A STUDY INTO THE DISCUSSION SKILLS OF NURSERY SCHOOL CHILDREN

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ABSTRACT

The research comprised of three studies which examined the discussion skills of preschool children in different contexts.

The first study was concerned with how frequently pre-schoolers could use complex linguistic strategies (such as giving justifications) in *conflict* situations, and in relation to gender, class and play activity. The second study was very similar to this but examined how complex speech acts were produced in a *co-operative* context.

It was found that children could produce complex language relatively frequently in both conflictual and co-operative contexts. No substantial sex differences were recorded for the complexity of speech acts used but there were significant variations noted for class in Study 1, with children from the privately run nursery showing greater linguistic competence than their state-school peers. Play activity had a marked effect on the type of dialogue produced. Skilful language was associated with symbolic play whereas sand & water activities and individual pursuits were characterised by predominantly simple speech.

The final study primarily built-upon the results obtained in Study 2 which had revealed that one specific pattern of dialogue often led to the production of complex speech. In order to further improve this output, this particular pattern of speech was encouraged via a scaffolding procedure. This was successful in increasing the amount of individual complex speech strategies produced, but was less effective in frequently eliciting the required dialogue pattern.

Overall, it was demonstrated that preschool children were linguistically more competent than many theorists or educational guidelines have suggested. Moreover, it appears that young children are able to engage in complex speech in both conflictual and co-operative situations, although it was also shown that the type of play activity may influence these discussion skills.

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CHAPTER 1: INTRODUCTION

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1:1 OVERVIEW

The present thesis is concerned with the discussion skills of nursery school children. In particular, the research focuses on young children's use of complex speech acts - including justifications, alternatives and questions - since these may provide evidence of the perspective-taking ability which tends to lead to truly interactive discussion. The aim of this chapter is to provide detailed background information on the proposed research - beginning with general issues such as the importance of discussion skills, especially with regard to preschoolers. This will then be followed by details of linguistic skills in relation to both conflictual and co-operative contexts and with regard to class, gender and type of play activity. Finally, the current research will be briefly introduced.

1:2 THE IMPORTANCE & USEFULNESS OF DISCUSSION SKILLS

Before outlining some of the reasons why discussion is important, both to child development and to psychological research, it is helpful to give a definition of what is meant by "discussion". Although there have been many definitions proposed over the years, Gall & Gall (1976) give one of the more straightforward accounts where discussion is described as "the purposeful, systematic, oral exchange of ideas, facts and opinions by a group of persons" (pg. 108). They then go on to say that "discussion provides opportunity for students to shape their own ideas..and express these ideas in speech" (pg. 170-171). This overt expression of cognitive processes is therefore useful - not only for the possible intellectual expansion of group participants, but also to enable researchers to evaluate such development.

Thus the study of discussion skills in children is very important because it enables those interested in education and development to get some idea of both the amount of children's knowledge and how well they can use it in social interaction. It is especially important for children to be able to use language in a social way in order to interact and communicate successfully with others. This interaction, in turn, may help to enhance children's intellectual growth.

Therefore, language is not only a method of communication: it may also be viewed as both an indicator of, and catalyst for, learning. Both Piaget (e.g., 1926) and Vygotsky (e.g., 1962) acknowledged this and their contributions to this area will be discussed in more detail later in the chapter. Curtis (1986), who was involved in designing preschool curricula, believes "language is not only a means of communication, it is also a tool for thinking" (pg. 60). Similarly, Wragg & Kerry (1979) who researched classroom interaction stated that thought is expressed through language and therefore an examination of discourse would enable inferences to be made about "levels of thinking" (pg. 56). Lloyd & Beard (1995), who focused specifically on classroom collaboration, also emphasise the importance of dialogue in relation to learning when they claim "the development of good discussion skills means that children can explain and reveal their true level of understanding" (pg. 6). Likewise, McCarthey & McMahon (1992) claim "learning is the result of internalisation of social interaction" and suggest that peer discussion is particularly important for learning since "what is implicit is made explicit" through exploratory talk (pg. 18). Fisher (1994), who studied pupil-pupil interactions in class, noted that "exploratory talk offers a potential for learning" (pg. 255); this type of speech being characterised by the use of "suggestions with challenges and explanations" (pg. 256).

It is therefore apparent that the development of linguistic skills is strongly associated with socio-cognitive growth. As noted earlier, it is also true that speech - being an overt behaviour- makes it easier to obtain an indication of such growth. Gall & Gall (1976), who advocated use of the 'discussion method' as a teaching device for effectively enhancing learning, claimed that "discussion effectiveness can be evaluated from two aspects: the level of skill in discussion and what the members have learned" (pg. 173). The latter aspect may be judged by employing a programme of instruction to increase skilful behaviours such as speech acts which encourage exploratory dialogue - and chapter 4 of this thesis addresses this issue in more detail. Gall & Gall's first point which was concerned with the *level* of skilful language produced is the focus of chapters 2 and 3 of the present work. It should be noted at this stage that there may be some variation between researchers when defining exactly what a skilful speech act is. Indeed, McTear (1985) said it was not possible to rank speech strategies in terms of complexity whilst Meadows (1986) stresses that there is "the difficulty of assessing the cognitive complexity of a language" (pg. 131). Although the issue of 'skilfulness' will be examined more fully in subsequent subsections, it may now be pertinent to give an outline of, what appears to be, a general consensus of what may constitute skilful language.

To illustrate: various Educational Departments, throughout Britain, have outlined what they perceive as skilful speech. The Scottish Office Education Department's (1991) *English Language 5-14* guidelines suggest that competent discussion involves providing a variety of views which may frequently require clarification, elaboration or justification. Similarly, the Department for Education (1995) suggests that key language skills at ages 7 to 11 should involve "qualifying or justifying what they think after listening to others' opinions or accounts" (pg. 11). Although these documents have a tendency to perceive these abilities as only being developed in the older child, even curricula focusing solely on preschool children acknowledge or emphasise the important role of discussion for child development. In fact, Strathclyde Regional Council Education Department (1994) *Partners in Learning: 0-5 curriculum guidelines* states "a group offers children opportunities to share ideas and uncertainties; offer opinions and explanations" (pg. 27) and "children may learn how to be flexible, how to share, how to collaborate and how to negotiate with others. They can learn to be assertive and how to cope with conflict" (pg. 29). Indeed, this document set out four main cognitive 'skills' seen as essential for effective communication:

Reasoning - weighing up arguments, giving justifications.
Enquiring - asking questions.
Creating - producing novel ideas\solutions.
Communicative - listening and responding, including seeking clarification and giving feedback. (pg. 33-34)

In addition, these preschool curriculum guidelines stress the need for developing such interpersonal skills as negotiation, co-operation, resolving conflict and responsiveness to others (pg. 52). Tolmie & Howe (1993) neatly sum-up these issues "a central theme in contemporary education is the importance for learning of dialogue between pupils. Particular emphasis is being placed on dialogue where pupils advance opinions to each other, where they challenge these opinions in a constructive fashion, and where they justify these challenges with additional evidence" (pg. 191).

However, it is not only those who are directly involved with education who are concerned with the quality of dialogue. Researchers working in the areas of language and child development also assert the importance of skilful discussion for enhancing children's social and cognitive competence. It is possible to focus merely

on the quantitative aspects of verbal interactions, e.g. "we may conclude that the frequency of speech, the number of turns spoken and the number of words, can have importance for children's development" (Sharan & Shachar, 1988, pg. 140) but it is perhaps more useful to concentrate on both qualitative and quantitative linguistic data. For example, Bock & Hornsby (1977) suggest "a major area of interest is the development of the ability to express different communicative intentions in language through the use of different speech acts" (pg. 72). Indeed, there have been many studies into the various speech acts employed during conversation. Barnes & Todd (1977) noted the existence of tag-questions and requests for information, clarification and elaboration. Similarly, Cooper, Marquis & Edward (1986) revealed that significant linguistic features in effective exchanges include directives as well as questions. Although researchers have often tended to study individual speech acts in all their richness, it is also possible to take a more holistic view and study how each speech strategy inter-relates to form a coherent and skilful discussion. The importance of studying whole discussions should not be underestimated as it seems to be the *discussion process* which promotes intellectual growth. Bruffee (1984) stresses that knowledge is only acquired and understood by engaging in "continual negotiation or conversation" (pg. 646-647). Likewise, Schober-Peterson & Johnson (1989) suggest three main reasons why discussion is important to both children and researchers, i.e.

1. 'Early conversational ability appears to be crucial to later academic success'.

2. 'Conversational ability appears to be important for the development of social competence'.

3. 'To diagnose and help children who have pragmatic deficits, it is essential that we have information about the normal development of conversational ability in young children'. (all quotes pg. 857).

Although one should always be cautious in drawing causal inferences from young children's behaviour, there appears to be substantial agreement on the importance of researching and enhancing discussion skills. Several benefits of doing this have been outlined in the previous paragraphs but it is also useful to consider the implications for those individuals who lack the required linguistic skills. Indeed, Walker, Schwartz, Nippold, Irvin & Noell (1994) believe that "children unable to display these behaviours are likely to be neglected and\or rejected by their peers" (pg. 74). This, in turn, would result in a negative feedback process whereby the children who most need to develop the discussion skills will be the very ones who will get the

least chance to practise them. It is therefore essential that researchers should identify and help promote linguistic competence *from an early age* - in order to confer the greatest possible cognitive, social and educational advantages to a child. Indeed, these are very valid and worthwhile reasons for conducting the relevant research with *preschool* children.

1:2:1 Discussion Skills and Peer Interaction

The previous subsection outlined the importance of discussion in the development of children's language and thought processes. However, it should be noted that many of the studies into verbal exchanges have focused upon interactions which have been initiated, planned or sustained by an adult - usually a teacher. Yet Damon (1984) categorically states that "children can have a powerful influence upon one another's intellectual development" (pg. 331) whilst Cooper & Cooper (1984) report that "children's peer relationships can be identified by their *negotiated* quality" (pg. 78). Similarly, Cooper, Ayers-Lopez & Marquis (1982) - who studied kindergarten plus primary school children in both experimental and naturalistic conditions - stress "peer interaction can be a context for intellectual development, and consequently that basic knowledge of the patterns of discourse that typify such exchanges between children is needed" (pg. 177). Forman & Cazden (1985) also highlight "the cognitive value of peer interaction" (pg. 323). They state such exchanges involve peers acting alongside each other to produce something that they could not have produced alone since "peer interaction helps participants acknowledge and integrate a variety of perspectives" (pg. 330). Piaget (e.g. 1932) was the first person to make these claims whilst later researchers such as Musatti (1986) and Verba (1994) also suggest that peer interactions are beneficial - because there is an equal partnership resulting in less inhibited exchanges. Curtis (1986) points out that conversations are longer during child-child interaction whilst Forman & Cazden (1985) explain that, between peers, "knowledge is equal, or at least not intentionally unequal, and the give and take of equal status is expected" (pg. 324). Damon (1984), reviewing Piagetian ideas, suggests "because peers are closely motivated in knowledge and ability and because there is no authority between them, they take one another seriously...the child is not constrained by an expert who 'knows better'" (pg. 334).

Thus it appears that peer interaction has a very important part to play in children's socio-cognitive development and yet research, some of which was outlined in the previous paragraph, may have all too often been confined to the discussions of primary or secondary school children in the context of the classroom, and under the

direction of a teacher. This may be somewhat unfortunate as it shifts the focus from nursery school children who probably have most to gain (in terms of cognitive growth) from early exposure and enhancement of complex language skills. Moreover, since many of these studies do occur in the formal setting of the classroom, it is probable that a true picture of competence does not emerge. For instance, Tizard & Hughes (1984) found that children do not talk as freely at school as they do at home. In fact, Edwards & Westgate (1987) suggest that teachers usually take on a dominant role in the classroom which may impose constraints on the communicative options open to the pupils. This raises important questions about the influence of context on verbal performance. Indeed, Cooper & Cooper (1984) claim that "an adequate description of competence in discourse must include the ways that individuals come to use language in context" (pg. 80) whilst Forman & Cazden (1985) propose that it is necessary to "isolate the social conditions that are most responsible for cognitive growth" (pg. 330). It is therefore crucial to identify and acknowledge the part that contextual factors may play in development and this will be the focus of the next subsection.

1:3 DISCUSSION SKILLS AND CONTEXT

As stated earlier, context can have a crucial effect on how well children perform verbally. The structure and formality of the classroom often inhibits children's dialogue. Donaldson (1978) has strongly argued that children demonstrate greater social and cognitive skills when a situation is meaningful to them. Kruger (1994) states that an open-ended behaviour such as role-play, which frequently involves the speech acts of requesting, countering and negotiation, is more likely to promote intellectual skills than the very structured or well-defined tasks usually found in school work. Moreover, Bell, Grossen & Perret-Clermont (1985), who used conservation tasks to assess children's development and Cooper & Cooper (1984), who reviewed studies of children's discourse in a variety of situations, remarked on how task novelty may inhibit performance - since the children do not have the relevant experience to draw upon for providing explanations. Nonetheless, researchers like Wood & Attfield (1996) believe "the discourse in children's play, the nature of their activity and the outcomes are all rich in meanings and can provide educators with insights into the content of their thinking and styles of learning" (pg. 44). It has been well-established that context is an important consideration in any research and, hopefully, it has been highlighted in the preceding paragraph that cognitive development may be influenced by such factors as the formality of a situation, the type of task involved, the composition of

discussion participants and experience, meaningfulness or emotiveness of a situation. For these reasons, the current research seeks to examine language complexity in relation to a variety of contextual factors including play activity, gender and social class - and these will be discussed in more detail later in the chapter.

In addition, verbal exchanges can be influenced by emotional as well as social factors, with the 'tone' of any dialogue being liable to affect motivation and behaviour. This, in turn, may further modify the type of language produced. Therefore, it may also be pertinent to consider the motivational contexts behind the use of certain speech acts - and this issue is briefly examined in the following paragraphs.

Charlesworth & Dzur (1987), LaFreniere & Charlesworth (1987), Charlesworth (1996) and LaFreniere (1996) propose that people strive to attain the greatest possible gains from society. To obtain these objectives, an individual must learn to 'manipulate' skilfully. Such manipulations can range from compromise, persuasion, negotiation through to coercion, with appropriate skill developing via a process of 'trial & error' experiences in a variety of situations. For example, Eisenberg & Garvey (1981) reported that even young children were aware of the fact that giving justifications could help prevent an escalation of conflict. Similarly, Killen & Naigles (1995) noted that boys tended to employ less 'commands' when interacting with girls and this resulted in more equitable and beneficial exchanges for both sexes. Therefore, it seems that if individuals wish to increase their chances of attaining a particular aim or resource, then they will learn to use the appropriate tactics for a given context.

From a developmental perspective, at least two important contexts for both language expression and learning are that of 'dispute' and 'co-operation' - since both may provide enough motivation to influence the process and pattern of a discussion. However, one should be aware that it may be difficult always to categorise an exchange as being either conflictual or collaborative since the boundaries can be diffuse and overlapping. For example, LaFreniere & Charlesworth (1987) state that "interaction involves both co-operative and competitive striving" (pg. 356) whilst LaFreniere (1996) elaborates, "competition and co-operation are major features of social interaction...co-operation is best viewed as a variant, rather than as a polar opposite of competition" (pg. 25).

Nevertheless, and in somewhat simplified terms, conflict tends to ensue when pursuing one's own goal to the detriment of others whereas collaboration involves interacting to achieve a common aim. Although it seems entirely possible that one may also attain one's own target en route to obtaining a group objective, young children may find it difficult to put their own needs aside in a bid to help others (Deutsch & Krauss, 1962, pg. 42) since they are "primarily goal-oriented" (McClintock, Moskowitz & McClintock, 1971, pg. 10). Nonetheless, Bokus (1992) suggests that the equality of peer interactions enables "confrontation as well as co-operation" (pg. 274) whilst Charlesworth & Dzur (1987) report that children as young as four can use a "fairly complex combination of competitive, of self-serving, and co-operative behaviours necessary to obtain the resource" (pg.200). Jennings & Suwalsky (1982) emphasise that to be successful in obtaining one's aims, it is essential to apply "two facets of social competence" (pg. 131). That is, children should adapt their responses to take account of others' needs whilst making sure they put their own ideas and wishes across. Hogan (1975) also focuses on this ambivalence when suggesting that individuals have "communal as well as self-serving tendencies" (pg. 537).

Hay & Ross (1982) report that both prosocial and antisocial behaviours are displayed during children's interactions, and they believe that children do not make the same distinction between positive and negative exchanges as adults do. Oden, Wheeler & Herzberger (1984) argue that "some children may have learned a limited and\or aggressive interaction style that achieves the sought after goal" (pg. 148) whilst LaFreniere (1996) points out that even "when co-operation among peers is well-established, it is not reasonable to expect perfect harmony and equity, but rather constant negotiation and reassessment" (pg. 42). Other researchers have also highlighted the inter-relatedness of co-operative and conflictual behaviour with Green (1933) viewing quarrelling as "an essential part of friendly social activity" and Oden et al. (1984) noting that the form of children's speech acts in disputes was "rather co-operative" (pg. 141). Likewise, Barnes & Todd (1977) suggest that as long as disagreement is rational (i.e. accompanied by explanations, clarifications etc.) then it is still comparable with the function of "collaborating in the meaningful construction of knowledge" (pg. 44).

Kruger (1993) acknowledges the benefits of both conflictual and non-conflictual interaction in promoting intellectual growth since she believes that learning is motivated by exposure to multiple perspectives. Perret-Clermont (1980) concurs with this "for a task to have educational value, it is not sufficient for it merely to

engage children in joint activity; there must also be a confrontation between different points of view" (pg. 195). Kruger (1993) maintains that it is the "critical examination" of such differing points of view that influences cognitive development, irrespective to whether the view is embedded within a conflict or non-conflict situation. She further notes that researchers, who favour dispute as a vehicle for promoting intellectual growth, stress that cognitive restructuring occurs through a process of disagreement with associated reasoning.

Similarly - researchers concerned with mental development via co-operative activity define an effective outcome as arising from agreement accompanied by an exchange of ideas involving explanations, questions and elaborations. Hence Kruger (1993) strongly asserts that "in no study does simple agreement or disagreement relate to outcome. In all studies, success is predicted by engaged discussion of the issues, including explanation, clarification or revision of ideas....the importance of reasoned dialogue in all studies clarifies the common ground of the two theoretical orientations. Both the conflict and co-operation explanations rely on the child's encounter with more than one perspective...whether this interactive situation is described as conflictual or co-operative may be a matter of semantics more than substance" (pg 166-167). Likewise, Howe (1997) succinctly sums up the position "group interaction can act as a catalyst for subsequent reflection and learning, regardless of the quality of the interaction itself" (pg. 20).

Despite the view that it is the presence of reasoning in an exchange which tends to enhance cognitive growth, there is still some division as to whether the context of conflict or collaboration provides the most fertile medium for socio-cognitive development (e.g. Meadows, 1986). Two very influential theorists who studied peer interaction and learning were Piaget (e.g. 1926) and Vygotsky (e.g. 1962). Although both highlighted the value of exposure to, and experience of, multiple perspectives in promoting intellectual growth - each took a different stance as to how this development occurred. The differences revolved around contrasting emphases on conflict and collaboration, and so they are highly germane in the present context. As a result, their two approaches will now be examined in detail.

Piaget and his advocates believe that cognitive *conflict* is required before some change, resulting in the expansion of mental processes, can occur. They claim that peers force each other to 'decentre' by exposing one another to different viewpoints. When children become aware that there are perspectives which differ from their own, they experience some dissonance which then motivates them to re-examine

their own views and alter, or justify, these where necessary. In order to give a convincing explanation, the children must have a clear understanding of their own thoughts (plus some awareness of the weaknesses in others' views) and it is this process of rationalisation which is deemed to be the crux of cognitive gain.

Later exponents of Piagetian tenets, including Perret-Clermont (1980) and Bell et al. (1985), studied the developmental effects of socio-cognitive conflict using conservation tasks with 5-7 year old children. They found evidence that reasoning usually only occurs when there is some exposure to *discrepant* persectives followed by attempts at justification and they stress that co-operation is not sufficient to produce intellectual progress.

In contrast, Vygotsky - and those following in the Vygotskian tradition - tend to perceive peer exchanges as increasing a child's knowledge base by supplying a variety of ideas in an equal and supportive environment. The children encourage each other by providing differing information (which, from this stance, may be seen as supplementary or complementary rather than merely contradictory) and obtaining clarification, elaboration or verification of such input. New solutions are generated *co-operatively* and can be discussed until everyone is satisfied with the outcome. Depending on an individual's strengths and weaknesses, a participant can be either an instructor or learner at various points in a discussion. This shared 'give and take' of ideas enables a mutual creation of new knowledge plus a combined resolution of any difficulties faced. Repeated exposure to this process is said to have an effect on children's cognitions which are altered as they begin to internalise the ideas and mechanisms of discussion which were co-constructed by their peers.

Enthusiastic advocates of this position include Yeomans (1983), who studied collaborative groups in primary plus secondary schools, and Marshall & Powell (1990) who examined the problem-solving behaviour of a group of primary-school girls. These researchers strongly assert the benefits of collaboration in socio-cognitive development. Cooper & Cooper (1984) reviewed three studies of children's discourse during peer-learning situations and they remarked that kindergarteners were still only mastering complex "conversational moves" (pg. 88) and often failed in the negotiation phase of an interaction. They did acknowledge the value of collaboration but reported that this was easily diminished by a lack of focus on their task. They also suggested that pre-schoolers' attention-getting devices, such as directives, were prevalent but that their "ability to give

explanations is flawed in many ways" (pg. 81). Cooper & Cooper (1984) view this as a 'learning limitation' and suggested it was due to lack of experience.

In sum, researchers such as Kruger (1993) have proposed that *both* conflictual and co-operative contexts can lead to cognitive gain as long as a process of reasoning occurs. However, there are many psychologists who still support one of the two main developmental theories outlined above. Both of these strands are well-established and very influential, with most empirical research focusing on either one or the other - even if the boundaries between them are not always clear-cut. Although the present researcher acknowledges Kruger's point, the current research will follow the long and robust tradition of examining conflict and co-operation as separate contexts in relation to socio-cognitive (specifically language in this current work) development. It is felt that demarcation is worthwhile in the first instance due to the lack of systematic research covering both contexts, especially in relation to preschool children, in a natural environment. In fact, Forman & Cazden (1985) have argued that research into peer *collaboration* has been sparse whilst Killen & Turiel (1991) claim that little research has been done on how "young children's experiences of *conflict* influence development" (pg. 240). Therefore, the following subsections will look, in more detail, at the background rationale to conflict\co-operation and their link with discussion skills.

1:4 RESEARCH INTO DISCUSSION SKILLS DURING CONFLICT

1:4:1 The role of conflict in socio-cognitive development

The importance of this particular context is stressed by Dunn (1984) who mentions that brothers and sisters often exhibit complex exchanges during play and arguments at home. Conflict is especially important since it exists in most everyday situations and strategies for dealing with it effectively will obviously be useful (e.g. Singer, 1991). Traditionally, conflict has been viewed in a negative light but there is now a large body of research which favours a more positive interpretation (e.g. Dunn & Kendrick, 1982; Hartup, 1983, 1992 and Shantz, 1987). Shantz & Hartup (1992) stress that conflict should not be confused with aggression since conflict rarely involves physical force and, in fact, may actually facilitate learning through exposure and resolution of conflicting viewpoints. Shantz & Hartup (1992) therefore define conflict as " a state of resistance or opposition between (at least) two individuals" (pg. 4) and contributors to this perspective attribute general developmental progress to such opposition, or rather to the coping with adversity.

From this stance, Dunn & Slomkowski (1992) claim "Conflict is indeed a context in which understanding can be fostered" (pg. 87) and Katz, Kramer & Gottman (1992) emphasise the benefits of conflict management "a likely major benefit of engaging in conflict is that children acquire conflict management skills - they learn to negotiate, compromise, take turns, as well as how to persuade another to adopt their point of view" (pg. 133).

Several researchers have outlined other potential advantages of conflict. Schiffrin (1984) believes that disputes are a way of 'socially bonding' in Jewish communities whilst Green (1933) perceives "quarrelling" as a "socialising agent" (pg. 251). Likewise, Corsaro & Rizzo (1986) - who looked at American and Italian children's disputes - found that Italian pre-schoolers enjoy disagreement (discussione) for its own sake. It may be that disputes serve a different function for the gregarious Italians where squabbles contribute to social interaction and integration. Such disagreements may therefore be valued and encouraged in children who subsequently gain more experience with both formal linguistic rules and the socially relevant rules for communication.

Deutsch (1969) also tended to advocate the benefits of dispute and argued that "conflict can be productive...it prevents stagnation and stimulates interest and curiosity" (pg. 19). This view is not too dissimilar to Donaldson's (1978) perception that understanding and learning occur more easily when a situation holds interest and meaning for a child. Similarly, Dunn (1984), Dunn & Kendrick (1982) and Dunn & Slomkowski (1992) take the approach that conflict aids children's social and cognitive development because it is a highly emotional, 'here and now' state which has real salience for a child - both in terms of material gain and also for giving them a sense of control over the world. Dunn & Kendrick believe that disputes "are not situations of emotional neutrality, but a situation in which the child is emotionally ready to attend to, and to learn about other persons in his words" (pg. 24). Hence, children's self-interest runs deep in an argument situation and so they will possibly be giving their maximum linguistic performance rather than a dialogue display limited by situational constraints. As noted earlier, conflictual circumstances may promote socio-cognitive growth by exposing the participants to a variety of (or at least one other) different viewpoints. This leads to some dissonance between one person's ideas and another's which an individual is motivated to reduce by using all the given information to weigh up the argument. This increased knowledge and pressure to achieve a satisfactory outcome may make it easier to restructure the available information and thus resolve the

discrepancy. Kuhn (1991) suggests that "argumentative dialogue with others externalises argumentative reasoning and offers exposure to contrasting ideas and the practice that may facilitate its development" (pg. 294). Continuing along similar lines, Bell, Grossen & Perret-Clermont (1985) propose that "cognitive progress only results from socio-cognitive conflict when partners' respective views are opposed and in need of co-ordination" (pg. 45). There are many exponents and supporters of this approach including Murray (1982) plus Ames & Murray (1982) who subjected children to conflicting ideas during conservation tasks - and Bearison, Magzamen & Filardo (1986) who studied 5 to 7 year olds engaged in a spatial perspective-taking task. The findings in all of these studies suggest that moderate disagreement coupled with explanation is best for cognitive growth. In addition, conflict with peers was also seen as helpful in decreasing egocentrism - since children faced with different viewpoints would learn to understand and accept the existence of these in order to maintain their friendships. Some Piagetian ideas, first introduced on page 9 of this thesis, will now be discussed more fully.

1:4:1:1 Piaget, conflict and discussion skills

Piaget (1926) believed that children's conversations often comprised of conflicting ideas and that the children were intrinsically motivated to reduce this disparity by internalising and restructuring all the supplied information in a way that made sense. This 'mechanism' involving increased knowledge and balancing of information to reach a satisfactory solution resulted in a reduction of inner conflict, enhanced perspective-taking and cognitive growth. This was seen as the main route to intellectual development and was age-related. Piaget strongly asserted that children younger than 7 or 8 years old are egocentric in both their actions and speech. That is, they are unable to put their own ideas across effectively and they usually fail to take others' views into account. In effect, this would mean that they would be incapable of giving or asking for reasons for any points they make during discussion. Dorval & Eckerman (1984) note that Piaget outlined the developmental stages for both argumentative and non-argumentative speech where "the highest order for both of these involved giving justifications" (pg. 3). In sketching out his main stages, Piaget clearly distinguished between primarily egocentric speech, which consisted of self-centred monologues, and socialised dialogue which took some account of other participants.

Piaget (1926) proposed that below the age of around 5 years, children's speech would be mainly egocentric. After this age, children would progress through a series of three stages involving an ever-increasing ability to engage in socialised

dialogue. The earliest type of socialised speech (Stage 2, Type 1) consisted of children merely talking about themselves though noting the presence of another. At this stage, children tend to attribute their own thoughts and feelings to their partner. Therefore true negotiation and discussion would be improbable at this particular stage with simple, mostly physical, quarrels being the main outcome. By the next, less basic, stage (Stage 2, Type 2) children can engage in 'primitive argument' whereby simple claims- stating their own position - are repeatedly made. There is still little evidence of reasoning at this phase (pg. 53). The final stage (Type 3), which Piaget said occurred at around 7 or 8 years of age, is characterised by children's increased perspective-taking ability and abstract thought. The children now show some evidence of reasoning which leads to "genuine argument" (pg. 54). It is at this level that they can more fully engage in complex discussion by asking for and giving explanations or supplying alternative suggestions. Nevertheless, Piaget cautions that these speech strategies are still rather simple in nature and do not approach the quality of those used by older children or adults. In some contrast, Vygotsky viewed children as sociocentric from an early age and the following subsection elaborates on the Vygotskian ideas previously introduced on page 10 of this thesis.

1:4:1:2 <u>Vygotsky, conflict and discussion skills</u>

Vygotsky tended to take a somewhat different approach to Piaget and he believed that children learn best in a co-operative exchange with a more capable partner - usually an older child or adult. Unlike Piaget, who viewed learning as an "internal process of adaptation" (pg. 32, Baines, 1996) heavily dependent on age and the presence of innate conflict, Vygotsky (1962) perceived learning as being a "socially mediated process which gradually becomes internalised...through communicative interaction with a more 'capable' other" (pg. 32, Baines, 1996).

Central to Vygotsky's theory of learning was his concept of the 'Zone of Proximal Development'. This zone represents the area between what a child can do by himself and what he can achieve when assisted by a more competent partner. This is a very versatile mechanism which can be adjusted to suit the partner involved including taking account of the context and intellectual capacity or developmental stage of a less able participant. Thus this is obviously a more flexible and sensitive approach than Piaget's rather rigid stage theory and possibly suggests that Vygotsky thought that children could develop socio-cognitive skills at an earlier age that Piaget believed, albeit with some assistance from a more skilful individual.

1:4:1:3 Educational Curricula and the proposed conflict research

As mentioned previously, many educational curricula are concerned that children can use skilful language and, on the basis of these, teachers aim to guide the children to achieve certain age-related targets throughout the school years. However, the attainment guidelines often suggest that children below 11 or 12 years of age cannot fully take account of other peoples' views, or even put their own views across effectively. In contrast to this, there have been several suggestive but inconclusive studies which seem to indicate that young children *can* employ complex linguistic strategies in certain circumstances. One aim of this present research is therefore to examine pre-schoolers' dispute strategies systematically, especially in relation to 'complexity', gender, class and play activity. This thorough exploration of children's conflict should lead to clarification and expansion of previous work - thus having possible implications for future educational policy and practice.

1:4:1:4 Summary

The preceding subsections considered, from somewhat differing perspectives, the importance and usefulness of conflict for encouraging discussion skills and socio-cognitive growth. The following subsections will now extend and elaborate on these issues by focusing on the relevant background research.

1:4:2 BACKGROUND TO DISCUSSION SKILLS IN CONFLICT SITUATIONS

1:4:2:1 Research with Young Children in Conflict Situations

Investigation into the socio-cognitive development of pre-schoolers is obviously not new but due to criticisms surrounding earlier studies, there has been a move away from formal classroom research and highly-structured interactions. Yet, one of the first major studies into disputes was criticised for its 'artificiality'. This work was conducted by Eisenberg & Garvey (1981) who videotaped dyadic disputes in a laboratory playroom and recorded over 100 children between the ages of 2 years 10 months and 5 years 7 months. They focused upon the dialogue within an "adversative episode" which they defined as "the interaction which grows out of an **opposition** to a request for action, an assertion or an action... (which) ends with a resolution or dissipation of conflict" (Eisenberg & Garvey, 1981 pg. 150). Shantz (1987) emphasises that this initial opposition on its own is not enough to define an adversative episode, and that a conflict exchange only becomes such when this

interaction is itself opposed. For example, the following exchange between two children is not classified as an adversative episode because there is no verbal response to the initial opposition.

A boy is digging in the sand with a spade. A girl comes over and tells him not to do that.

Girl: **"Don't dig that"**
Boy: **(Doesn't say anything but keeps on digging)**
Girl: **"Don't dig. Don't dig that there"**

The boy then begins to dig in another part of the sand.

In this example, the boy's silence defuses any potential conflict. Maynard (1985) found that "letting opposition pass" was a common strategy used by children to avoid escalation of disputes. He emphasised that children could use more socially adaptive strategies than adults usually gave them credit for, and these included 'repair' and responding playfully to opposition by joking or teasing.

The next example of discourse demonstrates what Shantz (1987) meant by conflict having to fulfil the opposition to opposition requirement.

Two girls are in the home corner and one girl puts shopping into a basket.

1. First Girl : **"This is all my shopping"**
2. Second Girl: **"No, it's not"**
3. First Girl: **"See it is, here's the eggs"**
4. Second Girl: **"But the eggs were on the table"**

The initial opposition occurs at line 2 when the second girl refuses to accept that the first girl has the shopping. The first child subtly opposes this by reasserting her position and showing the eggs in the basket (the opposition to the initial opposition). The second girl faced with this 'evidence' shifts her stance slightly, conceding the presence of the eggs but still getting across her original view by implying the eggs weren't 'shopping' but already in the house - "on the table".

Therefore in order to be counted as a 'real' dispute, a trigger or antecedent event (line 1) must be followed by opposition (line 2) which is then itself opposed (line 3).

The child who displays the initial opposition is known as the opposer (second child in previous example) and the child who responds to it is the opposee (first child in the example). Thus as Eisenberg & Garvey (1981) also point out, when children take turns in an argument, the dispute goes through three main stages. Eisenberg and Garvey discovered that children can employ a variety of conflict tactics at any of the stages. These findings are summarised below:

a) The antecedent or precipitating event: Eisenberg & Garvey considered only verbal precipitators (yet, paradoxically, their definition of an adversative episode involved opposition to an action). However, others such as Corsaro & Rizzo (1986) and Maynard (1985) have included non-verbal antecedents.

b) The oppositional event: The majority of studies take this to be the defining aspect of an argument.

c) Reaction to opposition/ Development of the dispute: This includes every exchange that occurs after the opposition event, when the argument begins to 'open out'.

According to Eisenberg and Garvey, opposition to a particular action or comment creates a public event which interrupts the flow of interaction until resolution can be achieved. The means of achieving resolution were therefore of great concern to the researchers as well as the type of opposition employed by the children. Eisenberg & Garvey (1981) uncovered 5 possible verbal strategies of opposition:

a) Simple negation - Where a child says "No" or "Don't" without giving any reason for the opposition.
b) Justification - The child gives a reason for his/her opposition, with or without explicit negation.
c) Countering or Alternative - The child puts forward an alternative proposal, for example "Here, you have this doll".
d) Temporising - Child postpones agreement, for example "You can have the ball later".
e) Evasion - Avoidance. Eisenberg & Garvey give the following instance:
"Can I have the car?"
"It's not a car, it's a truck".

Likewise, Eisenberg and Garvey (1981) postulated a set of development strategies which children could produce in reaction to the opposition event.

a) Insistence - Repetition of an utterance, adding no new information.
b) Mitigation & Aggravation - Where a child repeats an utterance either more politely or more forcefully.
c) Reasons - These are given to justify the situation, as in the opposition stage.
d) Counter - Child offers an alternative proposal, again this is similar to the opposition stage.
e) Conditional Directives - These consist of two parts, the first being a promise and the second a directive e.g. "I will be your best friend if you give me some sweets".
f) Compromise - Involves sharing something with another child.
g) Requests for Explanation - Asking for reasons e.g. "Why?". Often used to elicit a justification where none has been given.
h) Physical Force - Includes hitting, pushing, grabbing, pulling etc.
i) Ignores - Child ignores statement.

1:4:2:2 Issues of complexity in "conflictual speech" research.

As noted earlier, skilled language tends to be seen as speech acts such as justification, questioning and compromise since all tend to acknowledge another person's inclusion within dialogue or behaviour sequences. Yet, it may be argued that the definition of a concept like 'complexity' is quite subjective. Piaget would link 'complexity' with increasing levels of abstraction. Language tied to the 'here and now' would be deemed relatively simple whereas discourse which goes beyond the concrete situation would be perceived as more skilled. Piaget believed that young children cannot take others' perspectives (egocentrism) and so at this stage, they are incapable of abstract thought. As detailed on page 14, Piaget (1926) stated that there is a developmental progression to argument. Young children engage in 'primitive quarrelling' where they forcefully state their own wishes (often repeatedly) whilst less egocentric older children get involved in 'genuine argument' - whereby each opponent tries to win their side of the debate by giving reasons. Likewise, those who draw up educational curricula appear to judge complexity in relation to degrees of 'self-centredness'. Children who can use language to generalise, to go beyond the immediate situation, or who can take account of others' needs, feelings and viewpoints - are perceived to be 'competent'. Eisenberg & Garvey (1981) also make subtle distinctions in relation to the level of complexity associated with the various conflict tactics used by the pre-schoolers.

Some of the strategies are more adaptive and sophisticated than others since they involve an awareness of opponents' feelings. Tactics like giving reasons, asking for explanations, compromising or suggesting alternatives all demand a consideration for others and thus a less egocentric perspective is required. They found that young children, in contrast to Piaget's findings, did not only use simple strategies like negation, insistence or force but could use more complex ones like justification, requests for explanation and counter. Giving reasons was especially effective in ending conflict and it seems that children (like adults) appreciate the need occasionally to smooth negotiations by providing explanations. In addition, children younger than five showed evidence of understanding others' viewpoints since they occasionally offered alternatives or compromise to their opponents. However research into this area has produced some inconsistent results.

Caplan, Vespo, Pederson & Hay (1991) describe children of 1 or 2 years old as being pretty forceful in trying to obtain toys from another child. They tend to protest loudly and repeatedly claim objects as "mine". In trying to regain objects they may retaliate either verbally, or more commonly, non-verbally. Older pre-schoolers use slightly more diverse tactics which include pulling their toys towards them, leaving the scene with them, offer reasons for keeping them or using delaying tactics. Camras (1984) studied the object disputes of kindergarten, preschool and 2nd grade children and it was found that older children engaged in more flexible behaviour and they were less likely to use force or controlling speech.

Orsolini (1993) found that a high level of justification is common amongst children during certain play activities and states that "children can produce justifications from an early age" (pg. 281). Furthermore, Orsolini agrees with Eisenberg & Garvey (1981) by saying "justifications are expected moves. When speakers do not produce them, the recipient is very likely to ask for an explanation, or to insist on his own position" (pg. 283) - children are therefore not deemed to be so egocentric that they do not understand social rules and norms! Keenan (1974, 1975) and Genishi & Di Paolo (1982) disagree that justification is widely used by young children and state that simple repetition is most frequently employed by pre-schoolers but both Keenan and Genishi & Di Paolo have been criticised for using very small samples of children. Baines (1996) also mentions the prevalence of repetition during co-operative tasks "the majority of minimal responses took the form of repetitions" (pg. 147) but he also found that "of all the justifications produced by the four year olds, 42% were used in a dispute setting" (pg. 166).

The difficulty of deciding what constitutes a 'complex' strategy was mentioned earlier in the section. It is rather an arbitrary concept which may lead to inconsistencies across studies. For instance, some researchers do not perceive repetition as just a simple conflict tactic but claim it is used to "make it (discourse) last" (Dunn & Kendrick, 1982 pg. 143); "provides regulation & synchronisation that is itself satisfying" (Garvey, 1991, pg. 120) and is "essential en route to mastery and expertise" (Wood & Attfield, 1996, pg. 65). Furthermore, Maynard (1985) believes that complex strategies may not always have to involve language since children can 'let opposition pass' as a clever deflecting mechanism - used to avoid argument rather than revealing a lack of linguistic competence! These varied opinions make it essential to carry out clearly defined and rigorous research.

Nevertheless, recent research has tended to reveal that children *are* more linguistically competent than has sometimes been suggested. For instance, Iskander, Laursen, Finkelstein & Fredrickson (1995) showed that young children prefer to negotiate rather than bully or withdraw from a dispute scenario. Vespo, Pedersen & Hay (1995) discovered that even children under six years of age could give reasons to explain their behaviour during conflict situations. Furthermore, Caplan, Vespo, Pedersen & Hay (1991) demonstrated that youngsters are sensitive to context and adjust their behaviour depending on the number of toys available to play with. The infants were more likely to use compromise to resolve conflict when there were fewer toys available for play, since this tactic was most likely to confer mutual benefits. Therefore, at least some of the studies appear to indicate that young children can employ complex dialogue in a conflict situation and this is encouraging since skilful language use appears to be linked with socio-cognitive development.

1:4:2:3 Summary

In the previous pages, some of the main studies into children's conflict were examined. It was noted that the results were sometimes inconsistent and some reasons were offered to explain this. Past work has often come under fire due to small sample size, unnatural set-up or for focusing solely on dyads. The point was also made about researchers employing various definitions of concepts such as 'opposition' (i.e. whether it involves a single challenge or a mutual one) and 'complexity' (which is somewhat abstract and subjective) which tends to add to the confusion. Although Eisenberg & Garvey's (1981) research yielded a lot of interesting points about conflict complexity, it also explored the types of triggers required to start off a disagreement - and this is the focus of the next subsection.

1:4:2:4 Dispute Triggers

Eisenberg & Garvey (1981) were not only interested in the strategies used to resolve conflict effectively. They also investigated the types of situations that children argue over which triggers a dispute, and they found that nursery school arguments tend to be in one of four categories:

a) Arguments over the possession of objects.
b) Disputes over the nature of play.
c) Conflict over access to 'personal' space.
d) Disputes regarding claims, opinions or beliefs.

Eisenberg & Garvey (1981) and Genishi & Di Paolo (1982) both found that disputes over objects occurred about twice as often as disputes over the nature of play, but again there are some contradictory results. Corsaro & Rizzo (1986) found the reverse of this and believed that the difference was due to their broader classification of the nature of play. Corsaro & Rizzo also found quite a high frequency of access disputes compared to Eisenberg & Garvey and Genishi & Di Paolo. As mentioned previously, it was suggested that this discrepancy may be due to Genishi & Di Paolo studying a very small sample of children plus Eisenberg & Garvey using a sample limited to dyads which they controlled access to - so 'uninvited' children were not likely to be a problem. The proposed study attempts to overcome these deficiencies by using a larger sample which does not limit group size. Hay (1984), like both Eisenberg & Garvey and Genishi & Di Paolo, discovered that children mainly squabbled over objects, "One common source of conflict in early childhood..... is the struggle for the possession of.....toys and other play materials". She found that the mean percentage of disputes over objects (from various study reviews) was 71% compared to 23% over access. It is worth mentioning here that Garvey (1991) didn't feel that object conflict was particularly harmful and she makes this clear when she says "taking an object from another child is not necessarily an aggressive move on the part of the toddler and...may not be intended as hurtful" (pg. 53). Allen (1995) also shares this view of object disputes claiming "pre-schoolers can and do share play objects, they can use verbal procedures to obtain objects possessed by others; and pronomials like 'our', 'your' and 'mine' mark possession strategies" (pg. 359). Corsaro (1979) studied children's access strategies and disputes and found that older children are more likely to negotiate access whereas younger children just move into an area - which tends to cause disruption. He found though that most children attempting access "relied on more indirect and often non-verbal strategies" (pg. 322). Although

there are fewer findings with regard to 'play' and 'claim' antecedents, Putallaz & Sheppard (1992) cited work by Forbes, Katz, Paul & Lubin (1982) which demonstrated that boys attempt to elevate their status by refusing to accept certain roles or by making boastful claims. It may therefore be (tentatively) expected that such antecedents will mainly involve verbal behaviour and be largely confined to boys.

The study in Chapter 2 will look at the antecedent stage in some detail because of its importance as the origin of conflict behaviour. It is difficult to examine the antecedent event in terms of complexity because non-verbal acts would be impossible to define using a simple-complex measure. However, if one takes a broad and general approach to the precipitating event, it seems intuitively reasonable to assume that verbal behaviour is more complex than non-verbal behaviour in that it can convey a wider and more abstract range of ideas. Similarly, 'object' and 'access' tend to be tied to the immediate situation and so meaning can be conveyed at a concrete level by either verbal or non-verbal behaviour e.g. pulling a toy from another child's hand or physically barring entry into an activity. On the other hand, vague claims or complex play rules may need more developed cognitive processes to communicate and share rather abstract or generalised intent effectively. It should be re-emphasised at this point though, that unlike the oppositional and development stages of conflict, the antecedent event cannot be firmly operationalised in terms of complexity. However, it is intended that the previous suggestions may offer some guidance to the overall tone of the antecedent.

1:4:2:5 Disputes and Gender

Most researchers have found that, generally, children's conflict exchanges tend to be frequent but short. For example, Eisenberg & Garvey (1981) found that over 90% of the disputes they observed were shorter than ten turns whilst O' Keefe & Benoit (1982), who studied the conflicts of 2 to 5 year olds, found a median of 5 turns per dispute. Researchers have also found differences in frequency and complexity of conflict episodes across the sexes. Most studies have demonstrated that girls are less likely to engage in dispute and tend to be linguistically more versatile than boys. In a review entitled *"Peer Relations"*, Hartup (1983) remarks that boys engage in more quarrelling than girls. Similarly, articles by Maccoby (1967, 1988) report that there are sex differences in behaviour for the years between preschool and adolescence - apart from the preference of both sexes to play with same-sex others, girls tend to be more passive and generally more polite

than their male peers. Maccoby (1988) also states that girls use more 'agreeable' language because it serves a "socially binding function" rather than the "egoistic function" (pg. 758) apparent amongst boys. Sheldon (1990, 1992) studied 3-4 year old children and she focused on the type of language used in a dispute situation. She found that girls' speech was rather collaborative and mitigating in tone. Likewise, Miller, Danaher & Forbes (1986), who studied children between the ages of 5 and 7, discovered that boys were involved in disputes more frequently than girls and that they tended to use simple strategies of verbal threat or physical force significantly more often than girls. Girls tried to negotiate or 'soften' arguments especially if these involved other girls. They also stated that boys tend to be physically more active, aggressive, involved in more conflict and more 'heavy-handed' in their use of discourse strategies than girls.

There have been several suggestions as to why male and female children differ in regard to the frequency and complexity of conflict episodes. It has been thought that boys have more disputes because they are naturally more aggressive, or because they are encouraged to be competitive and 'stand-up for themselves' - especially if they are from working class homes. Boys also tend to prefer outside activities and rough and tumble play which often lead to physical contact and subsequent conflict. Moreover, girls may tend to get punished more than boys for engaging in arguments. Sheldon (1992) and Oden, Wheeler & Herzberger, (1984) believe that there are social pressures on girls to show more co-operation and less aggression than boys - and so they tend to employ more conflict mitigating tactics like compromising or justifying their actions. Gilligan & Attanucci (1988) suggest that females have a natural orientation towards 'caring' and so maintaining interpersonal harmony is one of their priorities. Sheldon (1992) states that girls achieve harmony by 'double-voice discourse' whereby they use the sensitive tactics of compromise, giving alternatives, asking for explanations and giving reasons to assuage their own needs whilst taking account of their partner's requirements. Boys were found to be more direct in their dealings with others and so used double-voice discourse a lot less often than girls.

The majority of evidence points to girls using less frequent but more complex language than boys. But there are dissenting voices - for example, several researchers found few sex differences in relation to conflict. Hartup, Laursen, Stewart & Eastenson (1988) - who studied both friend and non-friend interactions in 4 year olds - claimed that there were no sex differences because "the motivation to contain negative affect seems to be as strong among boys as among girls" (pg.

1600). Likewise, Vespo et al. (1995) didn't find any sex differences in boys' and girls' ability to give explanations whilst Dunn (1984) proposes "within a family, girls are just as likely as boys to come to blows" (pg. 103). Garvey (1991) notes that boys display some of the "characteristics associated with greater cognitive maturity" (pg. 151) and "boys are also able to use mitigated persuasion techniques...especially in compatible pairs" (pg. 154). These findings are contradictory to those mentioned in the preceding paragraphs and such inconsistency makes further research especially welcome and valuable.

1:4:2:6 Disputes and Social Class

Although it has been long (and controversially) assumed that children from disadvantaged backgrounds are linguistically less accomplished than those from a privileged environment (e.g. Bernstein, 1960), there still appears to be less research done on class differences than gender differences in relation to disputes. However, studies which have examined language, play or other social and cognitive skills have generally found less advantaged children to produce poorer performances. Tough, 1973b (cited by Lomax, 1979, pg. 20) said "children from professional homes were much more likely to use language to collaborate...to compare possible alternatives...to give explanations to why and how things happen...and to justify behaviour". Similarly, Bloom et al., 1965 (quoted in Peters & Willis, 1978, pg. 63) state that "children from low socio-economic backgrounds are below average in language ability".

Finnie & Russell (1988) studied children's social skills in relation to their mothers' socio-economic background. They found that children of low status mothers used less skilful strategies with other children when trying to join groups - and this led to unnecessary conflict as those already in the group became irritated at their clumsy attempts at access. Smart & Smart (1978) mention that disadvantaged children are more repetitive in their play whilst Bruck & Tucker (1974) found "middle-class children give more elaborations...and are less egocentric than their lower class peers" (pg. 215). Continuing in the same vein, Rubin, Fein & Vandenberg, (1983) postulate that "the play of children from lower socio-economic backgrounds is less complex and sophisticated than that of children from more affluent homes" (pg. 735) whilst Teachman (1995) concurs "greater parental income and education are associated with greater mental skill" (pg. 216). Interesting though these results are, they tend to be suggestive rather than conclusive. Other researchers have come up with a slightly different set of findings to those outlined above. For instance, Tizard

& Hughes (1984) maintain that there "was no support that working class children suffered from a lack of exposure to spoken language" (pg. 139) and they stress "there is no real social class difference in language ability" (pg. 137). Hence it appears that further research into this area may be useful in drawing nearer to a definite conclusion.

There is even less evidence regarding the frequency of disputes and class but if working-class boys are encouraged to 'stand-up for themselves' (as mentioned earlier), there is a strong possibility that this would lead to greater overt competitiveness and conflict. Furthermore, Argyle (1994) makes the point that delinquency, including violence and breach of the peace, is higher for the working classes in society. He says that this could be due to working class parents employing more punitive discipline, having a negative attitude to authority and being less likely to reason with their children over aspects of their behaviour. It may be therefore that less privileged children see conflict as the 'norm' and so engage in it frequently themselves.

1:4:2:7 Disputes and Play Activity

Although variations in language use with regard to class and gender are interesting in their own right, it is also useful to look at the possible association of speech and play activity. In fact, it was noted earlier that it is important to identify the 'social conditions' most likely to be responsible for cognitive growth. (Forman & Cazden, 1985). It was also suggested that equal status amongst peers may aid learning. Verba (1993) proposes that this equivalence is particularly noticeable in pretend play which involves substantial negotiation to 'set-up a scene'. It may therefore be that some types of play activity are better for providing the conditions necessary for enhancing development.

Type of play has long been of interest to researchers. In 1973, Quilitch & Risely differentiated between "isolate toys...primarily played with by one child at a time" (pg. 573) and social toys such as board games. Sylva, Roy & Painter (1980) and Ervin-Tripp (1982) proposed that the type of activity had an effect on children's behaviour. Sylva et al. found that most exchanges occur in the "looser activities where there are no clear intrinsic goals". They actually discovered that most verbal exchanges happened during informal games and rough 'n' tumble play; a moderate amount of conversation occurs during gross motor play and pretend games whilst little discussion takes place during construction or whilst using "isolate toys" like

jigsaws or books. One might expect least conflict in individual play because there is no interaction. However it is worth bearing in mind that others may try to 'butt in' to these activities or try to grab the book or jigsaw being used by someone else. Tizard & Hughes (1984) state that sand and water play is most likely to produce conflicts between children. It is true that this type of play is quite physical in that it involves manipulations of sand and water using a variety of objects such as buckets and spades. Squabbles may break out over these 'tools' and the fact there is very little space around the sand-pit or water bath. There is also plenty of opportunity for physical contact such as splashing water or throwing sand, and even if accidental, it may present an opportunity for quarrelling.

In contrast to this, Minuchin & Shapiro (1983) stress that "conflict was much more associated with block-building...and housekeeping play" (pg. 205). They argue that activities are conflict-prone if they "involve shared space and equipment which must be negotiated...and because they create a subgroup of participants who may exclude other children" (pg. 205). Similarly, Ervin-Tripp (1982) found that in the construction setting there were a lot of arguments over the possession of building blocks but afterwards children tended to play alone, engrossed in what they were doing. Quite a number of researchers have claimed that "boys are significantly more interested than girls in tower and brick-building and building with apparatus" (Lomax, 1979, pg. 59). If this is the case, and boys generally tend to be involved in more conflict than girls, then one would expect rather a lot of disagreement in the construction area. It is perhaps more difficult to postulate on the degree of dialogue complexity in the proposed areas. It might be expected that construction and sand & water areas reveal a lot of simple, possessive dialogue as the children claim possession of their 'tools' or bricks. However, Wood & Attfield (1996) quote from Smilansky (1990) who claims constructive play is "the manipulation of objects to create something...it allows the children to represent their own reality...and stimulates a wide range of cognitive processes which are important for learning" (pg. 23). It may therefore be that construction play is linked to complex rather than simple exchanges and it is hoped that further research might clarify this.

Lomax (1979) describes the criteria for all imaginary play by saying "it must be clear from a child's speech and actions that he was going beyond the present concrete situation" (pg. 69). Garvey (1991) states that "pretend play is by no means free of opposition and conflict...but since shared play can only continue if agreement can be assumed, then it is not surprising that children use their most sophisticated and persuasive efforts to further pretend play" (pg. 137). This view is

shared by Oden et al. (1984) who comment that fantasy play involved a "more playful interchange which lessened the likelihood of disputes" (pg. 147) whilst Orsolini (1993) said justification was the most frequently used tactic in symbolic play. This finding that complex strategies are relatively common in pretend play is also supported by Garvey (1991) who acknowledges that "denials and refusals do occur, but children usually accompany them with reasons, alternative proposals or suggestions for compromise" (pg. 137). Ervin-Tripp (1982) agrees that role-play produced the greatest amount of compliance and co-operation as children 'worked' together to construct their play frame. Many other researchers who have focused on pretend, symbolic or fantasy play also have a high opinion of the developmental value of imaginative activities. For instance, Sawyer (1996) suggests that it is the lack of a rigid structure in role-play than encourages complex discourse and Smilansky (1968) also advocates this type of play for young children's development. Nicolopoulou (1993), who reviews play from a Piagetian and Vygotskian perspective, stresses how the representational aspect of role-play can 'stretch' a child's mental processes. Rogoff (1993), who provided a commentary on that paper, highlighted the use of imagination in learning. Goncu (1993) notes how pretend play leads to the sharing and extending of experience which is necessary for development and Garvey & Kramer (1989), who reviewed social pretend play in preschool children, report that this type of activity relied heavily on language for planning and negotiation. It therefore appears that complex speech acts were frequent in this play context.

It should be noted, at this stage, that all types of play are not equally popular or made use of in exactly the same way across both sexes. For example, symbolic play is an activity that is especially popular with girls although they tend to limit their roles to house and family themes. Boys, on the other hand, show a greater preference for block-building, and have a large range of fantasy play including super-hero roles (Johnson & Ershler, 1981). Rubin, Fein & Vandenberg (1983) suggest that construction play is the most common form of activity in nursery school but Ross & Browne (1993) argue that "girls do not use construction and mechanical toys as often as boys choose to" (pg. 13) and this is supported by the findings of Wood & Attfield (1996), and Lomax (1979) as recorded previously.

Likewise, social class differences in play have been noted. Rubin et al. (1983) report that the fantasy play of middle-class children is more complex than that of working class children. There is also a higher incidence of symbolic play in the advantaged group. It has been inferred that a lack of familiarity with classroom

materials may be the cause of these differences (Garvey, 1991). Tizard & Hughes (1984) found that middle-class girls were more likely to be involved in individual pursuits or playing table games whilst there was a tendency for working-class girls to spend most of their free time playing with sand and water or else being involved in outdoor activities. One reason given for this is that working class mothers tend to engage their children in more physical games at home (Tizard & Hughes, 1984).

Such apparent differences between sexes and social classes should be treated with caution because the findings have not been consistently replicated. However, it should be re-emphasised that a specific play activity may have the potential to evoke certain behaviours. It has been argued that construction play is probably the most common form of activity in the pre-school (Rubin et al., 1983) so children should be familiar and comfortable with it. The mechanics would perhaps be automatic leaving them time to engage in 'flights of fancy' - Rubin et al. (1983) commented that when several children were present in the block corner they engaged in fantasy play but when alone, their behaviour was "predominantly constructive" (pg. 733). Rubin et al. also highlighted the difficulty of categorising activities since they claim that sand & water play is 'solitary' in that it involves non-social and parallel behaviour.

It is worth noting that research into the area of 'play and language' has been relatively sparse and fragmented. Researchers have often concentrated on only one type of play, or focused on play activity in general but not in relation to class, gender or complexity. It is therefore difficult to directly compare and assess the findings from available studies, which makes reaching a firm conclusion almost impossible. One of the primary aims of this thesis is to provide a fuller and more detailed account of play activity in dispute and co-operative contexts, especially with regard to language complexity, social class and gender.

1:4:2:8 Summary

From subsection 1:4:2:4, it can be seen that the antecedent event may play an important part in conflict. Many researchers agree that most disputes occur over objects, but this finding is not unanimous. Similarly, studies of disputes in relation to gender, class and play activity have been relatively sparse, and have usually produced conflicting and inconclusive results. Bearing this in mind, Chapter 2 of this thesis aims to rigorously and systematically investigate children's disputes and hopes to demonstrate any link between conflict and discussion skills. The next

subsection shifts focus slightly to examine the context of *co-operation* and discussion.

1:5 RESEARCH INTO DISCUSSION SKILLS DURING COOPERATIVE ACTIVITIES

1:5:1: The role of co-operation in socio-cognitive development

Marshall & Powell (1990) describe "co-operation in learning as where children help each other, but where there is some imbalance in the contributions of group members. In contrast, collaboration enables children to have a more equal opportunity to take part in the decision-making and in the production of ideas and tentative solutions within the learning enterprise" (pg. 51). However, this discrimination was thought to be too 'fine' in relation to the young age of the children - thus no distinction was made in the present thesis and the terms co-operation and collaboration are used interchangeably throughout.

Unlike conflict which primarily involves a person pursuing his own objectives, co-operation requires participants to work together to achieve a common goal (Johnson, 1975; Orlick, 1981a; Garnier & LaTour, 1994). As noted earlier, many researchers feel that cognitive growth can be promoted, not only by conflict but by co-operative activity too (Tough, 1977; Yeomans, 1983; Azmitia, 1988; Sharan & Shachar, 1988; Goncu, 1993 and Bay-Hinitz, Peterson & Quilitch, 1994). Indeed, Cooper, Ayers-Lopez & Marquis (1982) went so far as to say "collaborative episodes seemed especially vulnerable to underestimation" (pg. 187) whilst Howe (1997) states "interaction achievable during collaboration has been shown repeatedly to have beneficial consequences" and "co-operative interaction is superior to competitive" (both quotes pg. 19).

In a similar 'mechanism' to conflict-aided development, co-operation between peers involves exposure to a variety of ideas and viewpoints. In contrast to creating a disparity of information in an individual, the combined input simply leads to a greater knowledge base with which to draw upon for a richer interaction. Additionally, since a common goal is aimed for, it may be argued that it is both imparted and internalised by those at different zones of proximal development. This may result is some 'scaffolding' being employed by the more competent children (Bruner, 1978). Their use of negotiation and persuasion may help in optimising the understanding and use of complex language - and perhaps lead to decreased

egocentrism in the less able participants. Or as Vygotsky (1962) clearly explains "with assistance, every child can do more than he can by himself - though only within the limits set by the state of his development" (pg. 103).

Hence Vygotsky (1962) and many other researchers have pointed out the advantages of co-operative activity and these will be further detailed here. Firstly, co-operation is probably more widespread than conflict and, since it appears to elicit less self-centred behaviour (Curtis, 1986; Verba, 1994), it is more likely to be promoted by those in authority. Likewise, parents and teachers tend to discourage disagreements and thus would be more likely to focus on co-operative contexts rather than conflictual ones if both are similarly effective vehicles for enhancing socio-cognitive growth. Indeed, many preschool documents, in particular, perceive co-operation as a main objective and teachers are asked to "encourage children to work co-operatively" (Strathclyde Regional Council Education Department, 1994, pg. 28,). It is assumed that encouraging co-operation assists in the development of social and interpersonal skills as well as possibly increasing academic performance. Secondly, Shugar (1983) suggested that the most complex dialogue occurs in the final third of prolonged exchanges. Conflicts tend to be brief but, commensensically, one would expect collaborative dialogue to be longer. Tough (1977) lends some credence to this view by stating that nursery children in co-operative groups appear to engage in "extended, explanatory discussion". Finally, Vygotsky (1962) reinforces the lasting effects of collaboration by proposing "what the child can do in co-operation today, he can do alone tomorrow" (pg. 104) whilst Yeomans (1983) outlines four main advantages of co-operative\collaborative behaviour (pg. 100), i.e.

1. 'The combined interaction of a group generates more knowledge and learning'.

2. 'Children are forced to use their own language to express their ideas...and have to clarify their meaning to themselves and to the group'.

3. 'Errors are reduced as the comparison of ideas increases the chances that errors will be noticed'.

4. 'Social skills are also developed as commitment to the group grows and with it feelings of empathy, consideration of others, and the acceptance of joint responsibility'.

Yeomans then sums up by saying "co-operative group work is more effective than either traditional class teaching or competitive group work - for both academic achievement and social development" (pg. 102).

It is perhaps worth re-iterating at this point that although a fair amount of research has revealed the usefulness and advantages of co-operative interaction for learning, much of this work has been done in the formal setting of the primary or secondary classroom. Garnier & LaTour (1994) commented upon the lack of more natural studies in this area. They went some way to addressing this imbalance by examining groups in play contexts, but they did not have a particular focus on discussion skills and detailed research is still rather sparse in natural co-operative contexts.

The previous paragraphs gave some of the reasons why co-operative scenarios are worthy of investigation when seeking further knowledge about children's linguistic competence. Piaget (1926) examined children's speech in non-conflictual situations as well as conflictual ones - and details of his proposals are given in the following subsection.

1:5:1:1 Piaget, co-operation and discussion skills

Although it seems apparent that Piaget's (1926) theory of development focused on conflict (that is - conflict, brought about by exposure to opposing ideas, leads to a degree of socio-cognitive growth), Piaget also developed a parallel model to account for co-operative conversation. However, this tends to be descriptive - and less explanatory - than his ideas surrounding conflict. The non-conflict model (like the 'argument' one) also stated that Stage 1, involving children under five years old, comprised of monologic speech. The next stage involved the speaker and hearer in 'associated' rather than 'collaborative' dialogue whereby various statements are given but are not supported or elaborated upon. Stage 2 (Type 2) is where children show some evidence of simple, non-abstract collaborative speech - often accompanied by actions. The final stage, which is comparable to 'genuine argument' in conflict scenarios, involves children of around eight years of age who can now engage in more abstract, collaborative discussion. This involves increased perspective-taking, questioning, and giving explanations. As previously stated, Piaget and proponents of his theories tend to stress the role of conflict in development whereas those following the Vygotskian tradition perceive co-operation as the principal motivator.

1:5:1:2 Vygotsky, co-operation and discussion skills

As noted earlier in the section dealing with dispute, cognitive conflict is viewed as a catalyst for change. It motivates children to reassess their old conceptions of the world and to construct new ones that fit better with the feedback that they are receiving" (pg. 332, Damon, 1984). In contrast, Vygotsky believed children were generally sociocentric and therefore able to engage in truly co-operative exchanges from an early age. Vygotsky (1962) proposed that children of around two years of age were aware of the symbolic function of words - this being enhanced via adult interaction "verbal intercourse with adults...becomes a powerful factor in the development of the child's concepts" (pg. 69). Alongside this, "thought and speech coincide to produce what is called verbal thought" (pg. 47). As social speech (external language) becomes internalised, children can then use this to guide their own behaviour. This mastery of the "social meaning of thought, that is, language" results in "intellectual growth" (pg. 51).

Vygotskian theory is particularly useful for understanding peer co-operation in child development. Forman & Cazden (1985) suggest that during co-operation, children may take on complementary roles whereby language is used by one peer in 'scaffolding' another's actions or dialogue - and then they may change positions. Children may therefore actually be organising their own and another's behaviour by sharing their experience and knowledge of the goal aimed for. Damon (1984) reviewed some Vygotskian ideas and states "his theory sees a more decisive role for peer interaction in development...peer feedback not only initiates change, it also shapes the nature of change itself" (pg. 333). Damon goes on to elaborate on the 'mechanics' of this, "peers benefit from one another by internalising the cognitive processes implicit in their interactions and communications. In other words, children are introduced to new patterns of thought when they engage in dialogues with peers. This is because peer dialogue is by nature a *co-operative* exchange of ideas between equals and therefore emulates several critical features of rational thinking" (pg. 333). Damon continues to detail further the process of such development "after repeated exposure to co-operative peer exchange, the child's own thinking becomes influenced. The child internalises the very communicative procedures that the child experiences when interacting with a peer. In this manner, the child's intellectual abilities are permanently modified for the better" (pg. 334).

1:5:1:3 Educational Curricula and the proposed co-operation research

As reported in an earlier section, many educational documents including the SOED's (1991) guidelines assess and outline the degree of competence that a child

should have attained at a particular age. Although this draws on mainly Piagetian theory, some Vygotskian aspects are included. This is especially true in preschool documents such as Strathclyde Regional Council Education Department (1994) *'Partners in Learning; 0-5 curriculum guidelines'* which emphasise the need for adult guidance and support as well as encouraging co-operative group work. Both the aforementioned documents focus on the importance of discussion skills including the giving and asking for explanations. It was previously suggested that these guidelines may have been based on inadequate evidence regarding young children's ability to engage in discussion using such complex language as 'justifications' and 'requests for explanation' and therefore more research into this area would be welcome. In contrast to many educational guidelines, Piaget and Vygotsky tend to be more optimistic about young children's age-related attainments. Moreover, research into conflict and linguistic competence has revealed that preschoolers seem able to employ complex language in a dispute context, a situation which is unlikely to be encouraged in the classroom.

1:5:1:4 Summary

In sum, it has been suggested that co-operation, as well as conflict, may be a useful context for enhancing the production of complex language. Several studies, conducted in the formal arena of the classroom, appear to uphold this view. However, little naturalistic research has been carried out in this area and there are few systematic and well-documented studies which focus on both the frequency and type of speech acts with regard to 'complexity'. In addition, research into the speech patterns produced - especially in relation to gender, social class and play activity - is rather scarce . Nevertheless, the following subsections attempt to highlight the areas of research which have some bearing on co-operation and language production -albeit somewhat sparse and fragmented.

1:5:2 BACKGROUND TO DISCUSSION SKILLS IN COOPERATIVE SITUATIONS

1:5:2:1 Research with young children in co-operative situations

As mentioned above, research involving young children in language and co-operative activities is quite rare. Most of the studies have tended to focus on older children in their classrooms rather than the natural activities of preschoolers which is the focus of the present research. As with the theory of conflict and development, it is equally important to assess how children perform in a co-operative setting.

