well as from the more directive and formal approaches of adults. Even those children who are not involved in a dispute can be fascinated observers carefully noting the reactions of both sides of the argument.

In relation to Vygotsky's (1978) explanation of the theory of the 'zone of proximal development', he states that there is a difference between the learning that is carried out by preschool children and those of an older age. He acknowledges that learning and development take place from the first day of life, however, the major difference the between the preschool and school years depends on the zone of proximal development. Vygotsky's definition is as follows:
'It is the distance between the actual developmental as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers' (Vygotsky 1978, p. 86).

As to the effects of certain aspects of learning through social interaction, Cannella's (1993) experimental work with paired sixty six kindergarten and first grade children, found that the ability of the partner was not as important as the actual social interaction that took place. Cannella noted that:

'..the most favorable conditions for cognitive growth through social interaction appear to be those in which sociocognitive shared experience is constructed.'  (Cannella 1993, p.442)

Cannella conceded that this does not provide an explanation for all cognitive growth in all situations. Factors which have important influences on the responses of the children need to be considered. For example, the type of interaction children have with each other, the ability to work collaboratively, the variation of ages, the cognitive level and type of the problem to be solved, whether the context is in formal, free play situations or teacher organised context. She advocates that in order to have more understanding of shared meaning between children and how it affects individuals, sociocognitive interactions during spontaneous play should be studied (Cannella 1993).

Verba (1994) reiterates Vygotsky's tenet that a child's development in the acquisition of knowledge does not depends solely on the skill's of adults being able to transmit information. Verba (1994) concedes that the child needs to be an active participant in a situation where social interaction takes place. Verba's own study highlights the importance of peer collaboration where a child not only has to manage his/her own cognitive activity but also has to participate in the social interactions as well. Verba also emphasises the value of peers' social interactions on cognitive competence as the children are at a relatively equal status and competency in comparison to those of adults. She claims that any cognitive dissonance would be at the same rather than at an uneven level where adults would have to work with some restraint and make allowances for the child's ability and level of understanding.

Corsaro (1985) advocates the availability of an adult to intervene if necessary during conflict between young children. He views adults as having an important place in the social development of young children
in terms of being a positive role model of social behaviours, of socio-linguistic patterns and the general handling of disputes.

Verba's (1994) research indicates that there is evidence of similar interactive patterns in the three different age groups of preschool children studied, (13 to 17 months old; 18 months to 2 year olds and 2 to 4 year olds).

These interactive patterns fell into three groups:
*observation/elaboration:
a basic pattern in each group where a child observing another then joins in without any resistance. This stage follows the same pattern as Parten's parallel play stage moving quickly into that of cooperative play where children work together for a "common cause". However, the emphasis seems to dwell more on the individual's play

*co-construction:
this pattern is similar to Parten's stage of cooperative play but in more depth where there is communication, a common bond, and in general reciprocity in the children's play. A cooperative development of action may take place by means of a consensus of ideas or even disagreement. The goals as well as the cognitive control tend to be shared by those playing together.

*guided activity:
This is where peer tutoring takes place. The actual method or approach used depends on the age of the children and the particular situation. The 'tutor' is more in control thus making the 'tutee' more vulnerable and dependent (Verba 1994, pp 125-139).

The research findings in Corsaro's (1985) study indicated a real presence of a peer culture in preschool children. Within this "special world" he was able to isolate certain strategies of the dynamics of their play. Peer culture was identified by Corsaro as the following:

'a joint or communal attempt by the children to acquire control over their lives through the establishment of a collective identity. In this sense, the peer culture of preschool children is best seen as the children's continual, communal attempts to grasp and control a social order first presented to them by adults, but one which eventually becomes their own reproduction (Corsaro 1985, p 75).

METHODOLOGY

The strategies used by the children in Corsaro's study in order to preserve the fragile nature of their peer culture fell into two main categories, of acceptance and rejection of their peers into their play.
Corsaro (1985) identified a four stage process of the acceptance strategies and five types of resistance behaviours.