However, many of these 'performance' studies have concentrated on the interpersonal or more general educational benefits of group work rather than the specific speech act production. For example, Musatti (1993) states "the achievement of sharing seemed to increase their pleasure greatly" (pg. 246) whilst Orlick (1981a) mentions how co-operation improved self-esteem, group affection and friendship. Gillies & Ashman (1994) view co-operation as a "positive social behaviour" and Dimant & Bearison (1991) noticed an improvement with problem-solving tasks. Bay-Hinitz, Peterson & Quilitch (1994) noted an increase in "academic performance" (pg. 435) whilst Sharan & Shachar (1988) reported that "students' level of achievement increases" and, more specifically, leads them to make "fuller use of their verbal abilities" (pg. 117).

Thus far, it can be seen that most of the research centres on the more general attainments of older children and adolescents (Webb, 1982). Yet Garaigordobil, Maganto & Etxeberria (1996) emphasise that "intragroup co-operation has a significant role in *child* development" (pg. 149) whilst Sparkes (1991) stresses that even *preschool* children engage effectively in co-operative interactions and "show awareness of others' wants and rights" (pg. 45). Schober-Peterson & Johnson (1989) agree "conversation among four year olds is often co-operative and successful" (pg. 868). In contrast to this, O' Donnell & Dansereaux (1992) argue that co-operation between young children is rare. Baines (1996) noted that co-operation and cohesive dialogue was better in 8 year olds than 5 year olds and Azmitia (1988) would concur with this statement. Indeed, she claims "preschoolers are unable to sustain the discussions..assumed to mediate learning" (pg. 88). Furthermore, Cazden (1986) notes that children rarely ask questions (pg. 449) whereas, somewhat paradoxically, King & Rosenshine (1993) assert *the need for direct questions* "to elicit explanations that, in turn, mediate learning" (pg. 127).

Due to the rather piecemeal findings outlined above, it may be deduced that research into preschoolers' language production during co-operative activities would be extremely worthwhile. It would be useful to have some comprehensive research, equivalent to (but more extensive than) the Eisenberg & Garvey (1981) study into conflict, which outlined the most common speech strategies used...and gave an insight into the predominant linguistic patterns produced. It has often been noted (e.g. Orsolini, 1993) that complex speech acts such as justification are commonly employed after an opposition, refusal or rejection (prevalent in dispute context) - but much less work of this type has been conducted in relation to the

type of linguistic acts in co-operation that may lead into, or help elicit, a *complex* speech strategy.

Thus it was deemed useful to peruse studies which looked for the type of speech acts and dialogue patterns produced. One such work was outlined by Shugar (1983) who, like Eisenberg & Garvey, has identified discourse formats for ongoing interactions - including one she called Format II. She proposed two variants of this, each involving three main stages. One variant involved an assertion followed by a denial of this assertion, and then a reassertion or substantiation. This can be seen as rather similar to the sequence used by Eisenberg & Garvey (1981) to 'capture' the main moves in an argument. The other variant, which appears to encapsulate the pattern of non-conflict speech, comprised of the following three turns:

Initiation Turn
Response Turn
Response to the previous response.

This pattern of exchange was used in the present study and it supplied the 'bare bones' for researching co-operative dialogue but a lot more detail was still required. A discourse analysis framework similar to that used by Cooper, Ayers-Lopez & Marquis (1982) seemed most suitable. They examined how peers "maintained attention" and how they used "instrumental statements...questions, directives and other descriptive comments; responses to directives and questions and evaluative feedback" (pg. 179).

Likewise, McTear (1977, 1985) had an interest in both the type and frequency of various speech acts and how these inter-link during conversation. After studying his research transcripts, he proposed that the main categories of speech strategy included those for initiation, responding, follow-up, attention-getting\attention-directing (pg. 35) and he also noted the spontaneous production of 'commands', 'requests', 'minimal responses', 'justifications' and 'claims' (pg. 43-49). There seems little doubt that such an approach is important. Damon & Killen (1982) claim "categories of child discourse such as assertions...explanations and questions may have special developmental significance" (pg. 349) whilst McElroy (1972) asserts "performance can be easily observed by just listening to the child. It does not mean counting words but observing the child's ability to manipulate the words...in order to convey ideas appropriately to his audience" (pg. 26).

Nevertheless, many researchers have continued to focus on a particular facet of speech, often to the neglect and detriment of the 'complexity' issue. Piaget (1926) who was concerned with young children's developmental stages, Ervin-Tripp (1974, 1976, 1977) who focused on the speech elicited during play, and McTear (1977, 1985) who examined how different speech acts inter-relate all reported that directives such as 'claims' and 'commands' are produced more frequently than the complex speech acts of questions and justifications. Piaget (1926) suggests that 'claim' and 'command' are amongst the first linguistic strategies to appear. It may be, therefore, that preschool children are more familiar with their use and may be more confident in employing them in a variety of circumstances. Certainly, a substantial amount of research has been conducted into these type of speech tactics. Rheingold, Cook & Kolowitz (1987) propose that command use is crucial for young children and that such direct orders "teach the names and uses of objects and meaning of events" (pg. 146). Pontecorvo (1987) believes claims can "open discussion or construe sequences....(and) can be used to counter or redirect" (pg. 244) whereas Orsolini (1993) focuses on the importance of an assertion (especially a negative one) for eliciting an explanation. Pontecorvo (1987) elaborates on this "the adequacy of the statements and the explanations produced have the function of stimulating the thought processes, of encouraging and demanding the search for more satisfactory solutions, explanations and justifications" (pg. 244).

It appears obvious then that speech acts in dialogue may appear more salient if not examined in isolation. For example, Pontecorvo & Girardet (1993) talk about "the link that is necessarily established between claims and justifications is basic and crucial" (pg. 373) whilst Orsolini (1993) highlights the association between claims and questions (pg. 284). McTear (1977, 1985) tried to make some order and sense from the great amount of verbal exchanges collected during his research as he attempted to establish systematic guidelines for frequent patterns of apparently inter-connected speech acts. For instance, he argued that each type of 'initiating move' (and he noted the presence of commands, claims and questions in this role) tended to require a particular kind of response. In addition, he acknowledged the enormous difficulties of trying to arrange such rich dialogue into a neat and consistent pattern.

1:5:2:2 Issues of complexity in "co-operative speech" research

McTear (1985) categorically stated that "it is not possible to rank the various devices in terms of their complexity...the choice of any given device does not

necessarily reflect conversational maturity but can depend on the specific demands of the situation" (pg. 100).

It would perhaps be rather foolish to deny that there is, at least, a grain of truth in the above statement. However, it was argued in subsection 1:4:2:2 that - from a Piagetian or any other developmental standpoint reported earlier - it would possibly be logical to associate 'complexity' with increasing levels of abstraction or perspective-taking. If one examines the various speech acts already mentioned, it may be realised that there are slight differences in the levels of 'involvement with another'. For example, 'claim' often focuses on one's own wants, needs and ideas, e.g.

***I need** that toy.*
***I want** that brick.*

'Command' also focuses primarily on self-centred needs and desires but usually involves addressing another person directly (Steffensen, 1977), e.g.

Give me that brick back.
Let me in there.

Therefore this speech act seems less egocentric than 'claim' even though its main function may be self-serving. Minimal dialogue generally tends to be seen as simple in nature because it merely maintains an exchange without adding anything new to it. Nonetheless, it may be worth noting that it commonly functions in response to another participant's behaviour, e.g. acknowledging a statement or smoothing over awkward phases in order to keep an interaction going. Questions and justifications can be deemed most complex of all since one of their main functions is to make sure input is clearly shared and understood by all participants (Barnes & Todd, 1977; Steffensen, 1977).

Like the conflict studies, research into co-operation has revealed that children do employ differing amounts of the various speech strategies. Yet results across the studies are rarely clear-cut thus further research in the area of co-operation could elaborate on, or extend, previous research. Some of these earlier findings are outlined in the subsequent paragraph.

Wootton (1981) states that both claims and questions are frequent at age four whereas Cazden (1986) suggests questions are rare. Bokus (1992) found a high frequency of minimal dialogue amongst three and four year olds as did Dorval & Eckerman (1984). McTear (1977) discovered a high percentage of claims but fewer commands and questions. In contrast to this, LaFreniere & Charlesworth (1987) stated that two-thirds of children's actions were commands. To confuse matters even further, Prinz (1982) found a higher production of questions than commands with claims being least frequent. Highlighting the importance of a salient context, Ervin-Tripp, Guo & Lampert (1990) remark that "young children rarely justified directives" unless a refusal was involved.

It therefore appears, once more, that a somewhat holistic approach and awareness of circumstance is an important consideration when examining speech production. For instance, Dunn & Brown (1993) argue that justifications are more likely to occur "in disputes with others" (pg. 108) whilst Cazden (1986) notes that "children never give directives to teachers" (pg. 449). McTear (1977) uncovered different speech patterns across mother-child and child-child interactions. It is also important to note that even the type or function of a particular speech act can influence the overall pattern of turns in a conversation, and this is also age-related. Orsolini & Pontecorvo (1992) studied the speech of preschool children and found that 'requests for clarification' are often followed by 'minimal dialogue'. In contrast, "children's elaborate answers are more likely when the request is located within a sequence of discourse in which a claim, evaluation or suggestion emerges" (pg. 129). McElroy (1972) believes that statements and control utterances are more frequent, and appear early on in children's language, because they are often linked to a concrete entity, e.g.

*I want a **drink**.*
*Stop pulling my **hair**.*

McElroy also asserts that questions, and especially 'why' queries, appear much later in children's dialogue because they usually involve more complex and abstract structuring - both of the question and the response.

1:5:2:3 Summary

Given the variation in results for some of the previous studies, systematic research into the complexity of preschoolers' language during co-operative contexts would be useful. As with the conflict studies, inconsistencies in the research may

have been due to such factors as different group sizes\compositions, formality\emotionality of the situation, age of children, or varying definitions of the speech acts to be assessed. In addition, there has been little in-depth research conducted in relation to gender, class and type of play activity. This will be the main focus of the following subsections.

1:5:2:4 Co-operation and Gender

As with the conflict studies, there appears to be some inconsistencies in the findings of research into language and co-operative activity. Although a number of studies indicate that, generally, girls are linguistically more competent than boys (e.g., Maccoby, 1988) - there are several dissenting voices. Cooper (1980) uncovered no apparent sex differences in verbal skills during collaborative problem-solving tasks, and neither did Dickson (1974) who designed a communication game to elicit dialogue in potentially ambiguous situations. Schober-Peterson & Johnson (1989) concur with these findings since they claim that there were few, if any, significant differences between sexes in either the initiation or maintenance of dialogue exchanges. On the other hand - some researchers have pointed out that boys actually appear linguistically more competent, in certain ways, than girls e.g. "the average male initiates more verbal acts than the average female" and is more likely to "make suggestions and state opinions" (Gall & Gall, 1976, pg. 209,).

There may be several reasons why girls, in general, are often perceived to be more linguistically skilled than their male peers. Interestingly, Gold, Crombie & Noble (1987) state that teachers' ratings of children's ability tend to differ across the sexes because "teachers believe co-operative, acquiescent children perform at a more intellectually competent level...and girls are perceived as more compliant" (pg. 352). Moreover, researchers such as Oden et al. (1984) and Sheldon (1992) believe that there are greater social pressures on girls to be co-operative. Gilligan & Attanuci (1988) suggest that girls tend to seek a degree of interpersonal harmony in their relationships and interactions. Sheldon (1992) proposed that they may promote this by employing more 'mitigating' speech tactics such as compromise, asking\giving explanations and being responsive to the other participant(s). Indeed, Barnes & Todd (1977) explained that the concept of 'collaboration' is partly indicated by the use of questions, acknowledgement or recapitulation, modifications, elaborations and qualifications - whilst the Strathclyde Regional Council Education Department (1994) *Partners in Learning: 0-5 curriculum guidelines* assert "explaining not blaming helps co-operation" (pg. 21).

The majority of researchers would probably concede that girls are more co-operative than boys, agreeing therefore with Sparkes' (1991) finding that boys were more competitive during dyadic games than girls. Maccoby's (1988) results are also consistent with this but it should be noted that others disagree. Crockenberg, Bryant & Wilce (1976) and Doescher & Sugawara (1992), who all studied interpersonal behaviour in schoolchildren, found no substantial variations between the sexes. Nevertheless, there is some evidence to suggest that male and female peers may produce different amounts of each type of commonly-used speech acts. Vespo et al. (1995) note that boys employ more commands but less explanations than girls. Killen & Naigles (1995) also remark on boys' tendency to use controlling behaviour, and both Maccoby (1988) plus Sparkes (1991) would concur with this finding. Furthermore, Gall & Gall (1976) reveal that male children are more likely to make 'claims' whereas Lloyd & Goodwin (1993) found no consistent differences between sexes in their use of assertions. They also noted that both sexes produced similar amounts of requests for information whilst Becker (1986) stated "sex differences have not been found typically in children's use of requests" (pg. 396). With regard to justifications, another myriad of results were reported. Sheldon (1990) proposes that girls use more justifications than boys and Ironsmith & Whitehurst (1978) stressed that "girls were more likely than boys to provide feedback" (pg. 348). To further enrich the issue, Kyratzis (1992) suggested that "girls and boys used persuasive justifications in markedly different ways...girls were trying to validate and rationalise behaviour in terms of a group goal. Boys, in contrast, used persuasive justifications only when they were having trouble getting their control moves complied with" (pg. 327). This statement may serve to highlight the 'fuzziness' which seems to exist between conflictual and co-operative language contexts as noted earlier in the chapter.

1:5:2:5 Co-operation and Social Class

It has long been argued that children from an advantaged background are more linguistically competent than those from a less privileged environment (Bernstein, 1960; Jensen, 1968), but this view has remained controversial over a number of years. It is also unfortunate that recent research in this area has been relatively sparse. In section 1:4:2:6 it was suggested that children of lower socio-economic status generally may have poorer social\interpersonal skills - which implies that they might find co-operative behaviour somewhat harder to achieve than their middle-class peers. On the other hand, it is worth highlighting that working class families

tend to be larger, with less resources to share - so family members may have to learn to co-operate effectively from an early age.

With regard to discussion skills, Dickson (1974) found little evidence of a large social class difference. In contrast, Whiteman & Deutsch (1968) argued that children of lower socio-economic status "show verbal deficits" (pg. 102). The latter go on to explain "the child from a disadvantaged environment may have missed some of the experiences necessary for developing verbal, conceptual, attentional and learning skills" (pg. 87). Jensen (1968) agrees with this opinion and states "language in the lower class is not as flexible a means of communication as in the middle class" (pg. 119), whilst Bernstein (1960) asserts "the normal linguistic environment of the working-class is one of relative deprivation" (pg. 276).

It may be perceived that the aforementioned researchers tended to demonstrate the alleged language differences, in relation to social class, by highlighting rather broad variations in speech use. Hence, the subsequent paragraphs will lean more towards studies which have focused upon the production and use of *individual speech strategies.*

Piche, Rubin & Michlin (1978) noted that working class children produced a high proportion of 'claim' and 'command' speech acts and they suggested that the children may be modelling their parents' behaviour - as their mothers tended to use many "imperative controls" (pg. 774). Tizard & Hughes (1984), who comprehensively investigated children's language in relation to social class, found that "questions formed a slightly higher proportion of talk" (pg. 103) in middle-class children. They also stated that the advantaged children asked more "why" questions, and they suggest that this is due to reinforcement by their middle-class parents - who are normally well-educated and can themselves pose "frequent and satisfying questions" (pg. 151). Additionally, they are perceived as having the greater knowledge and ability to produce more adequate answers or responses than the working-class parents. Similarly, Smilansky (1968) also recorded working class children's lack of question (and especially 'why' question) use. Tough (1976), focusing on the complex act of explanation, remarked "the disadvantaged child did not readily offer justifications" (pg. 79) and she further stipulated that they tend not to use language for "logical reasoning" or for "surveying possibilities or alternatives" (pg. 79). Thus it appears from this evidence that middle-class children will be more likely to demonstrate skilful language than their less privileged peers.

Nonetheless, as noted previously, findings into social class speech differences have often been controversial and any variations may be due, in part, to other contexts. It would be therefore be interesting to see if the type of play activity engaged in will exert any influence on the quantity or quality of children's verbal behaviour and interaction. Hence language use and play will be the focus of the next subsection - with general issues being detailed at the start before moving on to focus on play in relation to gender and then social class.

1:5:2:6 Co-operation and Play Activity

As with research into the other contexts, studies into the effect of play on child collaboration has also produced a variety of findings. Yet, in general, the majority of researchers acknowledge the importance of all kinds of symbolic play for enhancing collaboration. Hartup (1983) states that co-ordinated interaction is most likely to occur in dramatic play whilst Oden et al. (1984) highlight the benefits of fantasy play for reducing the possibility of conflictual interchanges. Similarly, Schober-Peterson & Johnson (1989) suggest that children have longer conversations during symbolic activity and Verba (1993) asserts "pretend play managed by the children themselves is an especially rich area of investigation for co-operative formats" (pg. 268). Furthermore, Smilansky (1968) believed that co-operation is required if socio-dramatic play is to be maintained - and she argues that maintenance occurs via discussion dialogue, including the use of directives and explanations (pg. 8). In addition, she suggested that such play enhanced creativity, social skills and intellectual growth whilst Levy, Wolfgang & Koorland (1992) claim that there is a strong association between enriched dramatic play and increased language performance. Marbach & Yawkey (1980), who are exponents of Piagetian ideas, comment that this type of 'imaginative' activity aids in the development of representational thought - resulting in some degree of cognitive growth. There is less research and unanimity with regards to the benefits of construction play. Burns & Brainerd (1979) have argued that both symbolic and construction activity produced equivalent improvements in perspective-taking. In contrast, Peters & Torrance (1972) found that playing with bricks led to conflict rather than co-operation and so believed that there was less chance to build up the prolonged, complex or meaningful exchange that may go someway to aiding intellectual growth.

It also appears that certain play activities may be linked to the production of some types of speech acts rather than others. For example, it is suggested that directives are often found in role-play scenarios. Ervin-Tripp (1977) states that preschoolers

often manipulate each other through these types of speech acts, frequently using the 'pretend' mode, i.e.

A *Pretend this was my car.*
B No.
A *Pretend this was our car.*
B Alright.
A *Can I drive our car?*
B Yes, okay.

This exchange (Ervin-Tripp, 1977, pg. 180) demonstrates children's negotiation over a game's rules and roles. Commands and claims are seen to be quite common in symbolic play since they are employed whilst issuing roles or rules and to 'direct' the 'scenes' in order that shared, effective interaction will be maintained (e.g. Smilansky, 1968). One may also expect a greater proportion of questions, justifications and minimal dialogue in pretend play as negotiation takes place. Pellegrini (1982) noted that a number of questions, in dramatic play, were aimed at clarification whilst Bruner (1978) believed that questions or requests may "secure joint enactment in a role relationship" (pg. 212). Continuing with the findings relating to specific speech act use, Garvey (1991) makes the claim that children employ a fair amount of explanation in order to prolong role-play. This also corresponds to Orsolini's (1993) comments about symbolic play being a rich source of justifications. It was noted in subsection 1:4:2:7 that the more structured activities, often involving heavy reliance on the presence of physical materials (puzzles, building bricks etc.), may inhibit the production of shared, rich and linguistically skilful dialogue (e.g. Sylva et al., 1980). It may therefore be tentatively hypothesised that symbolic play is more closely associated with co-operative behaviour and language complexity than construction play. However, it is highly probable that the reality is less clear-cut when sex and social class are taken into consideration.

It was also proposed in subsection 1:4:2:7 that play activities are not always made use of in exactly the same way, or to the same extent, across both sexes. As cited earlier, it has been well-documented that girls appear to prefer symbolic play to construction pursuits (Lomax, 1979; Ross & Browne, 1993; Wood & Attfield, 1996). Boys do engage in symbolic play but, rather than focusing on the 'home-corner' roles, they tend to take on fantasy or super-hero roles (Johnson & Ershler, 1981) which leads to the production of a high number of 'claims', e.g.

I'm Superman.

I can fly.

I can eat all the baddies.

*I'm the good big monster....*and so on.

In addition, boys generally tend to use more controlling behaviour than girls (Lloyd & Goodwin, 1993; Vespo et al., 1995) and therefore one might expect to find more evidence of 'commands' in their dialogue. Contrary to this, girls seek to maintain some 'interpersonal harmony' in their dealings with others and this is shown by their evident enjoyment of role-play, particularly in the nursery 'home-corner'. Hence, it may be proposed that female children will be more likely to use the speech behaviours said to be essential in maintaining co-operation or for encouraging smooth exchanges in pretend activities, that is - explanations, questions and minimal dialogue, which may act as a 'social glue' by indicating some responsiveness to others.

Likewise, social class differences in play have also been recorded. Rubin et al. (1983) report that middle-class children exhibit more highly developed play than their working class peers. Smilansky (1968) commented that "underprivileged children tend not to engage in socio-dramatic play" (pg. 4). She argues that advantaged children are "more dynamic and less static" (pg. 22) but suggests that the presence of objects in play may act as useful 'props' for the less advantaged group. It may be, therefore, that working class children will favour construction pursuits since these involve the manipulation of construction units such as lego pieces or building blocks. Although symbolic play also consists of a variety of standard 'props', these can often be perceived in a more abstract way, e.g. a shoe-box can become a cot or an upside-down table, a boat etc. It is also true that abstract ideas *can* be associated with construction play, but this is unlikely at the level of 'the basic brick' - i.e, something must first be constructed in order to stimulate the imagination (e.g., a robot, sword, spaceship, tower and so on).

Smilansky (1968) also points out that advantaged children appear to become more involved in true discussion involving, for example, negotiation whereas working-class children often issue a stream of commands. Piaget would claim that these children were as yet unable to engage in abstract thought (Stage 2, Type 2, non-conflictual dialogue) whereas Smilansky believes it is more of a social deficit - since

she acknowledged that middle-class children get a greater exposure to 'reasoning' at home. In contrast to this, less privileged children have parents who tend to "give instructions and demands without reasons...questions and discussion do not form part of the environment of the disadvantaged child" (pg. 30, Smilansky, 1968). Therefore, one may propose that working-class children should be expected to produce dialogue comprising predominantly of 'commands' and 'claims' - with little evidence of questioning or justifying behaviour being recorded.

1:5:2:7 Summary

It seems to be the case that specific research into co-operation and discussion ability has been rather sparse, especially in relation to gender, class and play activity. Therefore, Chapter 3 of this thesis aims to explore these issues further in order to ascertain the importance of co-operation in the production of skilled language.

1:6 THE PRESENT RESEARCH

From the arguments presented earlier in the chapter, it appears that both conflict and co-operation may be associated, to some degree, with socio-cognitive development. However, apart from some inconsistent research findings for each of these contexts, there is also doubt amongst some researchers and educationalists with regard to preschoolers' competence and capacity for engaging in them in the first place. Yet very young children have the most to gain in terms of 'scaffolding' development so thorough research undertaken in this area would be especially valuable. Therefore the present research, detailed in chapters 2, 3 and 4 of this thesis, aims to systematically investigate the effects of conflict plus non-conflict contexts on the 'complexity' of preschoolers dialogue. The complexity of speech acts will also be examined in relation to gender, class and type of play activity. Finally - an intervention procedure, aiming to enhance children's production of skilful speech, will be designed and implemented as the final part of the overall study.

CHAPTER 2: STUDY 1

The complexity of disputes amongst nursery school children

Overview

This chapter will detail the methodology and results for the first study in this research, the main objective being to investigate how frequently preschoolers can use complex linguistic strategies in conflictual play situations. After a short introduction, the methodology will be fully explained and then both quantitative plus qualitative results presented. This will be followed by a discussion section which will elaborate on the findings given.

2:1 INTRODUCTION

As mentioned in the previous chapter, it is very important for children to engage in complex discussion from an early age as this may enhance communicative skills and socio-cognitive development.

Yet the full extent of children's cognitive skills and potential for immediate growth is still rather contentious. For example, Piaget (1926) suggested that young children are egocentric until the age of 7 or 8 years and so they are unable to understand others' viewpoints or give\accept reasons for behaviour, whilst many educational bodies are even more pessimistic in their views of children's abilities than Piaget. More recent researchers such as Genishi & Di Paolo (1982) have also highlighted the simple nature of much of children's speech. In contrast to this, researchers such as Dunn (1984) have stressed that even very young children are capable of engaging in true discussion\negotiation and often give justifications for their actions. One possible reason for inconsistent results across studies is the variation in research methods and contexts employed. In fact, Donaldson (1978) stresses that children's abilities may only be apparent (or enhanced) in a situation that holds some meaning for them. Moreover, Dunn (1984) draws attention to the importance of motivation in promoting the production of complex speech which tends to be associated with cognitive development.

Therefore it may be suggested that, in order to obtain an accurate portrayal of preschoolers' language ability, it is essential to conduct research in a context that is conducive to children's normal, unconstrained exchanges. Eisenberg & Garvey

(1981) noted that conflict situations resulted in children using such complex speech acts as justifications and requests for explanation. This may be due to a greater degree of engagement, motivation and self-interest leading to increased negotiation in a situation where it is important to assuage their own needs. In fact, many researchers believe that exposure to alternative ideas results in some disparity between one's own opinions and that of others. A reduction in this disparity occurs by reformulating one's own ideas in the light of this new information thus leading to cognitive growth and reduction in egocentrism (e.g. Piaget, 1926; Perret-Clermont, 1980; Aboud, 1981; Ames & Murray, 1982; Murray, 1982; Bell et al., 1985; Bearison et al., 1986; Kuhn, 1991 and Pontecorvo & Girardet, 1993).

However, some of the research into preschoolers' conflictual dialogue has had a degree of criticism levelled at it. This includes comments against the use of artificial set-ups such as observation laboratories, limiting children's play repertoire by focusing on dyadic interactions or by only providing specific play materials which were sometimes unfamiliar to the children. Moreover, extending the research of children's dialogue into areas such as play (e.g. Smilansky, 1968; Ervin-Tripp, 1982), sex differences (e.g. Miller, Danaher & Forbes, 1986; Sheldon, 1990) and social class (e.g. Teachman, 1995) has produced somewhat ambiguous results. It is very difficult, if not impossible, to make direct comparisons in respect of the aforementioned variables due to a lack of uniformity amongst methods and concept definitions. In addition, studies into the specific area of language 'complexity' have been rather sparse and fragmented so this, combined with a lack of coherence across available studies, makes further research necessary.

Therefore, the present study aims to address some of these issues by using a modified version of Eisenberg and Garvey's (1981) comprehensive coding scheme and applying it to naturally-formed groups in children's own nursery schools. It is the purpose of this chapter to examine, systematically, the variables of complexity, gender, class and play activity in a dispute context. Primarily, it is of interest whether children younger than five can produce and use complex linguistic strategies at any stage during their disputes. Complexity will also be examined in relation to gender, class and type of activity the child is engaged in when the observations were made. The activities, which will be described in more detail in the method section, are symbolic play; construction; individual pursuits; and sand and water play. The hypotheses, based on the previous research and detailed in Chapter 1, are:

Young children's exchanges will be more complex than suggested by some research findings and educational documents.

Girls will have more complex but less frequent disputes than boys.

Children from the private nursery will have more complex but less frequent disputes than children from the state-run nursery.

The type of activity engaged in will affect the frequency and perhaps complexity of speech acts used during disputes.

2:2 METHOD

2:2:1 Data Collection

2:2:1:1 Participants

The research was conducted at two nursery schools on the Eastern outskirts of Glasgow. One of these schools was a private nursery in quite an advantaged area whilst the other school was a council-run nursery in a more deprived environment. A total of 125 pupils were involved in the study and these consisted of 33 boys and 30 girls from the state-run school plus 39 boys and 23 girls from the private nursery. Class or group distinction (but not *social* class since no formal categorisation was conducted) was made on the basis of which school the children attended - with Class S being assigned to the children at the state-run nursery, and Class P to those at the private school. All of these children were between the ages of 3 and 5 years, with only 4% of them being from ethnic minority groups.

2:2:1:2 Design

This study involved non-participant observation of pre-school children in the natural surroundings of their nursery schools. All children were identified by name badges, and coding sheets were used to record and classify the various strategies used during disputes by each individual child. Conflict episodes were recorded across four different play activity locations in each nursery and these were:

Sand and Water Area: This consisted of a sandpit and a water pool. Both contained a variety of objects for children to play with. This play setting was very similar in both schools.

Individual Play Area: Both schools had a comfortable, screened-off area where reading could take place. A table, and shelves holding books and puzzles were provided in this area of each school. Children frequenting this area tended to 'play' by themselves.

Symbolic Play Area: Both nurseries had a separate area comprising of a playhouse, dress-up clothes and various household props. The state-run school's 'home-corner' was better screened-off from the main area than that of the private school.

Construction Area: This comprised of a 'playdoh' ,'lego' and building block area. This was comparable across both nurseries.

It is worth noting at this point that, in general, the local education authority nursery was somewhat larger and better-equipped than the privately-run preschool. Moreover, there were also more trained teachers to supervise the children. Nonetheless, there were sufficient similarities in the relevant play activities to enable comparisons to be made across the two schools.

The independent variables were the type of play activity, sex and class. The dependent variable was the complexity of tactics employed within disputes. For analysis of dialogue complexity, "simple" strategies were taken as the least adaptive and included simple negation, repetition and force. "Complex" strategies were those involving justification, alternatives and request for justification.

2:2:1:3 Materials

Some of the materials had to be prepared well in advance of the study. Consent forms were drawn-up and given out by the teachers. The researcher also requested a copy of the school roll from the headteacher in order to write the pupils' names on plain white pin badges required for the observation. Spare badges were necessary due to a few 'casualties' occurring at the hands of the children. Badges could be (and were) brightened-up by using coloured ink for the names, and by adding a few

stars or shapes around these. Data were collected via coding sheets and these are described more fully in the next subsection.

2:2:1:3:1 Coding Sheets

The coding sheet was based on the work of both Eisenberg & Garvey (1981) and Corsaro & Rizzo (1986). Here, as in the Eisenberg & Garvey study, the oppositional event was used as an indicator of conflict but it was not taken as the first step in a dispute. Instead, use has been made of the convention of Corsaro & Rizzo (1986) and Maynard (1985) who state that the event preceding the opposition (antecedent) is the 'real' start of any dispute. It was also decided that although the triggering event could be either verbal or non-verbal, the oppositional event would have to be verbal before an exchange could be classed as a dispute. This was because the primary interest of the study was in dialogue.

The categories used on the coding sheet are shown below. One of the main advantages of using a coding sheet method is the greater reliability it confers on data collection and cross-checking (e.g. Wilkinson, 1995). In relation to each of the classifications, space was provided for indicating occurrence and also for taking notes. A copy of the full coding sheet is in Appendix 1.

ANTECEDENT EVENT						
Verbal	Non- verbal	Object	Play	Access	Claim	Notes
OPPOSITIONAL EVENT						
Simple	Justification	Alternative	Other	Notes		
DEVELOPMENT						
repetition	Justification	Alternative	Request for justification	Force	Notes	

These categories will now be explained more fully.

2:2:1:3:1:1 The Antecedent Event

This could be recorded as verbal or non-verbal. Corsaro & Rizzo (1986) state that this is the event which initiates the dispute. Types of antecedents can vary and include **"play"** which involves oppositions to others' actions in the play situation including inappropriate rule-following behaviour or use of materials. Disagreements over toys and playthings are classified under **"object"** whilst conflicts arising from

children's beliefs or assertions are entered under **"claim". "Access"** is used when children appear to be discouraging others from joining in their activity or moving into their 'own' space.

2:2:1:3:1:2 Oppositional Stage

These categories are based on Eisenberg & Garvey's (1981) work on children's conflicts. Opposition is seen as a type of 'negating response' to a precipitating event and several types of response are possible. As noted above, the study was confined to verbal opposition and some of Eisenberg & Garvey's original classifications (previously mentioned in the introduction) were 'collapsed'. It was deemed justifiable to do this because some of the categories made very fine distinctions between behaviours and yet some of these were very similar - it was therefore decided to combine such behaviour (e.g. temporising to be included along with countering\alternative to create a new category simply called 'alternative'). The broader categories are given below.

a) Simple: A basic negation like "No", e.g.

Antecedent Event: Child A **"You have cartoon socks on"** (Verbal, Claim)
Opposition Event: Child B **"No, I haven't"** (Simple negation)

b) Justification: Giving a reason for opposition, e.g.

The children are arguing over 'play-clothes'
Antecedent Event: Child A **"Can't have it"** (Verbal, Object)
Opposition Event: Child B **"No, you're too old for a jacket"** (Justification)

c) Alternative: Giving an alternative proposal or substitute for desired object, e.g.

A child wants the doll that the other girl is holding.
Antecedent Event: Child A **Tugs at doll other child is holding.** (NV, Object)
Opposition Event: Child B **"Take this bigger doll"** (Alternative)

d) Other: Ambiguous exchanges or those that do not fall into any of the categories above.

2:2:1:3:1:3 Development Stage

All behaviour that followed the opposition event was encompassed into 'The Development Stage' of conflict as described by Eisenberg & Garvey (1981). They

identified nine possible reactions to opposition (as detailed in the introduction) but a modified version was employed in this study because the finer behavioural distinctions made by Eisenberg and Garvey were often used infrequently. Since some of these were quite similar to each other - it was decided justifiable to combine such behavioural categories to form a broader group (e.g. insistence along with mitigation\aggravation to create a new category of repetition). In addition, some other behaviours were used so infrequently (e.g. ignores) that it was decided to subsume these under the broader classification of 'other'. The broader categories are shown below.

a) Repetition: The child repeats either their own (or another participant's) utterance or part of this utterance - without adding novel information, e.g.

Ante. Event: **Child pushing at play house door to try and gain entry** (NV, Access)
Opp. Event: Child A **" Go Away"** (Simple)
Development: Child B **" That's my house"** (Justification)
Child A **"That's my house....that's my house"** (Repetition)

b) Force: A child uses physical force to grab, push or hit another child. Tugging at another child's playthings or throwing items at them.

c) Justification: Child gives reasons for his opposition or demand.

d) Request for Justification/ Explanation: Child asks for reasons or explanation for other child's actions, e.g.

A group of children are playing at 'families' in the home corner.

Ante. Event: Child A **"You're the baby, I'm the mum"** (Verbal, Play)
Opp Event: Child B **"No, I want to be mother, but you can be my sister** (Alt)
Develop: Child A **"Why can't I be the mum?"** (Request for justifn)

e) Alternative: Child offers up an alternative suggestion or object to other child.

f) Other : Miscellaneous category for statements that are ambiguous or do not fall into any of the above categories.

2:2:1:4 Pilot Study

A pilot study was conducted with a number of preschool children at both the private and state-run nurseries.

The researcher attended the schools for two full days prior to the main study in order to test the effectiveness of the materials and the recording method. At the beginning of the day, the researcher (aided by a teacher) attached the children's name badges. This informed the researcher of the time required to put badges on the preschoolers as well as giving the children an opportunity to become familiar with these. At this stage it was noticed that badges pinned too low could not be seen, by the researcher, when the child was leaning forward slightly or seated at a table - this led to all badges being attached nearer to collar level in the main study.

The pilot study also allowed the researcher to examine how closely the play areas and activities matched across schools. In general, these were pretty comparable - with the main exception being that the private nursery school was more compact than the council-run nursery and so the play areas were closer together. In addition to this information, the researcher asked the headteacher about the timetable of activities and was given details of formal teaching times, meal times, and the free play periods which the observer was interested in. This information was especially helpful in the private nursery where, for example, the sand and water play only took place for an hour each afternoon. However, although such information was useful, it was also of limited value due to the time that the research was being conducted. Since it was nearly vacation time, the schools were being more flexible in their approach. Some pupils left on school trips and teachers sometimes changed or improvised activities. In these circumstances, the researcher just waited for the opportunity to study the children in relevant free-play as it occurred.

The researcher set-up the audio-recorder in an area deemed to be 'in use' at that particular time so that the children's conflict dialogue would be recorded, in full, as it occurred. The researcher then sat in as unobtrusive a place as possible whilst keeping the children well within view and earshot. There were no difficulties encountered in either the identification of disputes (based on the opposition to opposition criteria outlined earlier), or in using the coding system. When a dispute

was deemed to have begun, the researcher then recorded each specific speech act in the box coinciding with that pre-arranged category. This was done for every turn in a conflictual exchange, with dialogue being noted in the space adjacent to the classification boxes. A new coding sheet was used for each conflict exchange. A dispute was perceived to have started when the opposition criteria described earlier was noted. A disagreement was judged to have ended when a participant left the scene, a teacher intervened, conflict was ignored or the preschoolers reached a satisfactory conclusion. Children's names (and sex if this was not clear from their names) plus type of play was also recorded. In addition, a note of the total amount of time spent in each area was taken to ensure that equivalent amounts of time were spent in observing preschoolers across each of the four play activities. Moreover, the pilot was especially useful for checking that the modified coding scheme was effective - and this was, in fact, found to be the case.

The children did not appear inhibited by the presence of the 'observer' or audio-recording equipment, and their slight curiosity had disappeared by the end of the pilot period- possibly due to the mimimal responses given to their questions by the researcher. Although the use of coding sheets was very effective in 'capturing' children's conflictual dialogue, the audio-tapes were less so. The recordings were of poor quality due to background noise and the layered effect (shouting over each other) of some quarrels. In addition, one headteacher expressed reservations over the audio-recording of *conflict* dialogue. It was therefore decided not to use audio-taping in the main study procedure.

2:2:1:5 The Main Study Procedure

After the pilot study, each school was visited by the researcher for 7 days. The first thing that was done each morning was the attachment of children's name badges. This was quite time-consuming and required the assistance of a teacher who identified each child and helped pin on badges. The observer then settled into a play area which had previously been identified as being 'in use' at that specific time of day. The researcher tried to be as unobtrusive as possible but also be near enough to the children to see and hear all their exchanges clearly. The observer did not interact or encourage any interaction with the children since Smith & Connolly (1981) demonstrated that the more passive an observer is, the quicker the children lose interest and begin to act naturally. In this study, after minimal responses by the researcher, most pre-schoolers tended to ignore her.

Once the researcher was 'in position', she was ready to record any dispute that occurred. When any conflict began (i.e. opposition to a preceding verbal or non-verbal act), the observer recorded the number of participants involved, their gender and names plus the play activity they were engaged in at the time of the argument. Both non-verbal and verbal exchanges were noted, with each child's turn being put on a separate line on the coding sheet. Each act was entered into one of the pre-arranged categories and supplementary notes were made alongside this to give a fuller, permanent record of the verbal and non-verbal behaviour exhibited by the children.

Each dispute was recorded on a separate sheet as it occurred, with classification of conflict following a strict sequence of events and discourse being written down as completely as possible. The following discourse provides an example of the conflict sequence and strategy categorisations.

Participants: 0=M (i.e. opposer is male), 1=F (first child is female) 2=M*
Activity: Sand & Water
(A few children are playing at the water pool when a girl tries to join in)

Antecedent Event: *1 **"I want in"** (Verbal, Access)
Opposition Event: 0 **"Get your hand out"** (Simple)
Development: 1 **"Let me in"** (Repetition)
0 **"It's not ready yet"** (Justification)
(The teacher is topping up the water trough with fresh water)
2 **"There's more water coming in"** (Justification)

* Children's names were actually used in the study but are not reproduced here for reasons of anonymity and confidentiality.

In the above discourse example, the antecedent event consists of child 1 making a verbal request for access to the water activity. In the oppositional event, the opposer simply rejects this request. Development of the argument consists of the first child repeating herself but possibly in a less demanding way than the original statement. The opposer then justifies his earlier refusal by alluding to outside events (the teacher adding water), and this theme is taken up by a third child who gives his own version of the 'excuse'. The conflict comes to an end as the child wanting access leaves the scene to play in the sand pit. This type of conflict 'resolution' is common and Eisenberg & Garvey (1981) stated that a dispute ends when one or

more children leaves the scene, the conflict is ignored, the teacher intervenes or a satisfactory solution is reached.

This recording pattern was kept the same for each school and across all four play activities. Moreover, the researcher tried to spend similar amounts of time sampling each of the four activities per day. Play activities were often broken up by 'group time' with the teacher and these teaching sessions could vary from day to day. It was therefore necessary to be flexible with the sampling of activities e.g. recording two half hour sessions instead of one hour etc. Once all the coding sheets had been completed, the frequencies for each category were totalled up ready for subsequent analysis and details of this are given in subsection 2:2:3.

2:2:2 Inter-Rater Reliability

Inter-rater reliabilities were calculated for each of the three stages in a dispute. At the antecedent stage, reliability was coded separately for non-verbal/verbal behaviour, and type of antecedent (i.e. object, access, play, claim). A second rater was employed to code a third (84) of the total coding sheets which the original 'rater' had completed during observation of the disputes. There were 84 acts in relation to non-verbal/verbal behaviour at the antecedent stage and agreement was found for 78 of these giving 93% reliability. For the type of antecedent there was agreement on 76 of the 84 occasions leading to 90% reliability. The opposition stage also involved 84 exchanges, with agreement occurring on 71 occasions. This gives a reliability factor of 85%. Finally, the development stage was examined. The second rater agreed on 260 out of 307 acts, which gave a reliability of 85%. It should be noted at this stage that there was only one observer at the point at which observations were taken in the classroom - and therefore there was no inter-observer reliability check conducted. As well as calculating the percentage agreement, Kappa co-efficients (e.g. Howell, 1997) were also calculated to compare the level of agreement obtained to that expected by chance. Kappa calculated for the non-verbal/verbal acts was significant at $p<0.001$, where $K = 0.84$. For the type of antecedent, $K = 0.86$ with significance being at the 0.001 level. At the opposition stage, $K = 0.63$, significant at $p <0.001$ and finally, for the development stage, $K = 0.77$ which is significant at $p<0.001$.

2:2:3 Data Analysis

Descriptive and inferential statistics were derived from the frequency data gathered from each of the dispute stages i.e. the antecedent, oppositional and

development events. These values were then examined in relation to class, sex and play activity. Since the children were identified by name, and frequencies of dispute tactics were collected separately for each child, parametric analyses could be conducted on means per child. Parametric statistics including t-tests and Analyses of Variance were employed to help interpret the data. When post-hoc tests were required to interpret analyses of variance, Tukey tests were utilised. These tests are especially useful in that they are very robust and can cope with a lack of homogeneity and normality of variance. In fact, due to the fairly large sample size and small standard deviations, the data concurred reasonably closely with the standard requirements for parametric analysis.

2:3 RESULTS

2:3:1 Overview

The following results section consists of several subsections, where the data will be examined both qualitatively and quantitatively. Subsection 2:3:2 will look at the number and type of strategies across each of the antecedent, oppositional and development stages for the total amount of disputes recorded. Subsection 2:3:3 will be concerned with the 'complexity' of these strategies at each conflict stage. Subsections 2:3:4 and 2:3:5 will examine arguments in relation to sex and class respectively, whilst subsections 2:3:6 and 2:3:7 will focus on disputes in relation to play activity. The final subsection will be a summary of the overall findings from the study.

2:3:2 THE FREQUENCIES & TYPE OF STRATEGIES USED ACROSS THE TOTAL NUMBER OF DISPUTES.

252 disputes, comprising of a total of 252 turns at each of the antecedent and opposition phases plus 810 turns at the development stage, were recorded across the two nursery schools. This first part of the results section will now look at the overall findings for each of the three coding stages in a dispute.

2:3:2:1 The Antecedent Event

The antecedent consisted of either verbal or non-verbal behaviour involving an act (concerned with objects, claim, play or access) which triggers subsequent opposition. Many researchers including Eisenberg & Garvey (1981) found that most disputes occur over objects and the findings from this study reflect this.

Furthermore, both verbal and non-verbal antecedent 'modes' were found frequently amongst these pre-schoolers as the following examples indicate:

A boy and a girl are playing in the sand & water area. The water bath is filled with plenty of toys but the boy sees the girl playing with a boat (object) and tries to take it off her - without saying anything (non-verbal antecedent).

Two boys are playing with a toy car in the sand-pit. One boy grabs the car (object) from the other boy and says "mine" (verbal antecedent).

Allen (1995) states that 'self-centred' behaviour, like that given in the above example, is normal amongst youngsters who often use possessive language to signal private ownership and deter other children. Although object disputes are exceedingly common amongst pre-schoolers, there is also evidence that 'access' triggers occur quite often (e.g. Corsaro, 1979; Corsaro & Rizzo, 1986). The following instance demonstrates this kind of trigger:

One girl asks another if she can come into 'the house' (Verbal, Access). The other girl replies "Go Away" (Opposition).

In this study, refusal of access was particularly prevalent when a group of children were already engaged in play - and intrusions tended to be repelled immediately, either verbally (as in the previous example) or non-verbally (e.g. by physically barring someone's way).

Similarly, children are sensitive to suspect claims, but these seem to be less frequent than object or access antecedent events. A few examples from this research show how possible false claims led to some opposition:

Child A **"You're 4"** (verbal, claim: antecedent)
Child B **"I'm not, I'm 5"** (opposition)

Child C **"L did a pooh"** (verbal, claim: antecedent)
Child D **"Did not, did not"** (opposition)

Likewise, arguments over play sometimes occurred during activities and these exchanges tended to throw some doubt on pre-schoolers being egocentric. In fact, the following discourse indicates that children have an awareness of gender rules as well as play rules.

A group of girls were rolling about the floor pretending to be dogs. A boy (A) arrives on the scene and asks to be a "girl dog" (verbal, play: antecedent). The exchange continues:

Girl A **"You can't join in 'cos you can't be a girl dog"** (opposition)
Girl B **"If he can be a girl dog, I can be a boy dog"** (development)
Boy A **"Can I be a boy dog then?"** (development)

Tables 1a to 1c give details of how these behaviours were distributed amongst the pre-schoolers. It should, perhaps, be noted at this stage that Roy & Howe (1990) suggest that the example set by Damon & Killen (1982) should be followed when dealing with raw frequency scores like those shown in this research. Roy & Howe propose that researchers should calculate "frequency scores on each discourse category for each subject as a proportion of the total discourse frequency" (pg. 247). However, when this method was employed with the given data, and statistical analyses executed, it did not appear to confer any advantage - therefore the raw frequency data were left in use and reported below.

Table 1a The frequency, percentage (in brackets) & mean per child of verbal & non-verbal antecedent behaviour (N = 125)

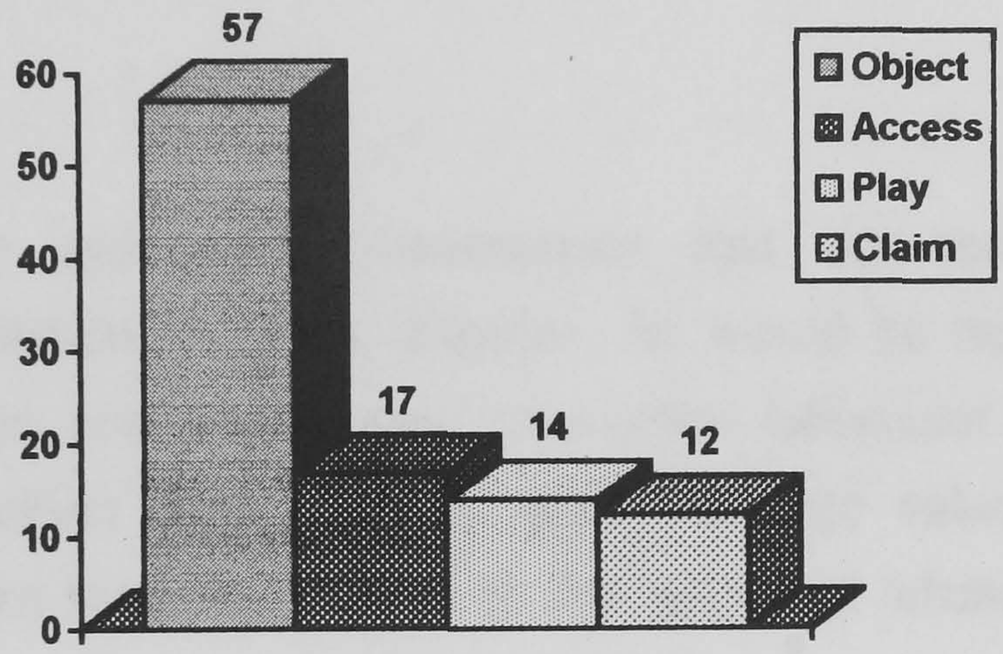
	Frequency & %		Mean
non-verbal	**128**	(51)	**1.02**
verbal	**124**	(49)	**0.99**

Non-verbal precipitating events were therefore slightly more frequent (51%) than verbal antecedents (49%). A paired samples t-test gave a result of 0.11, df=124 which is not significant, thus suggesting that children tend to employ similar amounts of verbal and non-verbal behaviour at the precipitating stage of a conflict.

Table 1b **The frequency & mean per child of type of antecedent events (N=125)**

Type of antecedent	Frequency	Mean
Object	**144**	***1.15***
Access	**42**	***0.34***
Play	**35**	***0.29***
Claim	**31**	***0.25***

Graph 1 **The percentage (rounded) of type of antecedent events used to trigger disputes**

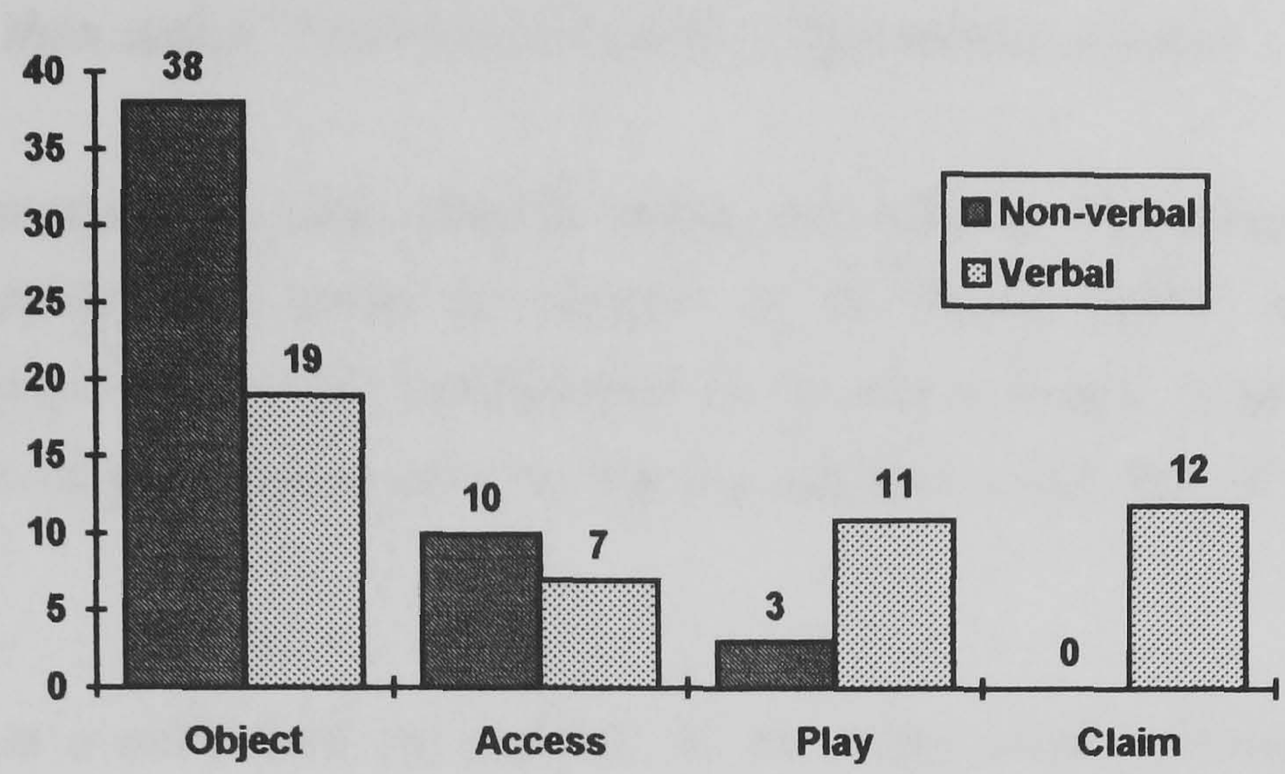


From Table 1b and the graph, it can be seen that disputes over objects occur by far the most frequently (57%), with disagreements over access being the next frequent at 17%. A repeated measures ANOVA, on the data in Table 1b, gives a result of $F= 37.72$, df (3, 372). This is significant at $p<0.001$ level which reinforces the descriptive data that some antecedent events (objects) are more frequent than others. Post-hoc tests demonstrate that the significant difference lies between 'objects' and each of the remaining three antecedents.

Table 1c **The frequency & mean per child of verbal/non-verbal behaviour with each type of antecedent event (N=125)**

	OBJECT		ACCESS		PLAY		CLAIM	
	Freq	**Mean**	**Freq**	**Mean**	**Freq**	**Mean**	**Freq**	**Mean**
NV	95	***0.76***	25	***0.20***	8	***0.06***	0	***0***
Verbal	49	***0.39***	17	***0.14***	27	***0.22***	31	***0.25***

Graph 2 The % (rounded) of verbal/non-verbal behaviour used with each type of antecedent event



The preceding table and graph demonstrate that non-verbal behaviour is particularly high in relation to object disputes. As would be intuitively expected, verbal behaviour takes precedence over non-verbal behaviour when claims are made or there is conflict over rules of play. Average values for non-verbal behaviour are therefore lower in relation to the 'play' and 'claim' acts than verbal behaviour.

A two-way ANOVA was carried out. This gave the expected significant result for type of antecedent (as noted earlier). The main effect of 'behaviour' (non-verbal\verbal) was not significant, as again would be expected from previous analyses. However, there was a significant interaction effect for type of behaviour and kind of antecedent [$F= 16.97$, df (3, 372), $p< 0.001$] which suggests that there is a significant difference in the use of verbal and non-verbal behaviour across the four types of antecedents.

2:3:2:2 Oppositional Stage

This occurs when a child takes issue with an event at the preceding antecedent stage and offers resistance of some kind. This resistance can take several forms including simple negation, negation with justification or offering alternatives. Perhaps the most noticeable feature of the children's oppositions in this study was the high frequency of straightforward refusals given, e.g.

A girl (A) is trying to get access to the home corner by pushing on the door. A second girl (B) inside the house shouts "Stop it" (Opposition, simple).

The same girl (A) gains access to the house eventually and tries to join the 'play', the resident girl (B) then states "You're not playing" (Opposition, simple).

These are simple statements of what child B wants, but without reasoning. These findings are comparable with those of Genishi & Di Paolo (1982) whereas Eisenberg & Garvey (1981) found 'justification' to be more widely used. There were a few examples of justification used by the pre-schoolers and one of these is given below.

Child B is pulling at a doll, held by child A, in the home corner (Non-verbal, object: Antecedent)
Child A **"No, I had that baby first"** (Opposition, justification)

Here Child A is trying to justify future possession of the doll by stating that she had the doll before the other girl. Ross (1996) states that children are more able to reject challenges when they have had prior possession of an object rather than just picked it up.

Previous work suggests that alternatives or compromises are sometimes employed (e.g. Eisenberg, 1992) by nursery school children, and an example of an 'alternative' being given is shown below.

Child A **"Making Guns"** (Antecedent, Verbal, claim)
Child B **"No, don't...make bombs instead"** (Opposition, alternative)

In fact, the first child readily accepted this suggestion and both boys worked together to build 'bombs'. Instead of the escalation of a dispute, the disagreement was resolved by using a complex strategy (alternative). This fits in nicely with Eisenberg & Garvey's (1981) predictions about complex strategies being more successful in resolving conflict than simple ones.

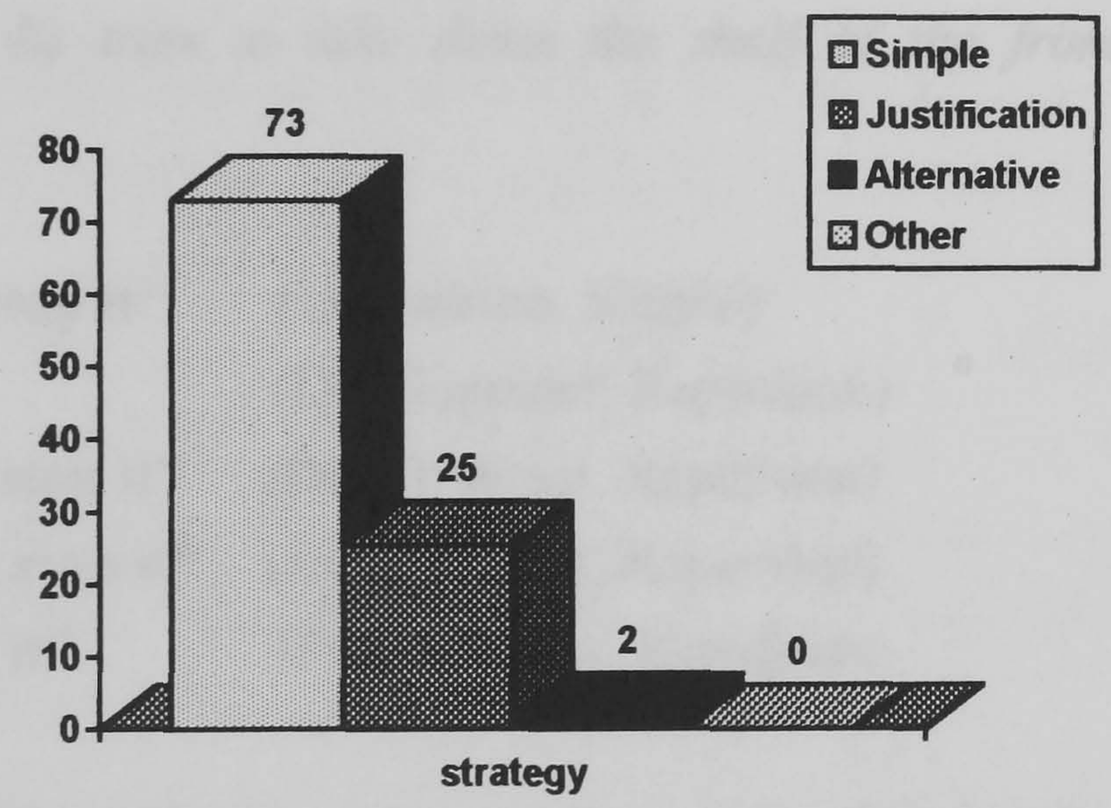
The frequencies and means of the aforementioned opposition tactics are given over in Table 2.

Table 2 **The frequency and mean per child of oppositional strategies during the total number of disputes recorded (N=125)**

Type of opposition	Frequency	Mean
Simple	184	***1.47***
Justification	64	***0.51***
Alternative	4	***0.03***
Other	0	***0***

The percentages are shown in the following graph

Graph 3 **The % (rounded) of oppositional strategies employed during the total number of disputes**



The initial opposition was therefore most likely to be a simple negation since this occurred in 73% of the total disputes. The mean usage of simple tactics was almost three times greater than the most frequently employed complex strategy - justification. There was also quite a wide gap between the complex tactic of 'justification' (mean of 0.51) and 'alternative' (mean of only 0.03). It is also worth noting the zero value for the 'other' category as this emphasises how rarely behaviours such as 'force' are used by preschoolers. A one-way ANOVA gave a result of $F=66.46$, df (3, 372). This is significant at $p<0.001$ and a post-hoc test indicates that the difference between simple and each of the three remaining

strategies is a significant source of variation, with the difference between justification and alternative also being significant.

2:3:2:3 Development Stage

This is the stage after opposition where the children apply a variety of tactics (Eisenberg & Garvey, 1981) as the argument begins to 'open out'. An example of discourse involving each type of development tactic is presented here in order to appreciate the richness of pre-schoolers' disagreements as observed in this study.

It has been claimed by some researchers that 'repetition' is the most frequent type of dialogue in young children (e.g. Keenan; 1974, 1975) and yet, for all its apparent popularity, Eisenberg & Garvey (1981) infer that it is not a very adaptive dispute tactic. It often aggravates rather than alleviates conflict, thus leading to non-resolution. One such episode is outlined below:

A girl (Child B) tries to take down the shelf at the front of the toy house (Antecedent)

Child A **"No, stop it"** (Opposition, Simple)
Child B **"No"** (Development, Repetition)
Child A **"Yes, stop it"** (Development, Repetition)
Child C **"You, stop it"** (Development, Repetition)
Child A **"Stop it"** (Development, Repetition)

The dispute continues in the same vein for a little while longer until child B leaves the scene. The dialogue is very simple and no new information has been added to the exchange.

Similarly, force is another simple strategy which doesn't really allow much flexibility during conflict. Interactions involving physical force are usually short, with little in the way of 'development' - as the next sequence demonstrates.

Two boys are playing (in parallel) at the sandpit. One boy pours sand over the other (Antecedent). The second child shouts "No" (Opposition, Simple). The first child continues to pour sand over the second child without saying anything (Development, Force). The second child goes elsewhere to play.

As in the opposition phase, justification is a complex strategy which is quite often used by pre-schoolers to 'smooth over' a tricky interaction. Baines (1996) made the point that justifications can have two different purposes. Justifications "can be used to support one's own idea, or they can provide a reason for not supporting another's position" (Baines, 1996, pg 184), e.g.

Child B tries to enter the house in the home-corner (Antecedent)

1. *Child A* **"Get out, get out"** (Opposition, Simple)
2. *Child B* **"But...I want to stay"** (Development, Justification)
3. *Child B* **"I'm here to fix the light"** (Development, Justification)

(He points to the playdoh 'blob' stuck on wall)

4. *Child A* points to the playdoh and shakes his head **"You're not allowed to take that off 'cos it goes round and round"** (Dev, Justn)

5. *Child B* **"Okay"** and he leaves house without further debate.

Child B uses his justifications in lines 2 and 3 to try and back up his own position. In contrast to this, Child A in line 4 uses reasons to weaken child B's position.

Justifications in development have been found to be relatively common with alternatives and requests for justification to be less so (e.g. Orsolini, 1993) The present study also found this pattern but there was quite a number of alternative tactic scenarios and considerably less requests for explanation. An example of alternative strategies being used is given below:

At the symbolic play area, one boy is washing the wheels of the vacuum cleaner (Child A). Another boy (Child B) takes it off him and begins to wash the wheels (Antecedent Event).

Child A **"No, I'm doing it, I was here first"** (Opposition, Justification)
Child B **"You go and make the dinner"** (Development, Alternative)
Child B **"You go and put potatoes on for me"** (Dev, more specific Alt)
Child A happily concurs with this idea and goes over to the cooker to play.

Occasionally, children need further clarification before they are satisfied - as the following discourse demonstrates.

In the construction area one boy (B) touches another boy's lego (Antecedent)

Child A **"Don't touch that"** (Opposition, Simple)
Child B **"But...why not?"** (Dev, Request for Justification)
Child A **"That's the roof"** (Development, Justification)
The exchange then continues peacefully.

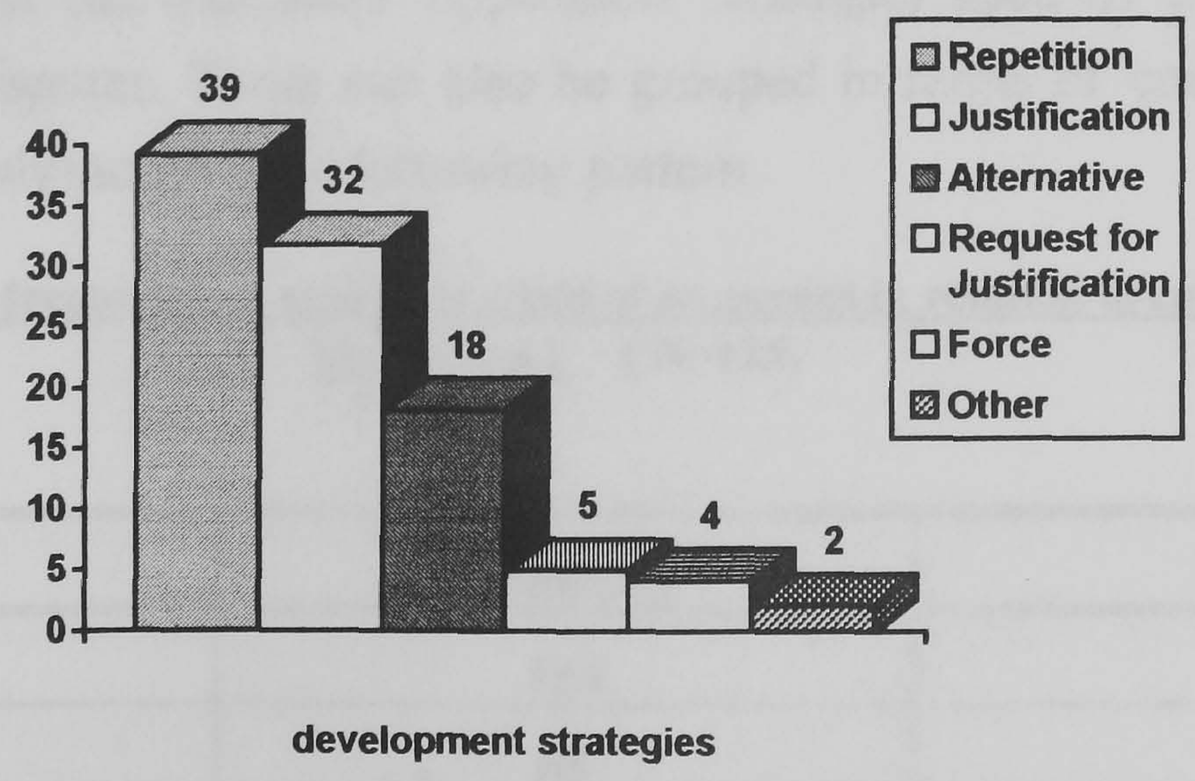
Table 3 indicates how often the previously-discussed development tactics were used.

Table 3 **The frequency and mean per child of development strategies during the total number of disputes recorded (N=125)**

Type of development	Frequency	Mean
Repetition	318	***2.54***
Justification	257	***2.06***
Alternative	147	***1.18***
Request for Justification	40	***0.32***
Force	33	***0.26***
Other	15	***0.12***

The percentage of each strategy is set out in the following graph.

Graph 4 **The percentage (rounded) of development strategies during the total number of disputes recorded**



It can be seen that children used repetition most frequently (39%) in the development of their arguments but this was closely followed by justification - at 32% of the total tactics employed. Genishi & Di Paolo (1982) found that most of their pre-school sample used simple strategies and they noted that repetition was frequently used. The largest mean differencies across main tactics occur between the complex strategies of justification and alternative, and then alternative and request for justification. A repeated measures ANOVA gave a result of F= 57.42, df (5, 620). This result is significant at $p<0.001$ level which suggests that there is a considerable difference in the type of development strategies used by pre-schoolers. Post-hoc tests indicate that the behaviours of repetition, justification and giving alternatives all differ significantly from the remaining acts. In addition, there is a substantial variation between justification and alternative and a significant, albeit slightly smaller, difference between alternatives and requests for explanation.

2:3:3 COMPLEXITY OF DISPUTE STRATEGIES EMPLOYED

In order to assess the complexity of each statement at both the oppositional and development stage, it was decided to use Eisenberg & Garvey's (1981) definition of "simple" strategies being the least adaptive. Therefore, at the opposition stage, simple tactics were those of simple negation whilst complex strategies were deemed to be justification and alternative. At the development stage, "simple" strategies included repetition and force whereas complex tactics consisted of the more adaptive 'justifications'; 'alternatives' and requests for justification\explanation. The 'other' classification was not included in the analysis, since it was not used for oppositions and was exceedingly rare in the development stage.

2:3:3:1 Oppositional Stage

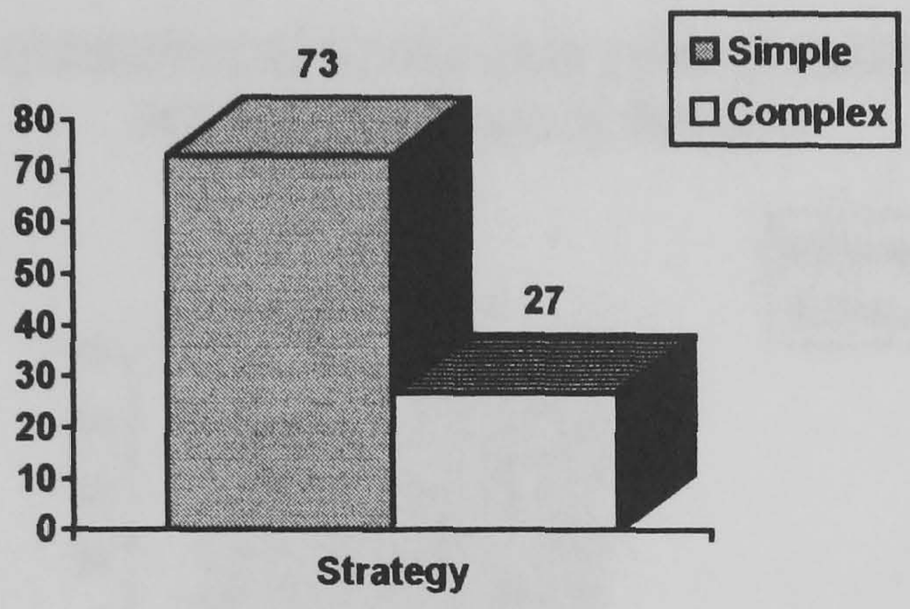
Table 2 outlined the individual 'opposition' strategies used by pre-schoolers across all the disputes. These can also be grouped in terms of 'complexity' (as defined previously) to give the following pattern.

Table 4 The frequency & mean per child of strategies in relation to complexity (opposition) (N=125)

Strategy	Frequency	Mean
Simple	184	*1.47*
Complex	68	*0.54*

There is a very obvious difference demonstrated by the data in Table 4 and this is demonstrated by the following graph.

Graph 5 **The percentage of strategies in relation to complexity (opposition)**



A paired sample t-test was carried out and gave a result of 5.85, df = 124. This is significant at $p < 0.001$ which implies that children use significantly more simple strategies at the oppositional stage than complex ones. This is in keeping with the findings of Genishi & Di Paolo (1982). Nevertheless, the fact that complex tactics were employed on just under a third of occasions implies that pre-schoolers do possess a degree of linguistic competence even when making direct challenges in discourse.

2:3:3:2 Development Stage

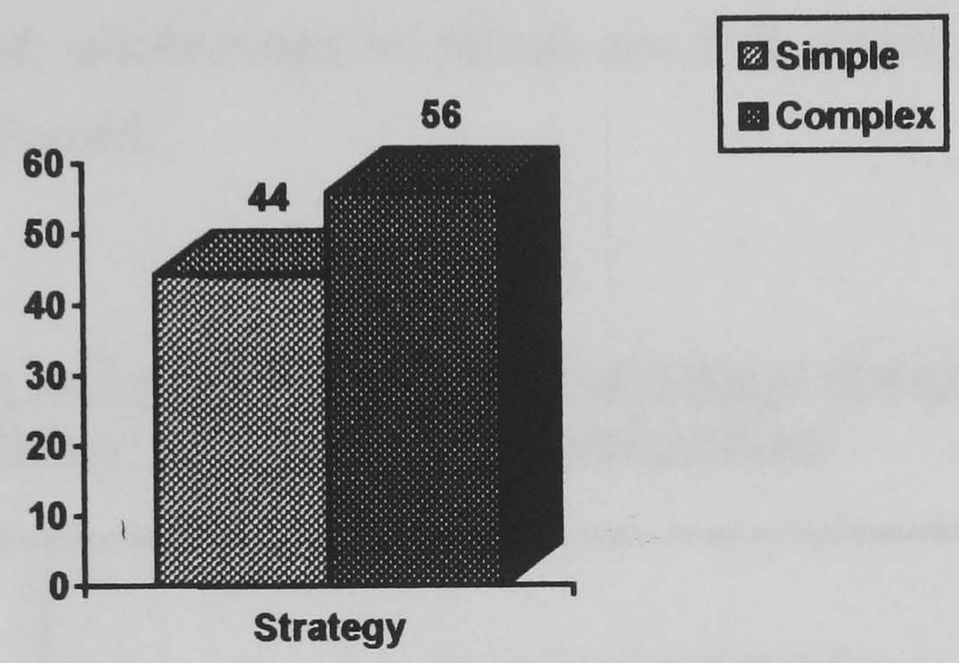
Table 3 gave a breakdown of individual tactics used by children during development of their disputes. When these are arranged in terms of 'complexity', the following results are obtained.

Table 5 The frequency & mean per child of strategies in relation to complexity at the development stage of disputes (N=125)

Strategy	Frequency	Mean
Simple	351	*2.81*
Complex	444	*3.55*

At the development stage it appears that there are more complex strategies used than simple ones. The children employ an average of 3.55 complex tactics compared to 2.81 simple ones. A paired samples t-test yielded the result t = 2.63, df = 124. This is significant at $p<0.01$ which reinforces the descriptive statistics that complex strategies were more frequent at the development stage than simple ones. A graph of percentage 'complexity' is given below.

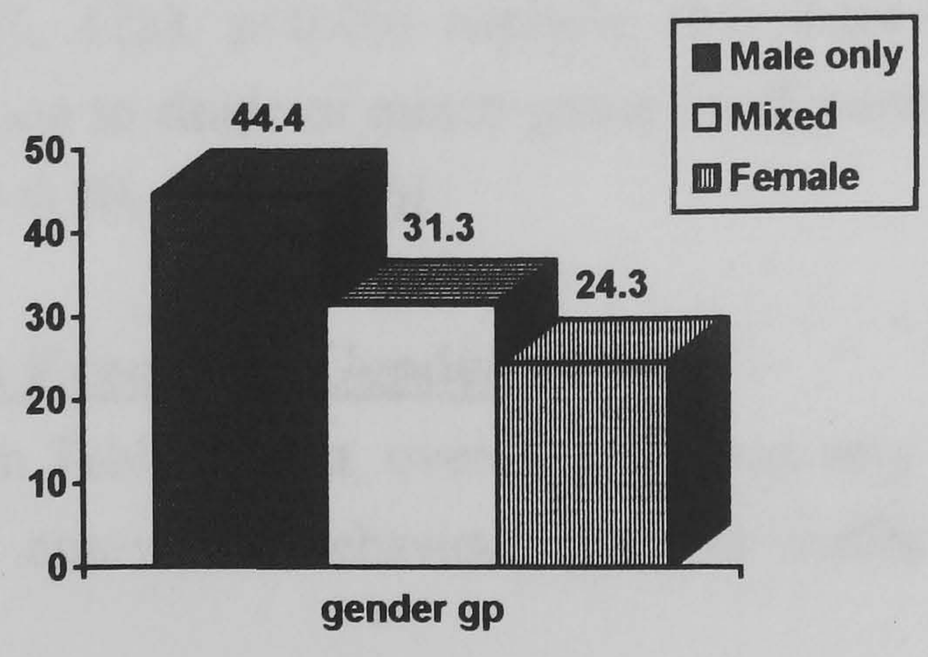
Graph 6 The percentage of strategies in relation to complexity at the development stage of disputes



2:3:4 THE PATTERN OF DISPUTES IN RELATION TO GENDER

The hypothesis is that girls will have less frequent but more complex disagreements than boys. 125 children (72 boys and 53 girls) were involved in 252 disputes. Of the 252 disputes, 112 were male only (44.4%), 79 were mixed sex (31.3%), and 61 were female only (24.3%).

Graph 7 The percentage of disputes in relation to different group combinations



From this rather broad, and perhaps superficial, categorisation - it appears that male only groups are more likely to be involved in disputes than mixed groups or female only groups. Female involvement in interaction seems to be linked with lower conflict and this is in line with the findings of Sheldon (1990) and Miller et al. (1986). However, it is worth noting that there were slightly fewer girls than boys in the study so caution must be exercised when interpreting these 'simple' data. To get a more accurate and detailed picture, one must look at the individual numbers as well as sexes in each dispute (e.g. a mixed group may have one girl and one boy or two girls and one boy, two boys and one girl...and so on) and examine the frequency of their individual dispute contributions. It is therefore necessary to examine each participants' involvement in mixed sex and single sex groups. The following results were obtained.

Table 6 **The frequency and mean per child (in brackets) of dispute involvement in relation to different group combinations**

	TYPE OF GROUP			
	Mixed		***Single***	
GIRLS (N=53)	**94**	(1.77)	**152**	(2.87)
BOYS (N=72)	**108**	(1.50)	**264**	(3.67)

From these data it can be seen that, with regard to dispute involvement, boys and girls contribute similarly to the mixed group (means of 1.50 and 1.77 respectively). However, a different picture arises in relation to same-sex groupings - boys appear to contribute quite a lot more to same-sex disputes than do girls. An ANOVA gave a result of $F = 48.55$, df (1, 123) for the differences between type of group (significant at $p<0.001$), and this is not surprising given the substantial difference in 'type of group' means. There was a small interaction effect between sex and group type ($F = 5.25$, df (1, 123), $p<0.05$) implying that there is a slight difference between sexes in relation to single or mixed group involvement. There was no main effect of sex found [$F=0.80$, df (1, 123)].

2:3:4:1 Antecedent Event and Gender

It was seen from Table 1a that, overall, there was very little difference in the amount of verbal & non-verbal behaviour used as conflict antecedents. These

values were subsequently examined in relation to gender, and the following results obtained.

Table 7a **The frequency, percentage (in brackets) & mean per child of verbal/non-verbal antecedent acts as a function of sex**

	FEMALE (N=53)		MALE (N=72)	
	Freq (%)	**Mean**	**Freq (%)**	**Mean**
Non-verbal	**47 (51)**	***0.89***	**81 (51)**	***1.12***
Verbal	**45 (49)**	***0.85***	**79 (49)**	***1.10***

It appears that there is very little difference between boys and girls in the frequency with which they use both verbal and non-verbal behaviour at the antecedent stage of a disagreement. The mean values are slightly higher for males across both verbal and non-verbal acts.

The ANOVA performed gave a non-significant result of $F = 0.02$, $df = (1, 123)$ for the main effect of verbal/non-verbal behaviour, and also $F = 0.02$, $df = (1, 123)$ for the sex-verbal/non-verbal interaction. No main effect was found in relation to gender $[F = 2.82, df (1, 123)]$ and all of these results support the descriptive data given.

It has been noted that the antecedent event can involve disagreements over play, access, object or claim and the following dialogue highlights some typical examples of play and claim triggers :

A typical example of one boy's claim is given below:

Child A **"You have cartoon socks on"** (Antecedent, claim)
Child B **"No, I haven't"** (Opposition)

Similarly, *at the construction area one boy (A) is showing the teacher a brick tower.*

Child A **"Me & R made it"** (Antecedent, claim)
Child R **"No, it was just me"** (Opposition)

Although girls' claims are less frequent than boys, they do tend to follow a similar pattern, e.g. *In the construction area a girl is showing her lego tower to a boy sitting next to her.*

Girl **"I've got a big one"**	(Antecedent, claim)
Boy **"No, you haven't"**	(Opposition)

The next example demonstrates how children can get involved in disputes over play roles or rules. This exchange involves two girls and opposition is perhaps less forceful than when boys are involved.

A child (B) is 'sleeping' in a 'play' bed in the home corner when another girl (A) comes over and tries to put a pillow under her head.

Child A **"Lift it up, lift it up"**	(Antecedent, play)
Child B **"No....sleeping"**	(Opposition)
Child A **"Lift it up"**	(Development, repetition)
Child B **"No...no...want to sleep"**	(Development, justification)

Here the first girl (Child A) is chastised for not sticking to the (unspoken) rules that children/babies shouldn't be disturbed but should be left to sleep - the word 'sleeping' may therefore be acting as an implicit justification based on supposed shared background knowledge about babies' habits.

Boys' disputes about play are often more obvious and direct, e.g. *some children are taking turns at dressing up as a lion.*

Boy **"<u>I've</u> to get another shot"**	(Antecedent, play)
Girl **"Don't get two shots"**	(Opposition)
Boy **"You're wrong, you do get two shots"**	(Development)

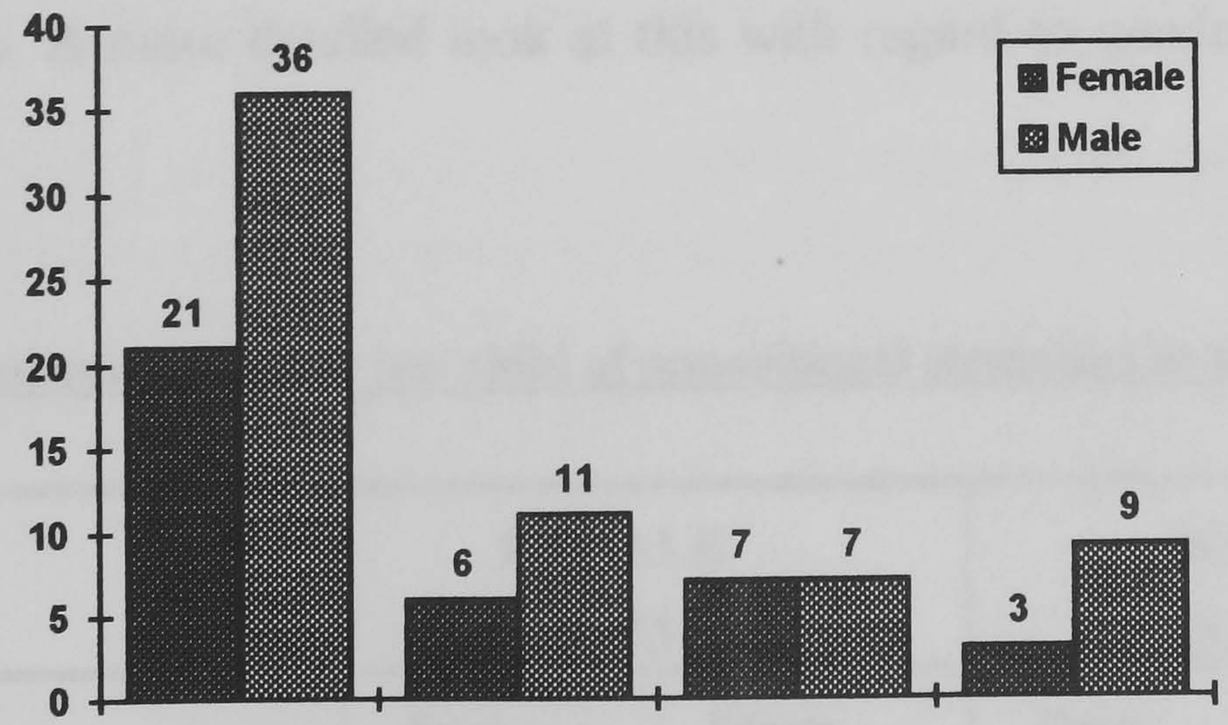
Tables 7b and 7c now focus on the quantitative data gathered across both sexes at the antecedent stage of conflict.

Table 7b The frequency & mean per child of type of antecedent event in relation to sex

	FEMALE (N=53)		MALE (N=72)	
	Frequency	Mean	Frequency	Mean
Object	52	*0.98*	92	*1.29*
Access	15	*0.28*	27	*0.38*
Play	17	*0.32*	18	*0.25*
Claim	8	*0.15*	23	*0.32*

As seen previously, ANOVA gave a significant result for the main effect of antecedent type . However, there was no significant difference found for the main effect of gender [F=2.91, df (1, 123)] or the interaction effect (F=1.5, df (3, 369) - implying that there were no major differences in the type of antecedents used by boys and girls. This is demonstrated both by the means given above and also pictorially in graph 8.

Graph 8 The % (rounded) of type of antecedent event in relation to sex



Despite the apparent lack of significant differences, it may possibly be worth looking at the antecedent in greater detail with respect to verbal and non-verbal strategies used.

Table 7c **The mean per child of each antecedent event engaged in as a function of sex**
(frequencies are given in brackets)

	NON-VERBAL BEHAVIOUR				VERBAL BEHAVIOUR			
	Object	***Claim***	***Access***	***Play***	***Object***	***Claim***	***Access***	***Play***
Female N=53	**0.66** (35)	**0** (0)	**0.17** (9)	**0.06** (3)	**0.32** (17)	**0.15** (8)	**0.11** (6)	**0.26** (14)
Male N=72	**0.8** (60)	**0** (0)	**0.22** (16)	**0.07** (5)	**0.44** (32)	**0.32** (23)	**0.15** (11)	**0.18** (13)

Table 7c indicates that the only marked difference, between the sexes, is for the verbal 'claim' antecedent - with boys engaging in almost double the claim acts compared to girls. Again, as expected, there is a significant main effect for type of antecedent. However, there are no significant differences found for the main effect of gender [F=2.90, df (1, 123)], non-verbal\verbal behaviour [F=0.05, df (1, 123)] or the interaction effect [F=0.74, df (3, 369)]. These analyses indicate that there is therefore little difference between girls' and boys' use of antecedents.

2:3:4:2 Oppositional Stage and Gender

It was shown previously (Table 2) that simple negation made up the bulk of opposition tactics. A more detailed look at this with regard to gender yielded the following values.

Table 8 **The frequency and mean per child of oppositional strategies in relation to sex**

	FEMALE N=53		MALE N=72	
	Freq	**Mean**	**Freq**	**Mean**
Simple	73	***1.38***	111	***1.54***
Justification	26	***0.49***	38	***0.53***
Alternative	2	***0.04***	2	***0.03***
Other	0	***0***	0	***0***

From these results it appears that girls and boys do not differ very much in their use of any of the opposition strategies. Boys and girls are equally likely to use simple negation, justification or alternatives as each other, and simple negation remains the preferred opposition tactic for both sexes. As expected from earlier analyses, there is a significant effect for the opposition tactics used. However, a mixed ANOVA gave the result of F =0.26, df (1, 123) for differences between sexes in relation to opposition tactics. This is not significant and supports the descriptive data. Likewise, there was no significant interaction between sex and opposition tactics [F=0.22, df (3, 369)].

2:3:4:3 Development Stage and Gender

Table 9 The frequency and mean per child of development strategies in relation to sex

	FEMALE N=53		MALE N=72	
	Freq	**Mean**	**Freq**	**Mean**
Repetition	148	*2.8*	170	*2.36*
Justification	107	*2.02*	150	*2.08*
Alternative	67	*1.26*	80	*1.11*
Request for justn/expln.	13	*0.24*	27	*0.38*
Force	9	*0.17*	24	*0.33*
Other	8	*0.15*	7	*0.1*

The results in Table 9 show that, in general, there is not a great difference in the development strategies used by boys or girls and a non-significant ANOVA result of F =0.06, df (1, 123) bears this out. Again, there is an obvious main effect for development tactics but no significant interaction between sex and speech strategies was found [F=0.66, df (5, 615)].

However, boys did use twice the amount of 'force' as girls (boys have a mean of 0.33 compared to 0.17 for girls) and equivalent results have been found in previous research (e.g., Miller, Danaher & Forbes, 1986; Sheldon, 1990). An example of an argument consisting almost entirely of force strategies is given over:

Two boys are playing (in parallel) at the construction table.

Boy A **"It's coming over"** (built-up toy on wheels) [Antecedent]
Boy B **"Don't"** [Opposition, simple]
Boy A Pushes toy on top of Child B [Development, Force]
Boy B Pushes toy on top of Child A's head [Development, Force]
Both boys start to throw toy bricks at each other [Development, Force]

At this point, the teacher intervenes and the 'fighting' is stopped.

Boys use slightly less repetition (mean of 2.3) than girls (mean of 2.8) and employ minimally more of the complex tactics of justification, and request for justification/explanation. *The next samples of discourse show a) two girls arguing over whose turn it is to be baby and b) two boys disagreeing over who has to pick-up the 'injured' girl from the floor.*

Girl A **"I want to be the baby"** (Antecedent)
Girl B **"I'm always the baby"** (Opposition)
Girl A **"I want to be the baby"** (Development, Repetition)
Girl B **"Baby, me baby"** (Development, Repetition)
Girl B **"I'm always the baby"** (Development, Repetition)

And then, possibly tired of this, they both go off and do separate things.

Boy A **"I'll lift M off the floor"** (Antecedent)
Boy B **"No, she's mine. I want to lift her 'cos I'm a fireman"** *....points to fireman's outfit he's wearing* (Opposition, Justification)
Boy A **"I will look after her 'cos I'm the doctor...I help people"** (Dev|Just)
Boy B **"But I help people and houses..and I've a ladder"** (Dev|Just)
Girl M **"I want to go with you"** *(points to boy in doctor outfit).* **"You have 'doctor' there"** *(pointing to word 'doctor' on the clothes).* (Dev|Just)

From the quantitative results it was shown that boys use justifications slightly more than girls and some illustrations of developmental speech act use by both sexes were given above. The difference between girls' and boys' use of complex dialogue is small and not statistically significant and girls can often use justification tactics - as Girl M's dialogue indicates. She effectively ends the dispute by selecting her choice of helper, and by giving a reason for doing so. This was readily accepted by

all parties concerned and the conflict was resolved. The overall findings from this section appear to indicate that boys do engage in more dispute behaviour than girls and this supports part of the given hypothesis. However, the other part of the hypothesis which states 'girls will have more complex disputes than boys' is not upheld since there were no significant differences found between the results of male and female children.

2:3:5 THE PATTERN OF DISPUTES IN RELATION TO CLASS

There were 63 children from the state-run nursery (Class S) and 62 children from the privately run school (Class P) involved in a total of 252 disputes. Of the 252 disputes, there were 116 by the less advantaged group and 136 by the more privileged group. Although the hypothesis was that those in the state-run nursery would have more frequent disagreements, this was not found to be the case - but there is still a strong possibility that differences in complexity will be demonstrated. As in previous sections, conflict between the groups will be examined at each of the three dispute stages.

2:3:5:1 Antecedent Event and Class

Earlier results indicated that there was very little variation overall between the children's use of non-verbal and verbal behaviour. There were no differences found in relation to gender (subsection 2:3:4:1), and the following results appear to demonstrate only slight differences between the classes.

Table 10 The frequency, percentage (in brackets) & mean per child of verbal/non-verbal antecedent acts as a function of class

	CLASS S (N=63)		CLASS P (N=62)	
	Freq & %	Mean	Freq & %	Mean
Non-verbal	65 (56)	*1.03*	63 (46)	*1.02*
Verbal	51 (44)	*0.81*	73 (54)	*1.20*

From these data it can be seen that children in the advantaged area nursery school used somewhat more verbal behaviour at the antecedent stage than their less privileged counterparts. An ANOVA gave a result of $F = 1.50$, df (1, 123) for the main effect of class and this was not significant. There was also no significant

interaction effect between class and antecedent act [F=1.41, df (1, 123)]. This implies that there is little 'real' difference between the two groups in their usage of verbal and non-verbal antecedents.

The next step was to look at the type of antecedent (i.e. object, access, play, claim) in relation to class. Some examples of typical antecedent speech across both social classes will be shown, followed by quantitative data in Table 11a.

Typical instances of the private nursery children's antecedents include the following object and access triggers - which tend to be more prevalent in this group:

object disputes

Boy A **"I want that"** (a toy banana)
Girl A **"I want the cups"**
Girl B **"Can't have it"** (dressing-up costume)

access disputes

Boy B **"Get out"** (of play house)
Girl C **"Get out...get out"** (play house)
Girl D **" Can't come in!"** (play house)

As will be seen below, the less advantaged group tend to debate dubious claims or play rules and examples of these types of triggers are demonstrated:

claim disputes

Boy A **"Its tidy-up time"**
Boy B **"He put sand in your hair"**
Boy C **"I'm Superman"**

play disputes

Boy D **"You're on that side"** (of imaginary boat)
Boy E **"Kid on he's going to the shop"**
Boy F **"But its my turn"**

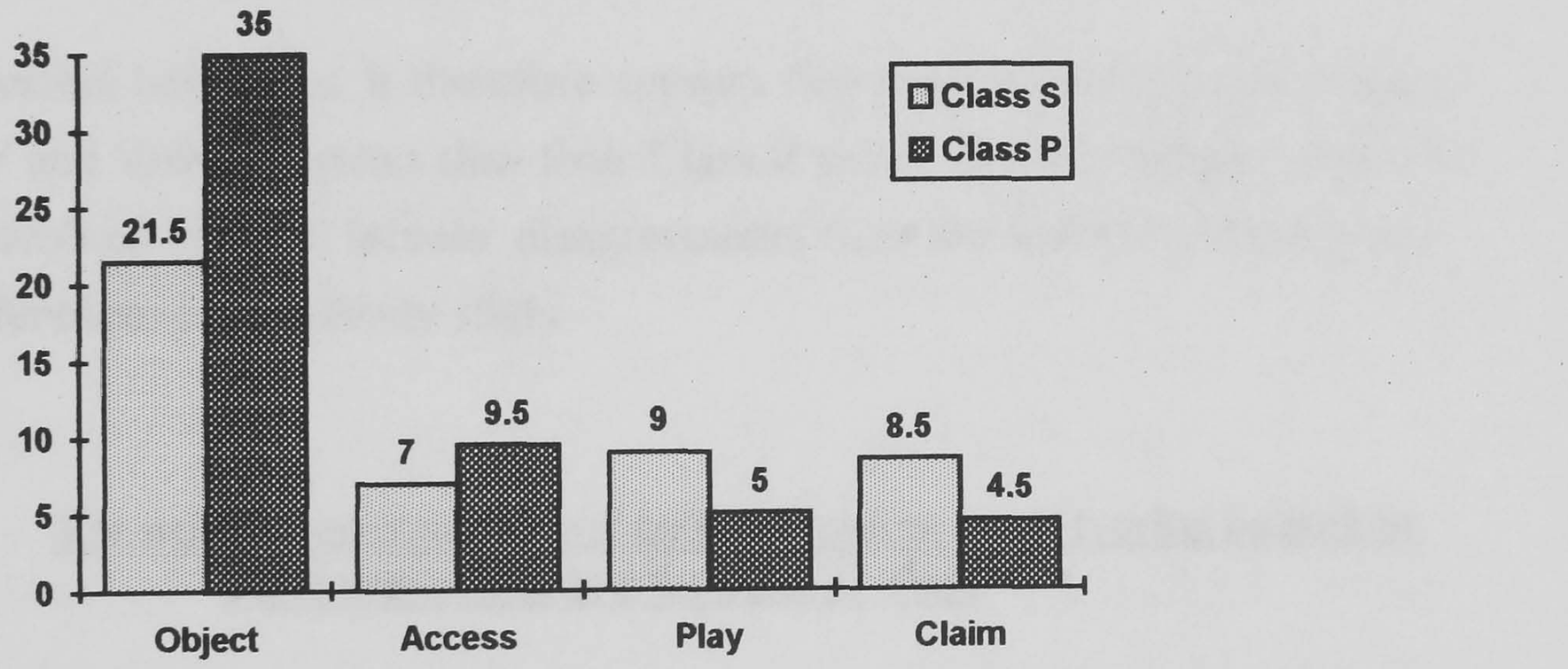
Although the use of some antecedents were more popular with one class than another, it is worth emphasising that instances of each type of antecedent were given by both groups - showing that the two classes are equally capable of

employing the range of antecedents investigated. This is illustrated by the data in the following tables and graphs.

Table 11a The frequency & mean per child of type of antecedent event in relation to class

	CLASS S (N=63)		CLASS P (N=62)	
	Frequency	**Mean**	**Frequency**	**Mean**
Object	54	*0.86*	89	*1.45*
Access	18	*0.28*	24	*0.39*
Play	23	*0.36*	12	*0.21*
Claim	21	*0.33*	11	*0.16*

Graph 9 The % (rounded) of type of antecedent event in relation to class (grouped by antecedent)



A two-way ANOVA gave a result of F= 1.60, df (1, 123) for the main effect of class - which is not significant. As seen from previous results, the main antecedent effect is significant. A significant result of F=6.75, df (3, 369), p <0.001 was found for the interaction between class and antecedent and this is not totally surprising given the differences shown by the means. In relation to the type of antecedent event employed, a different pattern seems to emerge across the two classes, with post-hocs showing that the significant variation was in relation to the object triggers.

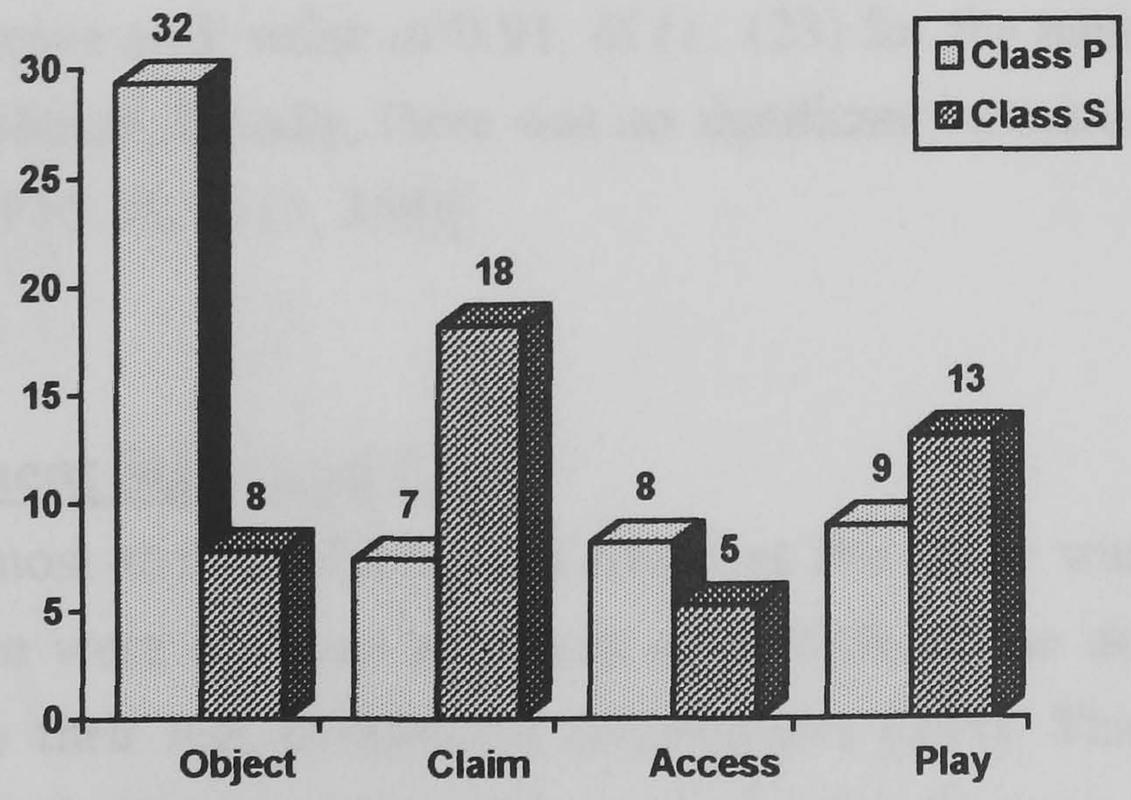
Table 11b **The mean per child of each antecedent event engaged in as a function of class**
(Frequencies are given in brackets)

	NON-VERBAL BEHAVIOUR				VERBAL BEHAVIOUR			
	Object	***Claim***	***Access***	***Play***	***Object***	***Claim***	***Access***	***Play***
Class P (N=62)	**0.81** (50)	**0** (0)	**0.21** (13)	**0** (0)	**0.64** (40)	**0.16** (10)	**0.18** (11)	**0.19** (12)
Class S (N=63)	**0.95** (60)	**0** (0)	**0.19** (12)	**0.11** (8)	**0.16** (9)	**0.33** (21)	**0.10** (6)	**0.24** (15)

From Table 11b, it can be seen that the non-verbal object disputes are relatively similar for both classes and it is the verbal object disagreements that account for the difference previously presented in table 11a (i.e. that the advantaged children have more object disagreements than those in the less privileged group). The mean of 0.64 for Class P children is far higher than that of the state school pre-schoolers (0.16).

As regards verbal behaviour, it therefore appears that state school children engage in more 'play' and 'claim' disputes than their Class P peers. The advantaged children tend to be involved in more 'access' disagreements than the less privileged group, but these differences are relatively slight.

Graph 10 **The percentage (rounded) of each antecedent event (verbal behaviour only) engaged in as a function of class**



An ANOVA gave the following results. The main overall effect of class was F =1.54, df (1, 123) which was not significant. The interaction for class x behaviour (i.e. verbal or non-verbal) x type of antecedent [F=2.96, df (3, 369)] was also not significant. Thus, although the trends shown in Table 11b for class and verbal behaviour are of interest, they do not lead to differences which reach conventional levels of significance.

2:3:5:2 Oppositional Stage and Class

Table 12 The frequency and mean per child of oppositional strategies in relation to class

	CLASS S (N=63)		CLASS P (N=62)	
	Freq	**Mean**	**Freq**	**Mean**
Simple	78	*1.24*	106	*1.71*
Justification	35	*0.56*	29	*0.47*
Alternative	3	*0.05*	1	*0.02*
Other	0	*0*	0	*0*

It appears that Class P children (private) use a greater amount of simple opposition strategies (mean of 1.71) compared to the less advantaged children (1.24). Moreover, the less advantaged pre-schoolers use the more complex tactics of justification and alternatives slightly more frequently than the privileged children.

As noted previously, there is a significant main effect for opposition strategies used. However, as may be expected from the mean values set out in the preceding table, an ANOVA gave an F value of 0.91, df (1, 123) for the main effect of class which was not significant. Equally, there was no significant interaction for class and opposition tactics [F=2.38, df (3, 369)].

2:3:5:3 Development Stage and Class

One of the most striking differences found at this stage was that the more advantaged children were involved in almost two-thirds of the development acts (515) compared to their less advantaged counterparts (295). This is particularly interesting because the greater the number of development acts involved in a dispute, then the longer the exchange will be.

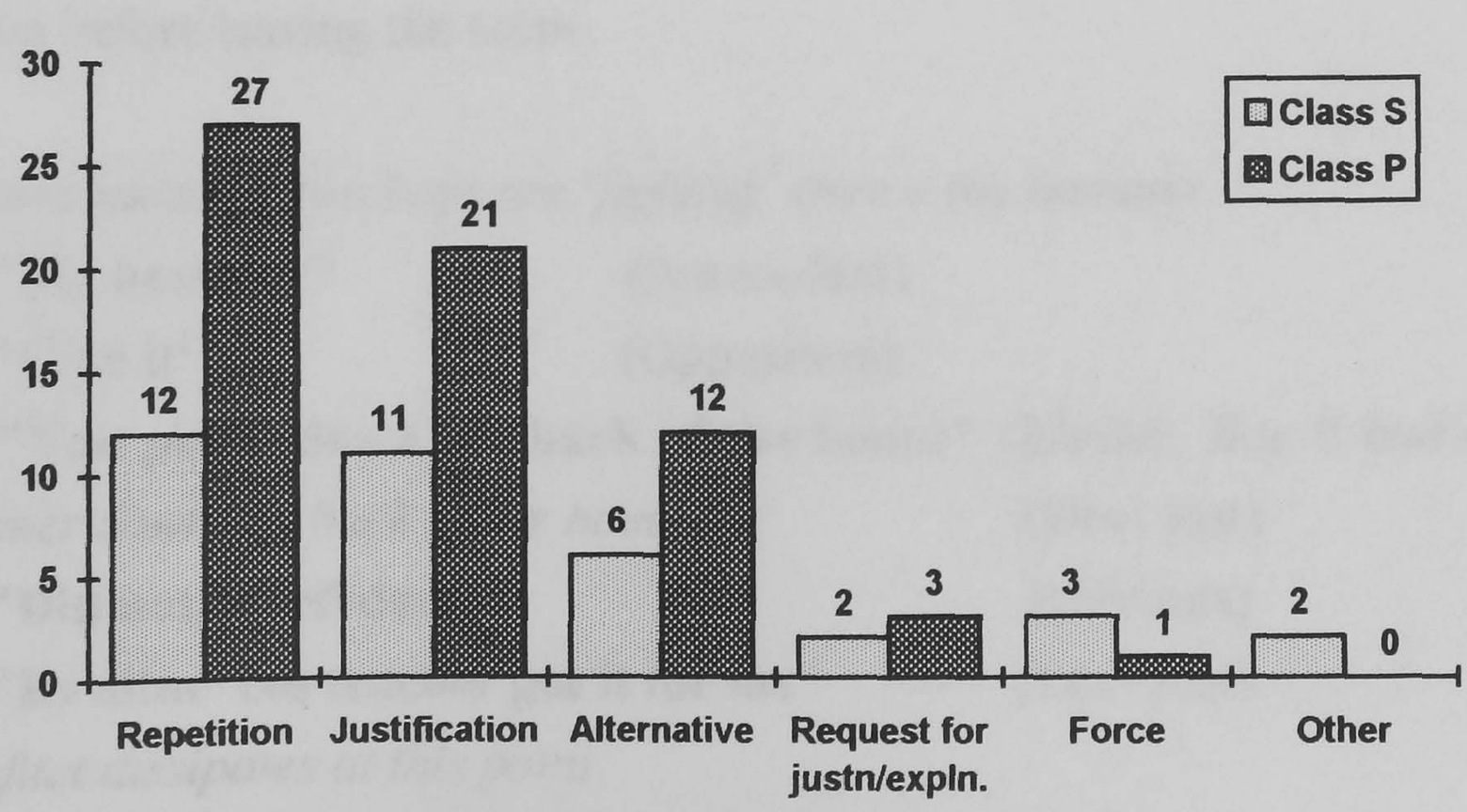
From Table 13a, it can be seen that the more advantaged children not only used the simple tactic of repetition more often than the less advantaged children (mean of 3.53 compared to 1.57) but that they also used the complex strategies of justifications, alternatives and request justifications/explanations more often, on average, than the less advantaged group. Furthermore, they used force a lot less often than the less privileged children.

Table 13a The frequency and mean per child of development strategies in relation to class

	CLASS S (N=63)		CLASS P (N=62)	
	Freq	**Mean**	**Freq**	**Mean**
Repetition	99	*1.57*	219	*3.53*
Justification	90	*1.43*	167	*2.69*
Alternative	50	*0.79*	97	*1.56*
Request for justn/expln.	18	*0.28*	22	*0.35*
Force	23	*0.36*	10	*0.16*
Other	15	*0.24*	0	*0*

In addition to the details outlined above, a graph of the percentage results is set out below.

Graph 11 The percentage (rounded) of development strategies in relation to class



The mean values in Table 13a indicate substantial differences between classes especially in relation to the amount of 'repetition', 'justification' and 'alternative tactics used. A mixed ANOVA gave a significant result for the main effect of development tactics (found and discussed briefly in earlier sections). The main effect of class $F=11.86$ df (1, 123) and the interaction effect of class x development strategy were significant $F=11.70$, df (5, 615), $p<0.001$. This implies that there is an actual difference in the type of tactics employed by each of the two classes. A post-hoc test indicated that the greatest source of variation between the two classes was in the use of repetition, but also showed that there were significant, albeit smaller, differences in relation to justification plus alternative use across both groups.

A few examples of the differences in developmental speech act use are highlighted by the discourse given below.

Two girls from the private nursery are playing in the home corner. Girl A is trying to get in the doorway of the 'house' (Antecedent)

Girl B **"Stop it"** (Opposition)
Girl A **"No, no stop"** (Development, repetition)
Girl B **"Stop it...stop it"** (Development, repetition)
Girl A **"No, stop it, don't"** (Development, repetition)
Girl B **"Stop it...you stop it"** (Development, repetition)
Girl A then stamps feet and shouts **"yes"**, *then walks off.*

There is a lot of repetition here, with no new information being added to ease the situation. One child remains as stubborn as the other until child A stamps her foot in frustration before leaving the scene.

At the same nursery, two boys are 'fighting' over a toy hammer.
Boy A **"My hammer"** (Antecedent)
Boy B **"Give it"** (Opposition)
Boy A **"You put it down the back of the house"** (*Earlier, Boy B had dropped the hammer down the back of the house*). (Dev\ Just)
Boy B **"Did not, it fell down"** (Dev\Just)
Boy A **"Its mine 'cos teacher got it for me"** (Dev\ Just)
The conflict dissipates at this point.

It appears that both the advantaged children and less privileged children can use a variety of conflict tactics - with some being more successful than others. The next exchange is taken from two state school girls (Class S) and demonstrates how dispute resolution can be achieved through alternative suggestions being made. It is obvious from this example that the disadvantaged children are not as socially or linguistically incompetent as some previous research has claimed (e.g. Bruck & Tucker, 1974; Smart & Smart, 1978; Teachman, 1995).

Two girls are in the play house. One girl (A) tries to get in beside girl B at the sink (Antecedent).

Girl B **"You're not getting in here"** (Opposition)
Girl A **"But the dishes need done"** (Dev\Just)
Girl B **"Go wash the baby"** (Dev\ Alt)
Girl A **"Yes, I'll have to put the baby to bed"** - *the girl accepts and builds on B's alternative, and goes happily over to the cot with the 'baby' - whilst the other girl remains undisturbed at the sink.*

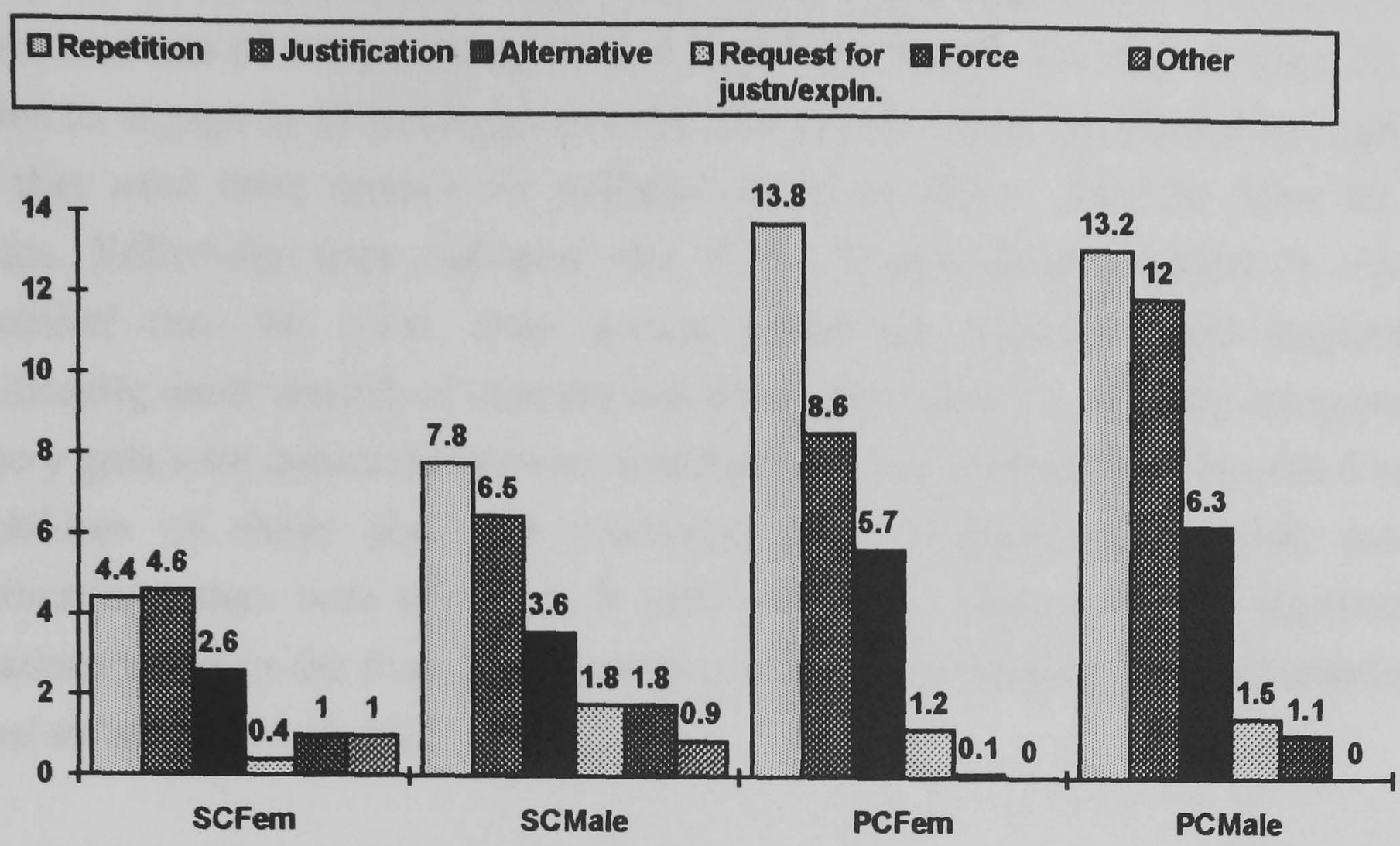
In addition to looking at the large number of strategies used separately by each gender or class, it may be more useful to view them together to get a more complete picture of strategy distribution.

Table 13b **The frequency and mean per child of development strategies used by sex and class** ***(Frequencies given in brackets)***

	CLASS S		CLASS P	
	F (N=30)	M (N=33)	F (N=23)	M (N=39)
Repetition	*1.20* (36)	*1.91* (63)	*4.87* (112)	*2.74* (107)
Justification	*1.23* (37)	*1.61* (53)	*3.04* (70)	*2.49* (97)
Alternative	*0.70* (21)	*0.88* (29)	*2.00* (46)	*1.31* (51)
Request for justn/expln.	*0.01* (3)	*0.45* (15)	*0.43* (10)	*0.31* (12)
Force	*0.27* (8)	*0.45* (15)	*0.04* (1)	*0.23* (9)
Other	*0.27* (8)	*0.21* (7)	*0* (0)	*0* (0)

A graph of percentages (over) further illustrates the findings.

Graph 12 **The percentage of development strategies used by sex and class**



Although there were almost equal numbers of advantaged and less advantaged pre-schoolers (62 and 63, respectively), these results show the higher strategy frequencies across many of the development tactics which comes from the privileged group having almost two-thirds of all interactions at this stage. For each of the four groups, a percentage of the total disputes was calculated. The state school females had the smallest overall output at the development stage (14%) and this was followed by the state school males with 22.4%. The boys from the private nursery also contributed more development acts than their female counterparts (34.1% compared to 29.4%).

A mixed ANOVA gave the following results. For the main factor of class, $F=15.08$, df (1, 121), significant at $p<0.001$. There was no significant main effect for sex [$F=0.55$, df (1, 121)] and no significant interaction between sex and class [$F=5.77$, df (1, 121)]. There was a significant interaction for class and development tactic used [$F=14.53$, df (5, 605), $p<0.001$) but a non-significant interaction for speech strategy and sex [$F=1.53$, df (5, 605)]. There was also a significant interaction for sex x class x development strategy [$F=4.12$, df (5, 605), $p<0.01$]. This indicates a difference in development tactics as a function of the four sex-class combinations. From the means given in Table 13b, it appears that advantaged females use the most repetition, justification and alternative with the Class P boys being next in line. The privileged girls came just behind the Class S boys in the amount of request for justification and they were the lowest group for 'force' and

'other' strategies. The Class S boys used most force, followed by the Class S girls then private nursery (Class P) boys. The less advantaged girls also employed the lowest amounts of every strategy except 'force' and 'other'. The state nursery boys tended to engage in all strategies (except 'other') more than the state school girls, and they used more request for explanation more often than the other three groups. Follow-up tests indicated that Class P girls used significantly more 'repetition' than the other three groups whilst the Class P boys employed significantly more 'repetition' than the less advantaged girls. In addition, the private nursery girls used substantially more 'justifications' and 'alternatives' than the Class S children of either sex. The privileged boys produced significantly more 'justifications' than both the Class S girls and boys. There were no significant variations noted in the four group combinations' use of 'requests for explanation', 'force' or 'other' speech acts.

An example of a prolonged and complex discourse demonstrated by the less advantaged group is given below:

Several boys are sitting round a table which has different coloured seats attached. There is a squabble over the green seat.

Boy A	**"I'm sitting in the Celtic seat"**	(Antecedent)
Boy B	**"No, I'm Celtic"**	(Opposition)
Boy A	**"But that's a yellow seat"**	(Dev, Justifn)
BoyA	**"I've got a Celtic seat"** *(points to green seat))*	(Dev Justifn)
Boy C	**"Let's swap stickers...I've got Celtic stickers"**	(Dev, Alt)
Boy A	**"Yes.. and we can be the Celtic team if we go outside"**	(Dev, Alt)
Boy B	**"No..we're only talking about it..not doing it"**	(Dev, Justifn)
Boy C	**"I'm DiCanio...you can be the goalkeeper"**	(Dev, Alt)
Boy A	**"No, you can be Jorge Cadete"**	(Dev, Alt)

The boys then start to laugh and the teacher comes to quieten them down.

From this example of dialogue, it appears that the state school children can, on occasion, be involved in both extended and complex dispute exchanges. However, the findings from this section indicate that advantaged children generally have more complex disputes than less privileged children, at least during the development stage - and this concurs with part of the introductory hypothesis. The part of the hypothesis which says state-run nursery children will have more frequent disputes

than privately-run nursery children was not upheld since, if anything, the opposite result was found.

2:3:6 THE FREQUENCY OF DISPUTE CONTRIBUTIONS AS A FUNCTION OF PLAY

It was predicted that the frequency of disputes would be influenced by type of play activity and may also vary further in relation to gender and class. Since the previous results indicated that most variations occur at the development stage of a dispute, this section will briefly look at the total number of disputes before moving on to focus on the individual contributions made at the development phase.

2:3:6:1 Total Dispute Frequency and Play Activity

Table 14 The frequency and mean per child of total number of disputes as a function of play activity (N=125)

	Symbolic		Construction		Sand & Water		Individual	
	Freq	**Mean**	**Freq**	**Mean**	**Freq**	**Mean**	**Freq**	**Mean**
	103	*0.82*	83	*0.66*	46	*0.36*	20	*0.16*

Results from Table 14 indicate that most of the disputes occur during symbolic and construction play and, unsurprisingly, conflict is relatively rare in individual pursuits. These findings are similar to those of Minuchin & Shapiro (1983). An ANOVA gave an F value of 19.53, df (3, 372), $p<0.001$ for the main effect of activity. Follow up tests revealed little variation between construction and symbolic activities but showed significant differences between symbolic play and sand-water plus individual pursuits. Significant differences were also found between construction play and those two activities.

2:3:6:2 Play Activity and Gender

Table 15 The frequency & mean per child of dispute involvement (development) during play activity in relation to the sex of individual participants

	Symbolic		Construction		Sand & Water		Individual	
	Freq	**Mean**	**Freq**	**Mean**	**Freq**	**Mean**	**Freq**	**Mean**
F n=53	195	*3.68*	82	*1.55*	49	*0.92*	18	*0.34*
M n=72	162	*2.25*	184	*2.56*	77	*1.07*	28	*0.39*

Looking at the descriptive statistics in Table 15, it appears that girls contribute more to disputes during symbolic activities (3.68 compared to 2.25 for boys). Male pre-schoolers have a greater involvement in conflict during construction play (2.56 compared to 1.55 for girls). Not surprisingly, the least amount of disagreement for both boys and girls occurs in individual pursuits such as reading or doing jigsaws.

An ANOVA gave a result of $F=0.04$, df (1, 123) for the main effect of sex. This was not significant thus indicating little real difference in males' and females' behaviour overall. Of course, the main effect of activity was significant as previously established. There was also a significant interaction effect between gender and activity [$F=4.03$, df (3, 369), $p<0.01$]. As noted, the descriptive data in Table 15 suggest that the greatest variation across sexes is in relation to symbolic play (with more girls involved in dispute speech) and construction (more boys engaged in conflict dialogue). Post-hoc tests shows that the largest difference occurred in relation to symbolic play. There is also a smaller but significant difference between the sexes with regard to construction play.

The frequency of individual play activities was also examined in relation to class, and details are provided in Table 16.

2:3:6:3 Play Activity and Class

Table 16 The frequency & mean per child of dispute involvement (development) during play activity in relation to class

	Symbolic		Construction		Sand & Water		Individual	
	Freq	Mean	Freq	Mean	Freq	Mean	Freq	Mean
SC n=63	121	*1.92*	101	*1.6*	45	*0.71*	13	*0.21*
PC n=62	236	*3.81*	165	*2.67*	81	*1.31*	33	*0.53*

At the development stage of a dispute, Class P children tend to contribute more speech acts in all the activities than their Class S peers. An ANOVA gave a result of $F=13.54$, df (1, 123), $p<0.001$ for the main effect of class. Post-hocs reveal that there is a significant difference between classes for symbolic play and a smaller, but still significant, difference for construction activities. There is a non-significant class x activity interaction [$F=1.85$, df (3, 369)] and this result is consistent with the descriptive data presented.

2:3:7 THE COMPLEXITY OF DISPUTE CONTRIBUTIONS AS A FUNCTION OF PLAY

2:3:7:1 Antecedent Event and Play Activity

Table 17 The frequency and mean involvement per child in antecedent events as a function of play activity (N=125)

	Symbolic		Construction		Sand & Water		Individual	
	Freq	Mean	Freq	Mean	Freq	Mean	Freq	Mean
Object	52	*0.42*	49	*0.39*	30	*0.24*	13	*0.10*
Access	18	*0.14*	11	*0.09*	11	*0.09*	2	*0.015*
Play	23	*0.18*	8	*0.06*	2	*0.015*	2	*0.015*
Claim	10	*0.08*	15	*0.12*	3	*0.02*	3	*0.02*

From the results in Table 17 it can be seen that 'object' antecedents are prevalent in all four play activities. Play and access triggers are highest in symbolic play whilst claim is most frequent during construction. As would be expected from previous results, there is a significant difference in antecedent use. There was also a significant difference for types of play activity, $F = 27.32$, df (3, 372), $p<0.001$. Follow-up tests reveal little variation between symbolic and construction play but show significant differences between symbolic play and sand\water plus individual pursuits. Significant differences were also found between construction play and those two activities. In addition, there was a significant interaction effect for type of antecedent x type of play ($F= 4.06$, $p<0.01$) indicating that children vary in their use of antecedents across play activities.

2:3:7:2 Oppositional Stage and Play Activity

There were a total of 252 disputes with 252 corresponding oppositions. Of these, 184 were deemed 'simple' speech acts, 64 were 'justifications' and 4 were 'alternatives'. Some qualitative dialogue is given below to demonstrate the type of opposition produced in various play activities. This will then be followed by the quantitative data.

Symbolic Play

1. *Two boys at the private nursery are pulling at a fireman's hat* (Antecedent)

Boy A **"No, this is a new hat"** (Opposition, Justification)

2. *A little boy takes a toy duck off the table; a girl had previously been talking to the duck* (Antecedent)
Girl A **"Gimme, that's my friend"** (Opposition, Justification)

3. *A boy brings pretend water for another boy to drink* (Antecedent)
A third boy opposes this action by saying **"No don't, I gave him some juice before"** (Opposition, Justification)

Justifying opposition therefore appears to be relatively frequent in symbolic play whereas simple opposition tactics seem relatively more common in the other activities. Construction play can be associated with either simple or complex speech. This may depend on whether the children are quarrelling over concrete materials such as building bricks, or debating the rules of play with their robots, spaceships etc.

Construction Play

1. *A boy and a girl are pulling at playdoh* (Antecedent)
Girl A **"Don't"** (Opp, Simple negation)

2. *Girl A* **"Can I have that a wee minute?"** (Antecedent)
Girl B **"No"** (Simple negation)

3. *Boy C* is touching a built-up lego car (Antecedent)
Boy D **"Don't touch"** (Opp, Simple negation)

4. *Two boys are arguing over possession of playdoh* (Antecedent)
Boy E **"No, that colour is always mine"** (Opposition, Justification)

In contrast, individual pursuits and sand & water activities nearly always involve simple opposition.

Sand & Water Play

A boy lifts up a lump of wet sand (Antecedent)
Other boy says **"No, no, no"** (Opposition, Simple negation)

Individual Play

A girl tries to take a piece of boy's jigsaw (Antecedent)

Boy A **"No, give me that"** (Opposition, Simple)

The quantitative data in relation to speech tactics and play activity will now be reported in Tables 18a and 18b.

Table 18a The frequency & percentage of individual dispute strategies in relation to play activity at the opposition stage

	Symbolic		Construction		Sand & Water		Individual	
	Freq	%	Freq	%	Freq	%	Freq	%
Simp	67	*65*	63	*76*	37	*80*	17	*85*
Just	35	*34*	18	*22*	8	*17*	3	*15*
Alt	1	*1*	2	*2*	1	*2*	0	*0*
Other	0	*0*	0	*0*	0	*0*	0	*0*

Again it can be seen that the frequency of simple negation strategies is high across all four play activities but lowest percentage-wise in relation to symbolic play. Of the complex tactics, alternatives are very rarely used in opposition - the highest percentage being 2%. Justifications are used on about a third of occasions in symbolic play, and around a fifth of the time in construction and sand & water activities - at the opposition stage of a dispute. These figures were not analysed statistically due to the large number of zero values which appeared in the data. However an analysis was done when the categories and frequencies were arranged in terms of complexity (Table 18b). Table 18b also gives details of the elicited mean values for each activity.

Table 18b The frequency and mean value per child of complex strategies in relation to activity at the opposition stage of a dispute.
N=125

	SIMPLE	TACTICS	COMPLEX	TACTICS
Type of Play Activity	Freq	Mean	Freq	Mean
Symbolic	67	*0.54*	36	*0.29*
Construction	63	*0.5*	20	*0.16*
Sand & Water	37	*0.23*	9	*0.07*
Individual	17	*0.13*	3	*0.02*

At the opposition stage, it appears that simple strategies are by far the most prevalent in all four play activities. Symbolic play does seem to be associated with slightly more complex dialogue than the other pursuits at this stage and this is comparable with the findings of Garvey (1991) and others. As well as the significant main effect for activity [F=12.78, df (3, 372), p<0.001] and for 'complexity' [F=11.45, df (1, 124), p<0.001], an ANOVA gave an F value of 2.52, df (3, 372) for the interaction between complexity and activity, and this approached significance, p=0.058.

2:3:7:3 Development Stage and Play Activity

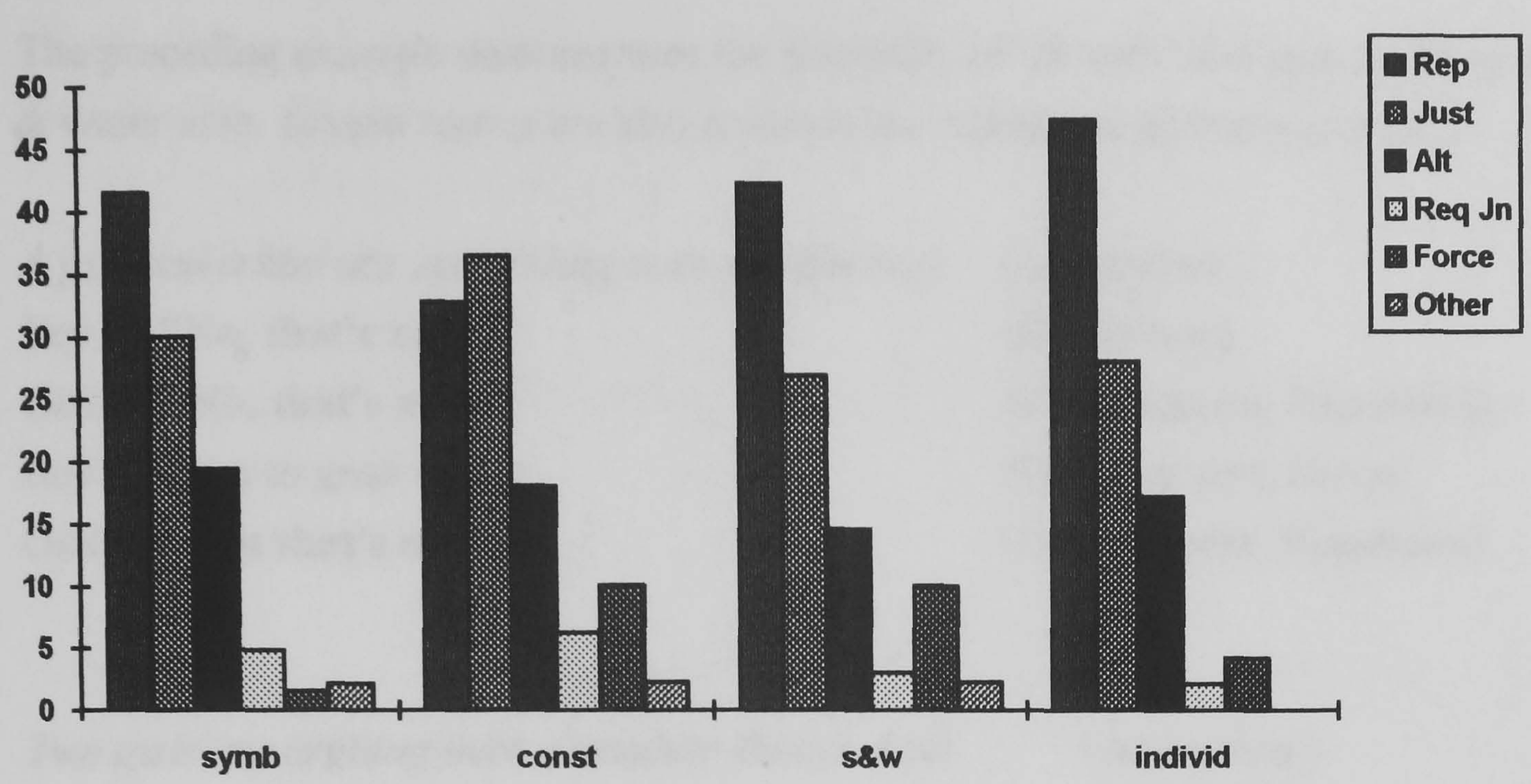
A total of 810 strategic acts was recorded across the development stages of the total disputes. Fifteen of these were 'others' such as ignores, and so were left out of the simple/complex analyses. The remaining 795 conflict episodes were split into 351 "simple" acts and 444 "complex". 357 of these behaviours occurred during symbolic play, 266 in construction, 126 during sand & water activity and 46 during individual pursuits.

Table 19a **The frequency & percentage of individual dispute strategies in relation to play activity at the development stage**

	Symbolic		Construction		Sand & Water		Individual	
	Freq	%	Freq	%	Freq	%	Freq	%
Rep	152	*41.6*	89	*33*	55	*42.6*	22	*47.8*
Just	110	*30.1*	99	*36.7*	35	*27.1*	13	*28.3*
Alt	71	*19.5*	49	*18.1*	19	*14.7*	8	*17.4*
Req Jn	18	*4.9*	17	*6.3*	4	*3.1*	1	*2.2*
Force	6	*1.6*	12	*4.4*	13	*10.1*	2	*4.3*
Other	8	*2.2*	4	*1.5*	3	*2.3*	0	*0*

A graph of the percentage of individual dispute strategies, with regard to play activity, at the developmental stage is given over.

Graph 13 **The percentage of individual dispute strategies in relation to play activity at the development stage**



These results indicate that repetition is high across all activities in the developmental stage of conflict, with repetition being greatest in the individual pursuits (47.8%). Justification is also quite high across all play activities and especially in relation to construction (36.7%) where it is used even more frequently than repetition (33%). Alternatives are employed fairly consistently across all four kinds of play whereas force is employed more often in the sand & water area (10.1%). Force is very rarely used (1.6%) in symbolic play. A few examples are outlined.

Sand & Water Play

Three boys are playing at a sand trough. One boy (A) pulls the spade from another boy (B) (Antecedent)

Boy B **"It's mine..I had it first"** (Opposition, Justification)
Boy A **"No, no"** (Development, Repetition)
Boy B **"No, but I had it"** (Development, Repetition)
Boy C **"No, you didn't"** (Development, Repetition)
Boy B **"Yes, I did"** (Development, Repetition)
Boy B **"I had it..I had it"** (Development, Repetition)

This led to the three boys flicking sand at each other until the teacher came over to stop it.

The preceding example demonstrates the simplicity of 'all-male' dialogue at the sand & water area. Simple tactics are also common for mixed and girl-only groups.

A girl and a boy are squabbling over sandpit toys	(Antecedent)
Boy A **"No, that's mine"**	(Opposition)
Girl A **"No, that's mine"**	(Development, Repetition)
Boy A Tries to grab object	(Development, Force)
Girl A **"But that's mine"**	(Development, Repetition)

Two girls are arguing over a brush in the sand-pit	(Antecedent)
Girl A **"No, leave it"**	(Opposition)
Girl B **"No"**	(Dev, Repetition)
Girl A **"Give it to me"** - *and grabs it*	(Development, Force)
Girl B also grabs it, and both pull at it	(Development, Force)

In contrast to this, a variety of more adaptive tactics are used in symbolic play.

Symbolic Play

A girl (A) approaches the 'settee' in the home corner.

Girl A **"I want to sit there"**	(Antecedent)
Girl B **"No, I'm sitting here"**	(Opp, Justification)
Girl A **"But there's a space there"** - *girl squeezes in*	(Dev, Justification)
Girl B **"But we don't usually play with you"**	(Dev, Justification)

Both girls continue to sit on the settee without further conflict.

Symbolic play also appears to bring out children's more prosocial behaviour - and this requires sensitivity and understanding of another's needs and feelings.

In the next sequence, a bigger boy (S) takes dishes off a smaller boy (J) who is standing drying them at the sink in the home corner (Antecedent)

Boy J **"Hey...don't"** (Opposition, Simple)
Boy then begins to cry.
Boy S **"Here J, take these"** (Dev, Alternative)
Boy S to Boy D **"Let J wash some of these"** (clothes) (Dev, Alternative)
Boy S **"Here then - you can dry"** (Dev, Alternative)
Boy J **"Okay, I'll dry"**

Boy has stopped crying and joins other boy at sink to dry dishes. The conflict is effectively resolved.

Symbolic play can sometimes involve compromise through, for example, the negotiation of roles. This is highlighted below.

Girl A **"I'm the mum, aren't I?"** (Antecedent)
Girl B **"No"** (Opposition)
Girl B **"No, you're the auntie"** (Dev, Alternative)
Girl A **"No, I'm the mum"** (Dev, Repetition)
Girl B **"OK, you're the big sister"** (Dev, Alternative)
Girl A **"OK, you're the mum 'cos you're hanging out the washing"** (Dev, Jtn)
The girls then play peacefully together.

The preceding exchanges were fairly extended as well as being quite complex. In contrast to this, individual pursuits involve shorter, and often simpler, dialogue.

<u>Individual Play</u>
Two boys are sitting in the book corner.

Boy A **"That book is mine"** (Antecedent)
Boy B **"No"** (Opposition)
Boy A **"Mine"** (Development, Repetition)
Boy B **"Here take this"** - *another book* (Development, Alternative)

It is not surprising that individual or 'solitary' activities elicit only brief disagreements since the children are usually engrossed in their own play. To some

extent, this is also true of construction play - where children become wrapped up in what they are building (Ervin-Tripp, 1982). However, if another child is seen to 'interfere', this may lead to conflict.