The acceptance strategies are noted as follows:

- an attempt at access
- initial resistance
- repeated access attempts followed by further resistance with the eventual agreement among defenders of an area to let others enter
- the assignment of positions such as policemen and family roles to new comers (Corsaro 1985, p 134).

Resistance behaviours towards those trying to gain entry into established play are noted by Corsaro (1985) as follows:

- verbal resistance without justification, eg. 'No! go away.'
- reference to arbitrary rules, eg. 'No! You can't play with bare feet'
- specific claims of ownership of objects or areas of play, eg. 'We were living here first'.
- denial of friendship, eg. 'Grr! Grr! We don't like you!.' (Corsaro 1985, p. 128-134).

The strategies used within social interactions in the play situation of peer culture vary yet have some similar patterns as revealed in the present writer's research. Both Corsaro (1985) and Verba (1994) concede that children can be in control of their own peer culture. The dynamics of these interactions follows the functionalist approach which espouses a qualitative approach to the analysis of the research data.

In keeping with the qualitative research approach, the data was collected in the settings in which the behaviours occurred naturally. All data is regarded as important and analysed deductively rather than inductively. When using the "grounded" theory perspective, a pattern begins to take place as more information is collected, analysed and coded, In fact more questions tend to emerge as the study progresses (Bogden & Bicklen, 1982).

In the present writer's original study the emphasis was on the children's interactions within their peer culture. Their attempts at forming and accepting friends and their particular strategies using as well as coping with rejection were studied. This study was based on an indepth longitudinal study of one child's interactions with various peer cultures from the time he was three years old when he first started preschool to five years of age and about to leave for school.

The block play area was the consistent factor forming a basis and stimulus for the children's play. A video camera was used to record
all observations as this approach was seen to be the most efficient method of data collecting. The length of time to record the children's interactions varied depending on the individual situations. Great care was taken by the adults not to coerce any child into playing with the blocks and the staff in each centre avoided the block area unless absolutely necessary. The information collected from the video cassettes was transcribed as a written record of each interaction. In order to make this accumulative data more manageable the information was divided into anecdotal records with the incidences recorded with a beginning and an end of each situation. The interactions between the children were identified, coded and analysed as noted according to the emerging patterns that occurred over the whole length of observation.

The follow up study became more focussed on the way that various groups of children coped with conflict when their play was threatened by unwanted others. In order to gain a wider variety of observations of children's behaviour, three different centres were visited. As with the previous study, the block area was the focus point for observation.

In both studies, the children were left free to choose if they wanted to play with the blocks which was part of the usual program planning by the preschool staff. In the Australian study, the blocks were located either indoors or outdoors and there were variations of the types of blocks used. The researcher assumed a non participant role and attempted to be as unobtrusive as possible.

The present project is following Corsaro's (1985:38) approach in the use of a series of steps as a guideline for the analysis of the field notes. These are as follows:

- The identification of consistent patterns from the data collection and the development of a working hypothesis
- Organising and transcribing the video tape material
- A micro-sociolinguistic analysis of the data
- Refining the working hypotheses
- Validity estimation and triangulation

A similar pattern was followed in the original study carried out by the present writer. Each transcription and subsequent anecdotes were carefully examined for any consistent patterns which were recorded until the information became redundant.

In analysing the data, it was noted that conflict was indeed an important factor in motivating the children to react to situations for which they were not prepared. The children whose "space" or established play had been invaded suddenly found themselves confronted by these "intruders" and in order to cope with this challenge had to literally "think on their feet". Adult help was not always available
and if they did come over, the resolution of conflict did not always go in favour of the affronted children. Using one's own initiative when confronted by peers who were intimidating or applying some form of manipulative pressure was a challenging experience for many children.

RESULTS AND CONCLUSIONS

One of the main advantages in studying children's behaviour in naturalistic settings relates to the fact that they can be observed in the way they show control over their own peer culture. As challenging situations occur, we can actually observe the children and their coping capabilities when there is very little adult help. Using the block play area was an ideal place for observation as it was a consistently "clear" interactive area where the children relatively stayed in the one place. The children enjoyed playing with the blocks and interactions were always "fruitful" from a researcher's point of view. Also, it was one of the few areas that needed very little adult supervision, thus leaving the children to play independently within their own peer culture interactive space.