Construction Play

A boy (A) states that a lego object is a dinosaur	(Antecedent)
Girl A **"Isn't"**	(Opposition)
Girl A **"I don't want to make that"** - *points to object in dispute*	(Dev, Just)
Boy A **"Well, let's make a car"**	(Dev, Alt)
Girl A **"No..a house"**	(Dev, Alt)
Boy A **"Look, we're making a car"**	(Dev, Rep)
Girl A **"But cars aren't like that, are they?"**	(Dev, Req Jn)
Boy A **"Yes, some cars are"**	(Dev, Just)
Boy A **"Don't touch that"** - *pulls lego from girl*	(Dev, Force)

This example shows a wide range of conflict strategies being used but an agreement fails to be reached and the boy resorts to forceful tactics. This appears to work since the girl goes away and the boy is left alone to continue his building.

The following table shows how these individual strategies compare with regard to mean values on a simple-complex dimension, and an ANOVA analysis is carried out on the results.

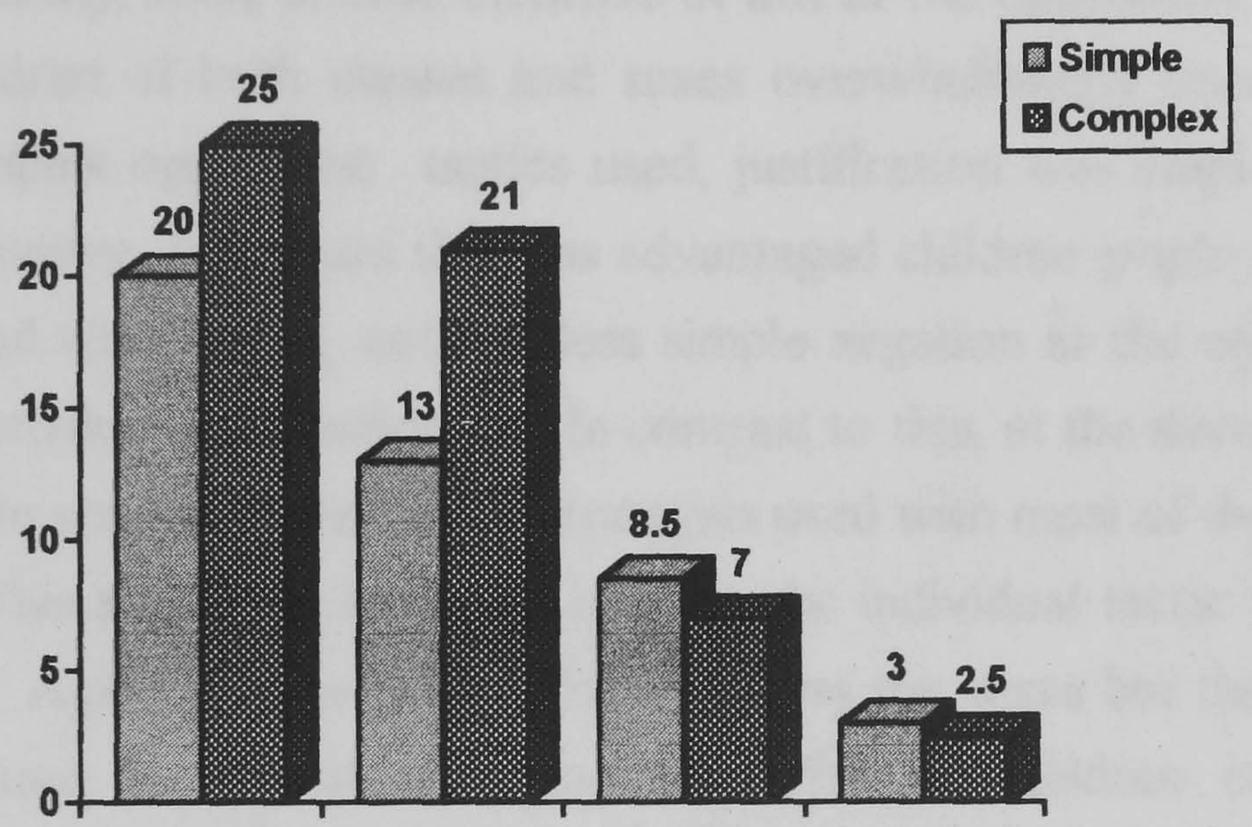
Table 19b The frequency and mean per child of complex strategies in relation to play activity at the development stage of a dispute *(minus 'other' tactics)* **N=125**

	SIMPLE TACTICS		COMPLEX TACTICS	
Type of Play Activity	**Freq**	**Mean**	**Freq**	**Mean**
Symbolic	158	***1.26***	199	***1.59***
Construction	101	***0.81***	165	***1.32***
Sand & Water	68	***0.54***	58	***0.46***
Individual	24	***0.19***	22	***0.18***

An ANOVA demonstrated that the main effect of activity is significant [$F=19.57$, df $(3, 372)$, $p<0.001$], with follow-up tests indicating that the significant differences reside with symbolic activity in relation to both sand\water and individual pursuits.

The main effect of complexity is also significant [F=6.97, df (1, 124), p<0.01]. An ANOVA also gave an F value of 4.18, df (3, 372) for the activity-complexity interaction and this is significant at p<0.01. This suggests that the complexity of strategies used at the development stage is differentially linked with type of play activity, with post-hoc tests identifying construction as the main source of variation. Overall then, there is support for the introductory hypothesis that the complexity of disputes will be influenced by the type of play activity engaged in.

Graph 14 The percentage of complex strategies in relation to play activity at the development stage of a dispute *(minus 'other' tactics)*



2:3:8 Summary of Results

This section will firstly focus on the results of *dispute frequency* before going on to outline the results for the *complexity* of speech acts used. Complexity findings will be summarised for each of the three stages of conflict and with regard to sex, class and type of play activity.

It was found that most of the disputes occurred in symbolic and construction play with few taking place during individual pursuits. Girls and private nursery children engaged most frequently in symbolic play whereas boys tended to contribute dialogue more frequently during construction activities. It is also worth noting that although there was almost an equal number of advantaged and less advantaged children, the bulk of the development data was obtained from the privileged group who tended to have more involved interactions.

For the antecedent event it was found that there were similar amounts of non-verbal and verbal behaviour used by both sexes and classes. Conflict was primarily over objects and this was particularly true of the advantaged children. Object conflict was strongly linked to non-verbal strategies, although the Class P children did employ a fair number of verbal 'object antecedents'. The less privileged pre-schoolers started more disputes over claim and play situations than the advantaged group, and claim plus play antecedents were usually verbal. Object triggers were commonly used across all four play activities. Play and access were the most frequent antecedent acts in symbolic play whilst claim was used most often during construction activities.

In relation to complexity, there is little evidence of this at the opposition stage of conflict - where children of both classes and sexes overwhelmingly used simple negation. Of the complex opposition tactics used, justification was employed far more often than alternative. It appears that less advantaged children employ slightly more justifications and alternatives, and use less simple negation at the opposition stage than the more privileged pre-schoolers. In contrast to this, at the development stage, there were more complex than simple strategies used with most of the former being justifications. This said, repetition was actually the individual tactic that was most frequently used. Again there is little variation across the sexes but there were some differences found in respect to class. The Class P children employed significantly more justification and alternatives than their Class S peers. In addition, the more advantaged children used substantially more repetition than the less privileged pre-schoolers at this stage which may explain their tendency toward longer exchanges. The less advantaged children (especially boys) also used force quite a bit more (albeit not significant) than the other group. It was noted on page 59 that raw data, such as that gathered in this study, may be better expressed proportionally. However when the researcher calculated the values in terms of the frequency of dialogue variable\total frequency of dialogue expressed as a percentage - no differences were found. It was therefore decided to continue using the raw scores.

Finally, the complexity of speech was examined in relation to four different types of activity, as well as across sex and class. Most arguments occurred in symbolic and then construction activity, with very little conflict arising during individual pursuits. Many male disputes were found to occur in the construction and sand & water activities. Girls tended to have more disagreements during symbolic play. Class P children contributed almost twice as much to the development stage of

disputes in every play activity (especially symbolic play) when compared to their Class S peers. At the development stage, regardless of sex and class, symbolic and construction play appeared to be the activities most closely associated with complex discourse, whilst sand & water/individual play were linked with simpler dialogue. Simple strategies were prevalent across all activities at the opposition stage, with the highest frequency of complex dialogue again occurring in symbolic play and least in individual pursuits. Repetition seems to be the most popular tactic across all activities followed closely by justification then alternative. Force is infrequent but is seen most often in the sand & water area and least often in symbolic play. Some reasons for these findings will now be explored in the following discussion section.

2:4 DISCUSSION

2:4:1 Overview

The primary aim of this study was to examine the complexity of young children's dialogue (via disputes) in relation to sex, class and type of play activity. The next section will be concerned with the total data on 'complexity' as gathered at each of the three conflict stages whilst section 2:4:3 will focus on how the frequency and complexity of disputes inter-relate with the context effects of sex, class and play activity. The final section will look at some practical and theoretical implications arising from the research findings, and then a brief conclusion will be given.

2:4:2 ISSUES OF COMPLEXITY REVISITED

This section will focus on all the data gathered during the study. Complexity of strategies will be examined at each of the three conflict stages.

2:4:2:1 The Antecedent Event

In this research, the origin of a dispute was taken to be the antecedent event as described previously. Although difficult to define directly in terms of 'complexity', it was tentatively suggested that both verbal acts, and 'play' or 'claim' antecedents, may be indicative of children's greater cognitive and linguistic competence. The results indicate that, in general, children tend to use similar amounts of verbal and non-verbal behaviour at this stage. The pre-schoolers exhibited 51% of non-verbal acts (mean 1.02) and 49% of verbal acts (mean 0.99). This difference was not significant. The fact that the young children did use almost 50% of verbal antecedents is very encouraging and suggests already that their linguistic skills may have been underestimated. However to get a fuller picture of what is happening at

this stage in an argument, one must also take into account the type of antecedent employed.

It was suggested in the introduction that 'object' and 'access' antecedents may be deemed less 'complex' in that they are usually tied to rather concrete situations and therefore require less explanation than the more abstract 'play' and 'claim' antecedents. Yet, a great many past studies have demonstrated that conflicts over objects are particularly frequent among children (Eisenberg & Garvey, 1981; Genishi & Di Paolo, 1982; Hay, 1984; Killen & Naigles, 1995). This study also revealed object antecedents to be the most common trigger (57%, mean of 1.15). Corsaro & Rizzo (1986) suggest that arguments over objects are frequent in nursery schools because "children have only limited experience in sharing play materials in the home before they enter school...and children must learn to share a range of objects in common by means of temporary possession. Negotiations over temporary possession often turn into dispute" (pg. 31) and Dunn & Munn (1987) state that the justifications which children give are "chiefly in terms of their own wants, needs & feelings" (pg. 797) and this is nicely illustrated by the following examples of verbal-object antecedents.

Girl Z **"I want the cups"**
Boy X **"I want that"**

Most object disputes were short and simple, often involving repetition and occasionally force e.g. two children pulling at a toy in the sandpit with both shouting "it's mine". Researchers have stressed that "a toy is more attractive when another person contacts it" (Eckerman et al., 1979 as cited in Hay, 1984). Genishi & Di Paolo (1982) comment "a child's goal is not the resolution of argument but control of others' behaviour". The next example shows how one child who has a plentiful supply of toy eggs still seeks to gain one from a peer.

Boy **"Gimme that"**	(Antecedent)
Girl **"No"**	(Opposition)
Boy **"Gimme that"**	(Repetition)
Girl **"No, you've got lots of eggs"**	(Justification)
Boy **"But I want it, give it to me"** *[Grabs it]*	(Force)

The boy can't give any good reason for wanting the egg but still insists on getting his way - even resorting to force to gain control over the girl.

The frequency of disputes over access, play and claim were far less than that for objects. The second most common antecedent was that of 'access' at 17% (mean 0.34) of the total. This is consistent with Corsaro & Rizzo's (1986) findings at American nursery schools but more than Eisenberg & Garvey's (1981) results predict. However, Eisenberg & Garvey studied *dyads* in an experimental setting rather than groups of children in a natural environment, and therefore would not have a third child demanding access to the ongoing interaction. In general, unsuccessful attempts at access were fairly low and this may be due to the fact that these children were encouraged to roam around freely and join in any activity available at that time. McGrew (1972) suggests that trying to gain access may "disrupt social stability", so it may be that nursery school children who have experienced such disruption tend not to get involved in access disputes because it stops the flow of play and is therefore not in their best interests.

At 14% (mean of 0.25), the 'play' result was less than Eisenberg & Garvey (1981) and Corsaro & Rizzo (1986) found and the percentage of arguments over claims was also pretty small (12%) but this value is similar to the 14% found by Shantz (1987). Corsaro & Rizzo (1986) demonstrated that Italian children produce more disputes over claims (32%) than American children (6%) and they believe this is due to cultural differences and the Italians' enjoyment of the 'discussione' for its own sake. In Britain, dismissing another's claims abruptly would be perceived as quite rude whereas the Italians seem to treat it as a skill which facilitates interaction.

Looking at these overall findings, it appears that children tend to use the less abstract antecedents of 'object' and 'access' most often, and differences in type of antecedent were found to be significant. Additionally, usage varies across gender, class and play activity and this will be explored in section 2:4:3. A final examination of the antecedent event focused on the interaction between type of antecedent and the non-verbal\verbal behaviour used. A significant interaction effect was found - verbal behaviour was closely associated with 'play' and 'claim' antecedents whereas non-verbal acts tended to be linked most often with 'object' and 'access' triggers. Again this reinforces the ideas of complexity and abstraction mentioned earlier.

2:4:2:2 Oppositional Stage

It was seen from the previous section that children tend to employ the more 'concrete' types of antecedent. However, they also use almost 50% of verbal strategies indicating some degree of linguistic competence as proposed in the

introductory hypothesis. At the opposition stage, pre-schoolers were found to use 27% (mean 0.54) complex tactics compared to 73% (mean 1.47) simple ones. The fact that almost a third of nursery school children's dialogue is skilful, even when producing a spontaneous challenge, is encouraging.

2:4:2:3 Development Stage

In the development phase, the most commonly used single strategy was 'repetition' (39%, mean 2.54) and this result is similar to that noted by Corsaro & Rizzo (1986). They stated that "multiple insistence" was used frequently and was simple in nature since no new information is being added. Genishi & Di Paolo (1982) also found that repetition was common in children's disputes and Piaget believed that such "simple assertions" occur before the stage of "genuine argument" consisting of "rational communication intention and practice" (Dorval & Gundy, 1990, pg. 391). Likewise, this study classified 'repetition' as simple. However, as mentioned in the introduction, the definition of 'complexity' is somewhat subjective and arbitrary... and not all researchers agree that repetitive acts should be perceived as simple in nature. Keenan (1974, 1975) is emphatic that repetition is more than a simple tactic because it is used as an "attention-getting device" and can be used to keep discourse flowing by helping to verify what has been said and so minimising misunderstandings. Keenan (1975) also points out that children "repeat selectively....reflecting competence not incompetence. Shaping reflects the child's orientation to expectations of the prior speaker" (pg. 285). This theme is echoed by Goncu (1993) who says "repeating implies acknowledging another's intentions" (pg. 193). It therefore seems that pre-schoolers can pick up subtle changes and implications in dialogue even with so-called 'simple' repetition and the following discourse demonstrates this:

One boy tries to take the 'fire-hose' from another boy.

Boy A **"No, share"**
Boy B **"Gimme"**
Boy A **"Share"**
Boy A **"Need to share"**
Boy B **"I'm not sharing"**
Boy A **"Share with me"**
Boy B **"I don't like you"**

In this example there is a lot of repetition involving the word "share" but with some variation. The first two versions seem more like commands and get boy A nowhere. Boy A then changes his tactics slightly by adding the word "need" which is more of a plea, appealing perhaps to the other's sense of guilt or fairness. Boy B still refuses to accede to the request. Boy A then tries a personal appeal "share with me" which boy B then turns to his advantage by telling his opponent "I don't like you". At this point boy A takes the hint and negotiates no further!

Although repetition was the single most frequent tactic used and it was regarded for present purposes as simple, pre-schoolers still employed more complex strategies overall at the development stage (56%, mean of 3.55) than simple ones (44%, mean of 2.81). Therefore children demonstrated evidence of complexity even with repetition coded as simple!

Although many researchers have suggested that preschoolers are only capable of frequently producing simple speech strategies, the results from the present research throw some doubt on this. Indeed the findings from this research are very promising with results which are consistent with a few other studies including one by Dunn & Munn (1987) who found that 3 year olds give reasons in 32% of disputes with their mothers. Likewise, Eisenberg (1992) demonstrated that youngsters used justification in 36% of their disputes whilst Orsolini (1993) quotes a figure of 31%. Indeed, it seems that young children can be flexible when the need arises as shown by the boy in the following exchange:

A boy asks a girl for a piece of cake (playdoh) that she is making

Girl **"No, can't"**
Boy **"Just a wee bit of cake"**
Girl **"No"**
Boy **"A wee, wee bit"**
Girl **"NO"**
Boy **"Its okay...I'm only kidding"**

Here we have a boy making a request which is simply and immediately refused by the girl. He then modifies his request by asking for a 'wee bit'. When this is also rejected, the boy tries softening his request even further - by suggesting he only has a 'wee, wee bit'. Again this compromise is rejected and the boy (clearly getting the message now) tries to extract himself peacefully from the situation. He placates the

girl by saying "it's okay" and deflects potential conflict by stating "I'm only kidding". Haight, Garvey & Masiello (1995) believe this type of behaviour is quite common amongst pre-schoolers "children seem aware of culture norms for polite disagreement...norms for arguments include techniques for making conflict non-serious, framed as pretend...or as part of a ritualised exchange" (pg. 102). In fact these ideas are very similar to Maynard's (1985) account of how children "let opposition pass". It therefore appears that young children are linguistically more sophisticated than has often been assumed.

Justification was by far the most frequent complex strategy used (32%, mean 2.06) followed by alternatives (18%, mean 1.18) and request for justification (5%, mean 0.32). Eisenberg & Garvey (1981); Shantz (1987); Eisenberg (1992); Orsolini (1993) and Killen & Naigles (1995) all point to the high frequency of justifications given during conflict. Justification is demonstrated by the next example of discourse:

A girl is putting toy men in an ambulance (Antecedent)
The boy objects to one man and says **"No, no"** (Opposition)
The girl persists in putting a toy man in the driving seat of an ambulance and she states **"Yes, this one"**
The boy then justifies his previous objection by saying **"No, not that one, because that man sick"**
Girl accepts this reason and substitutes the toy man.

The boy's justification clearly demonstrates what Piaget (1926) takes to be the defining feature of 'genuine argument' - "the child connects his statement with the reason he gives for its validity by means of a conjunction" (pg. 68). The next piece of dialogue involves the use of an alternative to bring the dispute to some sort of conclusion:

A boy is pulling at bits of a constructed model (Antecedent)
Girl **"Hey, that's mine"** (Opposition)
Boy **"No, it's mine"** (Repetition)
Girl **"Here, take that bit"** (Alternative)
Children then start to build different things.

In this instance, conflict is resolved by the girl proposing an alternative which is acceptable to both participants. Once again, this involves skills which some

psychologists and educationalists only attribute to much older children. It therefore appears that children are aware of the importance of resolving arguments peacefully and use their linguistic skills to do so. O'Keefe & Benoit (1982) state that "preschool children are capable of coherent conversational behaviour and listener-adapted referential communication" (pg. 154) and Jennings & Suwalsky (1982) stress "by age four, most children are capable of quite extended interactions involving considerable reciprocity" (pg. 130). If this is true, the puzzle still remains as to why pre-schoolers exhibit less complex language at the opposition stage than the development phase. The difference may be due to circumstance rather than children's competence. Cazden (1971, 1977) believed that "when a child makes or fails to make a particular utterance, consider the characteristics of the situation as well as the child" (cited in Edwards & Westgate, 1987). It could be that the antecedent event is so sudden and unexpected that children 'act first and think later'. Instead of pondering on others' feelings, the children are more likely to try and safeguard their toys or current situation. By the development stage, the children will have had more time to take account of others' perspectives and examine appropriate tactics and alternative outcomes in the light of more long-term investment. Ross & Conant (1992) make the point that "negatives such as 'no' and 'don't' were used most frequently to protect toys, whereas (possessive justifications)...were used to gain and maintain possession of toys" (pg. 163). Dunn & Munn (1987) acknowledge that many pre-schoolers' justifications centre on their own wants and needs but they also stated that children can go beyond this.

Children thus appear to demonstrate some degree of cognitive and social skill at each stage of conflict. The next section will explore this further, with regard to sex, class and play activity.

2:4:3 DISPUTES AND CONTEXT EFFECTS

The preceding sections dealt mainly with the complexity of dispute tactics in relation to the total data. This part of the thesis will focus on how the frequency and complexity of disputes vary across the variables of gender, class and play activity. As in the previous section, complexity will be examined at each of the conflict stages.

2:4:3:1 Dispute Frequency and Gender

In the introduction it was predicted that girls will have fewer disputes but more complex ones than boys, and overall the results are consistent with the first prediction but less so with the second. Results from subsection 2:3 indicate that

boys are involved in more disputes than girls and boy-only disputes are more frequent than mixed group and then girl-only conflict. These trends are comparable with previous research (e.g. Green, 1933; Dawe, 1934) and in truth not very surprising since "boys show more aggressive behaviour than girls" (Bullock et al., 1980 as quoted by Hay, 1984). Smith & Green's (1975) reasoning for greater male conflict is that boys are similar "in the extent to which they emit aggressive behaviours...(so) one might predict that, within same-sexed groups, boys would be more likely to fight with boys than girls would be to fight with girls".

Boys and girls engage in a similar amount of exchange in mixed-sex groups (means of 1.50 and 1.77 respectively) but boys contribute more in all boy groups (mean of 3.67) than girls do in all-girl groups (mean of 2.87). Girls therefore seem less argumentative in general and this fits in with both the past research and the hypothesis given in the introduction. Girls tend to use negotiation and compromise which helps avoid conflict (Miller et al., 1986; Sheldon, 1990) and these strategies may be used more often with other girls since girls wish to maintain "interpersonal harmony" (Gilligan & Attanucci, 1988) with those with whom they play most. Boys usually employ more "controlling, heavy-handed tactics" (Miller et al., 1986; Sheldon, 1990) with other boys which may cause or escalate disputes. Killen & Naigles (1995) emphasise the dominance and competitiveness of male interactions whilst Vespo et al. (1995) believe boys are more likely to come into conflict because they use "more verbal taunting and physical fighting than girls...and use more power assertion than girls" (pg. 191). O'Keefe & Benoit (1982) clarify what may be meant by power assertion in children's arguments "the use of power generally appears as physical force, bribes, or appeals to external authority" (pg. 167) and the next examples illustrate this:

One boy (A) chases another boy (B) who has a truck. Boy A wants to land his helicopter on the truck.

Boy B **"No, no"**

Boy A **"Yes, land 'copter"**

Boy A then puts his helicopter on the back of the truck

Boy B **"I'm telling the teacher"**

A girl is playing alone at the sandpit when a boy tries to force his way in. He then tries to take the spade away from her and she moves away from him. Then, in a

defensive gesture, she begins 'stockpiling' all the objects to 'her side' of the pit. The boy then leaves to join another activity.

Some researchers have mentioned that the incompatible behaviour of boys and girls means that they tend to play in same-sex groups. Vespo et al. (1995) go as far as to suggest "young girls may avoid interaction rather than play with boys" (pg. 191), and Hartup (1983) states "girls evidenced more passivity in the presence of boys" (pg. 110). This may have some implications for language development and socio-cognitive growth since the opportunity for exposure to perspectives from members of the opposite sex (who are believed to act in different ways: e.g. girls using more mitigating speech patterns\boys being more controlling) is minimised and thus the children will get less practice in dealing with possible variations.

However, even if the results show variations between the frequency of boys' and girls' conflict in the direction predicted, there was little evidence of significant sex differences in relation to complexity of conflict strategies. This will now be discussed with respect to each of the dispute strategies.

2:4:3:1:1 Antecedent Event, Gender and Complexity

The overall results relating to verbal and non-verbal behaviour indicated little difference in their frequency. A further inspection in relation to gender revealed that boys use only slightly more verbal behaviour (mean of 1.12 for boys compared to 0.89 for girls) and non-verbal behaviour (means of 1.10 and 0.85 respectively) than girls. These differences were too small to be significant. Likewise there were very few differences between types of antecedent although boys tended to engage in 'claim' twice as often as girls (means of 0.32 and 0.15 respectively). It was suggested in the introduction that boys try to increase their status by making exaggerated claims (Forbes et al., 1982 as quoted by Putallaz et al., 1992) and they also take on more fantasy-type roles (Fein, 1981; Rubin et al., 1983) involving easily refuted claims such as "I'm Superman". Maccoby (1988) suggests that boys' speech "serves more egoistic functions" whereas girls' speech is "socially binding" (pg. 758). Boys may also make far-fetched claims in an attempt to get noticed since Whiting & Edwards infer that "seeking attention is more characteristic of boys than girls" (pg. 175).

2:4:3:1:2 Oppositional Stage, Gender and Complexity

It was shown in Table 2 of the results section that simple negation made up the bulk of opposition tactics with complex strategies being used on almost a third of

occasions. There were no significant differences found between sex groupings, with boys only having slightly higher means for 'simple negation' and 'justification' than girls. It therefore appears that both girls and boys respond to the antecedent event in a similar way and neither uses significantly more complex tactics than the other.

2:4:3:1:3 Development Stage, Gender and Complexity

Again the results indicate few differences between male and female children in the complexity of tactics employed during the development stage. Although there were no significant differences, the trend was for boys to exhibit greater mean values for all strategies except 'alternative' and 'repetition'. One of the largest differences was in the use of force tactics, with boys using twice as many (5.2%, mean of 0.33) as girls (2.6%, mean of 0.17) and this ties in with claims made in the introduction regarding male aggression, and also fits in with points made in section 2:4:3:1.

Although the findings from a direct comparison of male and female children do not support the prediction that girls use significantly more complex strategies than boys, there may be some variation when sex is examined alongside class and\or play activity - this interaction will therefore be looked at in more detail in subsequent sections. Nevertheless, there have been several prior studies which, like this one, also found little obvious differences in conflict behaviour between sexes. Vespo et al. (1995) discovered negligible gender effects on the nature of disputes amongst 18 month to 6 year old children. Likewise, Hartup et al. (1988) perceived no gender difference in the nature of dispute resolution in children around 3 to 5 years old and so they concluded "the motivation to achieve equality in friendship...and to contain negative affect seems thus to be as strong among boys as among girls" (pg. 1600). One possibility for these findings is that the children were too young to be influenced by normal socialisation practices. The stereotype often persists that girls are naturally better communicators than boys and so parents and teachers may (subconsciously) treat the sexes differently. Girls may be encouraged to express themselves verbally rather than physically and the reverse is often true for boys. Similarly, past research has uncovered that teachers may treat working class and middle class children differently, apparently underestimating the abilities of the lower social classes! Social class will therefore be the focus of the next section.

2:4:3:2 Dispute Frequency and Class

It was predicted in the introduction that state nursery children would have more frequent but less complex disputes than their private school peers. However, the results indicate that the less advantaged pre-schoolers actually have fewer

disagreements (116 compared to 136) than their privileged counterparts. One reason for this could be that the state-run nursery was bigger and more spacious. There were also more trained teachers to supervise the children and, in general, a wider variety and availability of playthings than at the private school. These findings are especially interesting because they suggest that an immediate context may over-ride background circumstances, and this could be a particularly fruitful area for researching the usefulness of 'intervention' for improving pre-schoolers' skills.

2:4:3:2:1 Antecedent Event, Class and Complexity

Although the advantaged children used more verbal strategies (54%, mean 1.20) than their less privileged peers (44%, mean 0.81), this was not statistically significant. A slight interaction effect was found in relation to the type of antecedent employed. The privileged group employed 'object' antecedents quite a bit more than their less advantaged peers (especially in the verbal condition). It is possible that advantaged children have more toys to play with and less siblings to share with so they may have less experience of negotiating over 'objects' leading to ineffectual attempts at gain and therefore subsequent conflict.

Access attempts were similar across both sexes but slightly higher for the advantaged children. This could be because they are more confident at approaching already established groups (Bretherton, 1989), and Finnie & Russell (1988) propose that working class children "hover around the periphery of other children at play, not attempting to join in" (pg. 790). McGrew (1972) suggests that trying to gain access may "disrupt social stability" but that children would be more "territorial" at home since they spend more time there. Lawson & Ingleby (1974) point out that middle-class children have a "greater amount of space available...with less sharing of bedrooms" (pg. 412). This lifestyle difference could contribute to greater possessiveness over access and subsequently higher rates of conflict over access attempts.

In contrast to this, the Class S children tended to engage in 'play' and 'claim' disputes more often than their advantaged peers and this is interesting because it was earlier suggested that 'play' and 'claim' were the most complex antecedents. In relation to 'play', it could be that the privileged children are more likely to be encouraged by their parents to be creative and explore reality through pretend activities - so familiarity with rules and roles would possibly lessen conflict. However, it must be re-emphasised that the differences found were too small to be significant.

An example of play negotiation follows:

Girl	**"I will be the mum, you can be the dad"**	(Antecedent)
Boy	**"I don't want to be the dad"**	(Opposition)
Boy	**"I'll be the mum, I'm a good boy"**	(Justification)
Girl	**"You can't be a boy and a mummy"**	(Justification)
Boy	**"Okay, I'll be the dad"**	(Repetition)

Here the conflict stems from opposition to the natural play roles. After some explanation, the boy is content to play his normal expected part.

Interestingly, 'claim' was used over twice as frequently by Class S children (18%, mean 0.33) than those from the private nursery (8%, mean 0.16). It could be that the privileged children are less likely to make boastful claims because they have more material things with less need to share or compete with others. It may also be the case that the socially unskilled working class children (Finnie & Russell, 1988) use claims as a means of getting involved in interaction with others, albeit being rather negative in the first instance. Conversely, a greater number of children per working class family possibly encourages more child-child than parent-child interaction - and thus more opportunities and familiarity with the claim-counterclaim cycle or similar challenges noted amongst siblings (e.g. Dunn, 1984).

2:4:3:2:2 Oppositional Stage, Class and Complexity

The preceding paragraphs highlighted the earlier findings that the advantaged children engage in slightly more verbal behaviour than the less privileged children but that they also employed less of the more 'abstract' antecedents of 'play' and 'claim' which usually require greater linguistic skills. When the opposition stage was examined it was found that the advantaged group employed more 'simple' strategies than their Class S counterparts. As suggested earlier, it could be that the advantaged children come from larger homes and smaller families and therefore have less opportunity to engage in direct conflict. However, it is worth noting that although differences were found between classes at the opposition stage, these were not large enough to be significant.

2:4:3:2:3 Development Stage, Class and Complexity

The previous two stages have indicated that there are interesting patterns but very few significant differences in language use across class. However, one of the

interesting things to emerge from examination of the development stage is that the advantaged pre-schoolers were involved in two-thirds of the development acts. They therefore appear to be more interested in prolonging conflict. When looking at the descriptive data, it was found that many of these long conflicts consisted of repetition - as the following instance demonstrates:

Girl A is trying to get into the play house beside girls B & C. Girl C yells **"No"**

Girl B **"You're not playing"** (Opposition)
Girl C **"No"** (Repetition)
Girl A **"Yes"** (Repetition)
Girl B **"No"** (Repetition)
Girl A **"Yes"** (Repetition)
Girl B **"No"** (Repetition)
Child A, now inside the house, tries to get into the cupboard
Child B **"Stop it"** (Repetition)
Then child B turns to child C and says **"Shout at A"** *as A had just left the scene.*

From this exchange taken from the symbolic area of the private nursery, it is obvious that most of the dialogue is simple and repetitive in nature - thus a lengthy dispute doesn't necessarily mean it is a complex one! It should be noted at this point that 'yes' and 'no' may not be viewed, by some, as repetition. However, part of the definition given for repetitive dialogue is that it adds no novel information to an argument - as is clearly the case in the yes\no example shown above.

The advantaged children showed a higher amount of repetition (mean of 3.53) compared with less advantaged children (mean of 1.57). The privileged pre-schoolers also demonstrated a greater amount of complex exchanges (mean 4.6) than their state nursery peers (mean of 2.5). Furthermore, the sample of dialogue given above is fairly representative of the prolonged disagreements found in this study and supports the findings that privileged children can have longer arguments but also use more repetition than Class S children. It is therefore possible that long disagreements gave the privileged children an opportunity for practising all of their linguistic repertoire! If one looks at the means recorded for the advantaged children (Table 13a), it can be seen that they are greater for every category except 'force' and 'other'. The higher mean values for 'justification', 'alternative' and 'request for justification' tend to tie in with the proposed hypothesis and much previous research. For instance, Tizard & Hughes (1984) found that both teachers and

parents engage middle-class children in a wider and more complex range of dialogue than working-class children and so one would expect the advantaged children to be more linguistically accomplished.

Not only was there a significant class difference overall, but there was also an interaction effect between class and development tactic used. It has already been mentioned that the Class S children exhibit less 'repetition' and less of the complex tactics than their advantaged peers. In addition, they use more of the simple 'force' tactic (mean of 0.36 compared to 0.16 for the advantaged children). It could be that these children come from larger families with scarcer resources so competition would be fiercer as children learn to 'stand up for themselves'. Work was cited in the introduction that the working class parents are more punitive, and harbour negative attitudes towards those in authority, which may transmit to children as the 'norm'. Moreover, it has been suggested that working class parents tend not to mediate in, or explain both sides of conflict in the way that middle-class parents do (e.g. Tizard & Hughes, 1984).

It is also worth noting that although the less advantaged children show slightly less use of complex tactics than their advantaged counterparts, they still engage in substantially more complex exchanges than simple ones at the development stage. This again throws some doubt on some psychological and educational views of young children's potential and suggests children's (and especially working-class children's) competencies have been underestimated. In fact, Sackin & Thelen (1984) looked at conflicts between children in a low-income day-care centre and those in a high income day-care centre. They found no significant differences in the number of conflicts that occurred in each school. Furthermore, in both schools they discovered that "co-operative propositions were the most frequent type of conciliatory behaviour, followed by object share" (pg. 1100). In addition, Piche et al. (1978), talking about the results from their study, emphasised "the absence of social class effects...adds to the generally ambiguous picture surrounding the relationship of class and children's development in functional communicative skill" (pg. 778).

These ambiguities have been so widely debated, it was decided that a finer analysis looking at the interaction between class and gender would be useful. This analysis showed that there was a significant interaction between sex, class and development tactic used. In general (and omitting the 'other' category), Class S girls had the smallest mean values for everything except force where they were just behind male

pre-schoolers. In contrast to this, Class P females had greater means for 'repetition', 'justification' and 'alternative'; with the second highest 'request for explanation' behind less advantaged boys. It could be that this group of boys is less embarrassed at asking for clarification, whilst Tizard & Hughes (1984) claim "middle-class girls' talk to their mothers contained a higher proportion of questions of all kinds" (pg. 150). Likewise, it is unsurprising that both the advantaged girls and boys gave more justifications than the working class group because "middle-class mothers more often explained reasons for their behaviour" (pg. 155, Tizard & Hughes, 1984), and "middle-class mothers put more demands on their children to be explicit" (pg. 144, op. cit.). Tizard & Hughes may also have an explanation as to why working class children (especially girls) make smaller contributions to complex dialogue "teachers made less frequent use of language for complex purposes when addressing working-class girls" (pg. 222). These findings may therefore have implications for teaching practices in schools.

2:4:3:3 Dispute Frequency and Play Activity

Earlier it was suggested that play activity may influence both the frequency and complexity of disputes. Results showed that most disagreements occurred in symbolic play (mean 2.86)) and least in individual pursuits (mean 0.37)). The fact that there are few arguments during solitary activity is not very unexpected since there would be little interaction between children at this time. There were few differences between classes or sexes for involvement in disputes during individual play which may indicate that most children have an understanding of acceptable behaviour for such quiet areas. The squabbles that did break out were over possession of books or jigsaw pieces - but these were rare.

The sand & water area also involved a degree of conflict speech but overall the number of disagreements was far lower (mean 1.01) than that of symbolic or construction play. Again there were few differences in frequency across gender but the advantaged children tended to have more disputes in the sand & water area than the less privileged pre-schoolers (mean of 1.31 compared to 0.71). The middle class children may be keener to play in the sand & water area than their working class peers since they are less likely to be involved in such activities at home (Tizard & Hughes, 1984). Minunchin & Shapiro (1983) state that activities are prone to conflict if they "involve shared space and equipment" (pg. 205) - therefore it is reasonable to expect the advantaged children (who tend to disagree over objects and access) to have more disputes in this setting.

During construction play it was demonstrated that boys had more arguments (mean 2.56) than girls (mean 1.55). Perhaps boys are encouraged to play with construction materials at home, and familiarity with the materials may lead them to engage often in this type of play at school. If this takes up a high proportion of their time then there is likely to be a higher frequency of disputes too! Many researchers mention that boys spend a lot more time using construction materials than girls and since boys are also believed to be more aggressive, it follows that there will be more conflict in this area.

Although construction play is fertile ground for disputes, symbolic activity is even more so. The advantaged children tend to have more arguments than their less advantaged peers in the symbolic context, and girls engage in more 'symbolic disputes' than boys. Again it may be argued that symbolic activity attracts more input from both girls and the privileged group since - "disadvantaged children did less role-playing than the middle-class group" (Smilansky, 1968 as cited in Smart & Smart, 1978, pg. 155), and girls "centre on dramatic play" (Hartup, 1983, pg. 110). Hence one may expect an increased likelihood of conflict as these groups generally tend to have a greater involvement with symbolic play.

It can therefore be perceived that there appears to be an important relationship between gender, class and play activity. It appears that boys are more likely to be involved in construction play whilst girls are more often engaged in symbolic activity than boys. A statistical analysis supported these findings with a significant result given for the interaction between sex and play activity. The pattern which emerged for the two classes demonstrated that the advantaged children produce more dialogue overall in each activity than the state nursery group.There was therefore a significant main effect of class but not a class x activity interaction.

2:4:3:3:1 Antecedent Event, Play Activity and Complexity

It had been suggested previously that the 'object' and 'access' antecedents may be deemed less complex than 'play' and 'claim' triggers because they were more likely to be tied to 'concrete' entities. It was therefore interesting to note that the two activities associated with the production of skilful language (i.e. symbolic and construction play) were also linked to the most frequent use of 'play' (during symbolic activities) and 'claim' (during construction play). Smilansky (1968) emphasised the importance of negotiating roles and rules during symbolic play and therefore one may expect a relatively high degree of conflict over these. Similarly, it

was highlighted earlier that preschoolers (and especially boys) tend to produce a lot of claims - both in fantasy and construction play. Building a spaceship or robot was often accompanied by an assertion such as 'mine's is bigger' or 'my one's faster' and it seems this type of speech is relatively common at the antecedent as well as the two other stages.

2:4:3:3:2 Oppositional Stage, Play Activity and Complexity

At this stage, individual pursuits are linked to least complexity (mean of 0.02) and symbolic play the most (mean of 0.29). Symbolic and construction play appear to elicit similar amounts of simple tactics (means of 0.54 and 0.50 respectively), but construction play is linked with lower numbers of complex strategies (mean 0.16) compared to symbolic play (mean of 0.29). The interaction between 'complexity' and play activity approaches significance ($p=0.058$) suggesting the possibility of a 'real' variation between type of play and the complexity of language elicited at the opposition stage.

2:4:3:3:3 Development Stage, Play Activity and Complexity

At this stage, both individual pursuits and sand & water activity involve more simple than complex tactics. This is possibly due to the rather limited scope for debate. Disagreements over objects and access are common and, as mentioned previously, these are non-abstract situations and usually obvious to all participants-making explanations redundant.

For both symbolic and construction play, the complex strategies are more frequent than the simple ones which suggests that these activities stimulate complex exchange. It could be that in the more varied symbolic play situations, a wider and more complicated range of conflict can occur. For example, one child may not want another to play a certain role but this reason would not necessarily be obvious to the second and so would need to be explained. Children deeply involved in symbolic play are anxious to keep the activity flowing and the use of compromise and negotiation plays a large part in this (Garvey, 1974). Children would be called upon to expand and extend their language in line with their roles or social scripts as illustrated by the following dialogue:

Girl M **"You can't have lunch"** (Antecedent)
Boy R **"I'll punch you on the nose".** *He pulls playdoh food towards him.* (Opposition)

Girl M **"It's not fair - if we don't have any food we'll die"** (Justn)
Boy S **"Why can't we have lunch?"** (Request for Justifn)
Girl M **"There's no chips"** (Justification)
Boy S **"We can get chips from McDonalds"** (Alternative)
Boy R **"I always get a hamburger when we go to McDonalds...I don't like chips"** (Alt/Just)
Girl M **"But he's eaten our chips. We need to make more food"**

In symbolic play the focus is on peoples' roles and behaviour whilst the props are helpful but secondary. Hartup (1983) argues that social interaction is more "sophisticated in the absence of toys...longer contact chains were more common in the absence of toys" (pg. 120). Likewise, Corsaro & Rizzo (1986) conclude "disputes are important in children's attempts to reach shared understanding and to jointly organise and construct play events". It seems that role-play disputes being more collaborative than those simply involving objects or access also leads to them being more complex.

This argument poses a puzzle for the construction findings. In the main, construction consists of object manipulation. Ervin-Tripp (1982) suggests that disputes were likely over building blocks in the first instance but then children become engrossed in their construction. Perhaps the fact that children were sitting down, rather than being more 'active', enabled more complex discussions to develop. And it is clear that the objects involved in this area (unlike the sand & water) acted as 'props' for symbolisation e.g. 'chimney' and 'legs' in the following discourse.

Boy M has built a chimney. Boy A tries to force a toy man (lego) down this.

Boy M **"Don't put him down chimney"** (Opposition)
Boy A **"Put man down chimney"** (Repetition)
Boy A **"See that man, he likes going down chimney"** (Justification)
Boy M **"Let's put this bit (block) down chimney"** (Alternative)
Boy A **"No, its got no legs"** (Justification)
Boy M **"He was born like this"** (Justification)
Boy A **"Okay, lets make a wider chimney"** (Alternative)

Although beginning in the construction area and involving building blocks, the children begin to engage in a sort of story-telling scenario which allows room for

negotiation. Bretherton (1989) stressed "that play with small objects...creates a model situation...(children) master reality through experiment" (pg. 394) and both Piaget (1962) and Smilansky (1968) believed that "constructive games occupied a point half-way between play and adaptive intelligence" (cited in Rubin et al., 1983, pg. 726). The *small* differences in complexity between symbolic and construction play (means of 1.59 and 1.32 respectively) may be due to the fact that construction activity can involve a degree of abstract play. Some researchers have noted that construction play can cross into symbolic territory "when children interacted with each other in the block corner, the play was likely to be of a pretense nature...when alone in the block corner, the behaviour was predominantly constructive" (Rubin et al., 1983, pg. 733). The final section will be making use of some of these findings by examining the implications they may have for educational theory and practice.

2:4:4 SUMMARY

In sum, the present study focused on four main hypotheses which were:

Young children's exchanges will be more complex than suggested by some research findings and educational documents.

Girls will have less frequent but more complex disputes than boys.

Children from the private nursery will have less frequent but more complex disputes than children from the state-run nursery.

The type of play activity engaged in will affect the frequency and complexity of speech acts used during disputes.

Overall, the research results clearly demonstrated that a conflict situation provides a context which is conducive to complex speech act production by preschoolers. In contrast to many psychological and educational claims, it therefore appears that young children *can* employ complex language - at least in a dispute setting. It was also demonstrated that the advantaged children, at least during the development phase of a dispute, tend to engage in more complex strategies than their state-school peers, but there is little difference between the sexes, at least until play

activity is taken into account. Type of play activity appears to be associated with children's linguistic skills, with construction and symbolic play eliciting more skilful exchanges than sand & water activity or individual pursuits. These results therefore confirm that three out of four of the introductory hypotheses have been straightforwardly upheld.

Finally, it was reported, in the introduction, that exposure to *conflicting* perspectives was possibly only one way to promote cognitive gain; the other traditional view being that *co-operative* exchanges may be equally effective in development. Due to the controversy surrounding which context is most conducive to intellectual growth, and the fact that parents\ teachers will be more likely to favour a learning situation which does not involve conflict, further research is both relevant and necessary. Complex language and co-operation will therefore be the focus of Chapter 3.

CHAPTER 3: STUDY 2

The complexity of preschoolers' co-operative dialogue

Overview

This chapter will focus on the methodology and findings for the second study in the present research. The objective of this second study is to examine the patterns associated with the complexity of preschoolers' *co-operative* exchanges, especially in relation to symbolic and construction play which were found to be associated with skilful dialogue in Study 1. After a brief introduction explaining why this follow-up research is being conducted, the results will be reported and discussed.

3:1 INTRODUCTION

In Chapter 1, it was noted that the ability to partake in skilful discussion could lead to more effective communication, enhanced perspective-taking and a degree of socio-cognitive development. The advantages of being able to employ complex language was also highlighted from an evolutionary stance. Charlesworth & Dzur (1987), Charlesworth (1996) and LaFreniere (1996) all emphasise the importance of verbal "manipulation" which can range from persuasion, via compromise or justification, right through to negotiation and even coercion. It is thought that such a range of behaviour is valuable, even essential, to obtain the maximum benefits from any situation.

From this perspective, it has been proposed that 'conflictual' and 'co-operative' dialogue are complementary rather than dichotomous (e.g. Kruger, 1993) since they serve a similar function - negotiating to attain a particular goal. Charlesworth & Dzur (1987) claim that even "children as young as 4 years of age are capable of employing what seems to be a fairly complex combination of competitive, of self-serving and co-operative behaviours necessary to obtain the resource" (pg. 200). Branco & Valsiner (1992) stress the importance of flexibility in language use and report that speech acts have both "competitive and co-operative facets in their structure" (pg. 240). Moreover, Killen & Naigles (1995) found evidence that collaborative dialogue, such as information questions and justifications, occurs frequently during supposed dispute exchanges. It is important to acknowledge the duality of complex speech acts at this stage because the second study may be useful for helping establish the validity of these claims.

It is acknowledged that Study 1 focused solely upon the context of 'dispute' even though it has been suggested that conflictual dialogue appears closely-related to and, in some respects, indistinguishable from co-operative speech. Yet there are both theoretical and practical reasons for examining these two contexts separately. Firstly, there is a traditional and well-established practice of conducting research into either 'conflict' or 'co-operation' depending on the theoretical stance involved. That is, researchers who are exponents of Piagetian ideas believe that conflict is required for increased perspective-taking and socio-cognitive gain. In contrast, those following in the Vygotskian tradition stress that it is co-operation which is conducive to development. It is therefore an essential part of this thesis to determine which context is effective for encouraging complex speech and potential learning. Secondly, there has been more research undertaken in speech production with regard to conflict rather than co-operation. Hence, studying 'conflict' at the start of the present research enabled the researcher to resolve some of the inconsistencies surrounding previous work - and also provide a base from which to design the 'collaboration' study. Thirdly, methods of understanding and promoting child development have long been of interest to both psychologists and those in education. However, it is possible that individuals working in these areas may be wary of 'using' conflict as a vehicle for encouraging socio-cognitive growth. Therefore, a main objective of this thesis is to demonstrate that co-operation is a context which is effective in promoting skilful discussion. In addition, by examining how complex speech is elicited, information would be supplied which could be potentially useful for designing an intervention study to enhance children's negotiating skills.

In sum, this present work seeks to build upon the findings of Study 1 and show that preschoolers can use complex language in both conflict and non-conflict contexts, as well as aiming to identify some of the speech acts leading into skilful dialogue during co-operative exchanges. As with Study 1 - complexity, frequency, and type of speech acts will be examined in relation to class, gender and type of play, with some comparison also being made between Studies 1 and 2. A final aim of this second study into preschoolers' discussion skills is to examine the findings carefully and then assess their usefulness for designing an intervention study to further enhance children's linguistic performance. This topic will be raised more fully in Chapter 4 of the thesis.

3:2 METHOD

3:2:1 Data Collection

3:2:1:1 Pilot Study

A pilot study was conducted with a small number of children from a private nursery in the centre of Glasgow. The researcher attended the school for two full days, prior to the main research, in order to check the effectiveness of recording equipment and play materials.

Since the focus was mainly on collaborative dialogue produced during symbolic and construction play, the researcher settled into a convenient corner (i.e. in each play area at different times) and set-up the audio equipment. The researcher aimed to be as unobtrusive as possible, sitting quietly and noting dialogue as it occurred. Unlike the previous 'conflict' study which involved a clear definition of a dispute exchange (i.e. opposition to opposition), identification of collaborative discourse was less distinct. From observations of co-operative interactions made during the pilot, it was concluded that co-operative exchanges basically consist of any free-flowing, co-constructed (e.g. shared focus) dialogue between two or more children which were not interrupted or disrupted by negative or challenging behaviour, e.g.

Two girls are dressing up in witches outfits.

EA **You have that one...put it on that way so you have green hair**. (hat)
GB **Thanks.**
EA **We can be good witches and cast a spell on bad children.**
GB **Okay....well, I'll scream.**
EA **Okay...well, can I have that wand?**
GB **Here...wave it at the bad children.**

It may be seen from the above example that the girls are working together to 'create' a story and this demonstrates co-operative behaviour. It should, perhaps, be noted at this stage that some researchers differentiate between collaboration and co-operation. However - as reported in Chapter 1, due to the very young age of the children in this current research, no such distinction was made. This seems to be somewhat justified since Cooper & Cooper (1984) claim that "among younger children, co-operative interaction might amount to turn-taking on simple tasks" (pg. 79). Thus it appears that a finer discrimination of non-conflict contexts would be

unnecessary for preschoolers. Therefore, the terms collaboration and co-operation will be used interchangeably throughout the thesis.

Whilst the researcher was noting down the preschoolers' dialogue, she became aware that the exchanges tended to be longer that the conflict episodes in Study 1. Although she managed to note down most of the speech as it occurred, it was very useful to have the audio-recordings as 'back-up' so that any omissions or unclear notes could be dealt with afterwards. It must be pointed out that the quality of the audio-recordings was poorer than expected due to background noise, but they were more than adequate when coupled with the field-notes. There were no difficulties experienced with the recording equipment or note-taking. Alongside the discourse recorded, note was also made of the participants' initials (and sex if necessary). As badges had been dealt with in Study 1, there was little need to pilot these again.

The researcher also wanted to try out novel materials with the pre-schoolers. Tasks were chosen which involved the children having to share materials so that they would have to work together to attain the given objective. It was expected that some degree of negotiation or justification would therefore occur between the participants as each child tried to obtain required materials or refuse requests for these. The first idea involved asking the children to make a Christmas card for their teacher. For each observation episode, two children were instructed to work together and were given one piece of coloured card, safety scissors, glitter, glue, crayons, stars, stencils and cotton wool. Unfortunately, this attempt at getting the children to co-operate was not successful. Often one of the pre-schoolers would hold onto the card and refuse to share it. Even when the children did share, they each worked on a different corner of the card without speaking.

The second activity tested by the researcher was the beetle task and this fared better. The various beetle components were laid out on top of a table along with a picture of a complete beetle. Interested children who came over to the table were asked if they would like to build it. No more than three pre-schoolers were encouraged to do so at any one time. On the first beetle run, double the appropriate amounts of leg, tongue, eye and antennae components was provided along with one head and one body. The rationale was to try and make things slightly more difficult and so hopefully stimulate the production of complex dialogue. In fact, it only seemed to confuse the children and therefore the researcher decided to supply the exact number of components necessary for beetle completion on subsequent trials.

The pre-schoolers appeared more at ease with this arrangement and managed, on occasions, to co-operate quite effectively.

Once the required adjustments had been carried out, the researcher visited each of the schools involved in the main research. This enabled her to compare the symbolic and construction areas across both schools and observe when the children were likely to be in a particular area. Moreover, it gave the pre-schoolers the opportunity to become accustomed to their badges, the audio-cassette and the observer - and they did so fairly quickly.

3:2:1:2 The Main Study

3:2:1:2:1 Participants

This part of the research was also conducted at two nurseries on the Eastern outskirts of Glasgow but these schools were not the same as those involved in the first study. Again, one of the schools was a privately-run nursery in an advantaged area (Class P) whilst the other school was a state-run nursery in a poorer setting (Class S). A total of 82 children took part in the study which consisted of 19 boys and 14 girls from the private nursery plus 27 boys and 22 girls from the council-run school. As with the first study, group distinction was made on the basis of which school the children attended. All of the children were aged between 3 and 5 years, and only one of them was of ethnic minority origin.

3:2:1:2:2 Design

This was similar to Study 1 in that it involved non-participant observation of pre-schoolers during play activities. Children were identified by name badges, and field-notes of their collaborative dialogue were written out as fully as possible by the researcher. Audio recordings were also made to supplement and clarify (where necessary) the field notes. This approach was deemed necessary because, unlike Study 1, there were no pre-arranged categories to facilitate recording. In addition, the headteacher had no objection to the audio-taping of *non-conflict* exchanges. Since the purpose of this study is to examine the frequency of *skilful* speech, it was decided to confine the observation and recording of collaborative interaction to the two activity areas (i.e. symbolic and construction play), found in Study 1, to be associated with the production of complex language. Furthermore, it was decided to investigate the effect of 'novelty' on children's speech by encouraging them to engage in the "beetle task". This may be of interest since Cooper & Cooper (1984)

suggest that lack of experience with particular materials\situation may be a cause of poorer reasoning - since they do not have sufficient background information to draw upon for explanations. It is also potentially relevant to the design of an intervention study which, of necessity, will introduce a degree of novelty. Details of the play activities and areas are given below:

Symbolic Play Area

Both nurseries had an area which consisted of a play house, household objects and dressing-up box. In addition, other toys which promoted fantasy play were in evidence and included a dolls' house, a garage, a zoo, tool workshop and a doctor's kit. The state-run nursery had a larger and better equipped play house than the private nursery, possibly due to more space being available.

Construction Area

This consisted of a 'playdoh', 'lego' and general building blocks spread out on tables in a corner of the room. This was very similar for both schools.

Beetle Task

In addition to the aforementioned activities, the researcher also introduced a novel task on the final day of observation. This involved setting out pieces of a plastic beetle on a table and encouraging children (dyads or triads) to try and build it together. A picture of a complete beetle was left on the table to aid them in this task. The ensuing exchanges were captured using field-notes and audio-recording, with the researcher minimally participating.

The independent variables for the study were sex, class and type of play activity whilst the dependent variable was the complexity of strategies employed by the pre-schoolers during collaboration - for example, offering justifications and alternatives.

3:2:1:2:3 Materials

As with Study 1, consent forms were given out, completed and returned. Name badges were made up from school registers and the same pin name-badges were used for the duration of the research period. Unlike the first study, where the categories (based on Eisenberg & Garvey's 1981 study) were known, coding sheets were not employed and so field-notes were written at length on plain A4 paper attached to a clipboard for support. This then enabled categories to be drawn-up on

the basis of the discourse recorded. An audio cassette recorder and external microphone were used to tape pre-schoolers' collaborative exchanges. The recorder was tested each day prior to use and mains were used whenever possible. Furthermore, batteries and additional tapes were carried in case they were required. These recordings supplemented the field-notes and were especially useful for dealing with any clarifications or omissions in the written record.

As mentioned previously, the children were observed during three types of play. The construction and symbolic play materials were available in the schools. The beetle task was provided by the researcher and details are given below:

Beetle Task

Originally, the plastic beetle was one of four in a beetle board game. Adapting this for the purposes of pre-schoolers, only one beetle was used in the observation session and the purpose was to construct the whole beetle from its individual parts. The beetle comprised of a head, body, six legs, two eyes, two antennae and a tongue. All of the pieces were made of plastic and could be fitted together by placing the components in their relevant holes. The head and body were different colours from each other and also varied from all the smaller pieces which were yellow. A black and white photocopy of a complete beetle was also provided for the children to refer to during construction. This picture is in Appendix 2.

3:2:1:2:4 Procedure

After the preliminary visit, each school was attended by the researcher for 5 days. The researcher spent 2 days in each school prior to the Christmas holidays and 3 days after the festive break. This seemed preferable to the alternative of 5 days in one school prior to Christmas and 5 days in the other afterwards, since the latter may have resulted in a Christmas time 'artefact'. As in the first study, badges were pinned on each morning with teachers aiding in child identification. The observer then settled into the play area (either construction or symbolic) which had previously been identified as being 'in use' at that time of day and recorded, for similar periods of time, collaborative exchanges produced during each activity. She set up the recording equipment to be as near the children as possible but still be discreet. Similarly, the researcher tried to be as close but unobtrusive to the children as she could, and she continually discouraged any attempts at interaction by responding minimally.

Once the researcher was settled, she just waited for the children to engage in collaborative dialogue and then wrote down, as fully as possible, what was said. Some additional notes, regarding non-verbal aspects of behaviour, were added if they aided conversational flow or comprehension. The recording equipment was switched off when there was no interaction occurring in an area or when moving between one activity and another.

Each collaborative episode (as defined earlier) was written down as accurately as possible with each child's turn being put on a separate line and each complete exchange numbered and separated by a thick pen line. Children's sex was normally quite obvious from their names. If children had the same first name, they were distinguished by the addition of their surname initial. The end of an exchange tended to be obvious and was usually marked by outside intervention, change of activity or one or more children leaving the scene. The recording procedure was kept the same across schools and play activities and an example of the note-taking structure is given below:

1. CONSTRUCTION ACTIVITY - PLAYDOH TABLE

AD **"That's a big sausage"** *(Yellow playdoh)*
EU **"Throw it at the window"**
AD **"That won't work"**
RA **"I've an idea...bend it over 'n' it'll be like a banana"**

A workman comes in and the children's attention is diverted.

As previously noted, the researcher tried to spend similar amounts of time sampling the construction and symbolic activities each day. It is worth noting that the beetle task was only given on the observer's final day at each school and, due to the limited nature of the task, the pre-schoolers only tended to spend between 5 and 15 minutes on this activity. The total observation time was dependent on the number of children who wanted to engage in beetle construction and this was voluntary to keep things as naturalistic as possible.

3:2:2 Transcription and Coding

At the end of every day, after all the conversations had been noted, the researcher listened to the audio recordings in conjunction with reading the notes. At this point, any amendments and additions were made to give a more accurate and detailed record of interactions. This procedure was carried out at the end of each day's note-taking whilst everything was still fresh in the mind. These accounts were

then typed-up to give a comprehensive and permanent set of transcripts for coding purposes. Once the transcription was completed, the dialogue was ready to be coded. This task proved to be quite difficult due to the lack of research in this area coupled with the fact that collaborative exchanges are often longer and seemingly less predictable than conflict speech (e.g. Barnes & Todd, 1977; McTear, 1977). It was therefore decided to break the task down into more manageable stages and these will be described below.

3:2:2:1 Identification of Three Part Sequences

Eisenberg & Garvey (1981) stated that it was essential to identify discourse events that go beyond two-part exchanges such as straightforward question-answer pairs. It was therefore decided to follow the method of researchers such as Eisenberg & Garvey (1981) and Shugar (1983) who have shown the usefulness of three-turn sequences in their studies. Moreover, focusing on three-turn sequences also enables closer parallels with Study 1. Other researchers such as Sacks, Schegloff & Jefferson (1974), Mishler (1975) plus McTear (1977) also stress the value of studying three-part sequences, and Cooper & Cooper (1984) state "by considering an utterance in the context of others adjacent to it, its role and effectiveness as a conversational move or response can be evaluated" (pg. 88).

It has been suggested throughout this thesis that complex speech use may indicate increased perspective-taking whilst exposure to different view-points further provides a context conducive to reasoning and cognitive development. Therefore, it seems obvious that the three-turn sequences selected should reflect 'normal' or expected turn-taking behaviour. That is, having one (and same) speaker for Turns 1 plus 3 and another, different, speaker at Turn 2. This would then enable the researcher to examine the communication between peers to obtain an indication of, for example, the degree of responsiveness or perspective-taking conveyed by the speech produced at each of their turns.

Now that a dyadic three-turn exchange was decided upon, it was necessary to decide which criteria were important in selecting episodes for further study. It had been noted in Study 1 that complex speech acts, such as justifications and alternatives, were often employed after a dispreferred response or direct challenge in order to reduce the negative impact. However, there has been a lot less research into what type of speech strategies precede complex dialogue in a naturally-occurring co-operative situation. Bearing this in mind, it was decided to look for three-step sequences which had a 'justification' or 'alternative' speech tactic at Turn

3. This would then allow the researcher to examine the types of speech acts which predominate at Turns 1 plus 2 and that lead into a complex strategy.

The details outlined over explain the basic criteria for selecting relevant sequences, from the total transcripts, for further analysis. At this point, it was decided to call Turn 1 'The Antecedent', Turn 2, 'The Link' and Turn 3 'The Response' stage. An acceptable sequence is set out below.

Turn 1	Antecedent	*AN*	**"I want a drink"**
Turn 2	Link	PB	**"Do you like orange?"**
Turn 3	Justification Response	*AN*	**"No, cola tastes better"**

3:2:2:2 Conflict and Collaboration Sequence Identification

65 pages of transcripts consisting of a total of 104 collaborative interactions were recorded. Then, 110 three-turn episodes fitting the criteria outlined in subsection 3:2:2:1 were selected from these. Interestingly, when these episodes were examined further, it was found that some of them were very similar to those identified in the previous study - thus Study 1's coding scheme could be mapped on to certain episodes in Study 2. It was therefore decided to make a distinction between 'stand-alone' conflict in the first study where a challenge (usually at the beginning of play) tends to disrupt exchanges and 'co-operative' conflict (Study 2) where a three-turn sequence comprises of opposition to opposition behaviour but it has been embedded within a collaborative exchange. It is therefore less evident and does not tend to stop the flow of dialogue or play. The remaining three-step sequences within Study 2 tended to be purely co-operative with no evidence of opposition.

3:2:2:3 The Coding of Each Turn in the Three Part Sequence

In addition to the above, it was necessary to establish relevant categories for each of the three turns in an episode. The coding scheme from Study 1 could be applied to the 'conflict' episodes in Study 2 but it was important to devise a coding scheme which would be applicable to *all* the sequences recorded in the present study. This new scheme, which emerged from careful examination of all the three-turn sequences, is given below for each stage of the episode.

3:2:2:3:1 Turn 1 - The Antecedent

In the previous study, the antecedent tended to be categorised in terms of the causal situation. The language used captured an event which had triggered opposition and the coding reflected this context rather than any grammatical aspect of the speech pattern. In addition, provision was made to record the antecedent as either verbal or non-verbal. In contrast, the focus in this study is on verbal turns and the categorisation reflects the type of speech act employed at each stage. Four kinds of communicative act were found at this stage and these are set out below.

Claim: Although, in the present study, this is a broader category than that suggested by Corsaro & Rizzo (1986) and used in Study 1 - it is relatable to 'claim' as used in some of the research literature cited (e.g. Kertoy & Vetter, 1995). Here it includes any type of demand or assertion, e.g.

I need that doll.

I want in here.

He's a pig.

That one's bigger than yours.

It's my turn.

It may be perceived from these examples that the 'new' definition of 'claim' tends to encompass each of the contexts of object, access, claim and play given in Study 1. Subsuming these categories under a broader term seems to be justified in the present study since the children did not seem to be especially dependent on any of these contexts to prime co-operative behaviour. In addition, the present research focuses only on verbal behaviour whereas the previous study examined both verbal and non-verbal behaviour at the antecedent stage, often only obtaining small frequencies for access, claim and play 'triggers'.

Command: This is where a child issues any type of instruction, order, suggestion or direct request, e.g.

Give me that.

Leave that alone.

You put that back.

Let's play together.

Don't!

Question: When a child uses a sentence or phrase which is worded in a way as to elicit information, knowledge, clarification, elaboration, confirmation etc. Examples include:

Why are you building that?

What are they for?

Who is that?

Can also include tag queries such as:

You had that before, haven't you?

You're a wimp...ain't you?

Minimal Dialogue: This includes all short, simple dialogue including yes\no responses; acknowledgements such as 'uh huh', 'right', or 'mmm'; polite expressions like 'sorry', 'please' or 'thanks' and simple repetition. This category also includes all the dialogue which basically serves to maintain the exchange without adding any novel information.

3:2:2:3:2 Turn 2 - The Link Stage

This turn showed a very similar pattern to the antecedent and again includes the categories of **Claim, Command, Question** and **Minimal Dialogue** as defined above. However, since many of the 'claims' at this step also involved giving a justification, it was decided to have an extra category of 'justification' to reflect this, i.e.

Justification: Child gives reasons for his claim, assertion or demand, e.g.

Turn 1	Antecedent	*SP*	**"You put that dress on"**	(Command)
Turn 2	Link	BD	**"No, I am a boy"**	(Justification)
Turn 3	Response	*SP*	**"But boys wear dresses as babies"**	(Justification)

When a justification was given as a claim, it was always coded as a justification rather than as a claim.

3:2:2:3:3 Turn 3 - The Response

This was mentioned earlier as consisting of a justification or alternative as described by Eisenberg & Garvey (1981) and outlined in Study 1. Very

occasionally, the response consisted of both a justification plus an alternative and then both categories were used to code the response. After one rater had coded all the relevant sequences, a third of the transcripts were given to a second rater to code in order that reliability could be checked. It should be noted at this point that this rater did not check the audiotapes directly. This was deemed unnecessary due to the high level of concurrence between the observer's field notes and the 'back up' recordings.

3:2:3 Inter-Rater Reliability

A second rater was employed to identify the relevant three-turn episodes (as outlined in the previous coding section) in a third of the transcripts. She identified 23 of the 28 instances, giving an agreement of 82%. Reliability was then calculated in relation to whether each episode was conflictual or non-conflictual. Agreement for this was 96% with a Kappa co-efficient of 0.90. Finally, percentage agreement was evaluated for all stages of each three-turn exchange. Reliability for the antecedent (first turn) was 96% with a Kappa co-efficient of 0.93. The link (second turn) yielded a reliability of 86% (Kappa = 0.82) whilst a 96% agreement (Kappa = 0.91) was reached for the final turn involving a justification/alternative response. All Kappa co-efficients were significant at $p<0.001$.

3:2:4 Data Analysis

As with Study 1, descriptive and inferential statistics were derived from the frequency data gathered at each of the three turns i.e. antecedent, link, and response stages - but within a collaborative framework rather than a conflict. These values were subsequently examined in relation to play activity, class and sex with additional analyses focusing on comparisons between 'conflict' and 'non-conflict' three-part episodes within a co-operative framework. Since the preschoolers were identified by name, and frequencies of communicative acts were gathered separately for each child, parametric analyses could be conducted on means per child. Parametric statistics including Analyses of Variance and t-tests were employed to help interpret the data. When post-hoc tests were required to interpret analysis of variance, Tukey tests were utilised.