In the American study a three year old boy new to a preschool setting was observed right through to the time he left for school. His behaviour had changed from a brash and clumsy child to a creative leader of the block play area. When this child first started at the preschool, his main aim during indoor play was to enter the sophisticated and complicated block play created by a closely knit and well established group of older boys. The continuous rejection of these boys did not deter this child for a lengthy period of time.

Resolution of conflict did not take place with these older boys, however, the focus child over a period of time, gained sufficient confidence to build a similar building of his own. Gradually other children would ask his permission to join his game. This child eventually formed a new "troup" of his own and gained a great deal of power by rejecting or accepting his peers. As the focus child grew older and more experienced in verbally handling others, he used tactics such as directing, negotiating and allocating specific roles to those who wanted to enter his play. One of the major features of his later play involved the use of the social hierarchical dominance factor. As soon as he entered the block play area he inevitably created a construction thus signalling the important fact that he was the leader. Even when challenged he was able to sustain this position and if negotiation was unsuccessful, the intruders usually went elsewhere.

In the Australian study, the groups of children studied varied in terms of the numbers in each group and included boys and/or girls. Location of the blocks were set up outside as well as indoors. Conflict occurred in play where there was a combination of boys and girls well as in single sex groups. Most of the conflict occurred when the
established children were approached by others and were a threat to their play. Some children gained entry without any fussing from the established group, yet others were very quickly dismissed from the game. In several instances persistent intrusion by younger and destructive children forced the established group to abandon their play. A common feature that was observed in both the American and Australian studies, related to the fact that whoever started the block construction was regarded and even revered as the leader. In order to gain entry into this play children would inevitably ask permission before sitting down or being involved in the play.

Another point worthy of note is that a social hierarchical dominance theme was observed in many of the Australian children's play. Rubin & Rose-Krasnor, (1992), claim that the role for hierarchy dominance within peer culture is mainly to reduce conflict and aggression. Each person within the "troup" would have a special role and the leader who would be usually respected and admired by the members of the group would provide a role model.

It was observed that the hierarchical dominance was not confined to groups of boys alone as in the present writer's first study. Girls also followed this pattern. In one instance a little girl was attempting to enter into the play of a group of boys. She was not overtly rejected however, it was obvious that she was not part of this particular peer culture. She took part in this play by carrying the blocks over to the leader who would position them on his construction. However, the leader would not permit her to do any of the actual construction nor sit in the building. She kept on helping regardless until the boys tired of this game and went elsewhere. Later on during the same morning, she was observed returning to the building that the previous boys had abandoned. This little girl conscientiously rearranged the blocks into a construction complete with chairs. Eventually her play attracted two other girls who wanted to gain entry into her play. The first girl very quickly took on the leadership role and allocated seats making sure that she was in the leader's seat. The three girls played together until it was time to pack away, however, the self appointed leader had to work hard to maintain her position as she was continually being challenged by one of the other two girls. This was evident in her efforts to gain control of the "leader's" seat.

Findings in both of the present writer's studies indicated that not only were the socialising factors forceful in terms of rejection and acceptance within their peer culture, but the actual conflicts created disequilibrium to such an extent that there was a strong need to ease the situation. These children were "extended" in such a way that they were obliged to verbalise their feelings and/or carry out actions that they probably would not have bothered to do so in was less challenging situations. The strategies that the children used are summarised in
the following Figure 1 and Figure 2. The framework is based on the findings from the original study and as discussed in a previous paper which was presented at the Children’s Peer Relations: Co-operation and Conflict Conference in January, 1994 in South Australia.