3:3 RESULTS

3:3:1 Overview

The following results section consists of eight subsections where the data will be examined both quantitatively and qualitatively. Subsection 3:3:2 will focus on the overall frequencies of communicative acts within three-turn sequences of

collaborative conversation. Subsection 3:3:3 will be comparing the frequency and type of act involved in 'conflict' and 'non-conflict' three-part episodes within the general co-operative framework. Subsection 3:3:4 will focus on examining the 'conflict' episodes from both this study and the previous one and then using Eisenberg & Garvey's (1981) modified coding scheme to generate comparative descriptive statistics. This will be followed by subsections 3:3:5, 3:3:6, 3:3:7 and 3:3:8 which respectively concentrate on sex, class, sex\class, and play activity. The final subsection will be a summary of the findings from the present study.

3:3:2 THE FREQUENCIES & TYPE OF ACTS USED ACROSS THE TOTAL NUMBER OF THREE-TURN SEQUENCES

A total of 110 three-part episodes, meeting the criteria outlined in section 3:2:2, were selected from across the two nursery schools, with 61 of the original 82 participants being involved in these. Using the selection criteria, the complex speech acts of justifications and alternatives at the response stage accounted for 18% of speech acts given in the total transcripts. The first part of this subsection will look at the overall findings for each of the three coding stages within a collaborative exchange. Direct comparisons across different speech acts is quite rare yet even Piaget (1926) stresses the importance of this "At times...language serves only to assert...at other times, on the other hand, language expresses commands...if one knew approximately in the case of each individual, the proportion of one type of speech act to another, we should be in possession of psychological data of great interest" (pg. 1). The research hopes to address this issue in the following.

3:3:2:1 Antecedent Stage

As mentioned earlier, the antecedent turn could be one of four categories - claim, command, question or minimal dialogue. Although researchers have studied these types of speech acts, they rarely focus on quantitative analysis - especially quantitative analysis that relates one type to another. On reading the transcripts it appeared that children's claims were prevalent, with commands far from rare. Two instances are given:

LO **"I want to be King of the castle"** (Claim)

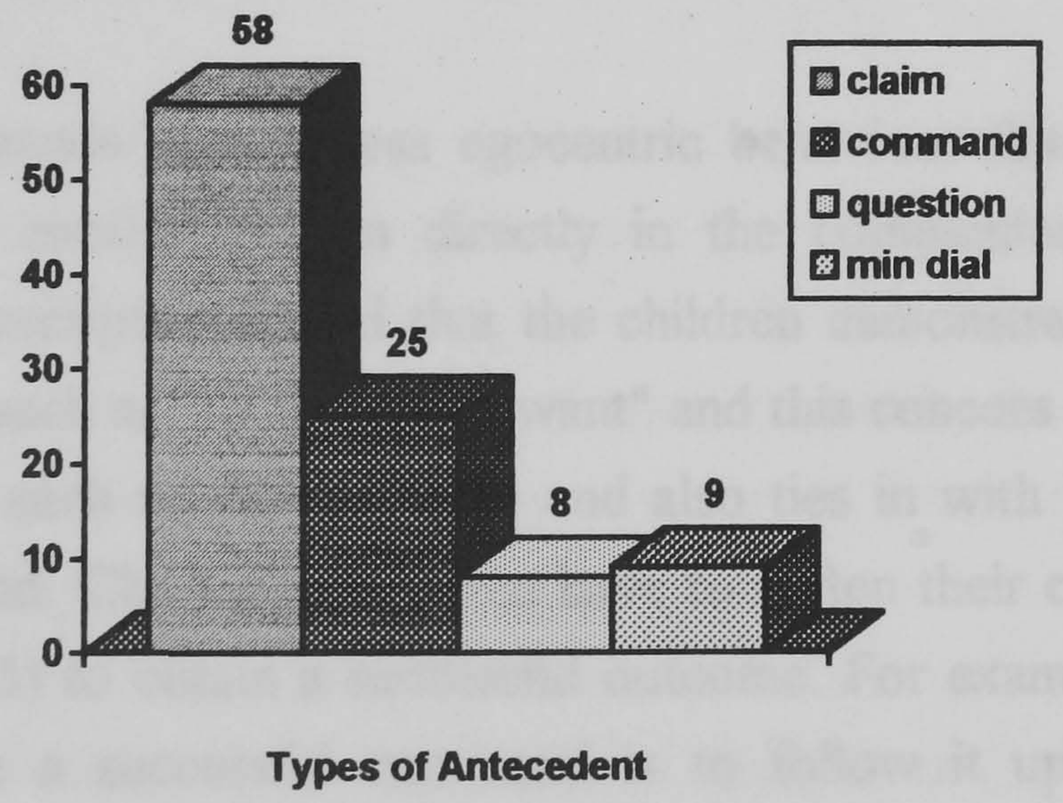
JB **"Put another one of them on"** (Command)

Table 1 shows how the four types of antecedent speech acts were distributed amongst the children.

Table 1 **The frequency & mean per child of type of antecedent events** **(N=61)**

Type of antecedent	Frequency	Mean
Claim	**64**	***1.05***
Command	**27**	***0.44***
Question	**9**	***0.15***
Minimal Dialogue	**10**	***0.16***
TOTAL	**110**	

Graph 1 **The percentage of type of antecedent events used for all 3-part sequences**



From Table 1 and the accompanying graph, it can be seen that claim acts occur by far the most frequently (58%), and that there is a wide gap between claim acts and all the others, the nearest being command at 25%. A repeated measures ANOVA gave a result of $F= 12.69$, df (3, 180) which is significant at $p<0.001$ level. A post-hoc test reinforced the descriptive data that the main variation in antecedent acts lies between 'claim' and all the other speech acts. Perhaps this is not so surprising when one considers that this general, broader definition of 'claim' encompasses the contexts of 'play', 'object', 'access' and 'claim' used in both Eisenberg & Garvey's

(1981) conflict study and our previous work. Examples of 'claim' drawn from the present study follow with details of their 'content' expressed in brackets as proposed by researchers such as Eisenberg & Garvey (1981) and Corsaro & Rizzo (1986).

"No, that's my motor" (Object)

"It's your turn on the bed" (Play)

"I'm going there, policeman" (Access)

"I'm a monkey" (Claim)

High frequencies of 'claim' use have also been noted in studies by Orsolini (1993), Pontecorvo & Girardet (1993) and Killen & Naigles (1995). This is not very surprising if one shares the view put forward by Read & Cherry (1978) who argue "declarative statement directives...are among the first to emerge in children's language development" (pg. 236). Preschoolers would therefore be more familiar and comfortable with their usage and so tend to employ them often.

It may be argued that commands involve less egocentric behaviour than claims since they generally include another person directly in the communication. A qualitative analysis of the transcripts revealed that the children demonstrate a fair amount of desire statements such as "I need" or "I want" and this concurs with the findings of other researchers such as Dunn (1984) and also ties in with the high percentage of 'claim' acts found. Children may often have to soften their claims or 'direct requests' (Garvey, 1975) to obtain a successful outcome. For example, one of the usual ways to ensure a successful command is to follow it up with a justification. Kyratzis (1992) argues that "persuasive justifications are constructs of power in that they are used to get addressees to go along with control moves and to comply" (pg. 327), e.g.

AL **"You get in 'n' I'll push"** (Command)
SE **"No"** (Opposition)
AL **"But I'm faster"** (Justification)

It has been suggested that the use of questions tends to be relatively infrequent in preschoolers' speech (e.g. Barnes, 1976; Beal & Flavell, 1982; Webb, 1984; Vespo et al., 1995) and the results in Table 1 seem to concur with this.

3:3:2:2 Link Stage

This is the stage where a second child takes a turn between the first child's antecedent act and response. Five speech categories were identified at this stage as being claim, command, question, minimal dialogue and justification. As noted earlier, a claim which seems to be justifying something is always coded as a justification rather than a claim, e.g.

Two boys are playing with toy steering wheels:

SA	**"I'll fix it AD"**	Antecedent (Claim)
AD	**"It's too hard"**	Link (Justification)
SA	**"Then...will you fix it AD?"**	Response (Alternative)

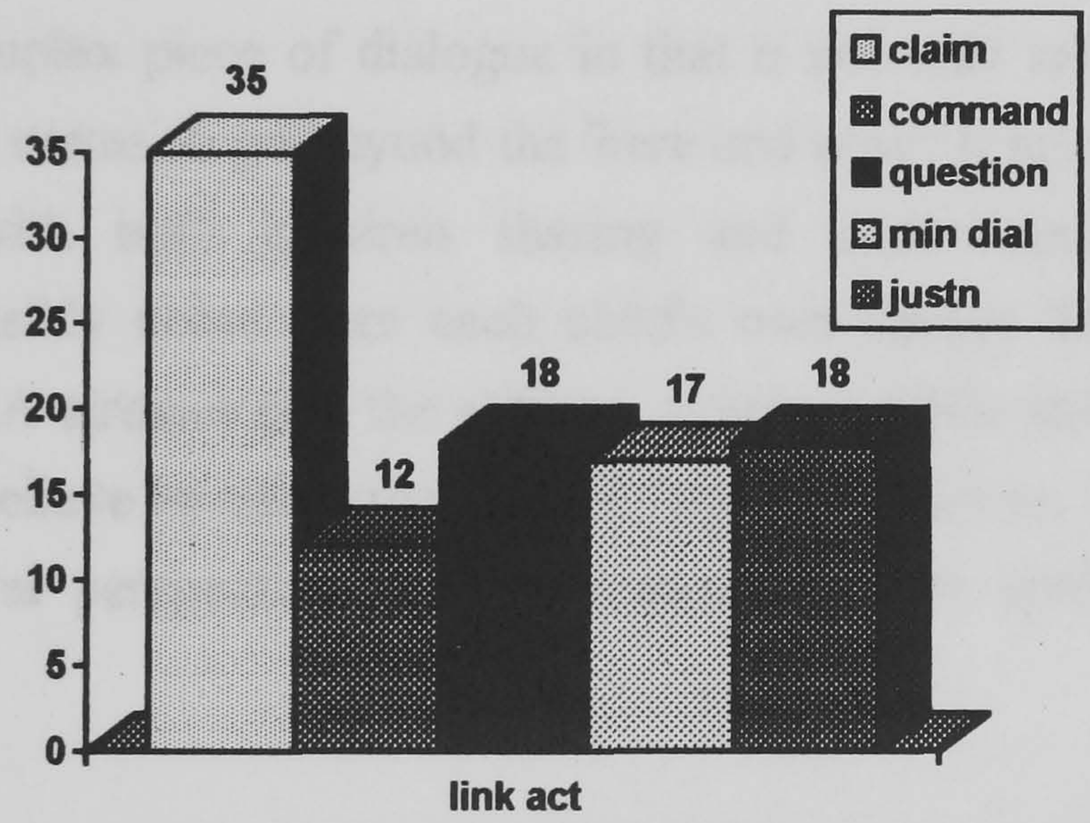
Here, child AD seems to be opposing boy SA's suggestion that he fixes the toy steering wheel (which had become detached from its base) but rather than making a direct challenge, he softens it by giving a reason "it's too hard". This is accepted by child SA who then suggests an alternative - that AD himself might be able to fix it. So a simple claim containing at least some justification may avoid the unproductive claim-counterclaim spiral which can easily occur in preschoolers' exchanges, and which was amply demonstrated in Study 1. Furthermore, it is possible that by suggesting an alternative that puts the communicative partner in a 'superior' position (i.e. after implicitly acknowledging the difficulty of the problem by letting AD's statement go unopposed, SA then suggests AD might be capable of fixing it) SA enables smooth continuation of play. Garvey (1977) stressed that children often go to great lengths to keep interaction going.

The frequencies and means of the link speech acts are given in table 2.

Table 2 **The frequency and mean per child of link acts during three-part sequences in collaborative exchanges (N=61)**

Type of link act	Frequency	Mean
Claim	38	*0.62*
Command	13	*0.21*
Question	20	*0.33*
Minimal Dialogue	19	*0.31*
Justification	20	*0.33*
TOTAL	110	

Graph 2 **The percentage of link acts employed for all 3 turn sequences**



From Table 2 and the accompanying graph, it can be seen that claim is again the most popular speech act (35%, mean=0.62) but at this stage, command is the least frequent (12%, mean=0.21). Perhaps this is too strong a tactic at this stage and may be viewed by the first participant as more of a direct challenge. Rheingold et al. (1987) suggest that commands "focus and shape behaviour and trigger organised sequences" (pg. 198) thus they would be more likely, perhaps, to be used at the start of an interaction rather than the end of it. This idea appears to correspond with the higher percentage of commands found at the antecedent rather than link stage of an exchange. An ANOVA was carried out and gave a F result of 3.48, df (4, 240) which is significant at $p<0.001$ thus indicating that there are substantial differences in the type of link speech act used by the preschoolers. Again post-hoc tests indicate that the significant variation is due to the difference between 'claim' and the other speech acts.

In terms of 'complexity', it is pleasing to note that a fair percentage of justification (18%, mean=0.33) and question acts (18%, mean of 0.33) were also employed. As mentioned previously, many researchers have noted that question use tends to be lower amongst peers, thus it is very encouraging that even preschoolers show some evidence of employing questions as well as justifications - since this calls for greater social and cognitive understanding on the part of the child, e.g.

RA	**"Kid on I was upset and you came"**	(Ante-command)
NI	**"What's wrong? - it's your bedtime now"**	(Link-question)
RA	**"Nobody was there and I was crying"**	(Response-Justn)

In fact, this is a pretty complex piece of dialogue in that it not only takes others' perspectives, but it actually seems to go beyond the 'here and now'. It appears more like a metaperspective with both children sharing and understanding some knowledge which may feasibly come from each child's own unique background experience. Additionally, RA stresses that the actions, which could be mistaken for reality, are actually make-believe by using the marker "kid on" (Garvey, 1993) and thus taking a more general perspective than may sometimes be credited to a preschool child.

In contrast to this 'complex' speech, there is some minimal dialogue used (17%, mean of 0.31). However, it may be simplistic to infer that this indicates a lack of linguistic competence amongst children. Similar to the argument put forth in Study 1 about repetition, it could be that minimal dialogue functions to keep exchanges flowing by acknowledging the participants' interest and understanding. Baines (1996) states that children use these 'maintenance acts' pretty frequently and an example is shown below:

RO	**"This is going to be a motor car"**	(Antecedent-claim)
AN	**"Okay"** *(takes the car)*	(Link-min dialogue)
RO	**"You've dropped something off it...try one of these"**	(Response-Alt)

3:3:2:3 Response Stage

This is the final turn in the 3-part dialogue sequence and consists of the 'complex' strategies of justification and alternative which were highlighted in Study 1. Sometimes, both justification and alternative occurred together and so are counted in each category which means that the total frequencies for turn 3 are slightly higher than the totals given for the antecedent and link stages. An example of a justification and alternative being given in a single response is shown below:

LO "There's some soup for you. Now let mummy go to the shop. You can't go 'cos you've not got good writing. You've got small writing, I've got big writing. You can go after me. You stay in the house with your big sister. Don't run away."

On reading this, one can clearly see how rich and complex it is. It appears that the child may be implicitly talking about a shopping list since shops plus writing are mentioned and her reasoning seems to be that small writing isn't so easily read and may make shopping difficult. After giving this reason, she offers a sort of alternative or compromise - that the other child can go after her...but she must stay at home for the present. The alternative therefore had a condition attached and Eisenberg and Garvey (1981) found that children occasionally did make such contingency conditions.

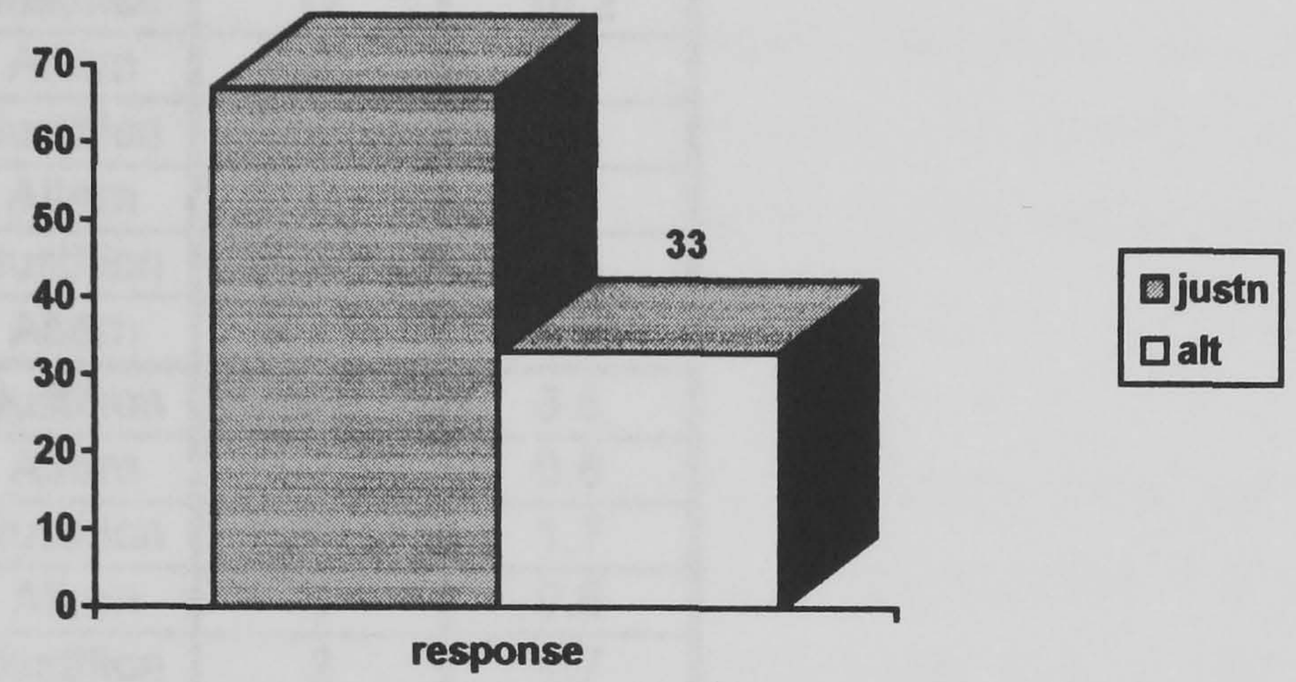
The next table and graph give details of how justification and alternative responses were distributed within three-part sequences during collaborative activities.

Table 3 **The frequency and mean per child of response acts within 3-part episodes during collaboration (N=61)**

Type of response	Frequency	Mean
Justification	79	*1.30*
Alternative	39	*0.64*
TOTAL	118	

The percentage of each strategy is set out in the following graph.

Graph 3 **The % of response acts within 3-part episodes during all collaboration exchanges**



It can be seen from these results that justification is used almost twice as much as alternative tactics in responding to previous dialogue and this difference is mirrored by the result of a t-test where $t = 3.50$, significant at $p<0.001$. This also ties in with research by Eisenberg & Garvey (1981), Dunn & Munn (1987) and Orsolini (1993) who found justifications to be more frequent than alternatives.

3:3:2:4 Three-turn sequences and the pattern of speech acts

Although it is interesting to note the frequencies of individual speech acts, it is also crucial to examine how they may link together. This enables researchers to perceive which types of speech acts occur most frequently together as well as noting which ones are associated with, or lead into, skilful tactics.

Table 4 will therefore focus on how frequently the various speech acts are found linked together, and attention will be drawn to the importance of this for child development.

Table 4 **The patterns of speech acts across the three turn sequences**

Anteced	Link	Resp	Freq	Total %
Claim	Claim	Justificn	16	**13.6**
Claim	Claim	Altern	7	5.9
Claim	Command	Justificn	7	5.9
Claim	Command	Altern	3	2.5
Claim	Question	Justificn	12	**10.2**
Claim	Question	Altern	3	2.5
Claim	Min Dial	Justificn	4	3.4
Claim	Min Dial	Altern	2	1.7
Claim	Justificn	Justificn	3	2.5
Claim	Justificn	Altern	7	5.9
Command	Claim	Justificn	10	8.5
Command	Claim	Altern	1	0.8
Command	Command	Justificn	2	1.7
Command	Command	Altern	1	0.8
Command	Question	Justificn	2	1.7
Command	Question	Altern	0	0
Command	Min Dial	Justificn	7	5.9
Command	Min Dial	Altern	5	4.2
Command	Justificn	Justificn	2	1.7
Command	Justificn	Altern	2	1.7
Question	Claim	Justificn	2	1.7
Question	Claim	Altern	1	0.8
Question	Command	Justificn	0	0
Question	Command	Altern	0	0
Question	Question	Justificn	2	1.7
Question	Question	Altern	1	0.8
Question	Min Dial	Justificn	2	1.7
Question	Min Dial	Altern	0	0
Question	Justificn	Justificn	1	0.8
Question	Justificn	Alterne	3	2.5
Min Dial	Claim	Justificn	4	3.4
Min Dial	Claim	Altern	1	0.8
Min Dial	Command	Justificn	0	0
Min Dial	Command	Altern	0	0
Min Dial	Question	Justificn	2	1.7
Min Dial	Question	Altern	0	0
Min Dial	Min Dial	Justificn	0	0
Min Dial	Min Dial	Altern	0	0
Min Dial	Justificn	Justificn	2	1.7
Min Dial	Justificn	Altern	1	0.8

It can be seen from Table 4 that the two most frequent patterns involving complex speech are 'claim-claim-justification' (13.6%) and 'claim-question-justification' (10.2%).

With regard to inter-linked speech patterns, it has been noted previously in this thesis that Pontecorvo (1987), Orsolini (1993) and Pontecorvo & Girardet (1993) all report an apparent relationship between claims plus justifications and claims, questions and justifications. Likewise, Eisenberg & Garvey (1981) highlighted how claims are often followed by counter-claims which 'creates' a condition that tends to be conducive for explanations to be given. This, of course, ties in with Piagetian ideas that exposure to different viewpoints would lead to conflict and a process of reasoning.

However, there are some difficulties with relying on 'claim-claim' turns to consistently elicit complex language. For example, Piaget believed that very young children engage in 'primitive' talk which involves participants stating their own position without supporting them with explanations - whereas with 'genuine' discussion, reasons are given. A 'claim-claim' pattern demonstrating simple one-upmanship is shown below.

AS ***My robot is huge.***
FE **Mine's is bigger**
AS ***Mine is this high...and higher.***
FE **Mine's is as high as a building.**
AS ***But my one's got more arms.***
FE **He's my Super-robot**.

This sequence did,eventually, end in a justification with,
AS ***...that's 'cos he's good at fighting.***

It could be suggested that the dialogue, given above, is not truly co-operative because it rather competitive in tone. However, it can be argued that it is not openly conflictual and - embedded within a longer exchange- it actually involved the co-construction of 'war plans' and 'fighting roles'. Although this example highlights the fuzziness between co-operation and conflict, it also serves to show that 'claim-claim' turns may be less effective at consistently producing justifications than other speech patterns.

It was therefore very encouraging to note that 'claim-question-justification' was the second most frequent pattern produced by the preschoolers. Moreover, with this sequence, ***both*** participants are showing evidence of complex language use and perspective-taking - rather than the participant at Turn 3 (justification) in the previous pattern. This may be an important point to consider when designing a programme for enhancing young children's speech. An example of a 'claim-question-justification' is shown below:

AS ***My robot's a brilliant fighter***.
FE **Well.....how is he?**
AS ***'Cos...'cos look, his arms are so long.***
FE **His arms are long to beat up the fighters**.
AS ***How can he do that?***
FE **For I added all the yellow bricks.**

It was noted in subsection 3:2:2:3 that, within an overall 'collaborative' exchange, three-turn sequences could be recognised as 'conflictual' or 'non-conflictual'. The next subsection will therefore be focusing on the patterns of dialogue which occur in relation to each 'type' of episode.

3:3:3 THE FREQUENCIES AND TYPE OF ACTS USED IN BOTH CONFLICTUAL & NON-CONFLICTUAL 3-TURN SEQUENCES WITHIN A COLLABORATIVE EXCHANGE

It may be recalled that co-operative dialogue was identified as being a free-flowing exchange which was not apparently disrupted by any type of negative or challenging behaviour. On later analysis of the transcripts, some 'opposition to opposition' sequences were found embedded amongst the dialogue recorded. These did not tend to interfere with the overall co-operative exchanges which appeared to continue in relative harmony and, in fact, would have been unlikely to be noticed by the researcher as conflictual apart from the detailed analysis carried out on the three-part dyadic episodes. The following details were found.

Of the 110 three-turn sequences, 30 of these were conflictual and 80 non-conflictual. An example of each is given below:

Conflictual:

A	**"I'm a daddy"**	(Antecedent-claim)
B	**"No, I'm a daddy"**	(Link - opposition-claim)
A	**"No..you can be the caretaker"**	(Opp to opp response-alt)

This example shows that B opposes A's claim and then A re-opposes his but also offers an alternative. Conflict is said to occur when there is an opposition to an original opposition as seen and, as previously noted, this was the criterion used to judge a conflict episode in Study 1.

Non-Conflictual:

LO **"I need that for my one"** (Antecedent-claim)
CH **"Do you need purple?"** (Link-Question)
LO **"I've got purple on..I don't need purple"** (Response-justn)

In this example, two girls were sitting around a table making and colouring-in cards. CH could easily have become involved in a conflict situation if she had challenged LO's claim. Instead she refocuses her intentions by asking a direct question. LO's reply is basically a negative response but softened by an explanation - so cooperation continues. Each of the aforementioned contexts will now be examined across all three turns of collaborative conversation.

3:3:3:1 Antecedent Stage

Table 5 The frequency and mean per child of antecedent acts in conflictual and non-conflictual 3-part sequences (N=61).

	CONFLICT		NON-CONFLICT	
	Frequency	**Mean**	**Frequency**	**Mean**
claim	**17**	***0.28***	**47**	***0.77***
command	**9**	***0.15***	**18**	***0.29***
question	**3**	***0.05***	**6**	***0.10***
min dialogue	**1**	***0.02***	**9**	***0.15***
TOTAL	**30**		**80**	

There is a significant difference between types of antecedent acts ($F = 12.69$, df (3, 180), $p<0.001$) and there is also a substantial difference between the conflict\non-conflict contexts ($F=9.64$, df (1, 60), $p<0.001$). It therefore appears that the children's mean use of all the speech acts in the 'non-conflictual' sequences was more frequent than in 'conflict' episodes. In addition, there is an interaction effect of $F=3.87$, df (3, 180), $p<0.01$ which indicates that the type of antecedent speech act used varies with the context. The difference appears to lie with the use of 'claim', which is proportionally higher in the non-conflict exchanges. Post-hoc tests confirm that the main source of variation across contexts, at this stage, is in relation to

'claim' tactics. The larger amount of 'claim' strategies in non-conflict discourse may be due to a number of factors. For example, Kertoy & Vetter (1995) state that mothers tend to use claims to keep conversation going whereas Orsolini & Pontecorvo (1992) suggest that "not all types of claims can be opposed...very rarely are factual contributions subject to opposition" (pg. 130).

The next step is to look at how the speech acts are distributed across conflictual and non-conflictual sequences at the link stage.

3:3:3:2 Link Stage

The previous section, which examined the 5 communicative link acts overall, showed that claim was used twice as much as any other act with command being used the least. It will therefore be interesting to see if there is much variation when the conflict\non-conflict context is taken into account.

Table 6 The frequency and mean per child of link acts in conflictual and non-conflictual 3-part sequences (N=61).

	CONFLICT		NON-CONFLICT	
	Frequency	**Mean**	**Frequency**	**Mean**
claim	**9**	***0.15***	**29**	***0.48***
command	**6**	***0.10***	**7**	***0.11***
question	**0**	***0***	**20**	***0.33***
min dialogue	**8**	***0.13***	**11**	***0.16***
justificatn	**7**	***0.11***	**13**	***0.21***
TOTAL	**30**		**80**	

It appears from these results that there is more variation in speech usage in 'non-conflict' episodes than 'conflict' ones. That said, perhaps the most interesting finding from these results is that 'question' is not used at all in the 'conflict' episodes but used a quarter of the time in 'non-conflict' sequences. An ANOVA analysis indicated that there was a significant variation in the type of link act ($F=3.55$, df (4, 240), $p<0.01$) and type of context ($F=14.61$, df (1, 60), $p<0.001$). Furthermore, there was a significant interaction between type of link act and context ($F=3.76$, df (4, 240), $p<0.01$) suggesting that there is a degree of variation in the way the speech acts were distributed in each of the two contexts. It can be clearly seen that 'claim' and 'question' acts are more frequent in the 'non-conflict' than 'conflict' episodes. Follow-up tests confirmed these as the source of significant variation

across the two contexts. The variation in question use across contexts is important because it appears to demonstrate a major difference between purely collaborative three-turn sequences and those, within the overall co-operative exchange, which can be defined as 'conflictual'.

Since the difference in the use of questions was so apparent, it was decided to conduct another examination of the *total* transcripts. When the original set of transcripts were re-examined, further interesting discoveries were made. First of all, 33% of all the link questions in co-operative dialogue were 'why' questions - mainly leading to justifications. In contrast to this, there were no questions at all in 'conflictual' episodes but this is line with Study 1 and Eisenberg & Garvey's (1981) work where requests for explanation were found to be quite low. Secondly, in the portion of the transcript which had been left aside because the exchanges did not fulfil the selection criteria for subsequent analysis, there were *no* 'why' questions at all. This is rather an exciting finding because the selected dialogue was chosen mainly on the basis that justification or alternative was present as a response - so there appears to be an association with 'why' questions and justification within co-operative contexts. This finding corresponds with the work of Webb (1984) and King & Rosenshine (1993) who showed that older children using direct, specific questions tend to get more frequent and more elaborate responses. Barnes & Todd (1977) assert that "wh.. questions are the last to appear, and since they require more sophisticated transformations than yes-no or other questions, they have sometimes been presumed to constitute evidence of a higher level of cognitive ability" (pg 21). These are interesting points and the finding that 'why' questions appear primarily in co-operative exchanges and encourage complex language may be of use in developing a programme for enhancing children's complex language in a particular context.

3:3:3:3 Response Stage

Table 7 The frequency and mean per child of response acts in conflictual and non-conflictual 3-part sequences (N=61).

	CONFLICT		NON-CONFLICT	
	Frequency	**Mean**	**Frequency**	**Mean**
Justn	**21**	***0.34***	**58**	***0.95***
Alt	**11**	***0.18***	**28**	***0.46***
TOTAL	**32**		**86**	

Interestingly, for both 'conflict' and 'non-conflict' three-turn episodes, justifications are almost twice as frequent as alternatives. This fits in with the findings of the previous study and the research of Eisenberg (1992) and Orsolini (1993) for example. Again it can be seen that these complex strategies are used more often, per child, in the non-conflict than conflict contexts. An ANOVA was performed and yielded the following significant values. $F=8.09$, df (1, 57), $p<0.01$ for context and $F=14.15$, df (1, 57), $p<0.001$ for type of response act. Post-hoc tests revealed that the main source of variation, for the conflict\non-conflict context, was in the use of 'justification'. There was no significant interaction with values of $F=2.25$, df (1, 57).

An example of dialogue showing a justification response and one giving an alternative response now follows in order to demonstrate the versatility of these complex speech acts and to illustrate how preschoolers use them.:

Justification:

AD	**"It crashed into me"**	(Anteced--claim)
JA	**"I hurt my finger, I hurt my finger in an accident"**	(Link-claim)
AD	**"My finger's off 'cos we were in a car crash"**	(Response-Justn)

Here the justification is easily identified by the use of the conjunction "because" which acts as a marker (e.g. Piaget, 1926). It is worth pointing out at this point that some ambiguity can exist in children's (and even adult's) speech which can cause problems for even the most efficient of coding schemes. In the example above, the boy JA states "I hurt my finger in an accident". This can be taken as a straightforward claim (as it was in this case) but it may also be argued that "in an accident" was the child's way of justifying his hurt finger i.e. "I hurt my finger *(because I was)* in an accident". Such ambiguity was reflected in the lower percentage of inter-rater agreement at the link stage where it was necessary to distinguish between claims and justifications. It is therefore plausible that this study is only giving a baseline for the complex act of justification because only the most obvious acts are being taken into account.

Alternative:

AD	**"I'm a 3 horse"**	(Antecedent-claim)
AM	**"No, I'm a number 3 horse"**	(Link-claim)
AD	**"Well, I'm a number 5 horse"**	(Response-alternative)

In this example, AD gives himself an alternative in order to 'keep the peace' but it is just as likely that a child offers an alternative to another child as the following example illustrates:

MI	**"Do you want to go on an aeroplane?"**	(Antecedent-question)
JO	**"No...because I jump"**	(Link-justn)
MI	**"Go on a motorbike"**	(Response-Alternative)

This 'duality' is similar to the ideas related to justification which were expressed in Study 1 whereby a child can either justify his own actions or give reasons against another child's behaviour (e.g. Baines, 1996).

The next subsection will demonstrate how the speech acts at each of the first two turns in a sequence inter-relate and lead into the complex tactics of justification or alternative.

3:3:3:4 <u>The pattern of conflict and non-conflict three-turn episodes in an overall co-operative exchange.</u>

As previously, the objective of this section is to examine the pattern of speech acts which occur together most frequently, with this particular subsection focusing on both the 'conflict within co-operative dialogue' and the remaining purely collaborative exchanges.

From Table 4 it was demonstrated that the 'claim-claim-justification' sequence was most prevalent at 13.2%. It was suggested that 'claim' featured highly in children's dialogue because they employed it from an early age. It was also noted that turns involving 'claim-claim' could be somewhat competitive and this pattern would be likely in conflict scenarios where claim and counter-claim are common moves. Encouragingly, it was also recorded in Table 4 that 'claim-question-justification' was the second most frequent sequence produced by the preschoolers. Not only did this show both participants using complex language, but it was noted that no 'questions' seemed to be asked during the 'conflict' episodes thus providing a distinct difference between the two contexts.

The patterns for each type of episode now follow in Table 8.

Table 8 **Three turn pattern of speech acts in conflict and non-conflict sequences within an overall collaborative exchange.**

Anteced Act	Link Act	Resp Act	Conflict Frequency	Conflict %	Non-conflict Frequency	Non-conflict %
Claim	Claim	Justificn	4	3.4	12	10.2
Claim	Claim	Altern	3	2.5	4	3.4
Claim	Command	Justificn	3	2.5	4	3.4
Claim	Command	Altern	2	1.7	1	0.8
Claim	Question	Justificn	0	0	12	10.2
Claim	Question	Altern	0	0	3	2.5
Claim	Min Dial	Justificn	2	1.7	2	1.7
Claim	Min Dial	Altern	1	0.8	1	0.8
Claim	Justificn	Justificn	1	0.8	2	1.7
Claim	Justificn	Altern	1	0.8	6	5.1
Command	Claim	Justificn	3	2.5	7	5.9
Command	Claim	Altern	1	0.8	0	0
Command	Command	Justificn	1	0.8	1	0.8
Command	Command	Altern	0	0	1	0.8
Command	Question	Justificn	0	0	2	1.7
Command	Question	Altern	0	0	0	0
Command	Min Dial	Justificn	3	2.5	4	3.4
Command	Min Dial	Altern	0	0	5	4.2
Command	Justificn	Justificn	1	0.8	1	0.8
Command	Justificn	Altern	1	0.8	1	0.8
Question	Claim	Justificn	0	0	2	1.7
Question	Claim	Altern	0	0	1	0.8
Question	Command	Justificn	0	0	0	0
Question	Command	Altern	0	0	0	0
Question	Question	Justificn	0	0	2	1.7
Question	Question	Altern	0	0	1	0.8
Question	Min Dial	Justificn	1	0.8	1	0.8
Question	Min Dial	Altern	0	0	0	0
Question	Justificn	Justificn	1	0.8	0	0
Question	Justificn	Alterne	1	0.8	2	1.7
Min Dial	Claim	Justificn	0	0	4	3.4
Min Dial	Claim	Altern	0	0	1	0.8
Min Dial	Command	Justificn	0	0	0	0
Min Dial	Command	Altern	0	0	0	0
Min Dial	Question	Justificn	0	0	2	1.7
Min Dial	Question	Altern	0	0	0	0
Min Dial	Min Dial	Justificn	0	0	0	0
Min Dial	Min Dial	Altern	0	0	0	0
Min Dial	Justificn	Justificn	0	0	2	1.7
Min Dial	Justificn	Altern	0	0	1	0.8

The chain of speech acts leading to a complex response tends to vary across the 'conflict within collaboration' and purely collaborative episodes. In the former, the prevalent association appears to be claim followed by claim (counter) leading to

justification\alternative and this pattern concurs with that found by Eisenberg & Garvey (1981), Orsolini (1993), Pontecorvo & Girardet (1993) and Resnick, Salmon, Zeitz, Haley Wathen & Holochak (1993) who all mention the apparently close association between claim and justification in a dispute situation. Furthermore, it was promising to see the relatively high percentage of claim followed by question then justification (10.2%) - since many researchers have stressed the benefits of question use to elicit elaborate justifications in older children (e.g. King, 1990; King & Rosenshine (1993). Indeed, Wray (1990) claims "it is particularly valuable if children ask questions of their peers. Questions which demand in response explanation.....seem to give rise to significant learning" (pg. 99). The issue of encouraging children's use of questions and explanations will be explored further in the final study (Chapter 4) of this thesis.

In addition to looking at the speech acts used across conflict and non-conflict episodes within collaborative exchanges, it may also be useful to examine conflict sequences from the present study using the derivative of Eisenberg and Garvey's (1981) coding scheme that was deployed in Study 1.

3:3:4 A COMPARISON OF CONFLICT EXCHANGES IN STUDY 1 WITH THOSE IN STUDY 2

It was noted in the method section that the coding scheme used in Study 1, based on the work by Corsaro & Rizzo (1986) plus Eisenberg & Garvey (1981), focused on the content of a phrase. For example, whether a turn contains reference to play rules, access and whether this elicits a simple or complex 'challenge'. This second study is more concerned with the function of the dialogue such as giving a command, making a claim, using minimal dialogue or asking a question. It would therefore be of interest to examine both the stand-alone dispute dialogue of Study 1 and the conflict episode within a co-operative exchange to see if or how they could be compared. It is plausible to assume that there should be similarities across the two contexts since Kruger (1993), Charlesworth (1996) and LaFreniere & Charlesworth (1987) all believe that the distinction made between speech in competitive and collaborative situations is somewhat unnatural. This being so, one should be able to employ the same categories across the two contexts. In fact, this turned out to be the case. Firstly, there is some overlap between both coding schemes in their use of justification and alternative speech categories. Secondly, for the purpose of comparing 'conflict' episodes across Studies 1 and 2, the more superordinate categories of Study 2 were easily divided into the finer classifications

derived from Eisenberg & Garvey's 1981 study. An example is given below of how each coding scheme maps onto the 'conflict' episodes across both studies.

		Present	**Corsaro & Rizzo\Eisenberg & Garvey**
PR	*I don't want you in here*	Ante\Claim	Ante\Access
PE	*Yes!*	Link\Min Dial	Opp\Simple
PR	*No..'cos you've got a house*	Resp\Justn	Dev\Justn

One problem to note is that Study 2 only focused on three-turn exchanges whereas Study 1 examined all the stages in the conflict interaction. This means that the developmental stage in Study 1 usually consists of more turns than the single one which makes up the response stage in Study 2. Although this means that a direct comparison of justification\alternative frequencies cannot be undertaken, it was still useful to enable the researcher to examine the ratio of justifications to alternatives in each case and highlight any obvious discrepancy.

The following tables outline the results from each of the three-part stages in the conflict episodes of Study 1 and Study 2. These descriptive statistics enable some comparison to be made between the 'conflict' which occurs in the two different contexts, and then tentative conclusions may be drawn. It is worth highlighting at this point that 125 participants were involved in producing the 252 conflict episodes in Study 1 but only 35 children engaged in the three-turn conflict sequences of Study 2. Perhaps this should be borne in mind when looking at the data in the following tables.

3:3:4:1 Antecedent Stage

Table 9 The frequency and mean per child of antecedent acts in conflictual episodes in Study 1 and Study 2

	STUDY 1 (Disputes) N=125		STUDY 2 (Conflict Episodes) N=35	
	Frequency	**Mean**	**Frequency**	**Mean**
claim	**31**	***0.25***	**1**	***0.03***
play	**35**	***0.29***	**12**	***0.34***
access	**42**	***0.34***	**4**	***0.11***
object	**144**	***1.15***	**13**	***0.37***
TOTAL	**252**		**30**	

In both studies, the mean values indicate that 'conflict' over objects occurs most frequently whilst it is least common for conflict to occur over claims and this result is comparable to that found by Eisenberg & Garvey (1981).

One can now look at opposition strategies and compare how the conflict sequences in Study 1 compare with the conflict sequences within collaboration as highlighted in Study 2.

3:3:4:2 Opposition Stage

Table 10 The frequency and mean per child of opposition acts in conflictual episodes in Study 1 and Study 2

	STUDY 1 (Disputes) N=125		STUDY 2 (Conflict Episodes) N=35	
	Frequency	**Mean**	**Frequency**	**Mean**
simple	184	*1.47*	19	*0.54*
justification	64	*0.51*	9	*0.26*
alternative	4	*0.03*	2	*0.06*
other	0	*0*	0	*0*
TOTAL	252		30	

It is obvious from the Table 10 that the results in both studies follow the same overall pattern with simple opposition being the most frequent followed by justification and alternative. The presence of approximately a third of complex strategies (justification and alternative) is a promising indication of preschooler's linguistic competence at the opposition stage and this is similar across both studies. However the mean for justification is slightly lower for study 2 than Study 1 (0.26 and 0.51 respectively) and this may reflect the possibly less serious nature of 'conflict within collaboration' resulting in less need for overt justification to appease the situation immediately. It will be interesting to see how these complex strategies fare in relation to the developmental stage and it is this issue that the following subsection addresses.

3:3:4:3 Development Stage

It was fairly straightforward to compare the results of the antecedent and opposition stages across both studies because each only consisted of one turn. This is also true of the response stage in the present study but not of the development

stage of Study 1 which included all the dialogue from the third turn onwards until a conclusion was reached. Therefore, many turns could be counted and then included in any of Study 1's six categories (repetition, justification, alternative, request for explanation, force and other). For the purpose of the present comparison, only justification and alternative can be examined and one must bear in mind that the values given for Study 1 are an accumulation of several turns within the one conflict episode rather than a single turn - and so will automatically be higher. It is also worth noting that the percentages in Study 1 are smaller because of the amount of other acts such as repetition involved in this part of the study. However, a comparison is worth doing to look at the proportion between justification and alternatives and the details are set out in the following table.

Table 11 **The frequency and mean per child of justification\alternative development acts in conflictual episodes in Study 1 & Study 2**

	STUDY 1 (Disputes) N=125		STUDY 2 (Conflict Episodes)N=35	
	Frequency	**Mean**	**Frequency**	**Mean**
justification	**257**	***2.06***	**21**	***0.57***
alternative	**147**	***1.18***	**11**	***0.28***
TOTAL	**404**		**32**	

It can clearly be seen from Table 11 that the proportion of justifications to alternatives is approximately the same (2:1) in both studies. These studies replicate several others which show that justification is far more popular than alternatives (e.g. Eisenberg, 1992) and it may be that justification is more easily used in all situations by children. It is possible that preschoolers tend to confine their alternatives to concrete situations such as proffering a different object or role. It might be harder for them to provide a set of alternative ideas to a viewpoint and so, instead, they just give reasons for taking or rejecting a certain perspective. It could also be that alternatives tend to end the disputes whereas justifications, if anything, encourage further discourse. Additionally, it could be argued that young children tend to have more experience of justification use as some parents may give reasons to their children during conversations (e.g. Tizard & Hughes, 1984), and teachers may also try to encourage children to elaborate on their replies.

In sum, it appears that there is little real difference in the use of speech acts between the 'stand-alone' disputes and 'conflict within collaboration'. This finding is

promising because it implies that preschoolers may not necessarily see conflict and co-operation as two extreme poles. They are probably more concerned about using the language tactics they feel best suited to their own goals at a particular moment in time and these tactics can vary in degree through mitigation, persuasion, negotiation, compromise, reasoning, argument and force. The data from the present study appear to support the suggestions made by LaFreniere & Charlesworth (1987), Charlesworth & Dzur (1987), Kruger (1993) and Charlesworth (1996) that the distinction between co-operation and conflictual interactions may be smaller and more blurred than many researchers have taken account of. This supposition may also help bridge the gap between those psychologists who believe that conflict brings about cognitive change (e.g. Perret-Clermont, 1980) and those who state the case for co-operation (e.g. Yeomans, 1983; Bay-Hinitz et al., 1994). Since co-operative dialogue seems to consist of a mixture of the two 'catalysts' presumed to bring about intellectual development, then using a collaborative set-up for an intervention programme to enhance the use of complex speech and perspective-taking should bring about maximum effect, and hopefully would appeal to both groups of theorists. In addition, this type of intervention would be more likely to be welcomed and implemented by teachers and parents who tend to discourage obvious conflict situations.

3:3:5 THE PATTERN OF 3-TURN SEQUENCES IN RELATION TO GENDER

24 girls and 37 boys were involved in producing the 110 three-turn sequences within collaborative discourse. Of these *dyadic* episodes, 50% were produced by male only pairs, 23.6% by female only pairs and 26.4% by mixed pairs. This follows a similar pattern to the conflict exchanges in Study 1 when 44.4% were male only, 24.3% were female only and 31.3% were mixed. It is possible that the three-turn sequences were more frequent in male-only pairs because there were more boys, in both studies, than girls - and it is well documented that children prefer to play with same-sex others. This point may be important as only conflict was expected to be gender differentiated.

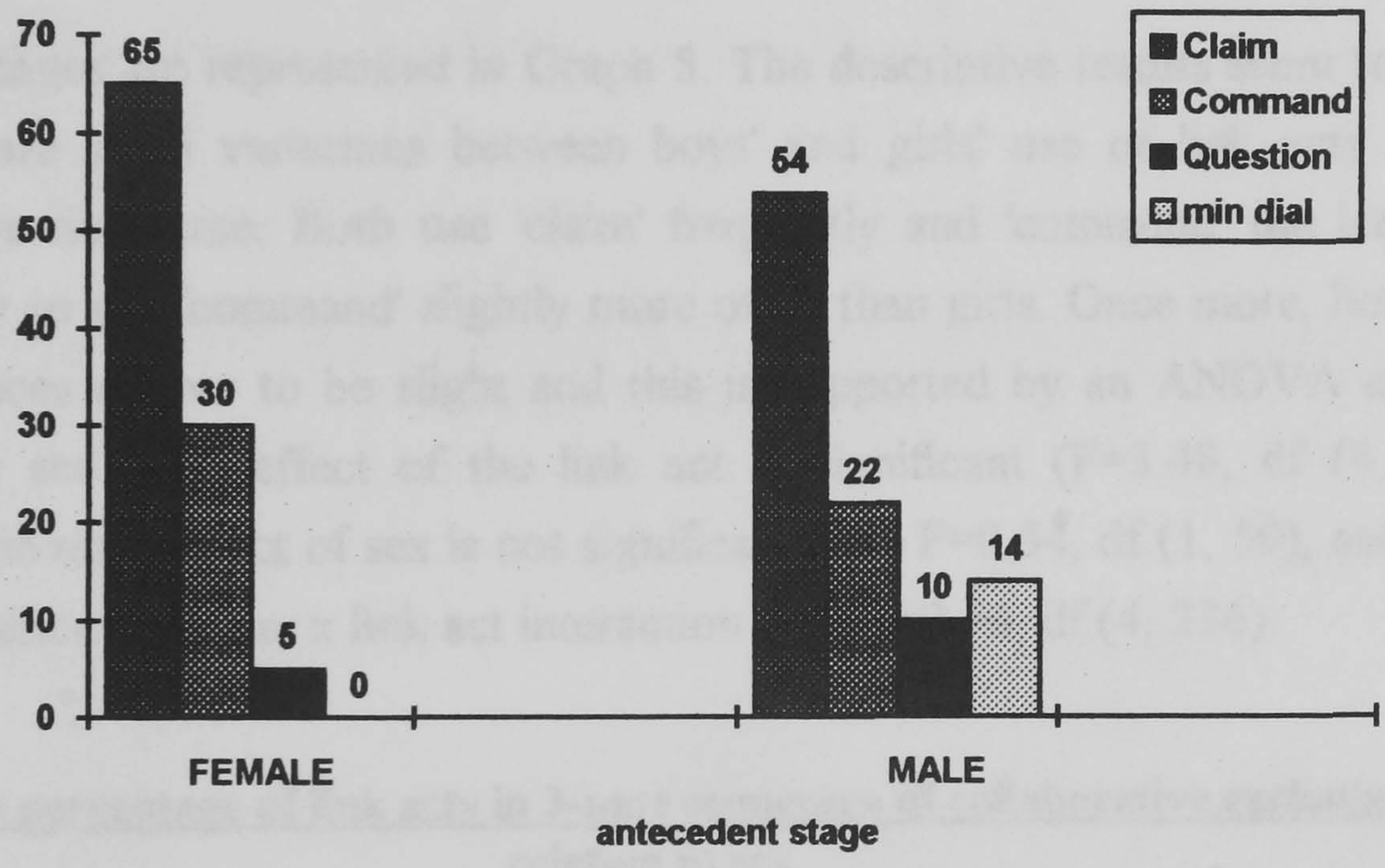
3:3:5:1 Antecedent Stage and Gender

It was seen from Table 1 that the most frequently used antecedent was 'claim' followed by 'command'. Further analysis focusing on gender led to the following data.

Table 12 **The frequency & mean per child of antecedent acts in 3-part sequences within collaborative exchanges as a function of sex**

	FEMALE (N=24)		MALE (N=37)	
	Freq	Mean	Freq	Mean
Claim	26	*1.08*	38	*1.02*
Command	12	*0.50*	15	*0.40*
Question	2	*0.08*	7	*0.19*
Min Dialogue	0	*0*	10	*0.27*
TOTAL	40		70	

Graph 4 **The % antecedent in 3-part sequences within collaborative exchanges in relation to sex**



These results indicate that there are few differences between boys and girls especially in their use of 'claim' and 'command'. However, boys do tend to use more 'question' and 'minimal dialogue' at this stage than girls. This was not, however, found to be significant, with an ANOVA result of F=0.25, df (1, 59) for the main effect of sex. Although the main effect of antecedent type was significant [F=12.59, df (3, 177), $p<0.001$)], there was no significant interaction between sex and antecedent F=0.37, df (3, 177) which concurs with the descriptive statistics.

3:3:5:2 Link Stage and Gender

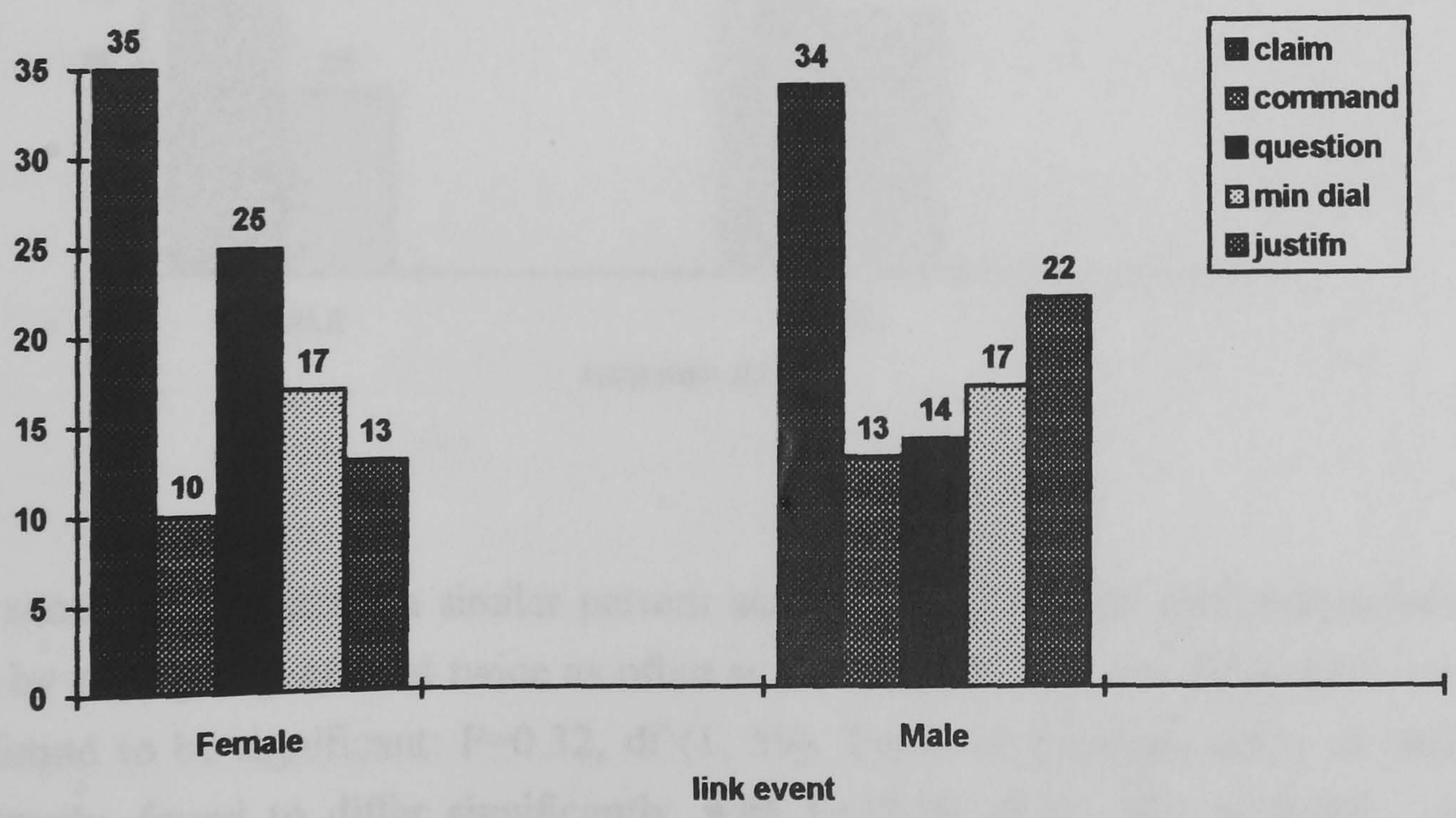
It was shown previously (Table 2) that 'claim' was the most popular link act and 'command' the least. A more detailed look at this with regard to sex yielded the following values.

Table13 **The frequency and mean per child of link acts in 3-part sequences of collaborative exchanges - in relation to sex**

	FEMALE N=24		MALE N=37	
	Freq	**Mean**	**Freq**	**Mean**
Claim	14	*0.58*	24	*0.67*
Command	4	*0.17*	9	*0.24*
Question	10	*0.42*	10	*0.27*
Minimal Dialogue	7	*0.29*	12	*0.32*
Justification	5	*0.21*	15	*0.40*
TOTAL	40		70	

The percentages are represented in Graph 5. The descriptive results seem to show that there are small variations between boys' and girls' use of link acts during collaborative discourse. Both use 'claim' frequently and 'command' the least but boys appear to use 'command' slightly more often than girls. Once more, however, the differences appear to be slight and this is supported by an ANOVA analysis where only the main effect of the link act is significant ($F=3.48$, df (4, 240), $p<0.01$). The main effect of sex is not significant with $F=0.54$, df (1, 59), and there was no significant gender x link act interaction with $F=0.46$, df (4, 236).

Graph 5 **The percentage of link acts in 3-part sequences of collaborative exchanges - in relation to sex**



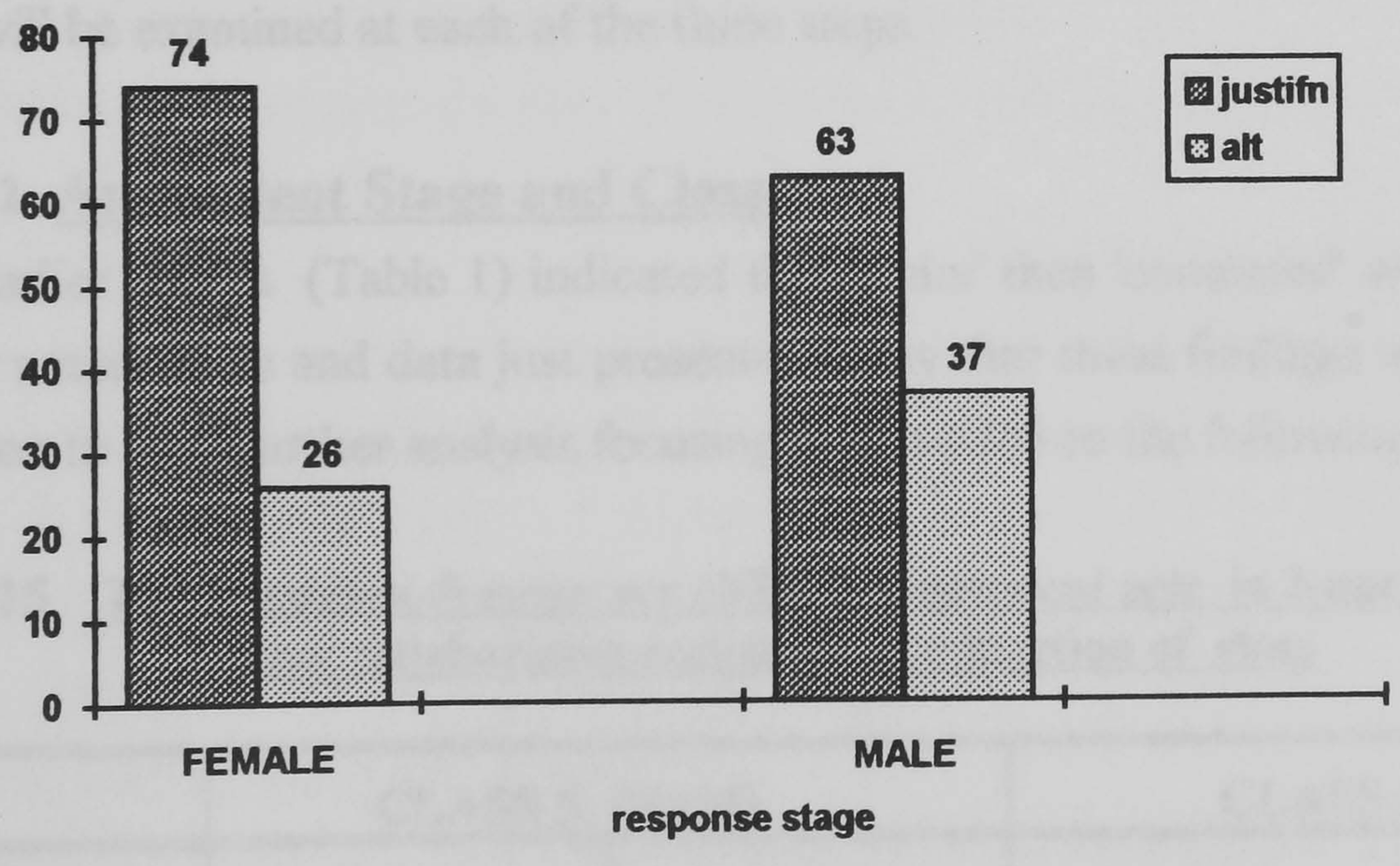
3:3:5:3 Response Stage and Gender

Previous results have indicated that justification is used approximately twice as often as alternatives. This is now examined in relation to gender.

Table 14 The frequency and mean per child of response acts for 3-part sequences in collaborative exchanges in relation to sex

	FEMALE N=24		MALE N=37	
	Freq	**Mean**	**Freq**	**Mean**
Justification	31	*1.29*	48	*1.30*
Alternative	11	*0.46*	28	*0.76*
TOTAL	42		76	

Graph 6 The percentage of response acts for 3-part sequences in collaborative exchanges in relation to sex



The results demonstrate a similar pattern across the sexes with justification being used by each group around twice as often as alternatives. The sex differences were not found to be significant: $F=0.32$, df (1, 59). Types of response were, as noted previously, found to differ significantly, with $F=12.26$, df (1, 60), $p<0.001$ - but

there was no significant interaction effect as F=0.53, df (1, 59) for gender x response act.

3:3:5:4 Summary of Gender Findings

It appears from the given results that although there are significant differences between the types of speech acts used at each of the stages, there is actually very little difference between boys and girls in the frequency of each type employed. It may be worth recalling that there were few sex differences found in Study 1 although some class variation was noted.

The next section will be focusing on communicative acts in relation to class and it will be interesting to see if there are any major differences between the more and less advantaged preschoolers.

3:3:6 THE PATTERN OF 3-TURN SEQUENCES IN RELATION TO CLASS

38 children from a local authority school (Class S) and 23 preschoolers from a private nursery (Class P) took part in the 110 three-turn episodes within collaborative conversations. As in previous sections, speech acts produced by each group will be examined at each of the three steps.

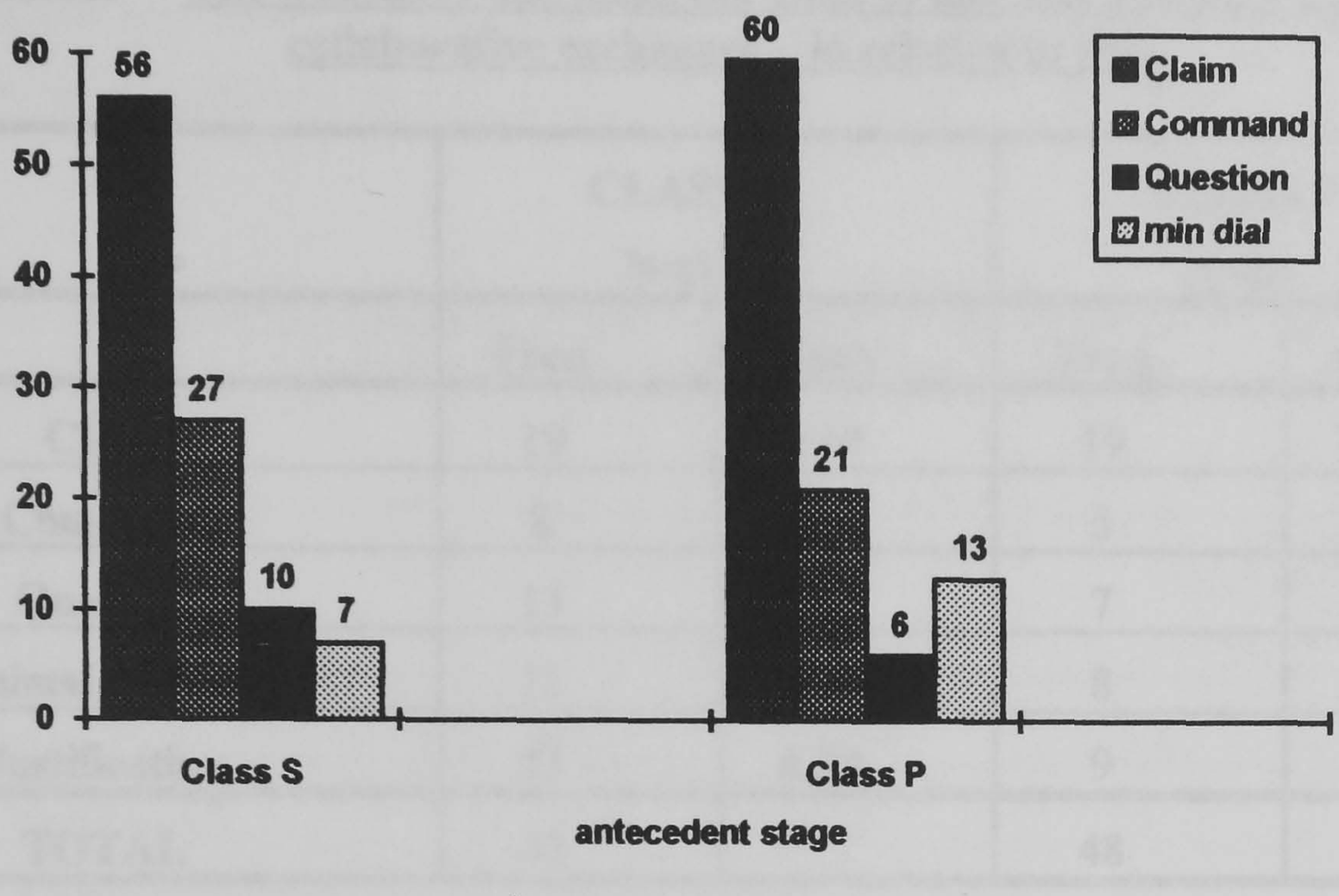
3:3:6:1 Antecedent Stage and Class

Earlier results (Table 1) indicated that 'claim' then 'command' were the most popular antecedents and data just presented show that these findings also held true in relation to sex. Further analysis focusing on class led to the following data.

Table 15 The frequency & mean per child of antecedent acts in 3-part sequences within collaborative exchanges as a function of class

	CLASS S (N=38)		CLASS P (N=23)	
	Freq	Mean	Freq	Mean
Claim	35	*0.92*	29	*1.26*
Command	17	*0.45*	10	*0.43*
Question	6	*0.16*	3	*0.13*
Min Dialogue	4	*0.11*	6	*0.26*
TOTAL	62		48	

Graph 7 **The % antecedent in 3-part sequences within collaborative exchanges in relation to class**



From Table 15, it appears that the greatest difference between the two groups is in their use of 'claim'. Both groups use similar amounts of questions (means of 0.13 and 0.16) but the advantaged preschoolers employ almost twice as much minimal dialogue per child as their less advantaged peers (0.26 and 0.11 respectively). This is particularly interesting because it was noted in Study 1 that Class P children have longer exchanges - so perhaps their greater use of minimal dialogue has contributed to this.

However, the differences appear marginal and this is substantiated by the ANOVA analysis where, expectedly, the type of antecedent was significant $F=12.77$, df (3, 177), $p<0.001$ but the effect of social class [$F=0.43$, df (1, 59)] and class x antecedent interaction [$F=0.49$, df (3, 177)] was not significant.

3:3:6:2 Link Stage and Class

It was shown in Table 2 that 'claim' was the most popular link act and 'command' the least and the gender analysis mirrored this finding. The present set of results demonstrate that this is also true with regard to the two different groups. Interestingly, the occurrence of claim and justification is higher for the more advantaged children whilst the less privileged preschoolers ask slightly more questions. In Study 1, the Class P children did produce more justifications at the development stage but not the link stage of a dispute - and they also tended to ask

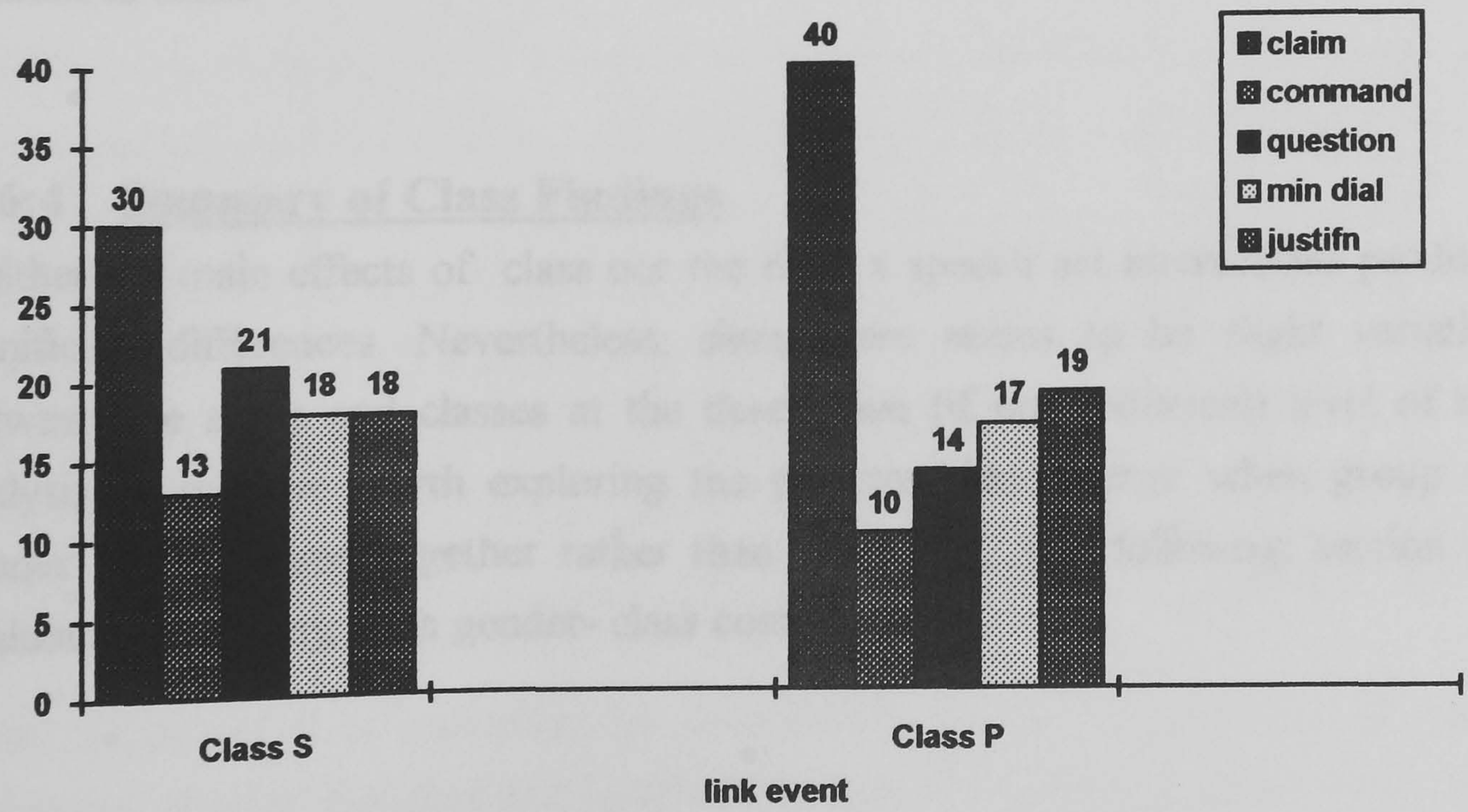
slightly more questions (requests for explanation) overall. Results from this study are given below.

Table16 The frequency and mean per child of link acts in 3-part sequences of collaborative exchanges - in relation to class

	CLASS S N=38		CLASS P N=23	
	Freq	**Mean**	**Freq**	**Mean**
Claim	19	*0.50*	19	*0.83*
Command	8	*0.20*	5	*0.22*
Question	13	*0.34*	7	*0.30*
Minimal Dialogue	11	*0.29*	8	*0.35*
Justification	11	*0.29*	9	*0.39*
TOTAL	62		48	

As with the previous findings, variations in class at the link stage seem in general to be small, and this is backed up by the ANOVA values. Again, only the type of link act was significant $F=3.96$, df (4, 236), $p<0.01$ whereas the effects of class $F=0.93$, df (1, 59) and class x link act interaction $F=0.69$, df (4, 236) were not significant.

Graph 8 The percentage of link acts in 3-part sequences of collaborative exchanges - in relation to class



3:3:6:3 Response Stage and Class

Results in Table 3 indicate that justification is used approximately twice as often as alternatives and when sex was examined, this ratio was found to be preserved. The data for each class are set out in table 17.

Table 17 The frequency and mean per child of response acts for 3-part sequences in collaborative exchanges in relation to class

	CLASS S N=38		CLASS P N=23	
	Freq	**Mean**	**Freq**	**Mean**
Justification	44	*1.16*	35	*1.52*
Alternative	22	*0.58*	17	*0.74*
TOTAL	66		52	

It appears from the preceding table that there is a slight propensity for the more advantaged children to use both alternative and justification more often than their less privileged peers and this mirrors the findings of Study 1. However, in this instance, the results are not significant, $F=0.59$, df (1, 59). Furthermore, there is no significant class x response interaction as $F=0.37$, df (1, 59). Once more, it is worth recording that the 2:1 ratio for justifications:alternatives has been preserved in relation to class.

3:3:6:4 Summary of Class Findings

Neither the main effects of class nor the class x speech act interactions produced significant differences. Nevertheless, since there seems to be slight variations between the sexes and classes at the descriptive (if not statistical) level of data analysis, it may be worth exploring the patterns that emerge when group and gender are examined together rather than separately. The following section will evaluate data arising from gender- class combinations.

3:3:7 THE PATTERN OF 3-TURN SEQUENCES IN RELATION TO BOTH GENDER AND CLASS

3:3:7:1 Antecedent Stage-Gender\Class

Table 18 The frequency and mean per child (brackets) of antecedent acts used, by sex & class

	CLASS	S	CLASS	P
	F (N=16)	M (N=22)	F (N=9)	M (N=14)
Claim	12 (0.75)	*23 (1.04)*	14 (1.55)	*15 (1.07)*
Command	6 (0.33)	*11 (0.5)*	6 (0.66)	*4 (0.28)*
Question	0 (0)	*6 (0.25)*	2 (0.22)	*1 (0.07)*
Minimal Dialogue	0 (0)	*4 (0.18)*	0 (0)	*6 (0.43)*
Total	18	*44*	22	*26*

Dividing the results in such a way enables a more detailed comparison to be made across gender and class combinations. However, neither the gender x class interaction [F=1.06, df (1, 57)] nor the gender x class x antecedent interaction [F=0.75, df (3, 171)] produced statistically significant effects.

3:3:7:2 Link Stage-Gender\Class

Table 19 The frequency and mean per child (brackets) of link acts used, by sex & class

	CLASS	S	CLASS	P
	F (N=16)	M (N=22)	F (N=9)	M (N=14)
Claim	5 (0.31)	*14 (0.65)*	9 (1.0)	*10 (0.71)*
Command	2 (0.12)	*6 (0.27)*	2 (0.22)	*3 (0.21)*
Question	4 (0.25)	*9 (0.41)*	6 (0.66)	*1 (0.07)*
Minimal Dialogue	3 (0.19)	*8 (0.36)*	4 (0.44)	*4 (0.28)*
Justification	2 (0.12)	*9 (0.41)*	3 (0.33)	*6 (0.43)*
TOTAL	16	*46*	24	*24*

From Table 19, it is interesting to note that the Class S girls use less claim, command, minimal dialogue and justification than all the other groups. As with the

antecedent event, it is the less advantaged females who contribute least to dialogue even though there are fewer Class P females (16 and 9 respectively) and privileged boys (14) participating. Class P boys produced very few questions and employed less of every other communicative act than the Class P girls except justification which is only slightly higher. The less advantaged boys use most 'command' but are comparable to the Class P boys for every speech act except 'question' which they use a lot more frequently. None of these trends appear to be significant though the class x gender x link act interaction has an F value of 0.90, df (4, 228). In addition, F=3.42, df (1, 57) for the gender x class interaction and this approached significance at p = 0.07.

3:3:7:3 Response Stage-Gender\Class

Table 20 The frequency and mean per child (brackets) of response acts used, by sex & class

	CLASS	S	CLASS	P
	F (N=16)	M (N=22)	F (N=9)	M (N=14)
Justification	13 (0.81)	*31 (1.41)*	18 (2.0)	*17 (1.23)*
Alternative	5 (0.31)	*17 (0.77)*	6 (0.66)	*11 (0.78)*
TOTAL	18	*48*	24	*28*

At this stage, it can again be seen that the less privileged girls contribute least to collaborative dialogue and this is similar to the finding of class\sex at the development stage of a dispute in Study 1 (Table 13b). Justification is lowest for the less advantaged girls and highest for the more advantaged girls, a finding that also mirrors that in Study 1. Class S girls give the least amount of alternatives and this was also true of this group in the previous conflict study. A mixed ANOVA demonstrated that the differences found were not significant with F=1.67, df (1, 57) for gender x class x response interaction and F=1.31, df (1, 57) for the gender x class interaction.

3:3:7:4 Summary of Gender-Class Findings

There were no statistically significant gender x class or gender x class x speech act interactions although small descriptive differences were apparent. The result which came closest to statistical significance was a class x sex interaction (p=0.07) at the link stage but one should be cautious in reading too much into this. Instead, it may

be more beneficial to look at how type of play activity interplays with gender and class, especially as this was found to be influential in Study 1. The next section will therefore be concerned with the association between communicative acts and type of play, and this will also be examined in relation to gender and class.

3:3:8 THE PATTERN OF 3-TURN SEQUENCES IN RELATION TO PLAY ACTIVITY

A total of 110 three-turn sequences were recorded within collaborative exchanges and of these, 68 occurred in symbolic play, 35 in construction play and 7 during the beetle activity. Details of communicative acts at all 3 stages are given in the following tables. Symbolic and construction data, which were shown to be associated with complex speech in Study 1, are given together for both descriptive and statistical comparisons to be made. The beetle-task data are given separately for descriptive purposes, but no statistical analyses were carried out on these because of the small number of sequences and different time scale involved.

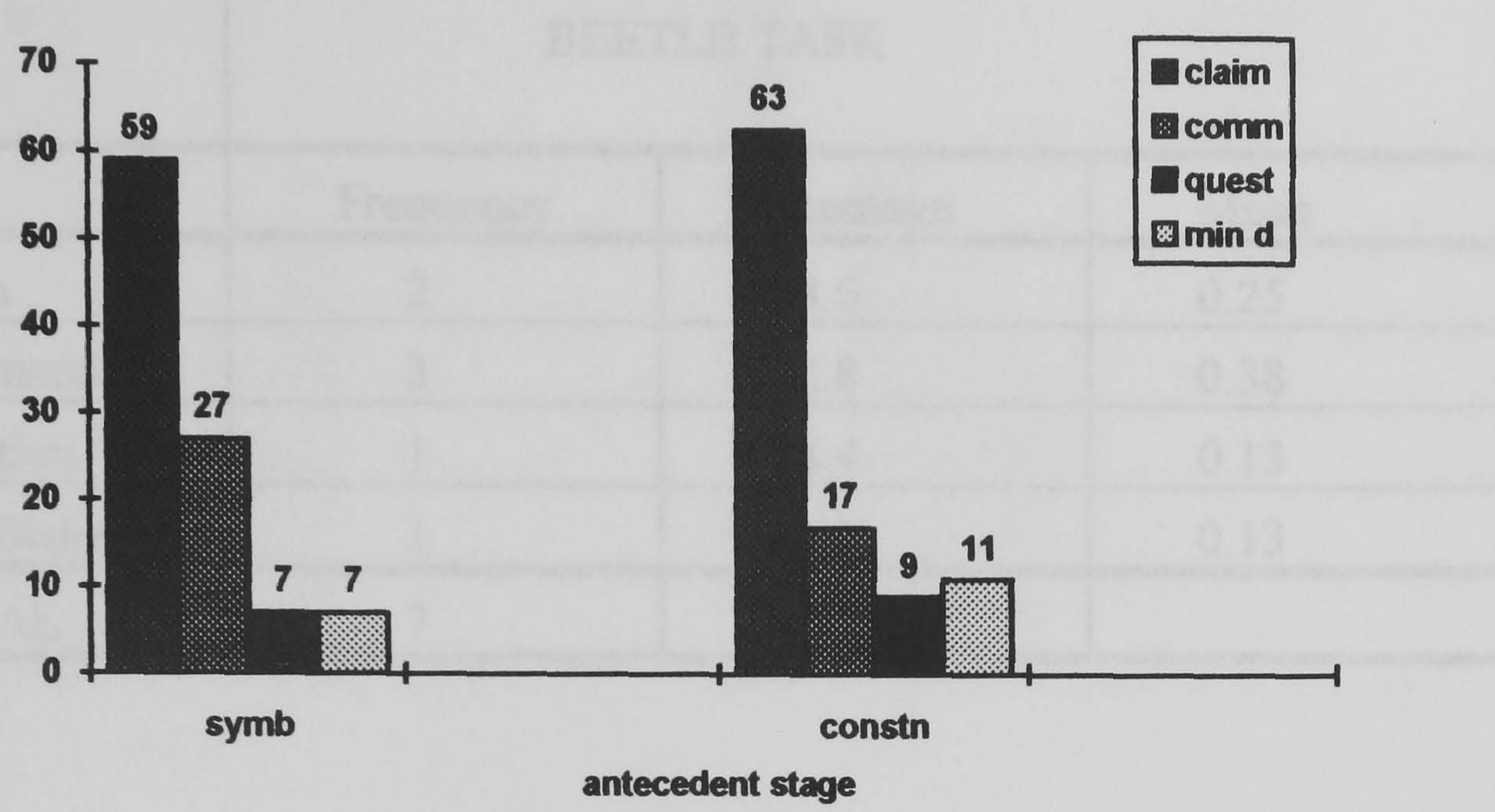
3:3:8:1 Antecedent Stage and Play Activity

Table 21a The frequency & mean per child of antecedent acts in three-part episodes as a function of symbolic\construction activity (N=61)

	Symbolic		Construction	
	Freq	Mean	Freq	Mean
claim	40	*0.66*	22	*0.36*
comm	18	*0.3*	6	*0.1*
quest	5	*0.08*	3	*0.05*
min d	5	*0.08*	4	*0.06*
TOTAL	68		35	

A graph of the percentage values is given over:

Graph 9 **The percentage of antecedent acts in three-part episodes as a function of symbolic\construction activity**



The mean values show that 'claim' acts are by far the highest in both activities, and particularly high in symbolic activity. This may be unsurprising when one thinks of the assertions made by preschoolers who claim to be fantasy figures such as 'Batman' or 'Superman' and so on. 'Command' is also greater in symbolic than construction play which may point to the greater need to organise play rules and roles for successful interaction during pretend play than construction. Questions and minimal dialogue are similar, and of low frequency, across both contexts at the antecedent stage so one might reasonably infer that these acts are not particularly useful in initiating an interaction.

An ANOVA gave $F= 6.59$, df (1, 60) which is significant at $p<0.01$ for type of activity. The interaction between activity and type of antecedent was also significant at $p<0.05$ [$F= 2.82$, df (3, 180)]. This suggests that there is a 'real' difference in the way speech acts are distributed across the two activities at the antecedent stage. It seems that 'claim' and 'command' acts are particularly prevalent during symbolic play whereas 'questions and 'minimal dialogue' are similar across both contexts at this stage. Follow-up tests confirm that the greatest variance lies between 'claim' across type of play activity.

Table 21b **The frequency, percentage & mean per child of antecedent acts in three-part episodes as a function of beetle activity (N=8)**

	BEETLE TASK		
	Frequency	Percentage	Mean
Claim	2	28.6	0.25
Command	3	42.8	0.38
Question	1	14.4	0.13
Min Dialogue	1	14.3	0.13
TOTAL	7		

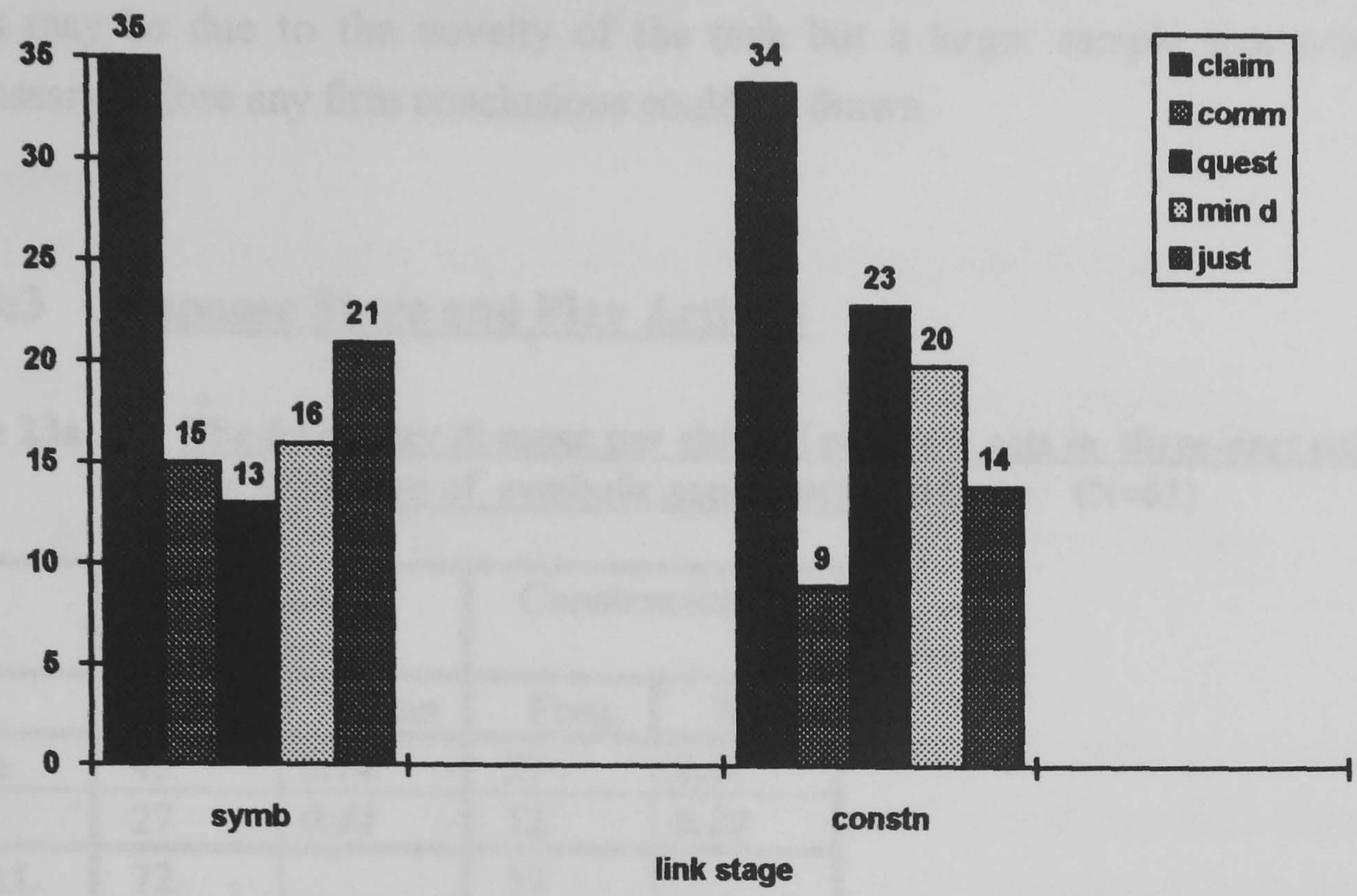
Data from the beetle task indicate that 'command' is the most frequent speech act used. From direct observations of the children, it was noted that one child usually took over the proceedings and directed the other participant - therefore this finding is unsurprising.

3:3:8:2 Link Stage and Play Activity

Table 22a **The frequency& mean per child of link acts in three-part episodes as a function of symbolic\construction activity (N=61)**

	Symbolic		Construction	
	Freq	Mean	Freq	Mean
claim	24	*0.39*	12	*0.20*
comm	10	*0.16*	3	*0.04*
quest	9	*0.15*	8	*0.13*
min d	11	*0.17*	7	*0.11*
just	14	*0.24*	5	*0.08*
TOTAL	68		35	

Graph 10 **The percentage of link acts in three-part episodes as a function of symbolic\construction activity**



As with the antecedent stage, 'claim' is most popular in both symbolic and construction play. Command speech acts are again higher for pretend play which is supported by Pellegrini's (1982) plus Smilansky's (1968) findings that there are more directives used in symbolic play. Link questions are most frequent, in percentage terms, for construction play and Pellegrini (1982) has found that there is around 40% of yes-no questions during this type of activity. Justification is slightly greater for symbolic activities, a result which mirrors Smilansky's (1968) research . The type of activity is significant at $p<0.01$, $F= 8.68$, df (1, 60), with post hoc tests revealing a significant difference in claim use across both activities. However, at this stage there is no activity x type of speech act interaction $F= 0.92$, df (4, 240) implying that the use of communicative acts does not differ substantially between activities at the link stage.

Table 22b **The frequency, percentage & mean per child of link acts in three-part episodes as a function of beetle activity (N=8)**

	Frequency	Percentage	Mean
Claim	2	28.6	0.25
Command	0	0	0
Question	3	42.8	0.38
Min Dialogue	1	14.3	0.13
Justification	1	14.3	0.13
TOTAL	7		

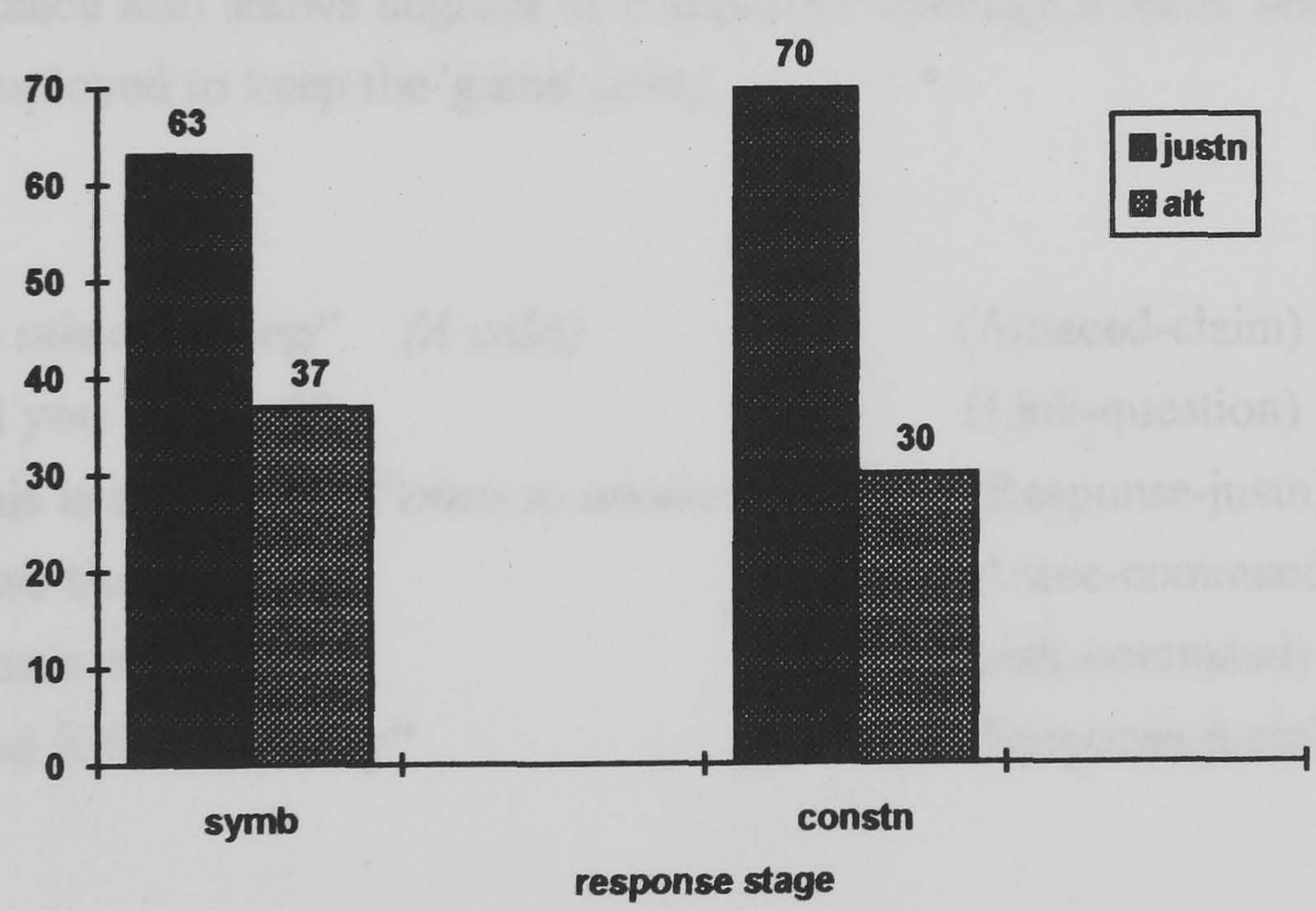
Although data from the beetle task was restricted, it is interesting to note that the more complex speech act of 'question' was well-represented at the link stage. This may be due to the novelty of the task but a larger sample size would be necessary before any firm conclusions could be drawn.

3:3:8:3 Response Stage and Play Activity

Table 23a **The frequency & mean per child of response acts in three-part episodes as a function of symbolic\construction activity (N=61)**

	Symbolic		Construction	
	Freq	Mean	Freq	Mean
justn	45	*0.74*	27	*0.44*
alt	27	*0.44*	12	*0.20*
TOTAL	72		39	

Graph 11 **The percentage of response acts in three-part episodes as a function of symbolic\construction activity**



As possibly to be expected, justification is almost twice as frequent as alternative for each type of play, with symbolic play associated with nearly double the complex speech acts per child than construction. An ANOVA for the type of activity was significant at $p<0.05$, $F= 4.46$, df (1, 60) but there was a non significant interaction of activity x response $F= 0.04$, df (1, 60) which indicates that there is little difference in the way communication acts at the response stage are distributed

across construction and symbolic activities. Examples of first a construction and then a symbolic three-turn episode are given below, both examples involving the same boys.

Construction:

One boy picked up another boy's construction and was challenged.

RO	**"Sorry"**	(Antecedent-min dialogue)
SM	**"That's my one"**	(Link - claim)
RO	**"Sorry I said... I didn't know that"**	(Response-justification)

This exchange could easily have become conflictual, especially as an object is involved. Even when RO originally apologised it wasn't enough for SM who whines 'that's my one'. Luckily, RO seems smart enough to re-apologise but this time giving a reason - that he wasn't aware that the construction was SM's. This 'denying all knowledge' is a common ploy even for adults.

Symbolic:

The following instance also shows degrees of complexity although a wider range of speech acts are employed to keep the 'game' going.

RO	**"That one's mine to keep"**	*(A cake)*	(Anteced-claim)
SM	**"Why don't you keep it?"**		(Link-question)
RO	**"Because this is my one"**	*(Points to another cake)*	(Response-justn)
SM	**"Get a potato then..."**		(Antec-command)
RO	**"Let's get some orange"**		(Link-command)
SM	**"I don't need it for my baby"**		(Response-justn)

Table 23b **The frequency, percentage & mean per child of response acts in three-part episodes as a function of beetle activity (N=8)**

	Frequency	Percentage	Mean
Justification	7	100	0.88
Alternative	0	0	0
TOTAL	7		

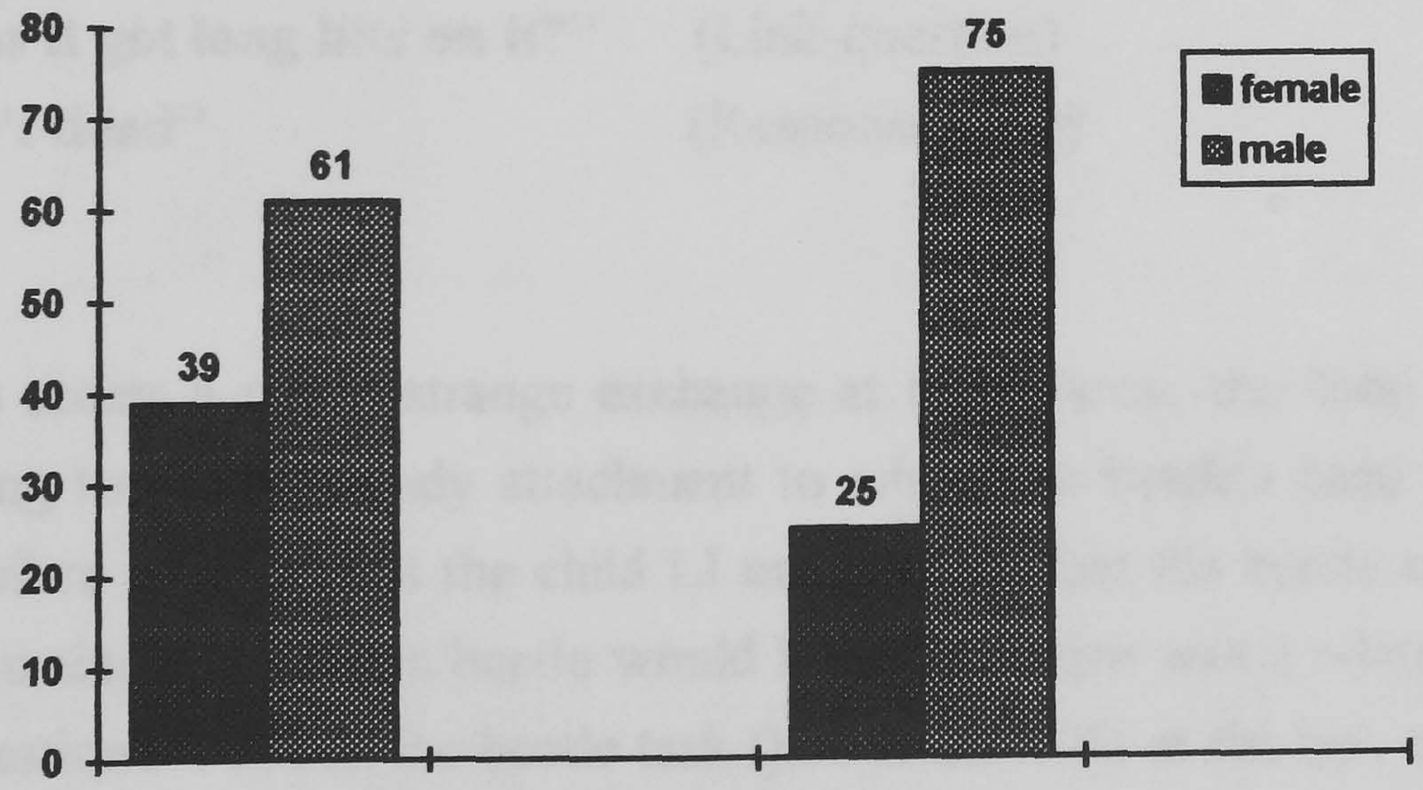
In the beetle activity it appears that justification is used more often than alternatives and this is consistent with the other results involving symbolic and construction play. This section looked at how activity inter-relates with speech acts and the following tables will show how gender and class interact with type of activity.

3:3:8:4 Play Activity and Gender

Table 24a **The frequency & mean per child of gender contributions during symbolic\construction activity**

	Symbolic		Construction	
	Freq	Mean	Freq	Mean
F (n=24)	83	*3.32*	26	*1.04*
M (n=37)	128	*3.56*	80	*2.22*
TOTAL	211		106	

Graph 12 **The percentage of gender contributions in three-part episodes as a function of symbolic\construction activity**



There is obviously quite a difference between boys' and girls' dialogue involvement in construction play - with girls tending to spend less time in this area and being more reluctant than boys to offer contributions. This was also found to be true in

Study 1 and, as mentioned earlier, may be due to girls' lack of confidence with building materials - especially when boys are present. However, differences were not large enough to be significant. For the main effect of gender, F= 0.65, df (1, 59) and F= 0.70, df (1, 59) for the gender x type of activity interaction.

Table 24b **The frequency, percentage & mean per child of gender contributions during beetle activity (N=8)**

	Beetle	
	Freq	**Mean**
F (n=3)	10 (47.6%)	*3.33*
M (n=5)	11 (52.4%)	*2.2*

It seems that girls contributed more to the beetle activity than boys which may seem surprising if one thinks of this type of play as construction. It is possible that the girls coped better with the novelty of the situation including asking and responding to questions. An example follows below:

LI **"It's not ready this bit"** (Antecedent-claim)
MU **"Why has it got long bits on it?"** (Link-question)
LI **"So it isn't dead"** (Response-justn)

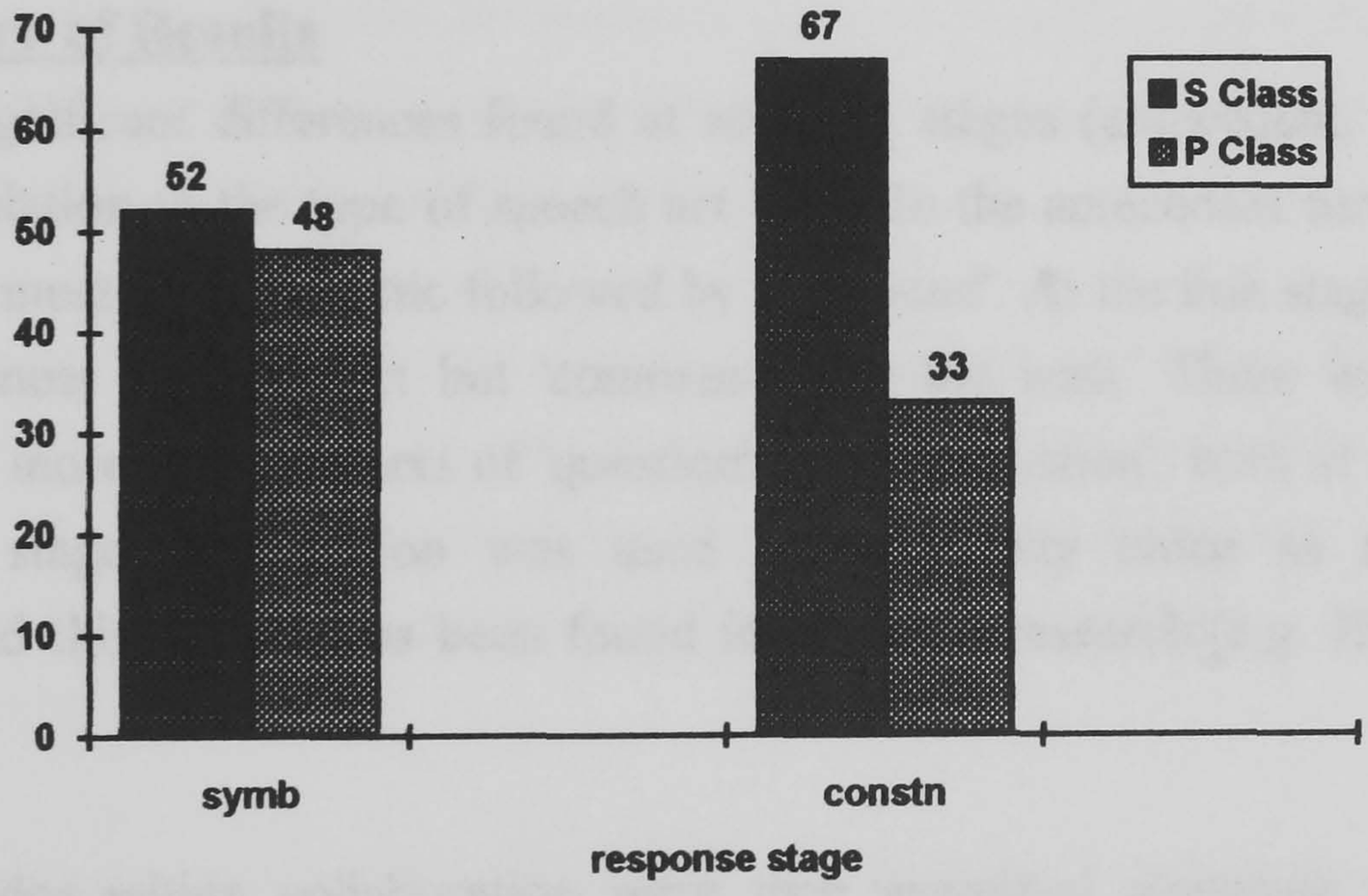
Although this seems a rather strange exchange at first glance, the 'long bit' child MU is referring to was the body attachment to which the beetle's head fits onto. One can therefore imagine that the child LI understands that the beetle must have its head put on since a headless beetle would be dead. There was a relatively high number of questions found in the beetle task (just under 50% at the link stage) and this could be due to the task being unusual - the children may have had to think about what they were doing. They could not assume that their partner had knowledge of this new task and so had to ask questions or give explanations in order that their shared task was made clearer.

3:3:8:5 Play Activity and Class

Table 25a **The frequency & mean per child of class contributions during symbolic\construction activity**

	Symbolic		Construction	
	Freq	**Mean**	**Freq**	**Mean**
SClass (n=38)	110	*2.89*	71	*1.87*
PClass (n=23)	101	*4.40*	35	*1.52*
TOTAL	211		106	

Graph 13 **The percentage of class contributions in three-part episodes as a function of symbolic\construction activity**



From these results it appears that the Class P preschoolers produce more speech acts during symbolic play than the less advantaged children, whilst the Class S children tend to employ more speech tactics in construction than their private school peers. However, an ANOVA gave a value of F= 0.41 for class, df (1, 59) and F= 2.66, df (1, 59) for class x activity interaction. Neither of these were significant implying that there is little 'real' variation between groups with regard to language use across symbolic and construction activities.

Table 25b **The frequency, percentage & mean per child of class contributions during beetle activity**

	Beetle	
	Freq	**Mean**
SClass (n=6)	9 (42.9%)	*1.5*
PClass (n=2)	12 (57.1%)	*6*

From these data it appears that the Class P children contribute far more per child to the novel beetle activity than the Class S children, perhaps because they tend to have more access to, and more familiarity with a variety of toys. But, again, one would be unwise to draw conclusions from such a small sample.

3:3:9 Summary of Results

There were significant differences found at all three stages (antecedent, link and response) in relation to the type of speech act used. In the antecedent turn, 'claim' was by far the most popular tactic followed by 'command'. At the link stage, 'claim' was still the most frequent act but 'command' was the least. There was a fair amount of the more complex acts of 'question' and 'justification', both at 18%. At the response stage, justification was used approximately twice as much as alternatives and this pattern has been found in previous research.(e.g. Eisenberg, 1992).

Conflict episodes within collaboration were then examined alongside the non-conflict episodes. Conflictual 3-part sequences were, unsurprisingly, quite rare in co-operative conversations with only 30 being found in comparison to 80 non-conflictual sequences. All speech acts were found to be used more by each child in non-conflictual episodes but one of the most striking findings was the lack of link 'questions' in conflictual dialogue. This prompted further examination of the total transcripts which revealed that 'why' questions made up a third of all the link questions asked in co-operative interactions. This may be important because many researchers believe the use of 'why' queries indicates a high degree of thought. In contrast to this, there were *no* 'why' questions in the unselected dialogue within the transcripts (i.e. the dialogue which did not meet the criteria for analysis).

Moreover, when an examination was made of how each turn in a three-part sequence inter-linked, a pattern was also found whereby questions often followed antecedent claims with the questions being answered by justifications. Although this trend only occurred around 10% of the time, it was the second most frequent sequence (the first being 'claim-claim-justification') produced by the children as well as being unique to co-operative episodes. This may therefore be important for designing an intervention study to scaffold and enhance preschoolers' dialogue.

Conflict episodes from within the co-operative conversations were examined and compared to the 'stand-alone' conflict produced in Study 1. At the antecedent stage, objects were the commonest dispute trigger although the mean was lower for collaboration 'conflict' (0.37) than Study 1 conflict (1.15). 'Claim' acts were quite a bit lower for co-operative 'conflicts' but 'play' was surprisingly frequent suggesting, perhaps, that play rules may be more important when collaborative activities are underway. At the opposition stage there were comparable patterns of speech acts for both contexts, with simple tactics being most frequent followed by justification then alternatives. The same trend for justification being more frequent than alternatives was also found at the development stage. It is good to note the relative consistency of both conflict contexts across the two studies as it suggests a degree of validity and reliability in the research methodology.

The three stages in each episode within collaborative exchanges were also examined in relation to sex and class. There were no significant main effects for sex or class and no interaction effects involving type of speech act with either gender or class. This was also true of the combined gender-class analyses where no significant results were found.

Finally, the frequency and type of communicative act at each of the 3 stages in a dyadic episode were looked at with regard to play activity. A beetle activity had been included to gather extra information about children's play behaviour with a novel task but the observation sessions were much shorter than those for construction and symbolic play and the sample size was a lot smaller. It was therefore decided to include the gathered data for descriptive purposes but not for statistical analyses or comparisons with symbolic or construction play. However, it is worth mentioning that a relatively high proportion of questions was elicited in this context and this may be due to the novelty of the task. This may imply that 'novelty' may be advantageous in a training context. A more detailed analysis and

comparison focused on construction and symbolic play since these were the activities associated with the most frequent and most complex speech in Study 1.

At the antecedent stage the speech acts occurred more frequently in symbolic than construction play and this was significant at $p<0.05$. The main effect of 'activity' was also significant at the link and response stages with the greater frequency of speech acts always occurring within symbolic activity. When sex and class were examined in relation to play activity, there were no significant differences although a few trends that were visible in Study 1 were also apparent here - for example, boys contributed more to construction activities than girls. In addition, the privileged group used more frequent dialogue in symbolic play than their less advantaged peers, with state school girls contributing least speech overall. Dialogue in symbolic activity appeared to be more equally shared amongst boy and girl pre-schoolers. Furthermore, the complex linguistic strategies of justification (at link plus response stages) and alternatives were all more frequent in symbolic play and this may have implications for encouraging and developing children's language through pretend play. Some reasons for these findings will now be explored in the following discussion section.

3:4 DISCUSSION

3:4:1 Overview

The main aim of this second study was to investigate both the complexity and type of speech acts associated with co-operative dialogue, and in relation to gender, class and play activity. The next subsection will focus on complexity with regard to the data collected at the three stages identified during non-conflict exchanges. Subsection 3:4:3 will be concerned with the 3-part conflict and non-conflict sequences within an overall co-operative exchange. Subsection 3:4:4 will compare the 'stand-alone' conflict scenarios in Study 1 with those occuring within a co-operative context in Study 2. Subsection 3:4:5 will be concerned with how the pattern and complexity of speech acts inter-relate with the context effects of gender, class and play activity, and then a short summary will be given.

3:4:2 ISSUES OF COMPLEXITY REVISITED

This subsection will look at the complexity and types of speech acts used across the three phases (antecedent, link and response stage) of co-operative dialogue. It is also worth noting at this point that there is a relatively small data base in Study 2 which reduces the chance of trends being significant. This should therefore be

considered when patterns, rather than significant differences, are reported in the following subsections.

3:4:2:1 The Antecedent Stage

In Study 1, the antecedent event could involve either verbal or non-verbal behaviour which triggered some opposition from another child. This could really only be perceived after the challenge took place. Similarly, an antecedent event in this study was only selected in relation to a complex response of justification or alternative being noted. Once a complex response had been identified from the transcripts, the antecedent was deemed to be the dialogue spoken by the same person two turns previously.

When the total amount of antecedents in the three-part sequences was examined, it was found that only four types of speech act predominated - 'claim', 'command', 'question' and 'minimal dialogue'. As noted in Chapter 1, in-depth research has been conducted on some of these individual speech acts but studies focusing on their 'complexity' or how they compare to each other has been scarce. Part of the difficulty may lie with the definition of the various types of speech acts but there is also a problem with defining 'complexity'. As noted in Study 1, this tends to be somewhat arbitrary but here it is proposed to follow the stance taken in the previous study whereby speech that takes some account of another's position (i.e. less egocentric), is regarded as more adaptable and thus as more complex (e.g. Eisenberg & Garvey, 1981).

It has been suggested by Piaget that claims are the least complex speech acts in that they take little account of others' needs or ideas. Commensensically, minimal dialogue may also be seen as rather simple in nature since it tends to add nothing new to a conversation (e.g. Dorval & Eckerman, 1984; Bokus, 1992). Nevertheless, it is worth considering that it can serve to acknowledge a listener's attention, thus keeping an exchange flowing (e.g. Keenan, 1974; Johnstone, 1994). Commands involve speech addressed directly to another, and even though they may be used to fulfil the speaker's own desires, commands still "make a demand on the listener for services....(so) they display considerable sensitivity to social features" (pg. 165, Ervin-Tripp, 1977). Moreover, it has been stated by many researchers that 'questions' are the most complex of all speech acts (e.g. Steffenson, 1977). They can be regarded as indicating a decrease in egocentrism as a child begins to acknowledge his own limitations and can understand that his lack of knowledge can be compensated for by asking another child (e.g. Bruner, Roy & Ratner, 1982;

Gibbs & Mueller, 1988). Although not a rigid continuum of separate stages, since a lot of ovelap is present, it appears that children follow a developmental pattern whereby direct speech acts such as claims and commands are present from a very early age (Piaget, 1926; Ervin-Tripp, 1974; Read & Cherry, 1978; Cooper et al., 1986) whilst questions, and especially wh.. questions, do not seem to appear until later (Barnes, 1976; Barnes & Todd, 1977; Dorval & Eckerman, 1984; Sharan & Shachar, 1988; Bernicot & Marhokhian, 1989; Vespo et al., 1995). This squares nicely with the comments previously made about the 'complexity' of individual speech acts, since one would expect an increase in skilful language with age.

When the results from Table 1 are examined, it can be seen that claim acts are by far the most frequently used tactic (58%) in the antecedent phase of co-operative dialogue. This is perhaps unsurprising given the age of the children (3-5 years) since this tactic is said to be one of the first to appear, therefore children will be familiar and comfortable with it. The observed percentage is slightly higher than other results including those of Killen & Naigles (1995) with 39%, Pontecorvo & Girardet (1993) with 42% and Gibbs (1981) with 32%. However, the results of this study are consistent with McTear's (1977) finding of 60%. The variation between studies may have been due to different definitions or contexts being used by the researchers. Moreover, it may be unwise to dismiss claim as merely a simple tactic and unworthy of investigation. Not only is claim very natural to preschoolers, but it can serve to initiate an interaction and "draw listeners into own activity" (pg.213, Shugar & Bokus, 1986). Orsolini (1993) highlights the important link between claims, questions and justifications when she states "a claim...can be questioned...justification may be focused on the truth of what's been claimed or on the 'correctness' of what has been said or done" (pg. 284). Pontecorvo and Girardet (1993) concur with this "the link that is necessarily established between claims and justifications is basic and crucial" (pg. 373). Therefore, claims seem important as an initiator in chains of verbal interaction. Ambiguous assertions can encourage questions, or justifications which elaborate on the given statements (e.g. Pontecorvo, 1987). Additionally, claims can be followed up by minimal dialogue since "many assertions are followed by some sort of acknowledgement" (pg. 67, Garvey, 1977) and "assertions...raise an expectation of agreement" (pg. 115, Orsolini & Pontecorvo, 1992) so this may be inter-related with co-operative dialogue being extended.

The next most popular co-operative speech act at the antecedent stage was 'command' at 25%. As noted in the results section, this is not really surprising

because commands tend to focus behaviour (Rheingold et al., 1987) and "give children something specific to do" (pg. 152). Command use in other studies tends to be higher than here, e.g. the 43% found by Dawe (1934) or the 66% found by LaFreniere & Charlesworth (1987). Kertoy & Vetter (1995) state that commands can be used to "request attention" (pg. 80) and it may be that claim is a more effective substitute for this in collaborative exchanges, as commands can be viewed as "stronger or more aggravated so less effective" and "may lead to more arguments" (pg. 488, Wilkinson & Spinelli, 1983). Furthermore, McTear (1977) found that commands were used around 20% of the time, which is much more in line with the present findings.

Minimal dialogue, which consists of such speech acts as acknowledgements and repetition, was low (9%) at the antecedent stage. It would be logical to suggest that some of this dialogue could be aimed at getting someone's attention, e.g.

AL	**Ah Ha!** *(pointing)*	Antecedent (Minimal Dialogue)
BT	**I'm all the colours.**	Link (Claim)
AL	**No..'cos he's red and he's blue.**	Response (Justification)

However, if the main purpose of minimal dialogue is to keep an interaction going smoothly (Keenan, 1974) then a higher percentage would be more likely at the link stage rather than the initiating antecedent phase. Except, of course, one should also be aware of the possibility that the *first* turn in Study 2 could be embedded within dialogue sequences.

The use of 'questions' at the antecedent stage was also low (8%) even though it has been suggested that questions are commonly employed to "initiate interactions" (Cooper et al., 1986), in "attention-seeking" (McTear, 1977; Tizard & Hughes, 1984) and for "introducing topics" (Mentis, 1994). However, it is generally recognised that young children ask questions relatively infrequently (Barnes, 1976; Beal & Flavell, 1982; Webb, 1984; Vespo et al., 1995) with McTear (1977) noting 20% question use, and Piaget (1926) finding only 15% amongst children of around 7 years of age. Nonetheless, it is also worth bearing in mind the usefulness of questions for promoting subsequent (and often more complex) dialogue - as the following examples illustrate.

Two boys are playing in the home corner with a 'cake'.

SM	**Why don't you keep it?** *(the cake)*	Antecedent (Question)
RO	**'Cos this is my one.**	Link (Justification)
SM	**Well...get a potato, get a potato if you want to.**	Response (Alternative)

MI	**Do you want to go in an aeroplane?**	Antecedent (Question)
JO	**No...because I jump.**	Link (Justification)
MI	**Go on a motorbike.**	Response (Alternative)

Looking at the findings overall, it appears that children use the simpler tactics more often than the complex ones at the antecedent phase of co-operative dialogue. Nevertheless, it is encouraging to note that the preschoolers can effectively use the complex communicative strategy of 'question' at this stage, and that even the simpler speech acts may play a part in helping elicit more skilful language. Again it is worth noting that the 'antecedents' may not have been the first step in the original conversations, but only became defined as such during selection for further analysis. It could therefore be that these 'questions' act more as 'links' in this wider context.

3:4:2:2 <u>The Link Stage</u>

It was postulated in the previous paragraphs that preschoolers tend to use the simpler types of antecedent. It was also noted that even simple speech such as claim can be useful for leading into more complex patterns of interaction. The link phase is the turn where the dialogue bridges the antecedent and response speech acts, and an examination of this stage of the transcript's three-part sequences revealed that 'claim', 'command', 'question', 'minimal dialogue' and 'justification' were prevalent. If a claim carried any hint of an explanation, then it was coded as a justification at this stage, e.g.

Some children are playing with a garage and several toy cars.

JE	**I had it!**	Antecedent (Claim)
DA	**I had that first..he grabbed that off me.**	Link (Justification)
JE	**Well...I'll get it after you.**	Response (Alternative)

As with the antecedent stage, claim acts were significantly more frequent (35%) than the other tactics which again ties in with previous research. It is quite likely that a claim will follow another claim as the next instance indicates.

Two children are playing with toy steering wheels.

AD	**I'm going away in my police car.**	Ante (Claim)
MI	**Here's another police car coming to see you friend.**	Link (Claim)
AD	**There's a traffic jam and road works so I keep crashing into you.**	(Just)

Although, at first glance, this might seem a little disjointed, MI makes his announcement as he 'drives' over to AD. AD also comes to meet him, trying to avoid trucks on the floor, and then they collide thus leading to AD's explanation. It is interesting to see the conjunction 'so' which seems fairly rare in preschoolers' dialogue, yet Phillips (1990) states " most causal connectives will almost certainly be "cos', 'so', 'if' and 'though' " (pg. 66). The preference of preschoolers in this study appears to be the word because or, even more likely, 'cos.

Claims followed by counter-claims (with and without justification) are also fairly common (e.g. Eisenberg & Garvey, 1981; Orsolini, 1993; Resnick et al., 1993) and seem to occur within co-operative settings as well as the conflict scenarios of Study 1. An example of this pattern of dialogue is given below.

AM	**I'm a daddy.**	Antecedent (Claim)
FS	**No, I'm a daddy.**	Link (Claim\Counter)
AM	**You be the caretaker.**	Response (Alternative)

One of the reasons that the percentage of claims may be lower at the link stage (than the antecedent stage) is that claims were differentiated from 'claim with justification' (i.e. justification) which accounted for 18% of the data. An example of a claim which also acts as an explanation is shown in the next example.

AD	**I'm going to drive policeman.**	Antecedent (Claim)
MI	**Good...I've got to go back home.**	Link (Justification)
AD	**Well...I'll go in my aeroplane.**	Response (Alternative)

From a qualitative examination of the transcripts, it was noted that there was a fair amount of 'desire' claims such as "I want" or "I need" etc. and this finding is comparable to that of Ervin-Tripp (1976), Gibbs (1981) and Dunn (1984). Piaget (1926), of course, believed this self-centred speech was indicative of young children's egocentrism because they gave no explanations to support their positions.

The level of 18% for the complex strategies of both justification and questioning is promising because a pattern seems to be emerging in relation to the most frequent antecedent used - that of claim! As mentioned earlier, justifications are often used after a claim is given - especially if the assertion seems unconvincing in some way. Ambiguous statements are also likely to be questioned (Miyake & Norman, 1979; Webb, 1982; Garvey, 1986; Pontecorvo, 1987; Orsolini & Pontecorvo, 1992; Orsolini, 1993) although Beal & Flavell (1982) assert of kindergarteners that "when presented with inadequate messages, they often do not ask for clarifying information" (pg. 43). This is consistent with research claiming the scarcity of young children's questions, especially in relation to their peers. Nonetheless, the importance of questioning ambiguous or dubious claims should not be underestimated because it is through such a mechanism that explanations are often elicited. In fact, Cooper et al. (1986) state that "asking questions was typical of effective children" (pg. 292) whilst Howe (1997) stresses "asking questions suggests some interactive behaviour" (pg. 7) thereby pointing to an increase in perspective-taking. Orsolini (1993), who studied the pattern of teachers' and pupils' exchanges, discovered that children often made claims with teachers subsequently following these up with requests for information whereby "children came to realise that claims needed to be elaborated upon" (pg. 289). The justifications produced after questions might also be important in that they tend to be more elaborate than those produced after other speech acts. This is because they are specifically aimed at "making behaviours, requests or points of view comprehensible and acceptable to the (questioning) partner" (pg. 310, Devescovi & Baumgartner, 1993). The importance of specific questioning leading to elaborate justification and resulting in cognitive growth has also been advocated by King (1990) and King & Rosenshine (1993). Therefore, although the frequency of question use here is fairly low (although consistent with other research), its presence as a link between many claims and subsequent justifications may be conducive to enhanced perspective-taking and the production of complex language. Further analysis of the questions asked at the link stage revealed that a third of them were 'why' queries which are said to occur more frequently in the speech of older children, and is taken as a sign

of greater intellectual maturity (Barnes & Todd, 1977). It may also be of interest that questions are relatively rare during conflict and this was highlighted earlier in the present chapter, as well as in Chapter 2. An example of effective "why" use is outlined below.

Two boys are playing with spaceships made of lego

RO	**I'm waiting on you.**	Antecedent (Claim)
SM	**Why?**	Link (Question)
RO	**Just for you to fight me.**	Response (Justification)

What is especially interesting in this example is that the claim is not particularly controversial but it is rather sparse with information. SM picks up on this and asks 'why?' so he is better prepared to deal with both the continuing conversation and accompanying actions. This type of communication may therefore be of particular importance in co-operation because it helps smooth and extend the interaction between partners by making things more explicit and comprehensible to both parties.

Minimal Dialogue was found to make up 17% of the speech acts employed at the link stage of co-operative exchanges and this was lower than the 34% found by Baines (1996). However, his results reflect the number of minimal acts overall, rather than at a specific turn in a conversation. One would expect a fair amount of minimal dialogue in co-operative exchanges due to their extended nature. To build up a rapport it would be important to acknowledge or show some responsiveness to others' communications, and this may be one reason that minimal dialogue is higher at the link stage compared to the antecedent phase of a discourse episode.

Finally, command tactics which were second most frequent at the antecedent stage, were least frequent (12%) at the link stage. As previously suggested, commands are often used to focus attention or gain compliance - and this is more important at the start of an interaction than further into it, especially when it involves freely-flowing co-operative play which may be disrupted by the use of 'heavy-handed' control tactics. Garvey (1977) has stressed that children like to keep their activities on-going and try to avoid interruption or disruption, whilst Shugar (1983) states that "summons" are usually used by an initiator to gain attention and direct proceedings.

3:4:2:3 The Response Stage

As mentioned in the method and results sections, this is the final turn of the three-part dialogue sequence and was selected on the basis of being a justification or alternative. Since both of these are complex strategies showing evidence of adaptiveness as explained in the previous study, then an extended explanation seems rather superfluous at this point. As with Study 1 and work by Eisenberg & Garvey (1981) or Orsolini (1993), the results consistently show justifications being produced with about twice the frequency of alternatives. It is possible that children have more experience of justifications as some parents and teachers give and ask for reasons (Tizard & Hughes, 1984; Donaldson & Elliot, 1990; Orsolini, 1993). Or, it could be that alternatives tend to end discourse sequences whereas justifications may leave the conversation open and receptive to additional dialogue. Furthermore, it may be that young children simply find it too difficult to offer an alternative as an abstract thought or idea rather than based on 'concrete evidence' such as a toy - for example Killen & Turiel (1991) state that young children are more likely to respond when concrete, physical issues are at stake, and this is evidenced by the following exchange.

Children are playing with some toy cars.

LE	**There's one** ***(a car)*** **beside you.**	Antecedent (Claim)
RA	**Put the girl car down.**	Link (Command)
LE	***You can have that one.***	Response (Alternative)

It is also possible, though infrequent, to get justifications and alternatives in the same turn, e.g.

CHR	**Don't do that...don't cut it** ***(pancake).***	Antecedent (Command)
EU	**I didn't, MI did..he cutted it with your knife.**	Link (Claim)
CHR	**That'll just waste it...I've got a big hammer.**	Response (Just & Alt)

Normally, when both justifications and alternatives are used together, as in the previous example, it produces a more extended, elaborate and complex response. However, ambiguities can be present at this stage which can complicate the findings. Fortunately this is rare but it is certainly worth bearing in mind that

categories are not always straightforward and clear-cut (Piaget, 1926; Barnes & Todd, 1977; McTear, 1985), e.g.

Two children during role-play in the home-corner

LE	**Want to go to my mummy's.**	Antecedent (Claim)
LI	**I'm your mum.**	Link (Claim)
LE	**No..you're not my mum, you're my friend.**	Response

Now it could be that LE is opposing LI and offering a reason why or, also likely, LE is challenging LI but offering an alternative scenario to keep everyone content so play continues the way LE wanted it to. Interestingly, Garvey & Hogan (1973) state "the 'reason' always introduced a topic new to the interaction" (pg. 567) and that can be clearly seen in the previous examples with "hammer" and "friend" suddenly appearing in the dialogue.

It is worth noting that Shultz & Kestenbaum (1985) believe that justifications (rather than alternatives as suggested earlier) are based on or around "physical events" (pg. 241) and they deduce that children are poorer at reasoning than adults due to lack of specific knowledge and experience. King (1990) agrees "in generating the justification\explanation, students need to relate the to-be-learned fact to prior knowledge" (pg. 676). Cooper & Cooper (1984) suggest "preschoolers' ability to give explanations is flawed in many ways" (pg. 81) and they also believe it's due to lack of experience and practice, as well as limited processing capacity. Similarly, Baines (1996) reported that children could learn the form of a justification but did not always have the knowledge to make the context sensible. Nevertheless, young children in this present study demonstrated their capacity to produce frequent justifications, and often quite complex ones as the next example demonstrates.

LO	**There he is** *(the big bad wolf)*.	Antecedent (Claim)
AN	**I can play big 'n' loud animals.**	Link (Claim)
LO	**We'll eat them all up. Put them in the oven...no, I'll do it 'cos you don't know how to switch the cooker on.**	Response (Justification)

What is rather interesting about this particular exchange is that not only is LO possibly drawing on her own background information from home, but she is

assuming that the younger child AN (who was 3 years whereas LO was over 4) was incapable of using the cooker. This could therefore be an approximate transference of LO mother's behaviour towards her child at home to an older preschooler:younger preschooler 'mothering' scenario at nursery. This seems to indicate less egocentrism than often supposed. Hence, this exchange appears to demonstrate the importance of experience - which Cooper & Cooper (1984) stress is so crucial for providing the information from which to generate explanations.

In sum, it appears that preschoolers can use the complex strategy of justification fairly frequently at the link and response stage of co-operative dialogue. The occurence of questions at both the antecedent and link stages is also promising since these tend to be precursors to more elaborate explanations. Although a moderate amount of minimal dialogue was found, it would be unfair to regard this as simply a child's immature speech. In fact, it appears to serve an important function in maintaining the flow of co-operative dialogue by acknowledging continued interest, responsiveness and degree of understanding throughout the interaction. Preschoolers also use command flexibly thereby indicating a level of perspective taking. They tend to use this strategy often at the antecedent stage where focusing attention and shaping behaviour is important, but they rarely employ it in the middle of an exchange where a command is more likely to disrupt the flow of interaction. Finally, the large number of claims produced at both the antecedent and link stages seem to be consistent with the findings of other research. As one of the earliest speech acts to develop, the children are obviously familiar and comfortable with its use and so employ assertions spontaneously and frequently. Although the claim tactic might be deemed simple in nature, it still has an important part to play in the production of subsequent questions and\or justifications - in 'stand-alone' dispute dialogue (Study 1), conflict within co-operative exchanges, and co-operative interaction. The following subsections will focus on the variation in speech acts in relation to these contexts by examining the descriptive data for apparent similarities and differences.

3:4:3 A COMPARISON AND DISCUSSION OF CONFLICT AND NON-CONFLICT 3-PART SEQUENCES WITHIN A COLLABORATIVE EXCHANGE

This subsection will focus on the findings relating to conflict and non-conflict 3-part episodes within an overall collaborative exchange.

3:4:3:1 Antecedent Stage

The results from Table 5 showed that the children's use of antecedent speech acts varied with regard to whether a 3-turn sequence was 'conflictual' or 'non-conflictual'. The main difference found was that 'claim' use was significantly greater in the non-conflict sequences. This may be explained by referring to Pontecorvo's (1987) suggestion that claims need not cause controversy but can be used positively to direct behaviour, open discussion and construe sequences.

3:4:3:2 Opposition\Link Stage

From Table 6 it can be seen that, as with the antecedent stage, the preschoolers vary in their use of speech acts in relation to conflict and non-conflict 3-part episodes. Again 'claim' acts are employed more frequently in the non-conflict sequences with the other main difference being in the use of questions. Interestingly, there were no 'questions' produced at all in the 'conflict' episodes which is consistent with Eisenberg & Garveys (1981) finding that preschoolers do not frequently employ 'requests for explanation'. The relatively high frequency of question use is encouraging because it suggests that children can employ such speech strategies at an earlier age than proposed by many researchers (e.g. Barnes & Todd, 1977; Beal & Flavell, 1982). In addition, it also demonstrates that purely co-operative episodes provide a context which is especially conducive to fostering the complex language associated with increased perspective taking and socio-cognitive growth.

3:4:3:3 Response Stage

Results from Table 7 indicate a far higher level of justification and alternative use in the non-conflict episodes. As found in many other studies including those by Eisenberg & Garvey (1981) and Orsolini (1993), justification is employed twice as often as alternatives. The relatively high frequency of justification in the non-conflict episodes may be due, at least in part, to responding to questions posed at the link stage. This was confirmed with the finding that the most frequent speech pattern comprised of claim followed by a question which was then followed up by a justification.

3:4:4 A COMPARISON AND DISCUSSION OF CONFLICT SEQUENCES ACROSS STUDIES 1 AND 2

This subsection is concerned with the comparison between the 'stand-alone' conflict scenarios of Study 1 and the conflict sequences that occured within a co-operative exchange.

3:4:4:1 Antecedent Stage

The results from Table 9 indicate that a similar pattern exists across Studies 1 and 2 in relation to the antecedents 'object' and 'access'. By far the most disputes occur over objects and this is consistent with the findings of Eisenberg & Garvey (1981), Hay (1984) and Shantz (1987). There was a slight difference with regard to claim with a higher percentage being present in Study 1 (12%) than Study 2 (3%). It was suggested in the previous study that exaggerated claims may be one way in which children gain access to an ongoing interaction yet these are often challenged. In contrast to this, children might be more able to get access to co-operative activities without making such strong assertions, instead relying on more neutral statements or comments. This may also be reflected in the higher values for play antecedents in Study 2 (40%) compared to Study 1 (14%) as preschoolers are more likely to mention play rules and roles in a collaborative situation where they are keen to keep the interaction flowing (e.g. Garvey, 1977).

3:4:4:2 Opposition Stage

From Table 10 it can be seen that the pattern of speech acts is identical across both studies, with simple speech acts being most frequent followed by justification\alternative. This is encouraging as it suggests a degree of consistency in the research methodology across both studies. There has been little, if any, research into 'conflict' sequences within collaborative exchanges but there is no reason to expect a variation in speech patterns across the two contexts. In both studies, the main speech act at this stage was simple opposition. The mean for justifications was higher in Study 1 (0.51) than Study 2 (0.26) and it may be that the supportive, non-threatening atmosphere of the overall co-operative exchange tempers the inherent conflict sequences thereby making justifications less crucial to smooth over the interaction.

3:4:4:3 Response Stage

It was impossible to make a direct comparison of speech act frequencies at this stage because the response stage of Study 2 only consisted of one turn (as decided by the criteria given in the method section) whilst the development stage of Study 1 could comprise of any number of turns. This meant there would be an obvious imbalance in the number of speech acts across the studies. Nevertheless, the results were gathered and set out in Table 11 in order that the ratio of justifications to alternatives could be examined. These results indicated that justifications were produced approximately twice as often as alternatives. This was consistent across

the present and previous studies, and with earlier research (e.g. Eisenberg, 1992), and reasons for this variation were highlighted earlier in the chapter.

3:4:5 CO-OPERATION AND CONTEXT EFFECTS

3:4:5:1 Overview

The previous sections dealt primarily with the complexity of speech acts across the total data. This part of the thesis will now concentrate on how the frequency and complexity of speech tactics varied in relation to the contexts of gender, class and play activity.

3:4:5:2 Antecedent Stage and Gender

The data given in Table 12 indicate few major differences between the sexes in relation to their use of antecedent speech acts. Both sexes use a substantial amount of claim followed by command but rarely use question or minimal dialogue (though boys use slightly more of both than girls) at this phase of co-operative dialogue. These results are consistent with the findings of Schober-Peterson & Johnson (1989) who said there were few significant differences between the sexes in the initiation and maintenance of linguistic exchanges. Further support comes from Cooper (1980) who found no sex differences in verbal skills during collaborative problem solving.

3:4:5:3 Link Stage and Gender

The results in Table 13 showed that there were small variations between boys' and girls' use of link speech acts but these were not statistically significant which again concurs with the research findings mentioned earlier (Cooper, 1980; Schober-Peterson & Johnson, 1989). Claim is used the most frequently by both sexes and command the least. Boys use slightly more of each of these tactics than girls. This is not really unusual as, in relation to command strategies, boys are seen as more controlling (Killen & Naigles, 1995) and "tend to assert their dominance" (Vespo et al., 1995, pg. 191). Furthermore, Lloyd & Goodwin (1993) agree that boys are more assertive whilst Sparkes (1991) states "boys use more direct commands" (pg. 46). Maccoby (1988) believed boys behave in this way to influence others' actions and Gall & Gall (1976) suggest that males tend to employ more commands and claims in pursuit of this. Claim was noted to be slightly higher for boys than girls in both this study and the previous one. It was argued that male preschoolers may

make more assertions in order to exaggerate their peer status (Forbes, Katz & Paul, 1986), or to seek attention (Maccoby, 1988). In addition, boys tend to engage in more fantasy-type play and frequently make assertions like "I am Batman" (Fein, 1981; Rubin et al., 1983) hence a greater number of claims is produced.