ACCEPTANCE AND COOPERATION STRATEGIES

FRIENDSHIP
• SHOWING INTEREST IN ANOTHER’S PLAY
IN EFFORTS TO • SHOWING CURiosity
GAIN ENTRY INTO • Imitating Play
PLAY • Showing off/Striving for Attention
• Teasing, Cajoling, Attempting to Coerce in a Friendly Manner
• Walking into Established Play Without Being Questioned
• Bargaining
• Competing with Leaders
• Using Friendship to Bargain • Using Friendship to Negotiate
• Recognition of Leadership
• Spontaneous Play

CONTROL OF FRIENDSHIP
BY THOSE IN • Assertive/Strict with Rules
Established Play • Bargaining
• Conspiratorial
• Selecting Peers - Non Democratic • Ownership of Peers
• Protecting Existing Play
• Recognition of Leader • Using Friendship to Control Others
• Making Decisions re Inclusion or Exclusion into Play
• Team Work

Figure 1
TAXONOMY OF ACCEPTANCE/COOPERATIVE INTERACTION PATTERNS OF BEHAVIOUR OBSERVED DURING BLOCK PLAY

REJECTION AND RESISTANCE STRATEGIES

CLAIMS OF OWNERSHIP • Disputes over Toys, Roles
• Priority over Play, Roles
• Priority over Who Started Play First
• Reference to Number Already in Play

GROUP REJECTION • Banding Together to Stop Play of Certain Children
• Gun Play Used to Reject Peers
• REDIRECTING PEERS TO OTHER PLAY

INDIRECT REJECTION • IGNORING REQUESTS FOR ENTRY
• MOVING AWAY
• PASSIVE RESISTANCE

PHYSICAL RESISTANCE • YELLING REJECTION
• ACCUSING, ADMONISHING • DENYING FRIENDSHIP
• DRAWING ATTENTION TO WRONG DOING
• FRIENDLY CAUTION • NAME CALLING
• REFERENCE TO ARBITRARY RULE WITH OR WITHOUT JUSTIFICATION
• REJECTING PEERS WITHOUT JUSTIFICATION
• RETRIBUTION
• TAUNTING/TEASING WITH MALICE
• THREATENING
• USING FRIENDSHIP AS POWER
• VINDICTIVENESS

FIGURE 2
TAXONOMY OF REJECTION/RESISTANCE INTERACTION PATTERN OF BEHAVIOURS OBSERVED DURING BLOCK PLAY.

SUMMARISING STATEMENT

Considering the age range of the children and the relatively lack of experience in being with others, those observed in this study were able to cope quite adequately in compromising situations. The way some of these children used their voices in terms of pitch, tone, timbre, volume in relation to gestures, facial expressions, stances, and body language in general, indicated that when challenged they were able to clearly indicate to others how they felt. The verbally able children were quite explicit in the reasons as to why some children were not able to gain entry. In one example when a group of girls were constructing a block building, some boys came over and threatened to knock over the construction. The girls' state of disequilibrium was obvious as they became quite emotionally agitated when the boys came around for a second line of attack. One girl with her hands on her hips, leaned forward and yelled with great emotion, 'It's all right for us to broke up our building but not you!'

Observations of the children's interactions during conflict indicate that they can be impulsive, intense, volatile, emotional, unpleasant in terms of hurt feelings, and on occasions with the some children, aggressive. Spontaneous tiffs, usually resolve in moments with the older children unless one child continues to irritate the other. Whatever the causes of conflict and within reason, the whole experience
for young children to resolve may be a valuable one for their learning experiences and cognitive growth. Increasing research in this area clearly indicates the importance of experiencing a certain degree of conflict as long as it does not cause undue stress on the children. (Green 1933, Damon 1978, Rubin 1980, Corsaro 1985, Shantz 1986, Howes 1988, Rubin & Coplan 1992.) Dawe (1934) noted that twenty four seconds was the average length of time for disputes among the children in her study and they were usually infrequent. Shantz, (1987) stated that even the shortest of conflicting events should not be considered unimportant in that that these events have meaning to the children concerned and not to be dismissed lightly. She states that by studying conflict in young children, it enables us to enter into a social context of the children's peer culture. It is one way for the children to find out how others feel and react to themselves. This is where early childhood educators and parents and those who come into contact with preschool children need to be aware of the importance of the role of conflict, disequilibrium and observe the strategies that are used to cope with these situations. In this way those children who need special help can be provided with peer models whose own behaviour will be at the children's level and understanding as well.

REFERENCES