Although question use is slightly greater for female preschoolers, the difference across the sexes is not significant. This is consistent with the findings of Becker (1986) and Lloyd & Goodwin (1993) who state that there are few real variations found in relation to question use by the two sexes. Table 13 also shows that boys tend to justify slightly more often than girls and this is comparable to the results obtained by Bearison et al. (1986) and Ausch (1994). It has also been suggested that the variations between genders are more qualitative than quantitative. Goodwin (1988) and Kyratzis (1992) have noted that girls and boys tend to justify in different ways. Girls appear to produce explanations to validate and rationalise behaviour in terms of a group goal (this could be argued to be truly co-operative behaviour), whereas boys seem to employ explanations just to get their own way. However, once more, it should be noted that the differences found were small and not statistically significant.

3:4:5:4 Response Stage and Gender

The results indicate that there is no significant difference in the way male and female preschoolers use response acts during co-operative exchanges. Although justifications are similarly employed across the sexes, boys tend to give alternatives slightly, albeit non-significantly, more often than girls (means of 0.76 and 0.46 respectively). This could be because alternatives are easier to give when objects, such as building blocks, are involved...and male preschoolers tend to engage in more construction activity than girls. Although some 'props' are used in symbolic play, this type of activity often relies more on the abstract than the concrete, and these ideas might be harder to convey as alternatives.

3:4:5:5 Antecedent Stage and Class

As with the results for gender, there were no significant differences for antecedent speech acts in relation to class. However, Table 15 shows that private school children use more claim (mean of 1.26) than their state nursery peers (0.92), and they also use slightly less commands, these findings being consistent with Smilansky's (1968) results. It could be that the advantaged children substitute claim use for command use to initiate and structure an interaction. Indeed, Pontecorvo (1987) believes that claims as well as commands can be used to direct or redirect

behaviour. She also states that claim is more likely to open discussion and construe sequences. This small variation in directive use is not wholly unexpected since middle-class parents may be less likely to use command than working class parents (e.g. Piche et al., 1978). The advantaged preschoolers also use a little more minimal dialogue (mean of 0.26) than their less advantaged peers (mean of 0.11) and this may be why Class P preschoolers tend to have the longer exchanges noted in Study 1. Jensen (1968) stated that there was less reinforcing of speech in working class homes than in middle-class homes. Therefore, it may be plausible to assume that a substantial amount of this reinforcement is in the form of such minimal dialogue as acknowledgement and repetition. However, proposals suggesting language deficits in relation to the working class have long been contentious and so it is again worth stressing that these small variations are not significant. This is comparable with Dickson's (1974) finding that there was no significant class difference in verbal communication during a collaborative task.

3:4:5:6 Link Stage and Class

The results from table 16 show that there are some slight variations between classes in their use of link speech acts - but again, these are not statistically significant. As with the antecedent stage, the advantaged preschoolers use more claim (mean of 0.83) compared to the less advantaged children (0.50), and more minimal dialogue. Minimal Dialogue can be used to indicate a degree of responsiveness, e.g.

AD **LO..come and get poisoness stuff** Ante (Command)
AM **Poisonous stuff** *(pretends to give poison to LO)* Link (Min Dial)
AD **No...'cos you'll be lying and scared..a baby getting poisoned..baby dead.**
Resp (Justn)

It seems that AM has picked up on the unusual and important part of AD's antecedent and repeated it whilst drawing in LO behaviourally. This acknowledgement link acts to reinforce joint understanding and thus elicits a justification in response.

Similar amounts of 'command' and 'question' were employed by each group. The complex strategy of justification was used slightly, but not significantly, more frequently by the Class P children. Although not conclusive, it still throws some doubt on the traditional but controversial theories which suggest that middle-class

children use more skilful and elaborate dialogue than their working class peers (e.g. Bernstein, 1960; Whiteman & Deutsch, 1968; Jensen, 1968).

3:4:5:7 Response Stage and Class

It was found that the children from the private nursery employed slightly more justification (mean of 1.52) that the children from the state-run preschool (1.16). This was also true in relation to alternatives (0.74 compared to 0.58) and these results are similar to those found at the development stage in Study 1. It has been suggested that advantaged children tend to use more justification and alternative than their less advantaged peers (e.g. Tough, 1976). One reason for this is that children may model their parent's behaviour. Piche et al. (1978) state that working class mothers frequently use commands but usually do not justify these acts. In contrast to this, parents and teachers often involve middle-class children in a wider and more complex range of dialogue and hence their children would be getting a greater opportunity to practise and understand more elaborate exchanges (e.g. Tizard & Hughes, 1984). Once again, one must be careful not to over-emphasise the small variations found since the results were not statistically significant.

In sum, although no significant differences were found in relation to either class or gender, a few small variations were apparent. It was therefore decided to study the results further - by examining each stage in relation to a gender- class combination.

3:4:5:8 Antecedent Stage and Gender\Class

There were no significant main or interaction effects at this stage indicating that all the children involved in the study used these speech acts in a similar fashion. It is worth noting, however, that the less privileged girls tended to produce the least amount of antecedent dialogue overall and have the lowest means of all the groups for claim, question and minimal dialogue. It appears that the less advantaged girls are either more reluctant or less able to contribute to antecedent dialogue. It is possible that their male peers are more assertive and therefore tend to initiate the exchanges. As noted in Study 1, working class boys at home are encouraged to stand up for themselves more than girls.

3:4:5:9 Link Stage and Gender\Class

Again there were no significant results for link speech acts in relation to gender-class although the gender-class interaction did approach significance, F=3.42, df (1, 57), p=0.07. It was the Class S girls who contributed the least number of speech acts at the link stage and they also had the lowest mean scores for every tactic except question which was second lowest. One possibility is that the preferred symbolic activities for the less advantaged girls were more routine and therefore limited in scope for developing speech patterns. Middle-class parents appear to extend and vary the types of pretend play engaged in with their children (e.g. Jensen, 1968). On qualitative examination of the transcripts, the Class S girls do appear to adhere to symbolic activities associated with the home-corner whereas their Class P peers were involved in more diverse activities including doctors and nurses and zoo carers. Some examples are given below.

Private nursery. Two girls at the clothes box.

LO	**I want to be King of the Castle.**	Ante(Claim)
AM	**No.**	Link (Min Dial)
LO	**But you can be the Queen.**	Response (Alt)

A boy and a girl are playing doctors and nurses.

LO (To AN)	**It's your turn on the bed.**	Ante (Claim)
AN	**No...'cos I'm the nurse.**	Link (Justn)
LO	**Well...stay on the bed for <u>a wee while please</u>.**	Resp (Alt)

Children are playing with animals and a zoo.

SA	**Goodnight camels.**	Ante (Min Dial)
EU	**But I've got an animal.**	Link (Claim)
SA	**Well put him in there 'cos they're tired.**	Resp (Justn)

This dialogue has been taken from different play contexts at the private nursery. There was also a toy garage and a dolls house which the preschoolers played with. Although the children in the state-run nursery did have access to a similar variety of playthings, the girls tended to play more often within the familiar home-corner

which may have implications for optimising linguistic performance. An example of dialogue from the home-corner is set-out below.

PL	**We're eating dinner.**	Ante (Claim)
NS	**Tea?**	Link (Quest)
PL	**No..I don't need some mair..it's not ready yet.**	Resp (Justn)

Jensen (1968) proposed that middle-class children are exposed to richer, more elaborate and more diverse play activities which help extend the children's intellectual boundaries. Varying the play routine may also safeguard against the boredom and lack of motivation which Donaldson (1978) sees as constraining children's potential communicative performance. Interestingly, state nursery boys engage in more dialogue than their female peers. However, they seem to be able to go beyond the boundaries of everyday life, especially in relation to construction play. Whilst girls seem content to build houses, boys turn their constructions into spaceships or robots, monsters or dinosaurs and then build a story around these which engages mutual attention and elaboration. Unlike, for example, 'mothers and babies' role-play where a lot of the behaviour is implicitly known and silently shared - initiating and maintaining a novel topic such as space wars may require the participants to be more explicit. Joint construction of an unfamiliar storyline may therefore place greater demands on the preschoolers. It will be interesting to see how the different types of play affects the use of speech acts and this will be the focus of discussion from subsection 3:4:5:11.

3:4:5:10 Response Stage and Gender\Class

Once again it is noted that state nursery boys contribute the most to co-operative dialogue and state school girls the least. These results are not statistically significant and it should also be remembered that more boys took part in the study than girls. However, the findings are also partially consistent with those in Study 1, the less advantaged girls using the least justification and alternatives whilst the privileged girls produce most explanations. Earlier it was argued that boys do tend to justify more than girls (e.g. Ausch, 1994) and middle classes give more explanations than the working classes (e.g. Bernstein, 1960; Jensen, 1968; Tizard & Hughes, 1984). The Class S girls therefore seem to be the group most likely to be the poorest communicators. Nevertheless, one must be careful not to exaggerate these small variations - these may be interesting but they are not statistically significant.

The next subsection focuses on the pattern of three-turn sequences in relation to different types of co-operative play activity. Three different types of play were studied - symbolic activity, construction play, and a beetle task. Only descriptive data were gathered for the beetle task due to the small sample size and time-scale involved.

3:4:5:11 Antecedent Stage and Play Activity

When the symbolic and construction play data were compared at this stage, a significant main effect of activity and a significant activity x speech act interaction was found. Symbolic play appeared to be associated with more antecedent act production than construction play, with claim and command being somewhat higher in pretend pursuits. It is not surprising that command is greater (mean of 0.3) in role-play than construction (0.1) since 'setting a scene' would require a level of direction. Garvey (1974) and Pellegrini (1982) have noted the fairly large amount of commands prevalent in dramatic play. Claims may also be frequently expected in symbolic activities since role-play often involves assertions such as 'I'm Superman' and this seems to be predominant amongst boys (Fein, 1981; Rubin et al., 1983). Directives such as claim and command were also high in the beetle task and this may be due to the novelty of the task requiring more shaping behaviour. The lower frequencies of minimal dialogue and question at this stage suggests that these strategies are more important in maintaining dialogue than initiating it, regardless of play activity.

3:4:5:12 Link Stage and Play Activity

As with the antecedent stage, symbolic play here elicited more speech than construction play. Longer interactions may be beneficial in that they maximise the opportunity for participants to understand, elaborate, extend, develop or practise various linguistic strategies. It may be that conversations are longer during symbolic play (e.g. Smilansky, 1968), and the fact minimal dialogue is used more often in pretend play seems to bear this out as it often functions to prolong the 'storyline'. Furthermore, Hartup (1983) has suggested that interaction tends to be longer when there are less 'props'. Schober-Peterson & Johnson (1989) agree "lego-blocks...failed to encourage preschoolers to maintain topics of conversation for very long" (pg. 867). In addition, Dorval & Eckerman (1984) state that minimal dialogue "occurs more frequently in prolonged dialogues" (pg. 59) whilst Pellegrini (1982) suggests that there is more dialogue during symbolic play because success

of the interaction depends on the participants' "explicit verbal encoding of play themes and roles" (pg. 107-108). This is in contrast to construction play where objects are central rather than peripheral to the storyline and available objects make interaction less abstract plus language more redundant - as objects can be pointed to and physically manipulated. Nonetheless, it is worth bearing in mind that what begins as merely physical construction can develop in a more symbolic way and this was mentioned earlier when it was stated that boys tend to play starships etc. whereas girls do not.

Although the type of activity was significant, there was no speech act x activity interaction. Claim was slightly higher in symbolic play, possibly due to the number of role claims e.g. "I'm the mummy" (e.g. Fein, 1981; Rubin et al., 1983). Command is also used slightly more often in symbolic play and it has previously been suggested that the direction of roles and scenes makes command use necessary (Smilansky, 1968; Pellegrini, 1982). Justification is also more frequent in symbolic activity. Donaldson & Elliot (1990) believe that complex speech acts, such as explanations, are more apparent in contexts which "involve intentions, motives or purposes since such tasks make human sense" (pg. 38). They also go on to stress the importance of sharing, and conforming to the normal rules of discourse (pg. 49). One could assume that criteria such as these would be more obvious in symbolic play hence a greater amount of justification may be expected. However, this reasoning is based only on small variations in the speech acts in relation to play activity and these were not found to be statistically significant.

One further point to note about the data at this stage relates to the descriptive 'beetle task' results. It was interesting to perceive the extent of question production in such a small sample and this may be due, at least in part, to the novelty of the task. Wilkinson, Calculator & Dollaghan (1982), Wilkinson & Spinelli (1983) and Bernicot & Marhokhian (1989) claim that children use a fairly high percentage of information-seeking questions and Garvey (1977) suggests that this type of query usually requires an overt, verbal response, e.g.

LI	**It's not ready this bit.**	Ante (Claim)
MU	**But why is it...why has it got long bits on it?**	Link (Quest)
LI	**So it isn't dead.**	Response (Justn)

Webb (1982) states that by asking questions the participants indicate that they do not understand and therefore need a response which clarifies or elaborates on the situation. The response stage will now be examined in the following subsection.

3:4:5:13 Response Stage and Play Activity

For the beetle task, all the responses were justifications reinforcing the importance between questions (very frequent at the link stage of the beetle task) and explanations. As with the previous stages, symbolic play is associated with a greater amount of speech acts overall and a significant result in relation to activity was again found. The speech act x play activity interaction was not significant and the mean usage of both justification and alternative in symbolic play was almost double that of construction activity. This concurs with Smilansky's (1968) view that co-operation during symbolic play requires frequent explanations. Verba (1993) also argues that co-operative pretend play is rich in elaborate dialogue. It could also be that preschoolers are keen to keep their pretend play free from interruption and disruption (e.g. Garvey, 1977) and so use more justification and alternative to smooth over any difficulties in the interaction. Moreover, it is possible that children have ideas in their heads which they would like to pursue during fantasy play. However, someone's imaginative ideas are not always obvious or immediately comprehensible to other participants therefore explanations will be required before the story can be acted out. Although, in some ways, building blocks can be transformed in the mind (e.g. robots or rockets), they can also act to constrain a child's ideas. It may be that children can only stretch their imagination so far if a concrete entity is involved - since the imagined plaything must have some resemblance to the construction on which the idea is based, eg. a column of lego could be used as a sword, a rocket or a microphone but is unlikely to be employed as a football or hot air balloon!

3:4:5:14 Play Activity and Gender

There were no significant interaction effects between gender and play activity. Unsurprisingly, boys contributed linguistically more to construction play than girls and this is consistent with the findings in Study 1. In contrast, girls contributed more speech acts to the beetle task than boys, yet this was primarily constructive. Perhaps girls found something attractive about the appearance of the beetle which they do not find with ordinary, plain building blocks. Furthermore, they were given a picture of the complete beetle so they did not have to rely on their imagination to

turn pieces of plastic into monsters, houses etc. - they actually had a 'blueprint' of the finished article to guide them. On the other hand, boys may prefer to have a free hand in their constructing and so feel constrained by the picture. There were also a few non-significant differences noted between the sexes in relation to individual speech acts and play but these were discussed at some length in earlier sections and so won't be repeated again here.

3:4:5:15 Play Activity and Class

It appears that the private-school children contributed more dialogue to symbolic play and state-nursery children contributed more dialogue to construction play. In addition, the advantaged children tended to engage in more speech acts during the beetle task. However, the non-significant results indicate there is no substantial variation between the classes and it may be that any benefits gained from being raised in a middle class home (e.g. Smilansky, 1968; Jensen, 1968; Tizard & Hughes, 1984) are over-ridden to a degree by the immediate context.

3:4:6 SUMMARY

In sum, the research clearly showed that preschoolers *can* use complex dialogue such as justification, alternative and question during collaborative exchanges. Although there were no *significant* differences in the use of speech acts across class or sex, small differences do remain - with Class S girls being especially vulnerable. They tend to contribute least dialogue of all to the three stages in co-operative interaction and it could be that they lack the confidence to fully engage in speech, especially when the more assertive boys are present.

Symbolic play elicited more speech acts overall than construction play and, as with Study 1, girls and private nursery children appeared to contribute more to this type of activity. In contrast, boys and state-school children appeared to contribute relatively more speech acts during construction play and some reasons for these findings were outlined in Study 1.

When conflict and non-conflict 3-part episodes within an overall co-operative exchange were examined, it was found that purely collaborative sequences were very conducive to the production of questions and justifications - which involves both conversational partners employing complex language. Conflict episodes were also examined across Studies 1 and 2 and the patterns of speech act use were very

similar in both cases indicating consistency across both studies - not only in regard to children's speech but also in relation to the research methodology.

Certain speech patterns leading to complex dialogue were observed with 'claim-question-justification' being particularly notable in purely collaborative three-turn episodes. Other researchers have also commented on the seemingly important connection between claims, questions and justifications (e.g. Orsolini, 1993; Pontecorvo & Girardet, 1993), with 'why' questions appearing to be particularly useful in eliciting an elaborate justification response. Hence, this specific pattern may be important when designing an intervention to encourage the production of complex speech.

The results from this study are therefore encouraging and add further information to the rather scant literature on children's speech patterns during co-operative exchanges. However, although the frequency of complex speech acts such as questions or justifications is promising, there is still room for improvement. The next step in this research is therefore to design and implement an intervention study based on the relatively frequent, spontaneously-occuring speech pattern of claim followed by question ('why' questions in particular) then justification. The rationale of this is to build on the child's most used speech antecedent act which is claim and then try to enhance their production of complex 'why' questions and justifications via a modelling and scaffolding procedure (e.g. Cole, 1986; Fey, 1988; Levy et al., 1992; Butler, 1994). This intervention study will be discussed more fully in Chapter 4.

CHAPTER 4: STUDY 3

An intervention to promote preschoolers' use of complex dialogue

Overview

This chapter will focus on the methodology and findings for the third study in the present research. The aim of this study is to design and implement an intervention procedure which will enhance preschoolers' use of complex speech acts during cooperative exchanges. After a brief introduction explaining the background to such an intervention programme, the method and results will be reported and discussed.

4:1 INTRODUCTION

As mentioned above, this final part of the research is primarily concerned with enhancing, through an intervention procedure, young children's use of complex language. This is important because skilful speech including tactics such as justifications or 'why' questions, which involve some level of perspective taking, may be linked to socio-cognitive development. The rationale for this third study developed from the findings of the earlier two pieces of work. To re-iterate briefly, the first study demonstrated that children can use complex speech tactics and noted the deployment of these tactics after opposition in conflict situations (e.g. Eisenberg & Garvey, 1981; Orsolini, 1993). However, it was also stated earlier that dispute situations tend to be discouraged by parents plus teachers and therefore they would be less likely to accept an intervention based on conflict rather than co-operation - if both contexts were equally effective in promoting complex speech and socio-cognitive growth. Encouragingly, the second study also showed that preschoolers can use complex speech in cooperative contexts with justifications tending to follow 'why' questions which, in turn, often followed on from children's claims. Although justification and 'why' questions *were* used by the preschoolers, the previous studies also indicated that there was still room for improvement - and it would be valuable to setup a programme to achieve this. Since 'claim' was naturally frequent in the preschoolers' dialogue and the 'why-justification link' was robust as well as complex, it was decided that the focus should be on enhancing that particular speech pattern (i.e. 'claim-why-justification').

There are several different approaches which can be taken in relation to an intervention procedure. Early interventionist studies were based mainly on behaviourist techniques such as the shaping and reinforcement of required actions or dialogue. These approaches were often criticised for their artificiality, and researchers such as Fey (1988) plus Doescher & Sugawara (1992) began claiming the virtues and benefits of more naturalistic methods. The 'milieu' therapies, which came about in response to such issues and took more account of a child's own environment, were reasonably successful when used with linguistically impaired children. However, these interventions tend not to be interactive or discourse-based and may be too rigid and unnatural for use with preschoolers.

Recent approaches usually adopt a more interactive, discourse-based and social constructivist paradigm for intervention. These draw on the theoretical tenets of researchers such as Vygotsky (1962), Bruner (1978) and Wood, Bruner & Ross (1976) who believe that any intervention should involve the degree of scaffolding suited to a child's individual needs (i.e. taking into account their zone of proximal development). This helps expand a child's knowledge and experience within a range that he or she is comfortable with. This type of approach is now perceived to be particularly beneficial in developing aspects of language use (McTear, 1985; Kirchner, 1991; Mentis, 1994). However, one still has the problem of engaging the children as fully as possible in the process and guiding them to their limits. This may not always be easy to achieve as children (particularly young children) may not want to be so involved. Baines (1996) had the dilemma of being unable to accurately judge whether the children in his study were incapable or unwilling to maintain cooperative exchanges. Furthermore, he also noted that interactions which are structured too heavily tend to result in poor child responses. For the present study, it was therefore decided to use a more natural, semi-structured intervention - better suited to taking immediate account of preschoolers' ongoing dialogue within an exchange. The objective of the scaffolding would be to encourage and sustain the use of individual speech acts such as justifications and 'why' questions but within a pattern of 'claim-why-justification' sequences.

In designing such a procedure, it was helpful to look at other 'scaffolding' interventions. Butler (1994) suggests that emphasis should be placed upon "direct instruction in specific skills" followed up by "the opportunity to practise these skills in role-playing tasks" (pg. 10) and Dickson (1974) also stresses the importance of practice and feedback. Cole (1986) proposes three main phases - direct verbal instruction, modelling of required behaviour, and the withdrawal of intervention. In

addition, he also stresses the need for "prompts and verbal rewards" (pg.203). In drawing up the present intervention, account was also taken of Levy et al's.(1992) work. They emphasised the importance of using a selected theme or storyline and suggested the scaffolding of dialogue through role-play, running from a highly structured format at the start to a relatively open one near the end of the intervention.

As suggested above, an intervention procedure involving some modelling, scaffolding and feedback (e.g. Cole, 1986; Fey, 1988; Levy, Wolfgang & Koorland, 1992 and Butler, 1994) may be most effective in encouraging preschoolers to increase their use of complex language in a mainly co-operative play situation. In order to elicit a co-operative exchange, a task was required which would really interest the children and promote friendly discussion during play. The previous two studies had revealed that symbolic activities were associated with increased production of speech acts overall and, in particular, complex strategies. Interestingly, previous research using puppets had met with a considerable amount of success (e.g. Read & Cherry, 1978 and Swiezy, Matson & Box, 1992). Both sets of researchers reported that the preschoolers, involved in their study, immediately and enthusiastically engaged in dialogue with the puppets. Indeed, it is possible that more speech (and possibly more representative speech) would be elicited via puppet-children exchanges than researcher-children interactions. It was therefore decided to use puppets in the present intervention.

Bearing these ideas in mind, it was necessary to construct a 'task' which would interest the children, encourage dyadic dialogue and establish cooperative contact throughout the stages of introduction, modelling, role-play and decreased scaffolding. As stated above, previous research using puppets to elicit 'target' dialogue from preschoolers had been rather successful. To increase the children's interest even further, it may be of benefit to use puppets of a more contemporary nature. Given the preschoolers' fascination with robots, monsters and spaceships as noted in the observations of free play in Studies 1 and 2, it was felt that an 'alien' theme might be appropriate. Details of these materials are given in subsection 4:2:1:1.

As well as employing an intervention in the hope of optimising children's production and use of complex speech acts and speech patterns, it was also of interest to see whether preschoolers could continue such behaviour (and to what extent) in the absence of the researcher. Thus, in the present study, preschoolers

were given some background 'thematic' data on the first intervention day which was followed by various levels of scaffolding (days 2-4). This was then followed, on day 5, by the withdrawal of scaffolding. By examining the results across the different sessions, it is possible to gauge the effect of the intervention at any particular period - including that without any encouragement or scaffolding by the interventionalist.

The intervention's main focus was on children around four years of age. Due to lack of class differences in Study 2, it was decided to conduct the research at one school only - the state-run nursery which was previously involved in Study 2. This had the advantage of 'morning' and 'afternoon' attendees who could be allocated to the experimental and control groups respectively to avoid any potential 'cross-contamination' of intervention effects. At this juncture it should be noted that McGrew (1972) observed some differences in the natural behaviours of preschoolers during their nursery school day. Ethologists have often attributed these variations to internal rhythms and therefore it may be argued that it would be unwise to study a control and intervention group at different stages in a day. It should be pointed out, however, that such rhythmic differences are not necessarily consistent, especially in young children. For example, Luce (1973) stresses that the greatest variations occur between daytime and night-time with rhythmic activity even varying across individuals. Secondly, biological rhythms are often modified or over-ridden by exposure to familiar routines - resulting in the required, expected behaviours for a particular time and situation. Finally, preschoolers have been shown to have cycles of greater attentiveness\inattentiveness but these do not fall neatly into morning\afternoon periods but tend to alternate about every 35 minutes. Although an in-depth study of rhythmic behaviour is beyond the remit of the present research, the details given above indicate that any confounding factor in using morning\afternoon attendees is weak (or, at least, unreliable) compared to the advantages of keeping the experimental group separate from the control group - especially since language is such a pervasive medium. Apart from day 1, when the preschoolers were engaged in groups, the children from both conditions were taken in dyads for play. These dyads consisted of male-male, female-female or mixed pairs to enable some comparison of how each dyad type fares in the intervention programme.

These details will now be elaborated upon further in the subsequent section.

4:2 METHOD

4:2:1 Data Collection

4:2:1:1 Materials

As noted in the introduction, one of the first aims of the researcher was to decide on suitable play materials for an intervention. This intervention research required play materials which would capture and sustain the children's interest and attention and it was therefore decided to introduce and pilot an 'alien theme'. Materials for introducing 'background' information to the preschoolers included a couple of story books about aliens, a picture-book of benign-looking monsters and some stickers (on card) of planets and spaceships. For later role-play sessions, three puppets and a 'spaceship' were included. The puppets were chosen with a tendency towards looking friendly rather than frightening, and the books and pictures selected were also aimed at children rather than adults (e.g. pop-up pictures, simple text, bright drawings). The two main 'alien' puppets were 'Zig' (a yellow, furry puppet with green curly hair) and 'Zag' (a blue furry puppet with straight yellow hair). Their friend 'Spid' was a green monster-alien with detachable velcro features and limbs whilst the 'spaceship' was a discoid shaped electronic die which lit-up and 'beeped' when a button was pressed. Children could also introduce 'props' themselves (e.g. toy food from the home-corner) to elaborate any storyline. A copy of these materials can be found in Appendix 3.

4:2:1:2 Development and Implementation of the Intervention Procedure

Once the materials for the intervention were assimilated, it was necessary to use these in such a way as to promote role-play with dialogue (especially the 'claim-why-justification' sequences) as naturally as possible. As reported in the introduction to this chapter, it is believed that a highly-structured intervention procedure would be somewhat artificial and lead to boredom amongst the children (e.g. Fey, 1988; Baines, 1996). The programme also needed to be flexible in order to take account of the children's behaviour and dialogue at any point of each session. It was therefore decided to employ a 'scaffolded' intervention (e.g. Wood et al., 1976) which is more sensitive and adaptive to a child's own requirements at any particular moment in a programme. Nevertheless, a certain degree of structure was required resulting in the development of a semi-structured procedure based around the ideas of scaffolding. A set of dialogue sequences mirroring the pattern 'claim-why-justification' was loosely prepared for each day to allow for children's own input, and these scripts were then tested in a pilot study. Details of this script will be given as each day's procedure is outlined over.

4:2:1:2:1 Pilot Study

A pilot study was carried out with a group of 8 children from a private nursery in Glasgow. This 'experimental' group of preschoolers was employed for the piloting of the intervention materials and script. This preliminary work enabled the researcher to judge the efficacy of the intervention procedure plus gain information on timings and groupings required, and to make any adjustments deemed necessary. In addition, the video equipment and quality of recording could be tested. The researcher also wished to evaluate the effect that the materials and scripted dialogue sequences had on the preschoolers, and whether interest could be sustained throughout the 5 day period.

The first day's session involved introducing the group of children to the alien theme. Pictures were pointed to, books were read, and questions about aliens were asked by the researcher, e.g.

Who knows what an alien is?
Do you know where aliens live?
What do aliens fly about in?
Have you seen a spaceship?
How do you think aliens are different from us?

This was done in a light-hearted way with pointing at pictures, and different answers being shouted out by the preschoolers who were very keen to participate. In fact, they were so eager to be involved that they often spoke over and across one another, or all at once. This led to the decision to conduct the scaffolding procedure with dyads, rather than groups, when it came to the main study. The puppets Zig and Zag were introduced towards the end of the session and the children were happy to touch them. The researcher informed the groups that the 'aliens' were from another planet far-away and they couldn't speak English very well. The researcher explained that Zig and Zag would be returning to see the children the following day (and the rest of the week) so that they could help them to practise their English. The children appeared happy and enthusiastic about helping the puppets next day.

Days 2-4 focused on role-play and the development of a storyline which would gradually engage preschoolers in spontaneous and complex speech patterns. Day 2 was specifically concerned with giving direct instructions to the children and then modelling the required behaviour of 'claim-why-justification'. The preschoolers

were informed that the aliens only had a limited understanding of English and therefore could only say certain things. It was stressed that the aliens could only say and understand sentences which begin with 'I' such as *"I want to fly"* (During this pilot study it was obvious that the children grasped the rhyming 'I-why' sequence better than other claims). In addition, 'I' claims are naturally used very frequently by young children. However, if more general claims were used by the children during scaffolding, these were also supported and encouraged by the researcher. In addition, the pilot study revealed that around 95% of preschoolers' reasons began with 'because'. It was therefore decided to focus on this term when modelling justifications since this term is most easily comprehended by young children. Once they had been told about the sequence, it was modelled for them by the aliens (via the researcher) and researcher, e.g.

Zig **I'm an alien.**
Res **Why?**
Zig **Because I come from another planet.**

The researcher then stopped getting overtly involved in the speech and let Zig and Zag speak to each other.

Zig **I like you Zag.**
Zag **Why do you like me?**
Zig **'Cos you've got nice blue fur.**

Several similar examples were given with the researcher continually emphasising the 'I-why-because' pattern and reminding the children that the aliens can only understand and say sentences beginning like this. Feedback, repetition and prompting were also used as well as plenty of verbal praise. By the end of day 2's session, the preschoolers themselves were encouraged to make statements, ask the aliens 'why' or respond directly to the puppets ' questions, e.g.

Zag *(to child)* **I like your dress.**
Child **Why?**
Zag **Because it's a nice colour.**

Day 3 concentrated on altering the balance of the dialogue. Again the researcher had one puppet which made a claim or asked a 'why' question. The children either responded spontaneously or were prompted when required. After a few examples

revealed the children's grasp of the procedure, they were given a puppet each. The researcher then made claims or asked questions directly to the 'aliens' and supported plus praised contributions made by the children. The preschoolers were then encouraged to talk - either directly to the puppets or to each other via the puppets, whichever they felt more comfortable with. If silence ensued, the researcher prompted them by giving directives, e.g.

"Get Zig to ask 'why" or Tell Zag to answer the question" and so on. However, Baines (1996) found that young children did not always respond to this and it was therefore necessary to address the child directly by saying "You ask...." and so on.

Res	**I think Zag is hungry.**
Child A (Zag)	**Why?**
Child B (Zig)	No Response
Res	**Zig...why do you think Zag is hungry?**
Child B (Zig)	**'Cos he didn't eat his breakfast.**

This supporting behaviour was slowly reduced over the intervention period. Baines (1996) cautioned against too much involvement as it could be seen as 'interference' and thus be counter-productive. Nonetheless, he did acknowledge that help was sometimes required in the form of new input as this tends to aid children's discussion by keeping their interest and motivation flowing. This was especially important for day 4 when the children were expected to do most of the claiming, questioning and justifying by themselves. At this stage the researcher gave the children fewer direct prompts but encouraged role-play and praised relevant discourse between peers.

Unfortunately, the pilot revealed that the preschoolers had some difficulties in sustaining the required speech patterns during days 3 and 4. Yet it was obvious that the children had understood and could demonstrate the required speech acts on occasion. It appeared that, when the preschoolers were given less support by the researcher, they found it hard to transfer the learned patterns to new topics. This seemed perhaps to be more a lack of ideas in how to engage in role-play or what to talk about as an 'alien' rather than any language deficit. This lack of ideas probably stemmed from the researcher - who had originally focused only on concrete topics, such as the colour of the puppets, to make it easier for the children, e.g.

Zig **I like you**

Zag **Why?**

Zig **'Cos you've got lovely green hair.**

Once the preschoolers has repeated the suggestions previously made by the researcher, they tended to fall silent. It appeared that such a concrete (but narrow) repertoire gave little scope for elaboration and may have inhibited preschoolers' play and dialogue. It was therefore decided to draw-up a storyline which involved the 'aliens' in more varied role-play and dialogue. This led to the introduction of a third puppet whose limbs and facial features could be detached, and a 'spaceship'. This enabled an expansion of the script since the new materials were loosely incorporated into a story whereby the spaceship crashes and 'Spid' is injured and falls to pieces.

A second pilot was conducted at the same school six weeks later and the extra materials introduced from the middle of Day 3's session. The preschoolers were informed that Zig and Zag are doctors and want to put 'Spid' back together again. This idea increased scope for discussion which now included topics like hospitals, illness, bad drivers, fixing of the puppet, reparation of the spaceship and so on.

Preschoolers' performance improved considerably, on both Day 3 and Day 4, with the addition of this extra material. Examples of this discourse, taken from Day 4, are given below:

Spid **I'm hurt.**

Zig **Why are you hurt?**

Spid **'Cos the spaceship hit a star and we crashed.**

Zag **I want to help you.**

Spid **Why?**

Zag **Because I'm a doctor.**

Spid **I hurt here.**

Zag **Why?**

Spid **'Cos that leg is missing.**

Zig **I will give you some medicine.**

Spid **Why must I get medicine?**

Zig **Because it'll make you feel better.**

Again it must be stressed that the intervention was only semi-stuctured. The researcher could (and did) input various suggestions on the alien theme if the children ran short of ideas. The only criterion for input was that it conformed to the 'claim-why-justification' (or, more specifically, the 'I-why-because') sequence with children being prompted and supported when necessary.

By Day 5, the researcher left the materials with the children and asked them to engage in dialogue as on the previous days. At the beginning of each session the preschoolers had been asked to recap on what they did the previous day. This was also true for the start of the final session when clarifications or reminders were prompted if necessary. Most of the children easily recalled their behaviour and ideas from earlier sessions so researcher input at this point was rather redundant, although elaborations were sometimes made.

In sum, as well as revealing that the preschoolers required more materials\issues to work with, the pilot studies also showed that the first day's procedure was best conducted in groups and Days 2-5 with dyads. Although there were no problems with the video-recording equipment, it was found that the optimal recording session was around 10 minutes as the children became tired and distracted if the sessions went on too long. It was also noted that the preschoolers seemed more comfortable and interacted better when on the floor rather than on chairs or behind desks. As well as verbal praise, an additional attempt at positive reinforcement was carried out by giving each child a sweet at the end of each session. However, this shifted the focus of some children to the detriment of the study thus the 'reward' was dropped from the main programme. Once the necessary adjustments had been carried out, the researcher contacted the school required for the main study and permission was granted to carry out research there.

4:2:1:2:2 <u>The Main Study</u>

4:2:1:2:2:1 <u>Participants</u>

The participants comprised of 22 pairs of preschoolers from the state-run school previously involved in study 2. The 22 dyads consisted of 30 boys and 14 girls, all of white ethnic origin and around four years of age.

4:2:1:2:2:2 Design

The aim of the present study was to investigate the effects of a scaffolded intervention in promoting the complex speech pattern 'claim-why-justification' which was deemed to be important from the results of Study 2. The 22 dyads were therefore assigned to either a control (non-intervention) or experimental (intervention) condition at the start of the study. In order to avoid possible 'cross-contamination' effects, the control group was chosen at random from preschoolers attending the nursery's afternoon sessions whilst the experimental group (matched as closely as possible for age and sex) was selected from morning attendees. Originally, 28 dyads had been picked - with the sex composition of the pairs matched across the two conditions (i.e. 7 male-only, 3 female-only, plus 4 mixed dyads) but some absenteeism during the intervention programme reduced the final make-up to 5 male-only, 3 female-only, plus 3 mixed dyads (experimental group) and 7 male-only, 1 female only plus 3 mixed pairs for the control group. It is worth noting at this point that the small numbers of female-only participants makes it untenable to conduct any statistical analyses of gender effects. Data which relate to dyad composition will therefore only be given for descriptive purposes throughout the chapter and any points drawn from these findings will be suggestive rather than conclusive.

The present study involved every control and experimental dyad in five consecutive daily sessions of around 10 minutes each. On the first day, the dyads in each condition were combined into larger groups and introduced to an 'alien theme' via pictures and story books, with participation and dialogue being encouraged. This scheme was developed over days 2-4 by using 'alien' puppets with each dyad taken separately to further encourage dialogue between the children, the researcher and the 'toys'. The researcher engaged in dialogue with the children in both conditions but focus and support of the 'claim-why-justification' pattern were only given in the experimental condition. Day 5 was the final day of the intervention when the researcher left the now-familiar play materials with the children, instructed them to speak to each other as in previous sessions and then withdrew to a convenient distance to avoid interaction. All episodes, including the final ones, were video-recorded for later analysis. The independent variable was the type of group involved (control vs experimental). Data for type of dyad (mixed, male-only or female-only) were also gathered but due to the small number of female-female dyads, only descriptive statistics will be presented. The dependent variable was the frequency of 'complex' speech acts employed.

4:2:1:2:2:3 Procedure

As with the previous two studies, consent forms had to be drawn up and given to the school to distribute to parents. The teachers and parents were happy to allow the research to be conducted, and no objections were raised either to the task involved or video-taping of the material. Since the researcher was directly engaged in the intervention sessions, no field notes were taken. Instead, a 'camcorder'- with built-in tripod plus an external microphone - was used to record all the exchanges. The children were already familiar with the researcher and had also been video-ed previously by their school - this resulted in their being completely at ease with the recording set-up. However, the recording took place within a sectioned-off part of the main nursery and there was some background noise - although this was not severe enough to cause significant problems to either the children or the researcher, and the quality of the recordings verifies this.

As mentioned earlier, the intervention involved an experimental group (morning attendees) and a control group (afternoon attendees). Each group was subject to a 5 day intervention running consecutively with approximately 10 minutes per session. The headteacher had made a note of all the four year olds on the school roll and the researcher chose some at random, being careful to balance the sex composition of dyads across conditions. Due to some absenteeism, this balance was not retained throughout the study but data were collected for the remaining pairs in each group. The video-camera and microphone were set-up in a partitioned area of the main nursery. Cushions were available for the preschoolers to sit on and a low, level surface near a mains socket was available for the recording equipment. The video camera was set-up near a wall with the external microphone being placed as near the children as possible (this was especially important due to the presence of many others in the main nursery room). The camera was positioned to include all the children and play materials, but occasionally the preschoolers moved out of the lens' range - although this tended to be very brief. The researcher sat close to the children with all the materials at hand and the recorder being switched on and off between groups\dyads. On the first day, the 28 children were kept in either the experimental or control group (each made up from two sets of 7 preschoolers), as they were given the information about aliens, since this elicited the best response. On subsequent days, all children were recorded in dyads - the dyads remaining the same throughout the intervention period. If a child pair missed any of the sessions, they were not included in the final analysis. Separate tapes were used for each condition with a new tape also being used every day. A note of each dyad's names

was made and tapes were immediatelly labelled and dated to avoid any confusion. Each session was timed for around 10 minutes. Sometimes children would go slightly over this time and so they were left until a convenient break in their role-play. At other times, some dyads were more reluctant to continue and thus some encouragement was given. This was especially true of the final day where the researcher was watching the exchanges from a distance but came over as the session neared its end. The procedure for the experimental group followed the same lines as that stated for the pilot study. The procedure and information for day 1 was the same for both the control and experimental groups. Dyads in the control group were also subject to the same story-lines, materials and opportunity for role-play as those in the experimental condition but dialogue was not structured around the 'I-why-because' pattern. The experimenter aimed for similar amounts of researcher-input across both conditions and subsequent examination of the video-recordings demonstrated that she successfully achieved this. Some details of days 2 to 5 for the dyads in the control condition are now illustrated, supplemented with examples from the experimental group to aid comparison.

In the experimental condition, day 2 involved the heaviest scaffolding, modelling relevant patterns of behaviour and giving direct instructions to the children. For the control group, the researcher modelled linguistic sequences which were similar in form to that of the experimental group - but which did not draw attention to the pattern of 'I-why-because' relevant to the experimental condition. Examples of the sequences used across the two conditions are shown below:

Control Group

Zig **I'm an alien.**

Res **Are you?**

Zig **Yes...and I'm called Zig.**

Experimental Group

Zig **I'm an alien.**

Res **Why?**

Zig **Because I come from outer space.**

The researcher then became less overtly involved in speech production, letting Zig and Zag engage in dialogue.

Control Group

Zig **It's nice in here.**

Zag **Where are we?**

Zig **In a nursery school.**

Experimental Group

Zig **It's nice in here.**

Zag **Why's it nice?**

Zig **'Cos there's lots of pictures on the walls.**

As seen from these examples the aim was to keep each condition as equivalent as possible, the main difference being the promotion of the 'I-why-because' sequence in the intervention group.

Day 3 continued in much the same way; general statements and 'non-why' questions regarding the aliens were employed and encouraged in the control group. At the start of this session, the researcher prompted the children to engage in dialogue with one puppet (held by the researcher), e.g.

Res ***I want to have my dinner.***

Child **Are you hungry?**

Res ***Yes***

Child **I'm not.**

Res ***Did you eat your breakfast then?***

Child **Mmm...I had "cheerios".**

Again, this sequence can be compared with the dialogue supported and encouraged during the experimental group's sessions, e.g.

Res ***I want to have my dinner.***

Child **Why?**

Res ***Because I didn't eat my breakfast.***

When the preschoolers appeared to be comfortable with this process, they were then given a puppet each and encouraged to talk to each other. Since the pilot study had indicated the need to add more materials and topics to enhance role-play and dialogue, a third puppet and space-ship had been added. As with the 'experimental' dyads, those in the control condition were also informed of the space crash scenario and were given the extra items to play with from the middle of session 3.

By Day 4, the dyads in both the experimental and control groups were engaged in role-play and dialogue with the puppets and with less direct input from the researcher.

Control Group

Zig ***Oh..poor Spid.***

Spid **I'm hurt, I'm hurt.**

Zig ***Where's your arms?***

Spid **That's it over there.**

Zig ***I can stick it back on.***

Spid **But I want to go on my spaceship.**

Zig ***Yes..go to...go to the hospital.***

It should be noted at this point that, during the researcher's input into the control sessions, claims were used but no specific attention was drawn to them. 'Non-why' questions were also asked and responded to as naturally as possible and occasionally 'why' questions\ justifications were produced by the children but no special focus was placed on these by the researcher. In contrast, the experimental group were constantly being prompted and supported in the use and linking of 'I-why-because' dialogue, e.g.

Zig **I want to go on the spaceship.**

Zag ***Why?***

Zig **'Cos I want to go and see my friend Spid.**

On Day 5, the researcher left the materials with each of the dyads in the control group and asked them to talk and play as they had been doing all week. The camcorder was left on and the researcher moved a slight distance away. After about 10 minutes, she returned to stop the play and the recorder was put on pause until another pair of participants was collected. As stated previously, the researcher was near enough to return and intervene if children began to engage in physical conflict, or were silent for too long. Although 10 minutes of recording was aimed for per dyad (in both the experimental and control sessions), some dyads provided slightly less and some slightly more. Overall, the time was pretty equal across both intervention and control conditions, with the total time for the control group only being four a half minutes longer than that of the experimental group. At the end of the final sessions, the videos were coded as outlined in the following subsection.

4:2:2 Transcription and Coding

At the end of the intervention period, the camcorder tapes were transferred to a standard video format and the tapes labelled. Rather than fully transcribing all the exchanges, it was decided to select some of the sessions and code them directly from the videos. The sessions that were chosen for further analysis were those from Day 2 because that marked the start of the actual scaffolding part of the intervention, and Day 4 because this was the last day before the pupils were left unsupported. Direct video coding seemed appropriate at this stage because the researcher was familiar with the coding scheme which is similar and simpler than that of Study 2, and also because much of the discourse at this stage would be produced or supported by the researcher. Additionally, any dialogue of interest or relevance was also noted alongside the codes of 'justifications', 'whys' and 'claims'. The final day of the intervention was fully transcribed because it comprised wholly of child-child dialogue which was completely new to the researcher and because it was a more effective way to identify the relevant three-part sequences.

4:2:3 Inter-Rater Reliability

A second rater was employed to carry out a reliability check on 30% of the final day's transcripts plus a third of the video-recordings, randomly chosen from Days 2 and 4. She was first asked to identify claims, 'why' questions and justifications from the dialogue. The percentage agreement was high in all instances. For the transcript from Day 5 there was a 97% agreement for claim, and a Kappa co-efficient of 0.94. 'Why' questions yielded a reliability of 99% (Kappa = 0.98) whilst a 98% agreement (Kappa = 0.97) was reached for the justification response. Percentage agreement was also calculated on the following speech pattern - claim followed by why (100% agreement but frequencies were too small for Kappa calculations) and why followed by justification (97% agreement, Kappa = 0.93). 'Claim-why-justification' had 100% agreement but again the frequencies were too small to make a Kappa evaluation. Likewise, from the video-recordings - reliability for claim was 93% (Kappa = 0.83), 99% agreement was obtained for 'why' speech acts (Kappa = 0.96) whilst a 97% agreement was reached for 'justification' tactics (Kappa = 0.94). All Kappa co-efficients were significant at $p<0.001$.

4:2:4 Data Analysis

Frequency data were collected for 'claim', 'why' and 'justification' speech acts on Days 2, 4 and 5 of the present study to enable comparisons to be conducted across the two conditions and also across successive days . Speech strategies were also gathered in relation to the sex composition of dyads. An additional analysis of

'speech patterns' was carried out on the fifth day's data. Since the researcher was not present to reinforce the required speech pattern at this final session, these results would be indicative of how well the children were performing without support - and may be useful in helping evaluate the effectiveness of the intervention. Parametric t-tests and Analyses of Variance were conducted on the dyadic mean frequencies of speech acts. As in the previous studies, Tukey post-hoc tests were employed to help interpret the analyses of variance. Qualitative data were also gathered and used to both supplement and complement the quantitative results throughout the following subsection.

4:3 RESULTS

4:3:1 Overview

Since the main aim of this present study was to increase preschoolers' use of complex speech acts via a semi-structured intervention, this section will primarily be concerned with the efficacy of the programme. Firstly, it would be worth noting how the intervention affected the total number of speech acts produced in both the control and experimental conditions. This will then be followed by an examination of the individual speech acts (i.e. claim, why, justification) and how these varied over the intervention period. In addition to outlining speech act production for Days 2, 4 and 5 of the programme, descriptive data for the sex composition of dyads will also be presented. Finally, frequencies of two and three turn speech patterns from the final day of the intervention will be looked at. Throughout the section, quantitative results will be supplemented by qualitative data in order to give a more complete basis for judging the success of the intervention.

4:3:2 An Examination of the Total Number of Speech Acts Produced over the Intervention Period.

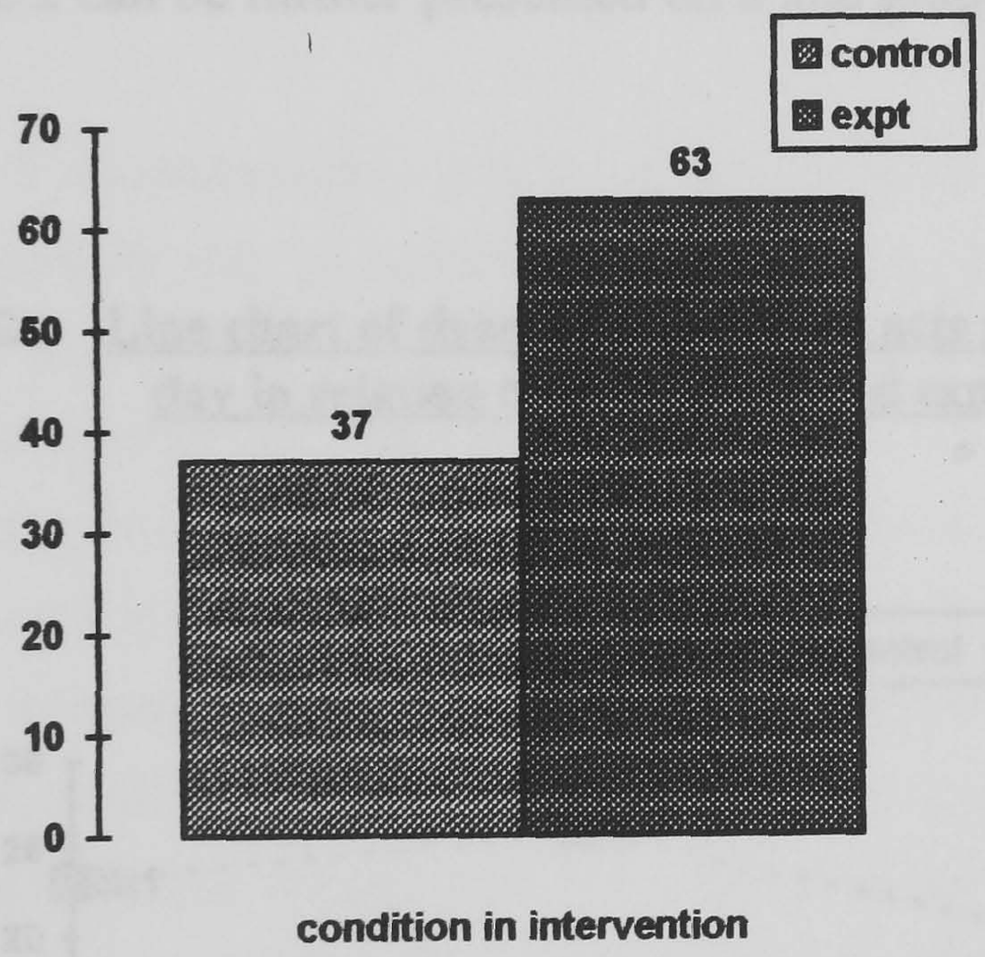
The exchanges in the present study were centred on role-play with puppets and, with the exception of Day 5, were scaffolded to some degree by the researcher. Since the researcher was interested in eliciting three-part exchanges of the form 'claim-why-justification', it was essential to encourage this pattern throughout the interaction but not so strictly as to constrain the richness of natural conversation. Baines (1996) stated that 4 year olds often had difficulty sustaining co-operative discussion but he cautioned against 'heavy-handed' intervention which he found disrupted preschoolers' exchanges. Therefore, the required patterns of dialogue

were allowed to be interspersed with naturally supporting speech such as commands and minimal dialogue. The children in both conditions appeared to enjoy the play materials and a substantial amount of speech was elicited overall. Table 1 summarises the findings.

Table 1 **Total number of speech acts across the whole intervention period & both conditions.**

CONTROL GROUP (n=11)		EXPT GROUP (n=11)		TOTAL
FREQ	*MEAN*	FREQ	*MEAN*	
442	*40.2*	756	*68.7*	1198

Graph 1 **Total % acts across the whole intervention period & both conditions.**



As can be seen from this table and graph, the experimental group use almost twice as many speech acts, in an equivalent time, than the control group and a t-test gave a value of 4.58, df = 20 which is significant at $p<0.001$. Baines (1996) also found that there were many more communicative acts produced in an intervention condition compared to a control one.

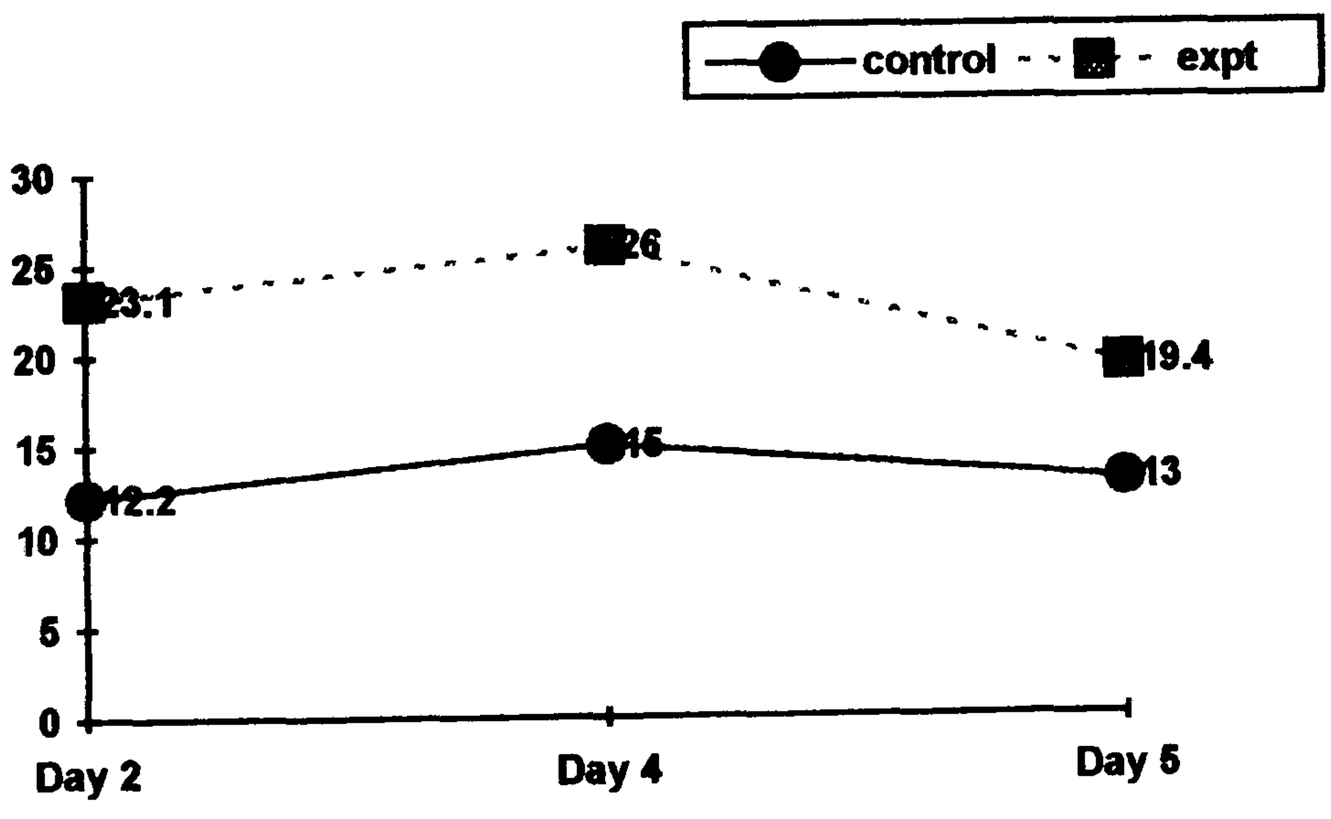
Although interesting, Table 1 does not show whether any particular stage in the intervention programme was associated with the differences in speech act production. Thus Table 2 presents the frequencies on each of Days 2, 4 and 5.

Table 2 **The total and dyadic mean of speech acts during days 2, 4 and 5 of the intervention period.**

DAY	CONTROL GROUP N=11		EXPT GROUP N=11		TOTAL
	FREQ	*MEAN*	FREQ	*MEAN*	
2	134	*12.2*	255	23.1	389
4	165	*15*	287	26	452
5	143	*13*	214	19.4	357
TOTAL	442		756		1198

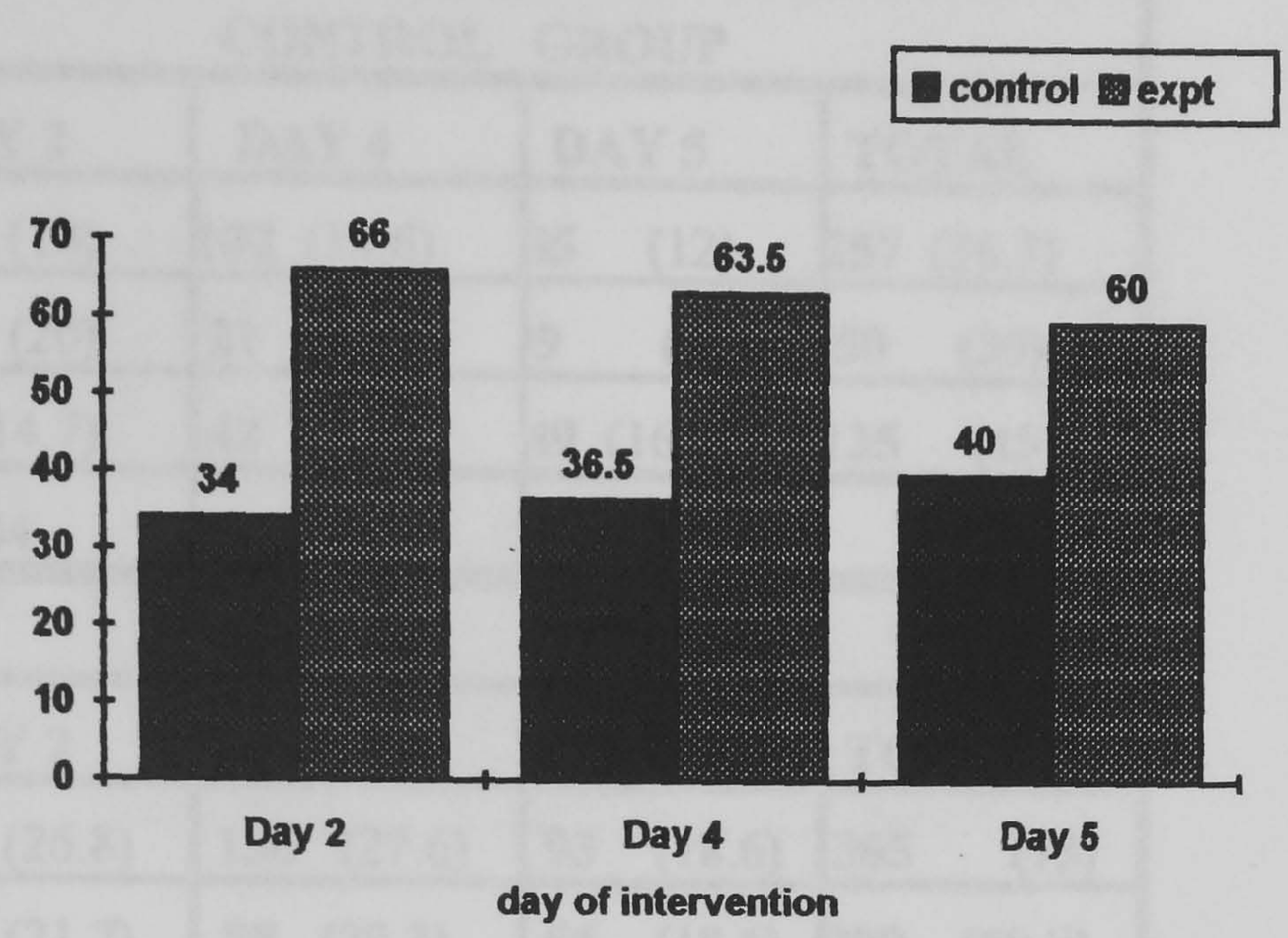
The data from Table 2 can be further presented on a line graph as shown below.

Graph 2a **Line chart of dyadic mean speech acts per intervention day in relation to the control and experimental conditions.**



In addition, percentage data were calculated for each day and both conditions and these values are illustrated in Graph 2b.

Graph 2b **The percentage of speech acts during the intervention period.**



From Table 2 and accompanying graphs, it can be seen that the experimental group used more speech acts on each of the three days but that the difference decreased slightly across the intervention period. It was smallest when the researcher was not present to help scaffold dialogue. Furthermore, Table 2 is particularly interesting because it demonstrates that there is a slight increase in the mean number of speech acts produced from Day 2 to Day 4, with a dip on the final day. This decrease appears to be larger in the experimental group which suggests that this group is more affected by the researcher's withdrawal from the exchanges. An ANOVA analysis for the speech acts varying across all three days gave $F = 2.98$, df (2, 40) with $p = 0.06$ which approaches significance. There were no significant interaction effects for condition x day with $F= 1.08$, df (2, 40).

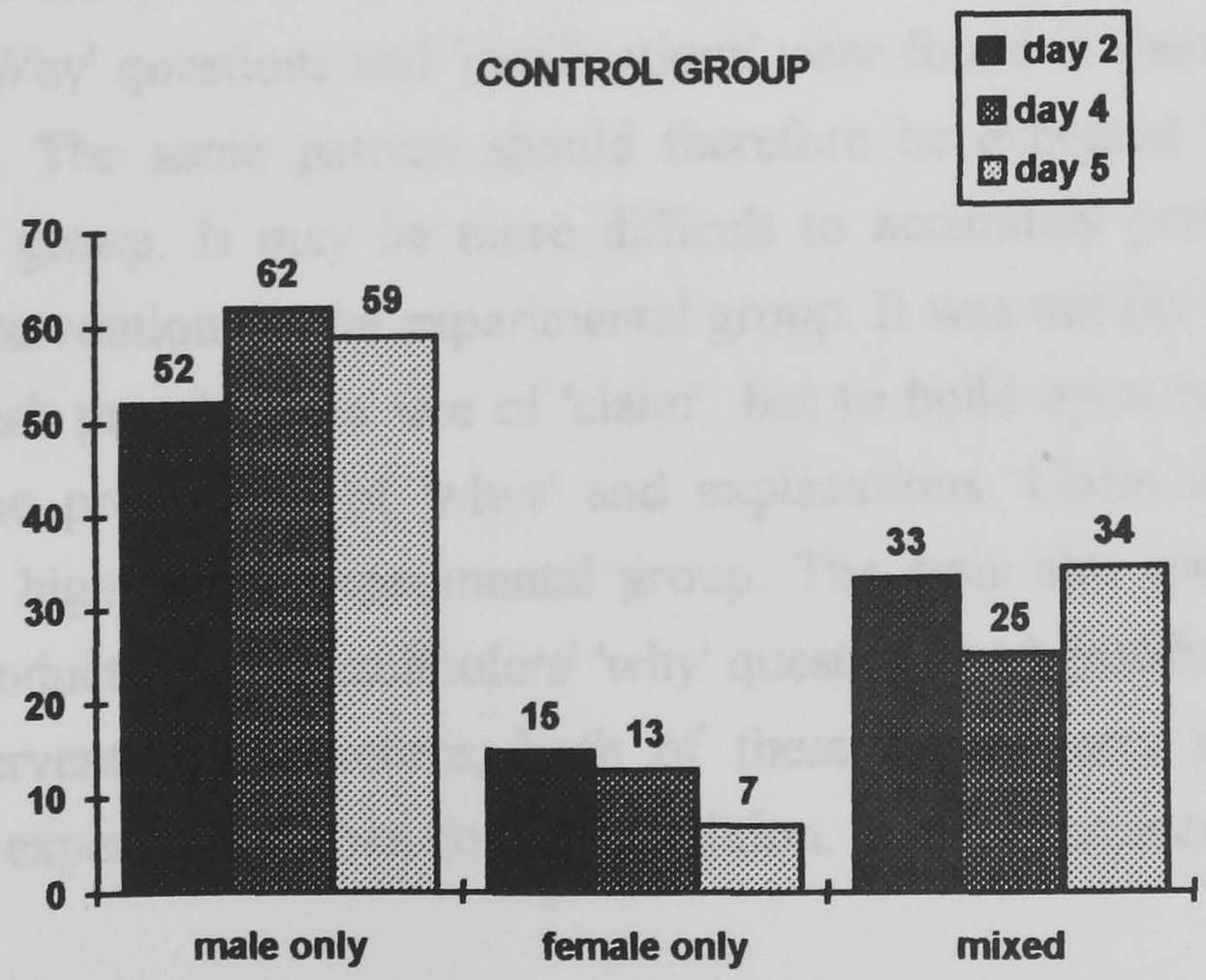
As well as detailing the frequency of speech acts in relation to each of the three days, it may also be interesting to look at them with regard to the different gender dyad combinations. Although descriptive data are provided in Table 3, these should be viewed as informative rather than interpretative - as the small numbers of some dyad combinations (i.e. there is only one female-female pair in the control condition) makes statistical analysis rather meaningless.

Table 3 The total frequency and dyadic mean (in brackets) of speech acts during days 2, 4 and 5 of the intervention period, in relation to gender dyad combinations for both groups.

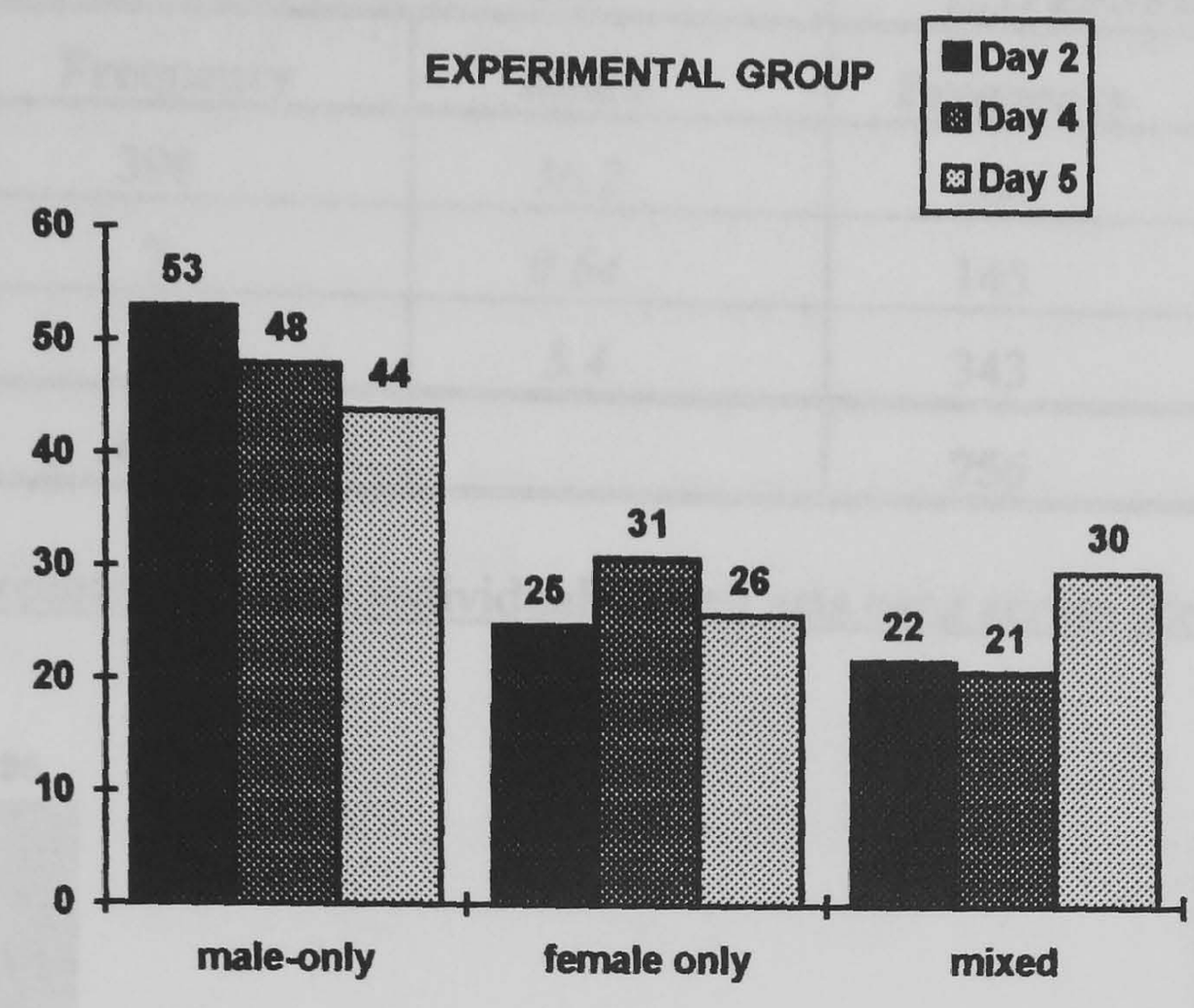
	CONTROL GROUP			
	DAY 2	DAY 4	DAY 5	TOTAL
M-only (n=7)	70 (10)	102 (14.6)	85 (12)	257 (36.7)
F-only (n=1)	20 (20)	21 (21)	9 (9)	50 (50)
Mixed (n=3)	44 (14.7)	42 (14)	49 (16.3)	135 (45)
TOTAL	134	165	143	442
	EXPT GROUP			
	DAY 2	DAY 4	DAY 5	TOTAL
M-only (n=5)	34 (26.8)	138 (27.6)	93 (18.6)	365 (73)
F-only (n=3)	65 (21.7)	88 (29.3)	56 (18.6)	209 (69.7)
Mixed (n=3)	56 (18.7)	61 (20.3)	65 (21.6)	82 (60.9)
TOTAL	255	287	214	756

Table 3 and the following graphs (3a and 3b) show that there are few differences between the different gender combinations' speech use across conditions. It should perhaps be noted that during the sessions, some children did appear to communicate more effectively than others but this seemed dependent on the individuals involved rather than their sex-composition pairings.

Graph 3a The percentage of speech acts for days 2, 4 and 5 of the intervention period, grouped in relation to gender dyad combinations for the control group.



Graph 3b The percentage of speech acts during days 2, 4 and 5 of the intervention period, grouped in relation to gender dyad combinations for the expt group.



This subsection has been concerned with the total number of speech acts across each condition, and in relation to different dyad combinations plus day of intervention. The next subsection will focus on the types and frequency of the *specific* speech acts employed in each condition and also with regard to gender and intervention day involved.

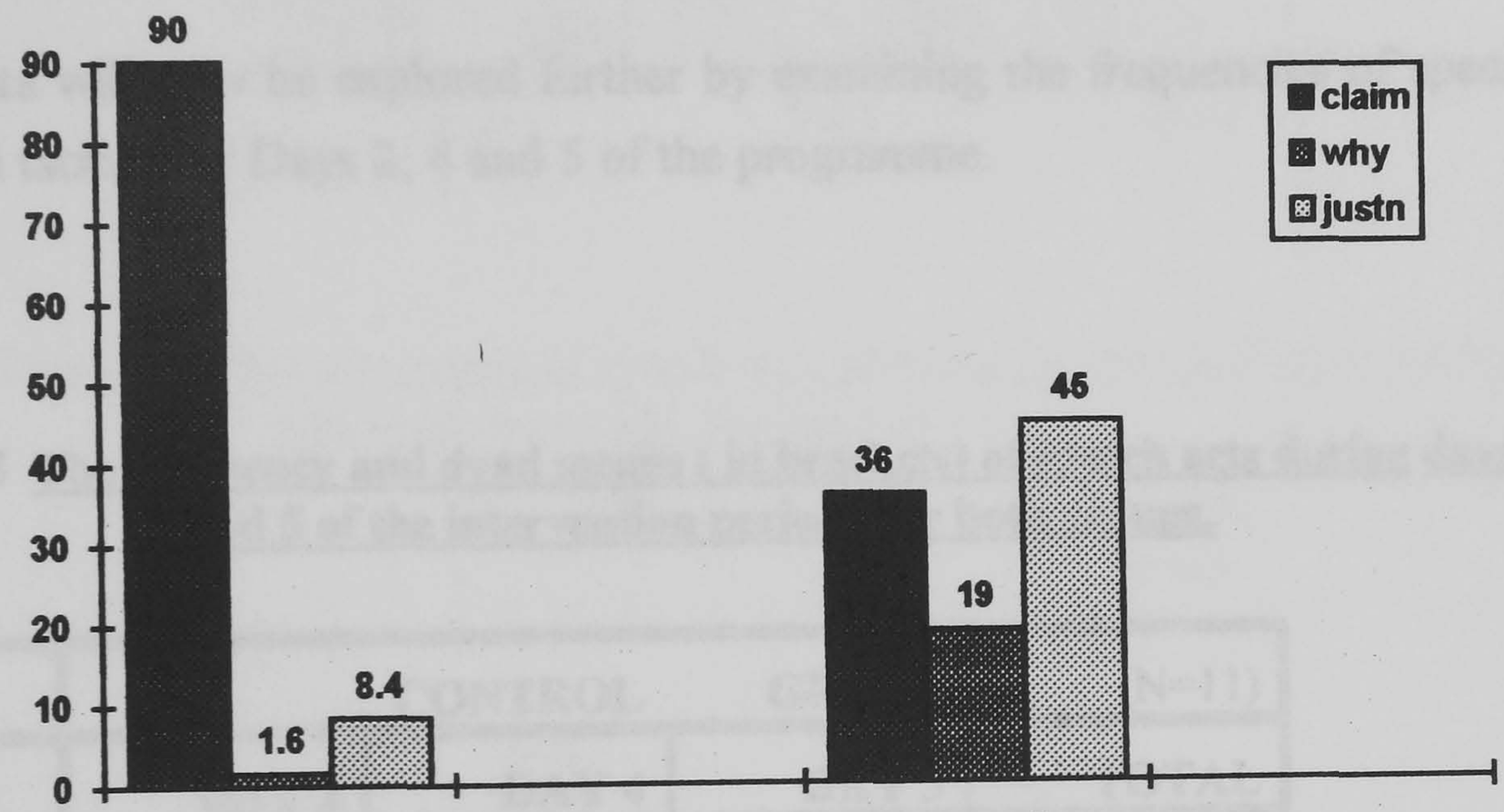
4:3:3 Frequency and Type of Individual Speech Acts Produced over the Intervention Period.

In the previous study, it was shown that 'claim' was a predominant speech act for preschoolers. 'Why' questions and 'justifications' *were* found in their exchanges but less frequently. The same pattern should therefore be expected for the present study's control group. It may be more difficult to accurately predict the precise effect of the intervention on the experimental group. It was not the intention of this study to diminish preschoolers' use of 'claim' but to build upon its usefulness for leading into the production of 'whys' and explanations. Claim should therefore continue to be high in the experimental group. The main aim was, of course, to increase the production of preschoolers' 'why' questions and 'justifications' - via the scaffolded intervention. Therefore, both of these speech acts should be more frequent in the experimental than control condition. Table 4 summarises the results.

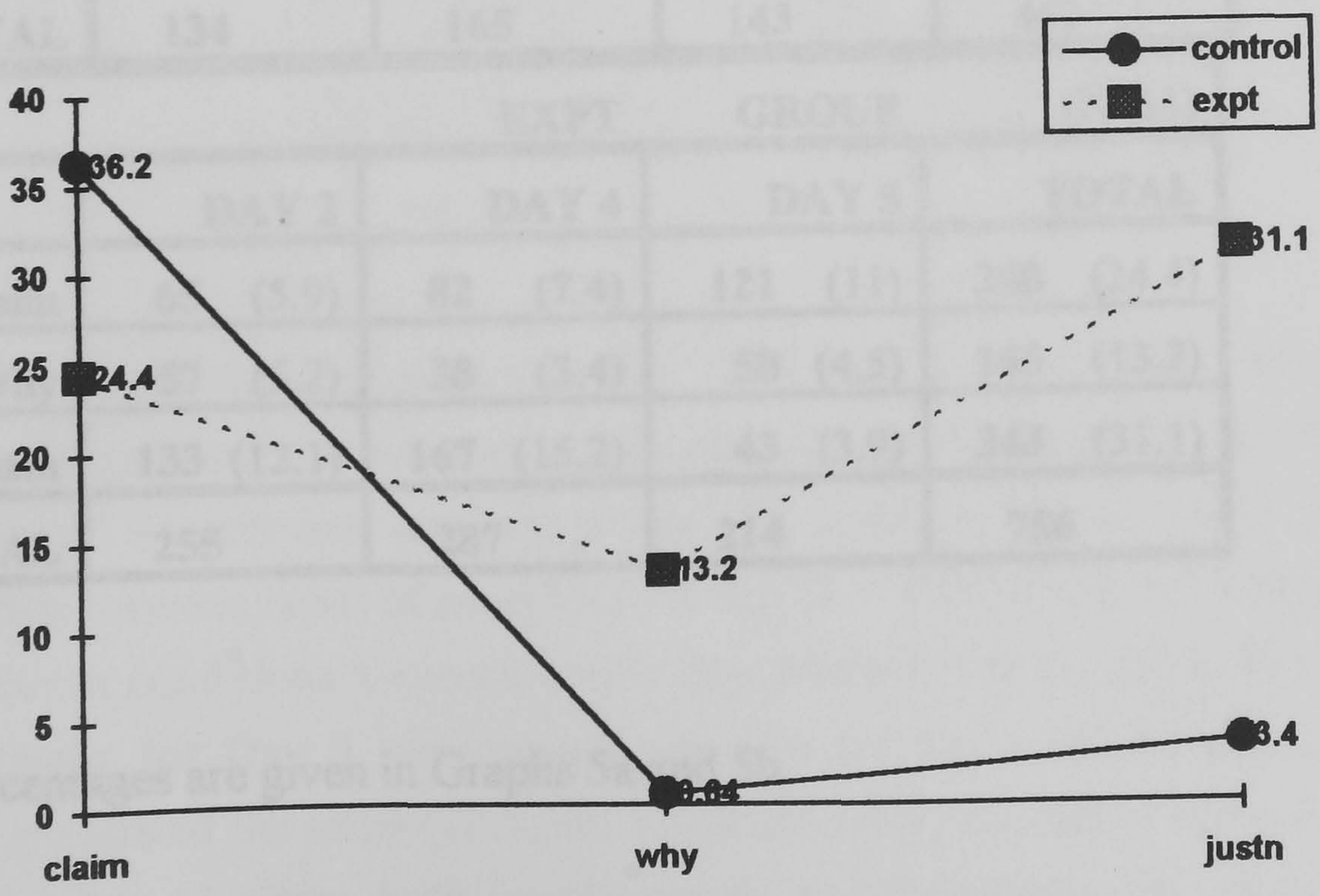
Table 4 The total frequency and dyadic means for the individual speech acts across the two conditions.

	CONTROL (N=11)		EXPERIMENTAL (N=11)	
	Frequency	**Mean**	**Frequency**	**Mean**
Claim	398	*36.2*	268	*24.4*
Why	7	*0.64*	145	*13.2*
Justn	37	*3.4*	343	*31.1*
TOTAL	**442**		**756**	

Graph 4a The percentage of total individual speech acts used across the two conditions.



Graph 4b The dyadic mean of total individual speech acts used across the two conditions.



It appears obvious from the preceding results that there is a substantial difference in the type of speech acts used and an ANOVA confirmed this with F = 59.2, df (2, 40) and significant at $p<0.001$. Follow up tests indicated that the main difference lies between 'claim' and the other two speech acts. There is also a significant interaction effect for condition x speech act with F = 43.16, df (2, 40), $p<0.001$, with 'claim' being used less in the experimental condition and 'why' plus 'justification' being used more; but vice-versa in the control group. Post-hoc tests indicated that the greatest source of variation across conditions was in relation to justification, with a smaller but still significant difference for both 'claim' and 'why' tactics.

The data will now be explored further by examining the frequencies of specific speech tactics for Days 2, 4 and 5 of the programme.

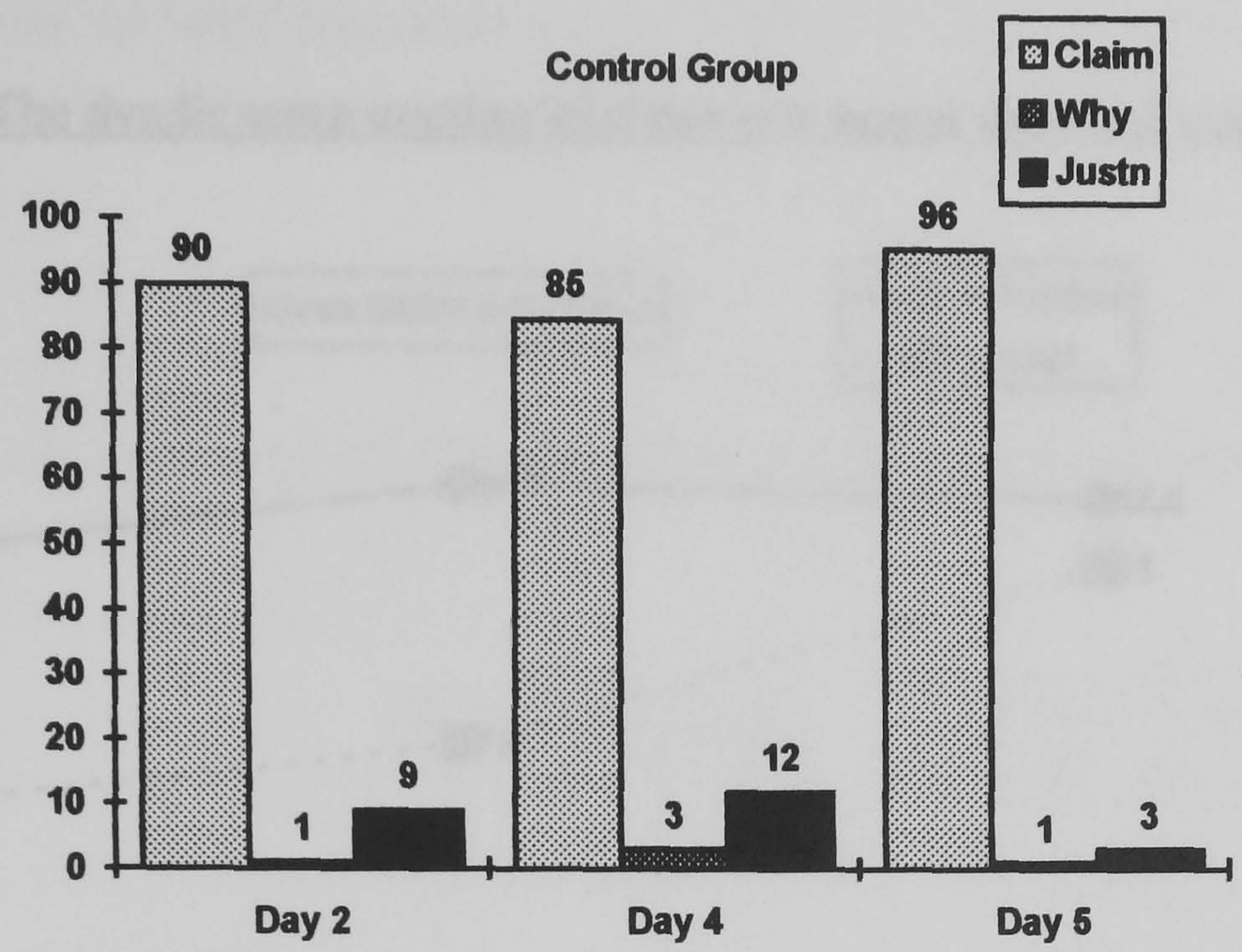
Table 5 The frequency and dyad means (in brackets) of speech acts during days 2, 4 and 5 of the intervention period, for both groups.

	CONTROL GROUP (N=11)			
	DAY 2	**DAY 4**	**DAY 5**	**TOTAL**
Claim	**121** (11)	**140** (12.7)	**137** (12.4)	**398** (36.2)
Why	**1** (0.09)	**5** (0.45)	**1** (0.09)	**7** (0.64)
Justn	**12** (1.1)	**20** (1.8)	**5** (0.45)	**37** (3.4)
TOTAL	**134**	**165**	**143**	**442**

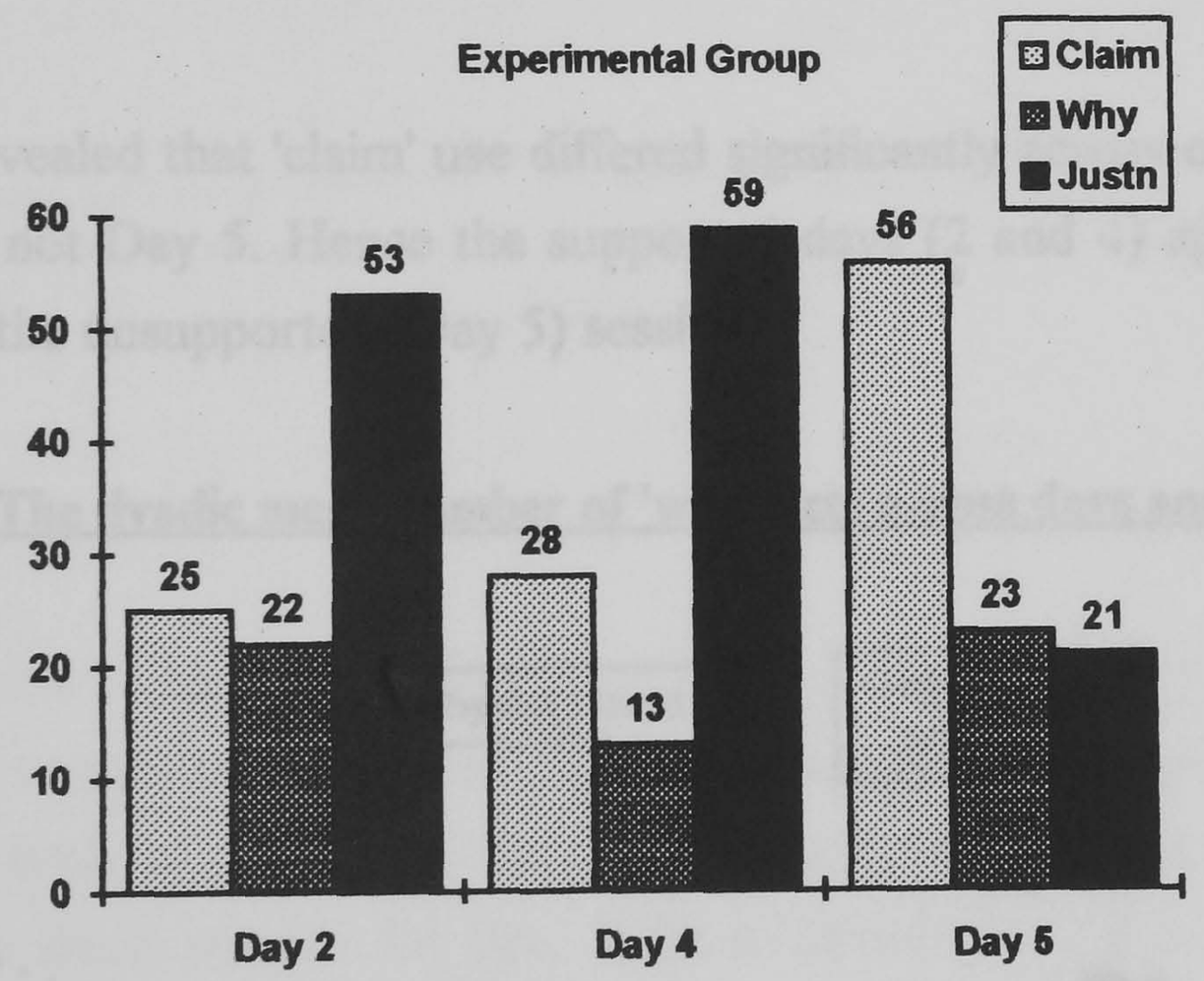
	EXPT GROUP (N=11)			
	DAY 2	**DAY 4**	**DAY 5**	**TOTAL**
Claim	**65** (5.9)	**82** (7.4)	**121** (11)	**268** (24.4)
Why	**57** (5.2)	**38** (3.4)	**50** (4.5)	**145** (13.2)
Justn	**133** (12.1)	**167** (15.2)	**43** (3.9)	**343** (31.1)
TOTAL	**255**	**287**	**214**	**756**

The percentages are given in Graphs 5a and 5b.

Graph 5a **The percentage of speech acts grouped by days 2, 4 and 5 of the intervention period, for the control group.**



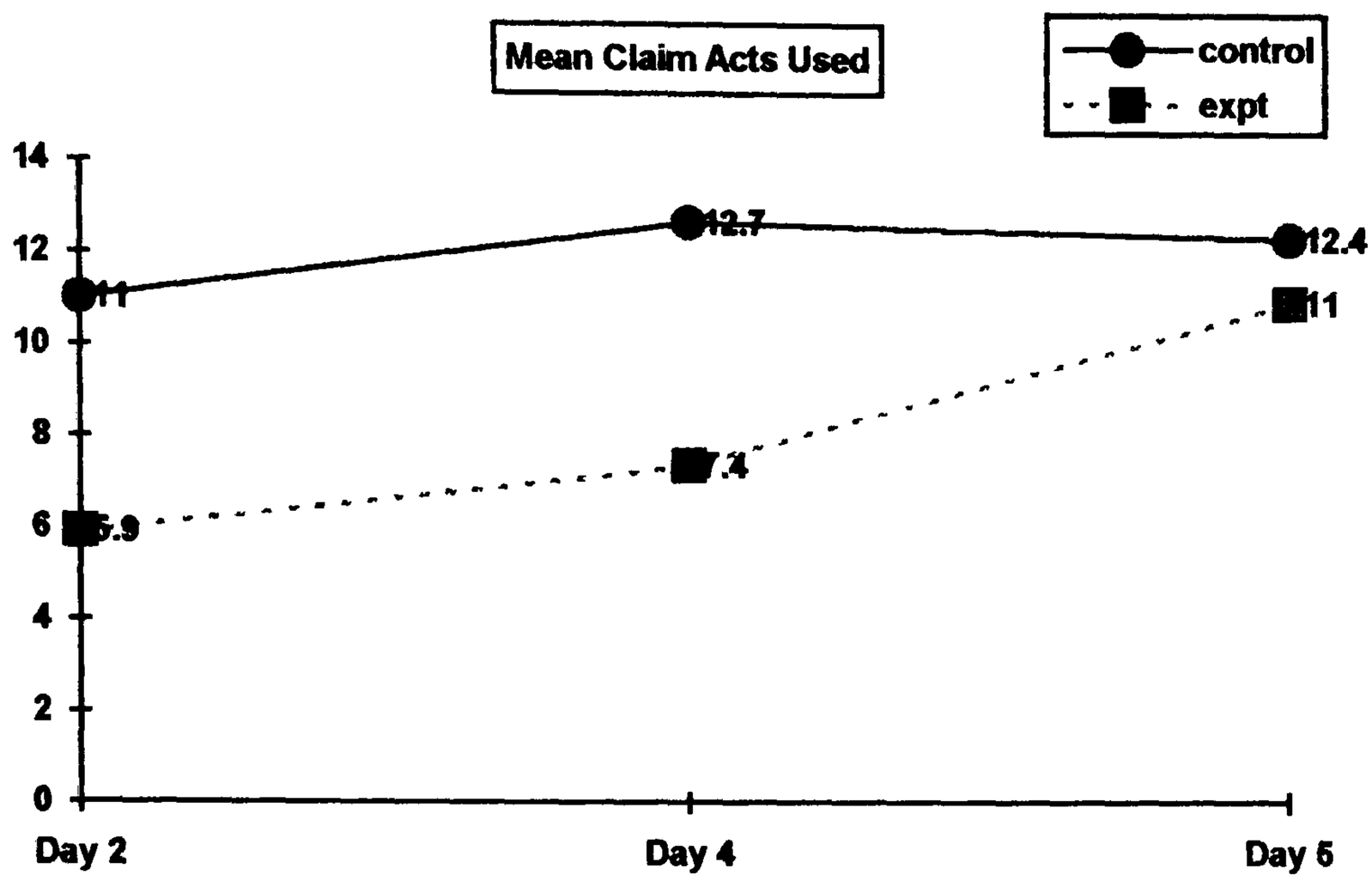
Graph 5b **The percentage of speech acts grouped by days 2, 4 and 5 of the intervention period, for the expt group.**



Analyses of the data revealed that F = 2.98, df (2, 40) for the main effect of intervention day and this was not significant. As noted previously, the main effect for type of speech act was significant. In addition, there was a significant interaction between types of speech acts x day (F = 9.79, df (4, 80) with $p<0.001$), and between conditions x speech acts x day where F = 6.33, df (4, 80), $p<0.001$. Interestingly, for Day 5, the mean claim acts for the control and experimental groups are almost the same (12.4 and 11 respectively) indicating that preschoolers' inclination to use claim, both spontaneously and frequently, has returned in the

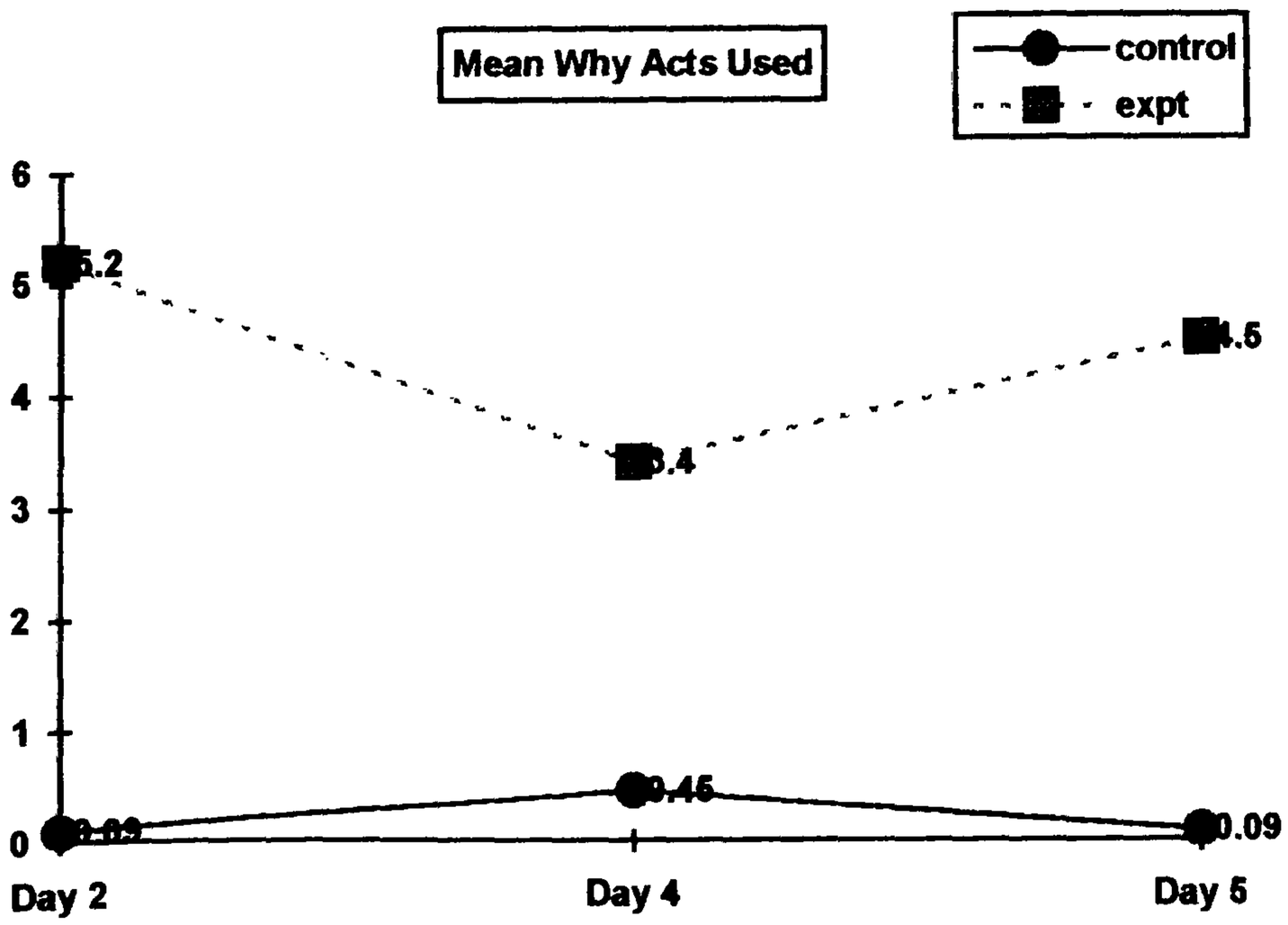
researcher's absence. The results for each individual speech tactic in relation to condition and intervention day are illustrated in the following graphs.

Graph 6a **The dyadic mean number of claim acts across days and conditions.**



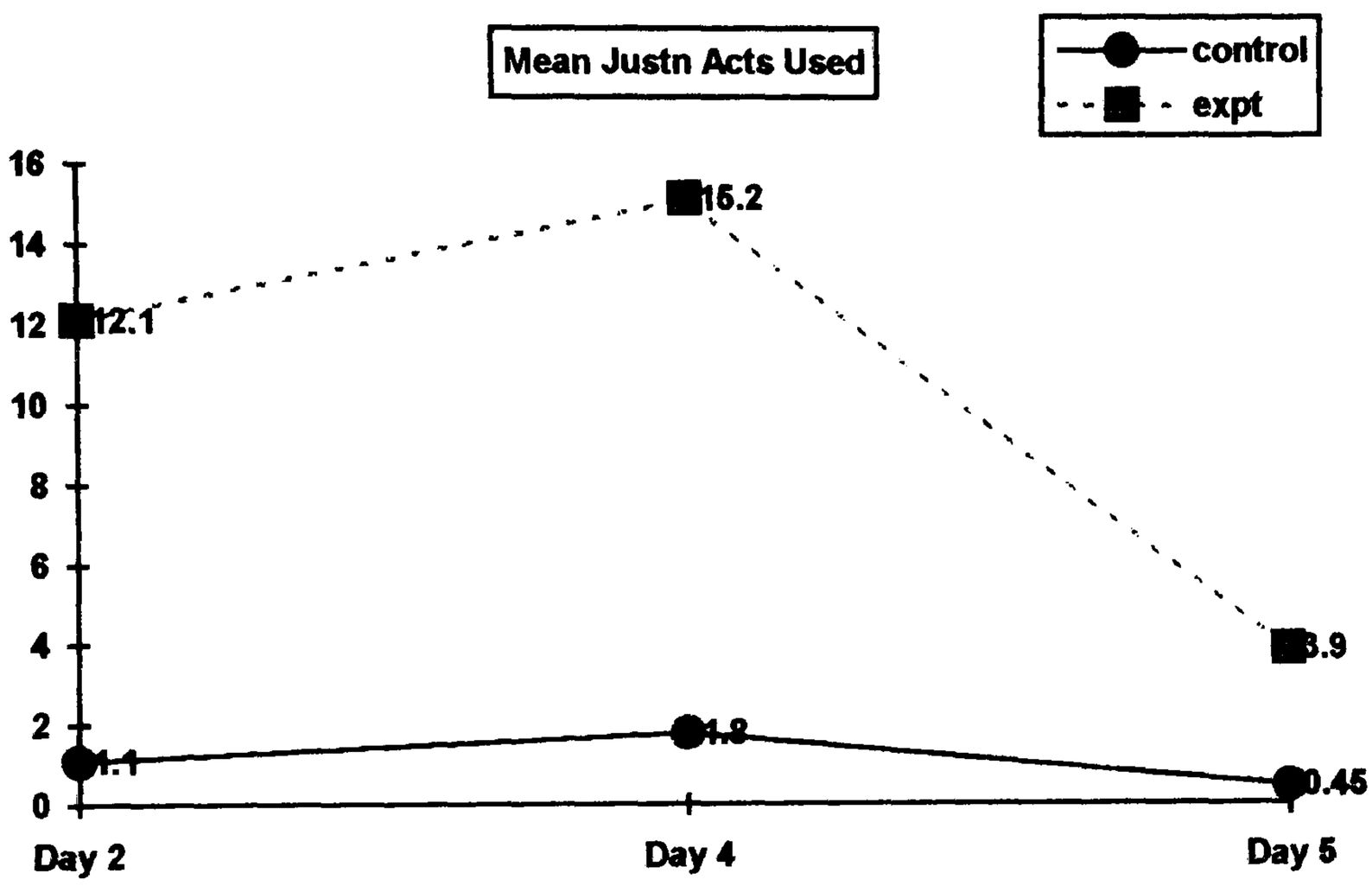
Post-hoc tests revealed that 'claim' use differed significantly across conditions for Days 2 and 4 but not Day 5. Hence the supported days (2 and 4) appear to vary substantially from the unsupported (Day 5) session.

Graph 6b **The dyadic mean number of 'why' acts across days and conditions.**



Graph 6b shows the distribution of 'why' tactics across the three sessions and for each condition. Follow-up tests indicated that the main source of variance across conditions in relation to 'why' use occurred on Day 2. In addition, there was a smaller (but significant) variation for both Days 4 and 5.

Graph 6c <u>The dyadic mean number of' justification' acts across days and conditions.</u>



Finally, justification strategies per day were analysed with regard to the control and experimental conditions. Post-hoc tests indicated that 'justification' use varies significantly for each of the three days across conditions, even although the difference is very much smaller for Day 5. In addition, the follow-up tests also revealed that a substantial variation occurs between the supported sessions (Days 2 and 4) and the unsupported session (Day 5) of the experimental group.

It may be seen from the preceding graphs that the control group peaks on Day 4 for all tactics. In the experimental group, 'claim' increases across Days 2 to 5 whilst 'why' is lowest at Day 4 but justification highest on this day. It is reasonable to assume that 'claim' use returns to its normally high level in the absence of scaffolding. The withdrawal of the researcher's input and encouragement may also explain why justification falls on Day 5. It is perhaps more difficult to explain the

paradox of Day 4 - given the association of 'why' and 'justification'; that is, how does 'why' increase but 'justification' decrease (thus widening the gap between them) in relation to the previous day! However, during the sessions, the researcher noted that, occasionally, when the children were being prompted to ask 'why' - they would respond directly with a 'justification' instead of actually formulating a question. The researcher had increased the 'why' prompts on day 4 but the children were happier answering 'because' to these, resulting in less 'whys' and more justifications at this phase - and this is highlighted further on page 239. When the researcher was not present to prompt 'why' on the final day, this speech act again increased and 'justifications' decreased.

The analyses concur with the descriptive results in Table 5 and the high number of significant findings indicates a good measure of success for the intervention study as a whole. It has been shown that the complex speech acts of 'justification' and 'why' questions have been produced more often in the experimental group. Moreover, the intervention can be seen to be working over the whole programme, albeit the effect is reduced somewhat on the final day. The differences noted in Table 5 for condition, speech act and day are highlighted qualitatively by the following examples.

During Day 2 of the intervention, the preschoolers and researcher tended to focus on concrete topics such as the appearance of the puppets. The children were more at ease producing two-turn patterns and it can be seen that those in the experimental group can effectively produce 'why-because' links at this phase.

Control Group

TA **Zig ate Zag's sweets.**

JO **I'll bring him more sweets.**

Experimental Group

Res **Why has she (the puppet) got a pink nose?**

DM **'Cos she painted it.**

Res **Why has she got such a big mouth?**

CH **Cos she's screaming.**

Res **Why have you got a sore hand Zig?**

DM **'Cos I hurted it.**

Res **Oh...<u>why</u> did you hurt it?**

DM **'<u>Cos</u> she bited me.**

Day 4

By Day 4, due to the addition of another puppet and a 'spaceship', the children have a more varied repertoire of possible scenarios to draw upon. In addition there was a sense of progression since the children now tend produce richer sequences more easily and did most of the turn-taking themselves whereas, on Day 2, the researcher often had to supply most of speech acts to complete the exchange. It is therefore not surprising that the number of all speech acts should have increased by this session (except for 'why' in the experimental condition and a possible reason for that finding was proposed earlier).

Examples of dialogue from this stage include the following:

<u>Control Group</u>

ST **Is that a spaceship?**

Res ***Yes***

ST **Where's Zig and Zag's spaceship?.**

Res ***Over there*** **(points).**

ST **Is that Spid?**

Res ***Yes it is.***

ST **I hope he doesn't crash.**

<u>Experimental Group</u>

CH ***<u>Why</u> has he got a black bit there?*** **(in his mouth).**

SA I don't know.

CH ***Maybe...<u>because</u> it's in his throat and the throat helps him shout.***

DA ***<u>I've</u> got a halloween outfit.***

FL <u>Why've</u> you got a halloween outfit?

DA ***<u>So</u> I can dress up and scare everyone.***

AM ***<u>Why've</u> you got the spaceship?***

KS <u>'Cos</u> I want to fly away.

AM ***<u>Why</u> did the spaceship crash?***

KS <u>Because</u> he wasn't a very good driver.

RM ***They've got a spaceship.***

DA **But they can't really drive it.**

RM ***Why not?***

DA **Because they are only cuddly toys and cuddly toys can't do anything.**

The last example is particularly interesting as it seems to demonstrate a shift in perspective. At one point the boys are role-playing with the 'aliens', then later they seem to step out of the role and explain that the alien puppets are inanimate.

By the final session it appears that the amount of speech acts decreased in both the experimental and control condition - and this may be due to lack of input and support incurred by the withdrawal of the researcher from the interactions. Nonetheless, the preschoolers still produced a substantial amount of speech acts, and engaged efficiently in co-operative interaction throughout the intervention period. This was in contrast to Baines' (1996) finding that conversations of 4 year olds were "often, although not always, monologic, lacking in joint attention" (pg. 188).

Although it was noted previously that the complex speech acts of 'why' questions and justification were perhaps not as frequent as they could have been for the experimental group in Day 5, the differences in these speech acts across conditions were significant. These variations were also apparent in the qualitative data - with the control group rarely using such speech acts whilst the experimental group tended to draw on instances of 'why' and 'because' from earlier sessions, e.g.

Day 5

Control Group

JA Are you going to play with that thing?

TO **I'm playing with the green one...and the blue one.**

JA I'm playing with that one (Zig, the yellow one).

TO **Do you want to help me to dae this? (put puppet back together)**

JA Yes...that's his nose...put his hair on.

TO **That's his hair, right..that's his eyes. That's him all fixed...naw it isn't...stick these all on. I'm happy..so happy.**

JA Oh...look at his face.

TO **Here's his hair.**

JA What's...look..she can fly on an aeroplane.

TO **You mean...you mean...the spaceship.**

JA **Yeah.**

TO **Don't...it's my spaceship!**

JA **Okay...I'll bring it back.**

Although this exchange is relatively prolonged and coherent, there are no examples of a 'why-because' link which highlights the finding that 'why' questions and 'justifications' were produced infrequently by the control group in the final day (as in other days) of the intervention procedure. The next example demonstrates this further since again there is no evidence of 'why' questioning or explanation. Yet there are several places where asking 'why' would be appropriate.

AP **Hello Zig 'n' Zag.**

RY **He (Spid) told me he didn't like you.** *(He holds Spid to AP's ear)*

RY **What did he say?**

AP **He said he didn't like you.**

RY **But he told me he didn't like <u>you.</u>** *(Holds puppet to AP's ear again)*

RY **What did he say?**

AP **He said he didn't like.....<u>Zag!</u>**

RY **Don't like...it's not a...nice to like people...isn't it not?**

AP **Naw.**

In the third last line of this exchange, AP paused as if she was trying to be more diplomatic - and she succeeded because she said "Zag" rather than RY was disliked. RY follows this up by suggesting it is not nice to dislike people and seeks confirmation from AP, who gives it.

<u>Experimental Group</u>

In contast, 'why' and 'because' are used twice in the following example and both at appropriate stages (after opposition in this case), e.g.

Two boys are playing with the spaceship.

DA **C'mon!**

AD No!

DA **<u>Why..why?</u>**

AD <u>Because</u> I just want to eat my spaceship *(it is in his mouth).*

DA **I eated your spaceship.**

AD Look...he's (Zag) eating the spaceship...he's eating the spaceship.

DA **Aw...Aw..**

AD Look...this car's trying to get to the spaceship..the car's knocked the spaceship over.

DA Aw...c'mon Spid.

AD No!

DA <u>Why...why</u> are you doing that for today?

AD <u>'Cos</u> I've had enough.

It is believed that these examples help to show that the intervention procedure *was* pretty successful in influencing complex speech production. But the dialogue also provides another important function which is to counter any suggestions that the control group were linguistically 'inferior' to begin with. Hopefully, it can be clearly seen from these exchanges that the control group dyads were able to engage in prolonged and co-operative turn-taking, and thus improvement across the two groups was due to the intervention programme.

As well as looking at individual speech acts produced per day with regard to the control and experimental groups, it was also of interest to examine this in relation to the various dyad sex-combinations. As before, only descriptive statistics are given due to small sample sizes. These data are set out in Table 6.

Table 6 <u>The frequency and dyad means (in brackets) for individual speech ,in relation to gender dyad combinations for both groups.</u>

	CONTROL GROUP		
	Male (n=7)	**Female (n=1)**	**Mixed (n=3)**
Claim	**229** (32.7)	**47** (47)	**122** (40.7)
Why	**3** (0.43)	**1** (1)	**3** (1)
Justn	**25** (3.6)	**2** (2)	**10** (3.3)
TOTAL	**257**	**50**	**135**
	EXPT GROUP		
	Male (n=5)	**Female (n=3)**	**Mixed (n=3)**
Claim	**160** (32)	**45** (15)	**63** (21)
Why	**49** (9.8)	**61** (20.3)	**35** (11.7)
Justn	**156** (31.2)	**103** (34.3)	**84** (28)
TOTAL	**365**	**209**	**182**

Although some caution is necessary when looking at these results, it is interesting to note the descriptive trends of the data. These indicate that the greatest differences appear to lie in girls' and boys' use of 'claim' (in both conditions) and 'why' in the experimental condition. However, conclusions cannot be drawn on the basis of these findings since statistical analysis is required to determine the significance of these differences.

Thus far, it can be argued that the intervention has been quite successful. The dyads in the experimental group used more speech acts overall and used more of the complex tactics of 'why' and 'justification' on each of the three days. In addition, the fact that 'why' and justification use was still higher for the experimental than control group on the final day (i.e. unsupported by the researcher) further testifies to the success of the programme. However, part of the procedure was to encourage children to employ the 'claim-why-justification' speech pattern as this was thought to be the best way of optimising the production of complex language - as deduced in Study 2. It is therefore important to examine how frequently the preschoolers produced both the linked two-turn sequences (i.e. 'claim then why'; 'why then justification'), and the aimed-for three-part episodes made up of 'claim-why-justification'. Only Day 5 will be examined since the researcher ensured this pattern was adhered to in the earlier, supported sessions.

4:3:4 The Production of Two-Part Sequences in the Final Intervention Session

Unfortunately, in both conditions, the pattern of 'claim followed by why' was found rarely - with only 1 instance in the experimental group and none in the control group. The results for 'why followed by justification' were more encouraging with one example in the control group but 21 in the intervention condition. $F = 4.44$, df (1, 20) and significant at $p<0.05$. The children seemed to find the 'why' cue easier to respond to. It may be that they have had plenty of exposure to questions at home or nursery - and know an explanation is the expected response. Furthermore, they seemed to take many 'claims' at face value and so did not question them - especially when it was an adult making the claims. In addition, most of the statements made in this study were rather obvious or uncontroversial therefore being less likely to promote a challenging or questioning response. For example, many 'claims' were made that related to (and were in keeping with) ongoing actions. These appeared to elicit very little comment or willingness to elaborate or continue the discussion, e.g.

DA **I'm flying the spaceship.**

AD **Mmm.**

CO **They're up in the air.**

AB **No response.**

Other claims were based on fact such as SH's birthday and the preschoolers knew that the nursery staff had a cake for her. Adults would also not question these 'realities'.

SH **It's my birthday.**

EM **I know.**

Perhaps with *obvious* claims, children make their own inferences and therefore do not tend to ask 'why'. Although 'claim-why' two-part episodes were rare, there was still substantial evidence of more 'why' and 'justification' speech acts being produced by the experimental group (either separately or linked as two-turn sequences) compared to the control group, e.g.

ST (To Zig) **<u>Why've</u> you got a pink nose?**

(Zig) **<u>'Cos</u> I'm a lassie.**

HE **<u>Why</u> are you saying that to yourself?**

ST **I'm saying it to her (Zig).**

ST (To Zig) **<u>Why've</u> you got green hair?**

ST **<u>'Cos</u> you're a lassie.**

This exchange may seem rather simple and repetitive at first glance. However, if the dialogue is examined closely, one will perceive evidence of perspective-taking. Girl ST is both asking her puppet questions and getting this 'alien' to reply "cos I'm a lassie". The other girl HE challenges this behaviour and ST goes on to clarify the situation, making a definite distinction between her own role and that of the puppet Zig - even though the voice is from the same person. This is then followed up by ST again directly asking Zig 'why she's got green hair?'. This time ST answers in *her own role* rather than through the puppet, and this is denoted by the change in pronoun "**I'm** a lassie" to "**You're** a lassie". Obviously child ST has been influenced by, and taken account of, HE's earlier comments - and this is revealed by the change in behaviour and dialogue.

Even by the final day, the 'experimental' preschoolers were competently using dialogue established in earlier sessions and this seems to indicate a degree of success with the intervention. Critics may argue that the children were merely modelling set patterns of speech without really understanding the rationale behind it. To try and offset this, at the start of each session the researcher would ask the children to explain what they had done the previous day and what their main task was. Nearly all of them could give an account of this and some examples are set out below.

1. Res Can you remember what we were doing yesterday with Zig and Zag?
   JO Yes...we were helping them to speak.
   Res What were we helping them to say?
   JO I...I and 'cos.
   Res And what else?
   SA WHY...I, 'cos and why!

2. **JO Hello**
   SC **Hello**
   JO We've got to teach them to speak.
   SC **Hello**
   JO They're not speaking to us.
   SC **Don't say that...what is your name?....Spid?**

3. N to Zig **<u>Why</u> are you here?**
   Zig <u>Because</u> I want to speak English words.

4. **DN That one's mine...that one's the lassie.**
   HU **I know.**
   DN Let's make them talk.
   HU *(Zag)* **Hello...I want to speak English.**

5. **SH What's that?**
   EM **It's Zag...asking some questions.**
   SH Right, you do it as well.

6. **CH** **I want it** ***(the puppet).***

AM **It's on my haun.**

CH **But we haven't said 'why'...'because'.**

AM **<u>Why</u> have you got yellow hair?**

CH **<u>Because</u> I've eaten too many bananas.**

AM **And...and <u>why</u> have you got a green nose?**

CH **<u>'Cos</u> someone painted it maybe...and it got poison in it.**

As well as indicating that they understood, to a certain extent, the purpose of the play sessions - the preschoolers occasionally demonstrated the use of 'why' and 'justifications' which departed totally from the researcher's input, e.g.

SA **Do you know <u>why</u> his eyes are wrapped up ?**

CH **<u>Because</u> he's already been born with eyelashes.**

SA **Yeah...that's right.**

CH **Do you know <u>why</u> that plug is orange...and that plug's white?**

SA **I don't know.**

Obviously the significant amount of 'why-because' sequences elicited in the experimental group indicates a high degree of success with the intervention. However, it should also be noted at this point that there is a greater frequency of both 'why' and 'justification' tactics than can be accounted for by the 21 'why-because' sequences found. Although it is hard to understand why the children in the experimental group might use these tactics separately rather than 'linked', frequent usage of both of the individual speech acts further demonstrates that the intervention procedure has helped elicit complex linguistic strategies.

4:3:5 <u>The Production of Three-Part Sequences in the Final Intervention Session</u>

Like the two-turn 'claim-why' pattern, the results for the three-part sequences were a little disappointing. There were no instances of this pattern in the control group and only 4 in the experimental group.

It therefore appears that preschoolers have some difficulty in consciously linking particular speech acts together. They were at ease with the 'why-justification' pairing but had trouble linking 'claim' and 'why', and 'claim-why-justification' together. Furthermore, there was evidence from the transcripts that the children also produced 'claim-justification' pairings infrequently. It could be that a lack of

general, everyday exposure to this combination of speech acts means that a longer training time is required for those particular elements. It may also be that the children find their own spontaneous dialogue less taxing whilst the intervention is intent on imposing a particular pattern of speech on the preschoolers, who may feel constrained by it - especially if they feel it does not add anything to their exchanges. Baines (1996), when studying the topic maintenance skills of young children, found it difficult to tell if they *could not* produce certain dialogue or if they just *did not want* to. This could also be true of this study as the following example, used earlier, shows.

CH **I want it** (the puppet).
AM **It's on my haun.**

At this point, the children began to become more physical in their play and start hitting each other via the puppets. Since this was Day 5 of the intervention, the researcher was not involved in the interaction. However, she was close enough to see what was happening. Since their 10 minutes were almost up, the researcher suggested that they finish playing so someone else could have a turn. This resulted in the following dialogue.

CH But we haven't said 'why'...'because'.
AM <u>Why</u> have you got yellow hair?
CH <u>Because</u> I've eaten too many bananas.
AM And...and <u>why</u> have you got a green nose?
CH <u>'Cos</u> someone painted it maybe...and it got poison in it.

4:3:6 Summary of Results

In general, the intervention was very successful on several levels. Firstly, the amount of total speech acts was far greater for the experimental group than the control group and the exchanges were co-operative and coherent. Secondly, the complex speech acts of 'justification' and 'why' questions were considerably higher overall for the intervention condition. Thirdly, the programme was successful on each of the days analysed, with even the final, unscaffolded day showing that significantly more complex speech was used in the experimental condition.

One main criticism of the intervention may be the difficulty involved in distinguishing between the experimental group's inability or unwillingness to employ the 'claim-why', 'claim-why justification' or even a 'claim-justification'

pattern, although they did use the 'why-justification' linkage significantly more often than those in the control group. It could be that the children are more familiar with this pattern due to being exposed to it quite frequently at home and nursery.

The data from different gender compositions revealed no obvious variations, at a descriptive level, in speech use relative to condition. However, due to the small sample size involved, no statistical analyses were conducted and results given should be seen as suggestive rather than conclusive.

The following section will be discussing these findings in considerably more detail.

4:4 DISCUSSION

4:4:1 Overview

This discussion will consist of several subsections. The first will examine and elaborate upon the total speech act production across the control and intervention conditions. The next subsection will then look at how the individual speech acts varied in frequency with regard to the day of intervention, dyad composition and condition. This will be followed by subsections 4:4:4 and 4:4:5 which will consider the results obtained for two and three-part sequences in relation to the intervention and non-intervention groups. Finally, a brief summary will be given to conclude the chapter.

4:4:2 A Comparison of the Total Number of Speech Acts Elicited in the Control and Experimental Conditions.

The main aim of Study 3 was to increase preschoolers' use of complex speech acts via a semi-structured intervention programme. The difficulty with any intervention is that it can be disruptive if not conducted sensitively enough. If too 'heavy-handed', it may even inhibit children's co-operation and discussion (e.g. Baines, 1996). One consequence of this would be a decrease in the length and fluidity of exchanges and yet it has been argued that longer, more coherent interactions appear to be linked with more skilful language use (Shugar, 1983; Azmitia, 1988). Bearing this in mind, it was therefore essential to ensure that spontaneous dialogue was not being curtailed in the intervention condition - perhaps resulting in decreased production of the 'aimed-for' speech acts. However,

by conducting pilot studies prior to the main research, the researcher was able to achieve a good compromise between 'relevant' speech patterns and more general interaction. It was therefore pleasing to note the high frequencies of speech acts produced overall, and especially in the experimental condition.

It was demonstrated that there was an overall increase in the amount of 'expected' speech acts in the intervention condition but it was also important to examine the different intervention sessions to discover how speech act production varied across these. Several days were selected, from the programme, as being most useful for analysis. Day 2 was the first day of scaffolding by the researcher whilst Day 4 was the last day of this. In addition, it was essential to examine the data from Day 5 as this involved the children in completely unsupported interaction.

As noted in the results section, the speech acts for both groups tended to peak at Day 4. This could be due to the fact that the children were more at ease with each other and the situation. Alternatively, or in addition, it could have been because there were more play materials to get involved in by the fourth day - therefore more roles to play and a greater variety of topics to explore, or build a discussion around. There was only a small decrease in the frequency of required speech act production for the control group between Days 4 and 5 (mean of 15 and 13 respectively). They therefore appear less affected by the withdrawal of the researcher's input. In contrast, the larger decrease shown from Day 4 to 5 in the experimental group seems to reflect this group's greater reliance on the researcher's input. As with the control group, the researcher also encouraged frequent exchange of co-operative dialogue and elaboration of topics, but she was also more concerned with introducing and sustaining the 'claim-why-justification' speech pattern. This tended to involve more modelling and scaffolding of specific dialogue and thus required increased assistance from the researcher. As noted in the results section, the preschoolers were well aware of their task and attempted to produce the required speech. However, they could get easily side-tracked and the researcher sometimes had to remind them of their 'game' and continually encourage them. It is perhaps unsurprising that there was a fall in required speech acts when the researcher was not there to help scaffold their exchanges.

The results indicate that, overall, the intervention was rather successful but it may be deemed necessary to address the issue of the small drop in relevant speech acts on Day 5. It could be that the young age of the children requires a longer period of intervention (i.e. equivalent session length but more days). The sessions were kept

deliberately brief at 10 minutes, after the pilot studies revealed that preschoolers' attention falls sharply around this time and they are more easily distracted by their surroundings. Although the study ran for 5 consecutive days and had a good measure of success, the drop in the last day may indicate that a longer scaffolding period is required to get a better transfer of effects once the researcher leaves the children unsupported. Researchers working with older or language impaired children prefer to use longer intervention programmes, for example two weeks (Cole, 1986); 20 school days (Palinscar, 1986) and 7, half-hour sessions (King & Rosenshine, 1993). Nonetheless, the suggestion of increasing the number of intervention sessions has been proposed to acknowledge the fact that there was a decrease in 'justification' on the final day - but this issue should not detract from the fact that the study clearly highlighted that preschoolers *are* receptive to intervention, as well as demonstrating an approach which was relatively successful in accomplishing this.

In Chapter 1, it had been suggested that behaviour and dialogue may be influenced by the gender compositions of dyads or groups. It has been argued that boy-only groups tend to be competitive (Miller et al., 1986; Sheldon, 1990; Killen & Naigles, 1995) whereas girl-only groups appear to be more co-operative (Gilligan & Attanucci, 1988). It has also been claimed that girls may fare badly in mixed groups (Hartup, 1983; Vespo et al., 1995), but not everyone agrees with these assertions. Indeed, Becker, (1986), Schober-Peterson & Johnson (1989), Cooper (1980) and Lloyd et al., (1993) all claim that there are few differences between boys' and girls' speech during co-operative exchanges. The findings from Table 3 are consistent with this latter perspective. When the dyad sex-combinations were viewed in relation to the overall number of speech acts produced each day, no significant variations were apparent. However, to re-iterate, these results should be treated as descriptive rather than inferential as no statistical analysis could meaningfully be carried out with the small sample sizes of some dyad combinations. Several suggestions could be put forward to account for the similar pattern of behaviour across these dyads. Firstly, there may be no differences to find as reported by the researchers cited earlier. Secondly, it is possible that the presence of the researcher (or perhaps any adult) curtailed any 'misbehaviour' such as conflict, refusal to play with each other or the materials, sulkiness etc., thereby ensuring a greater degree of co-operative interaction plus discussion. Thirdly, the novelty of the materials may have engaged the preschoolers to such an extent that any differences or difficulties between them were over-ridden.

4:4:3 A Comparison of Individual Speech Acts Elicited in the Control and Experimental Conditions.

The previous subsection focused on the total number of speech acts produced by each group, and in relation to Days 2, 4 and 5 of the intervention period. This subsection takes this a step further by examining the frequency and distribution of the *individual* speech tactics elicited during the procedure.

In Study 2, it had been found that 'claim' was the most predominant speech act used by preschoolers during spontaneous dialogue. Therefore it may be proposed that the production of 'claims' would be high - at least in the control condition.

This *was* found to be the case with more 'claims' being used in the control group (mean of 36.2) than the experimental group (24.4). Although 'claims' were fairly frequent in the intervention condition, their frequency was lower than that observed for 'justification' (mean of 31.1). Interestingly, claim usage was lower for the experimental group relative to the control group on Days 2 and 4 (even though it was being encouraged by the researcher) but returned to a comparable level on Day 5 (mean of 12.4 and 11 for the control and experimental groups respectively).

It could be that the preschoolers in the experimental group felt a little constrained by the researcher who was trying to encourage 'claim' use within a specific context or speech pattern - perhaps resulting in less use of spontaneous assertions. 'Enforcing' specific speech patterns involving assertions may make 'claim' use generally less enjoyable. It was also argued in previous studies that assertions are often made to seek attention. With the researcher scaffolding the children's dialogue, their behaviour would be more orderly and this would be especially true of Days 2 and 4 where the researcher was usually involved with input to connect one or more turns in a three-part episode. It is therefore possible that the children would be focusing on the ongoing dialogue rather than trying to attract each others' attention or 'out-do' one another.

Given that the aim of the intervention was to increase the production of complex language such as 'justifications' and 'why' questions, it was extremely encouraging to note that both these types of tactics were greater in the experimental condition than the control condition as shown in Table 5. Interestingly, the pattern of 'why' production differed across the intervention period. 'Why' use was very infrequent in the control condition but peaked at Day 4. It was explained earlier that more materials (a spaceship plus extra puppet) had been added after Day 2 - and the

additional roles and topics available for expansion may have extended the opportunities for complex language use (Smilansky, 1968; Verba, 1993). However, some doubt can be thrown on this argument because a similar pattern would have been expected for the intervention group, and yet a decrease in 'why' use is registered for this session. It therefore seems as if another factor may be somehow involved and the following example illustrates this possibility.

AD **She's got a pink nose and he's got a green nose.**

(Researcher to child DA) Ask why he's got a green nose?

DA **Because he's been smoking and his nose is turning green.**

AD **I like his green hair.**

(Researcher to DA) You ask why AD likes Zig's green hair.

DA **Because it is beautiful.**

This example was taken from experimental group, Day 4. Baines (1996) found that the best way to get young children to interact in a certain way was to give them direct instructions. However, the instructions given by the researcher - who was trying to encourage boy DA to ask "why" by himself - resulted in DA responding with a 'justification' instead of copying the question. Simply modelling the dialogue rather than giving a direction had a similar effect, e.g.

CH **They are friendly aliens.**

(Researcher looks at SA and prompts..'what do we say now?' No response results in the researcher following up with...)

Res Why are they friendly? (looking at SA, ... "Ask why")

SA **'Cos they don't harm anybody.**

This could be one reason that the children produced less whys and more justifications for Day 4. This possibly did not occur on the second day because there were only two puppets and more direct modelling of required speech - especially between the puppets or puppet-researcher with preschoolers listening rather than taking part at this stage, e.g.

Zig **I like you**

Zag **Why do you like me?**

Zig **'Cos you've got nice blue fur.**

Zag **I'm going home.**

Res. **Why?**

Zag **'Cos I want my breakfast.**

Justification was highest on Day 4 for both groups. Again this may be accredited, in part, to the greater variety of playthings. It may also be due to the fact that the children were now more familiar with the situation and felt more confident in front of the researcher. They have also established a rapport and understanding (especially in the scaffolded intervention) with the other member of their dyad which may result in more co-operative, flowing and longer exchanges which draw on both previous ideas and new input from the researcher (and sometimes each other). By Day 5, 'why' and 'justification' use had decreased in the control group - this was a small fall since these speech acts were rare in this condition as expected. Similarly, 'justifications' also decreased for the intervention group on the final day. It could have been that the novelty of the materials had worn off or that the absence of the researcher resulted in some of the children returning to their usual patterns of speech. It has already been stated that 'why' and 'justification' are noted more in the presence of an adult (Barnes, 1976; Beal & Flavell, 1982; Webb, 1984; Vespo et al., 1995) - perhaps because preschoolers believe that other children do not know the answers. Nevertheless, it is worth re-emphasising that the intervention *was* very successful in encouraging complex speech and, even for Day 5, the difference between the control and experimental groups' production of 'justification' was significant. An example of dialogue containing frequent explanations now follows:

GR **Why did the spaceship crash?**

LE **'Cos it falled.**

GR **'Cos he wasn't a very good driver.**

LE **He's crashed again.**

GR **Why did he crash again?**

LE **'Cos he was so excited about going to hospital.**

In sum, the data showed that there was a significant difference in the use of complex speech acts such as 'why' questions and 'justifications', with many more of these being used in the intervention than the non-intervention condition. Unsurprisingly, there was less variation between 'claim' use which was a speech tactic commonly used by the preschoolers in Study 2. The results indicate that the intervention was very effective in promoting the required individual speech strategies across the whole intervention period. However, the programme also sought to increase complex language through the use of a 'claim-why-justification'

pattern. It was therefore important to look at the number of two-turn, and three-part sequences elicited by the intervention procedure. This will now be discussed in more detail.

4:4:4 The Elicitation of Two-Part Sequences on the Final Intervention Day.

It was decided to look for the required patterns only in the final day's dialogue. The reason for this being that the researcher was involved, to some extent, in producing and maintaining the required speech patterns in Days 2 and 4 - and she would bridge a turn or two where necessary to 'model' the required behaviour. Therefore, the children were not always doing the linking themselves in the earlier sessions. The following examples demonstrate how the researcher helped the children produce the expected two or three-turn speech pattern of 'claim-why-justification', eg.

CA **He needs some medicine.**
(No response from other child)
Res Why?
CA **Because his hair has fallen aff.**

Res They haven't any teeth.
RY **Why haven't they any teeth?**
CA **'Cos they're aliens.**
RY **'Cos they ate too many sweets 'n' they fell out.**

Res Why has Zag got green hair?
GR **'Cos he was born that way.**
Res Why is Zag blue?
GR **'Cos he coloured himself in maybe.**
Res I like blue hair and green skin.
Res Do you want to ask why I like blue hair & green skin?
GR **Why?**
Res Because blue and green are my favourite colours.

When the final day's transcripts were examined for evidence of two-part 'claim-why' sequences (and not as part of the three-turn episodes), no examples were found in

the control group and only one, rather dubious, example in the experimental group, i.e.

DY **I'm the doctor.**
DA **Well...why've you got green hair?**

The results for 'why followed by justification' were better, with one instance in the control group and 21 in the experimental condition. Some of the examples are given below.

CH **Why are you blue?**
AM **'Cos I'm a boy...I'm a boy.**

RY **Why have you got blue skin?**
CA **'Cos I ate too many marbles.**

CA **Why can he fly himself to the door?**
RY **'Cos he farted.**

One girl was role-playing using both puppets:

Zag **Why are you all yellow?**
Zig **'Cos I'm a girl.**

The 'why-justification' data were found to be significantly different across both conditions. Indeed, it was apparent during the intervention that the children found it easier to make the 'why-justification' connection than any link involving 'claim'. It could be that they have more experience of being subjected to, or involved with, the 'why-justification' association as parents and teachers often use it (Orsolini, 1993).

The preschoolers may have focused on producing this familiar link to the detriment of the other combinations. Additionally, it was easier for the researcher to explain about questions and justifications as the children had knowledge of this issue. It was thought that the most effective method for conveying the links 'claim-why', and 'why-justification' would be through modelling them. However, it now appears that

modelling and reinforcement may be insufficient and perhaps the children would function better (as do adults) if they were given specific or convincing reasons for the to-be-modelled behaviour. Obviously questions and justifications may be perceived as "related and having a social value" (pg. 277, Fey, 1988), whereas it is more difficult for a child to automatically find meaning in a claim followed by a 'why' question - especially as many preschoolers' claims are related to ongoing action thus are self-explanatory. For instance, boy CO states "I broke Spid". Most adults would take this comment at face-value and assume it was an accident, with the statement basically acting to convey a piece of information. It would therefore seem a little odd to question this action by asking 'why'? It is, of course, possible to do so and one may even get a reply such as "Cos I hated him". However, this seems an unlikely exchange - and children, like adults, tend not to question the obvious. On the other hand, if a claim is totally false, young children may also not ask why - preferring instead to oppose the statement, e.g.

DA **My name's Toby.**
AD **Your name's not Toby...you stupid!**

Similarly, claim can also involve some one-upmanship.

EM **Aghh...he's biting my finger.**
SH **Well...he's biting my haun.**

With so many speech patterns to choose from (and interestingly, these examples are more akin to those patterns found in conflictual exchanges) to follow-up a 'claim', it is perhaps unsurprising that 'why' did not feature as highly as expected. However, it must therefore be asked why the 'claim-why' pattern seemed relatively frequent in the previous study - yet not here. The answer may be with the differing contexts. In Study 2, naturally-formed groups were observed and recorded during free play. Moreover, they were involved with familiar rather than novel tasks and were not directly engaged with the researcher. Earlier, it was suggested that children may ask more questions of an adult than another child. It may also be that they do not wish to ask another child in front of an adult for fear of looking incompetent or silly (Webb, 1984) or, perhaps saying 'why' after a claim might appear to be a direct challenge which they may get reprimanded for. In contrast, an explanation after a 'why' question is an expected response and one that has probably been learned, to some extent, at home and school. Moreover, it may be recalled that providing justifications\alternatives after opposition or refusal was also an expected response,

with explanations shown to be particularly high after any dispreferred reply (Eisenberg & Garvey, 1981; Orsolini, 1993). Social norms and expectations play a large part in children's knowledge and experience of behaviour (Genishi & Di Paolo, 1982) thus it seems logical that they would answer a 'why' question with a reason, but not necessarily respond to a claim with 'why'. In fact, even though the researcher tried to model and encourage this connection - with hindsight, it may be viewed as a somewhat challenging or even impudent tactic if employed towards a teacher or parent, e.g.

Teacher **I want you to tidy up.**
Child **But why?**

Parent **I'd like some peace and quiet.**
Child **Why?**

Mother **Steve can't come round to play.**
Child **Oh...why not?**

4:4:5 The Elicitation of Three-Part Sequences on the Final Intervention Day.

Understandably, given the sparse results for the two-turn 'claim-why' sequence, the frequencies of three-part 'claim-why-justification' episodes were also low. There were no instances of this pattern in the control group and only four examples in the experimental group, e.g.

Two boys in the intervention group are playing with the spaceship:

CH **It's dark...it's already bumped into a rock.**
SA **Ouch!...why...why has the spaceship got red lights?**
CH **I said...because...because..it's a spaceship.**

NA **He's looking in the mirror.**
KI **To see..see why...oh..why've you got green hair?**
NA **'Cos he's not a girl.**

It can be seen from these examples that the dialogue tends to focus on 'concrete' attributes such as "green hair" or "red lights". Nevertheless, the exchanges do follow the required pattern although it may be argued that they are not entirely coherent. Occasionally, a child (such as boy CH in the first example) will not know how to answer a question so he states the obvious "it's a spaceship" rather than "I don't know". Kuhn (1990) claims that adults can also suffer from 'faulty reasoning'; and often give justifications which are merely descriptive rather than explanatory.

Again, the explanations given in section 4:4:4 regarding 'claim-why' two-part episodes are equally valid here. Lack of exposure to, or practice of , this two-turn link would make it even more difficult to integrate into the aimed-for three-part linguistic sequence. It may also be that the constraints of Study 3 (which was slightly less naturalistic than the previous study involving non-participant observation) led to a degree of inhibition. As stated in the previous subsection, perhaps it is not 'normal' for the preschoolers to ask 'why' after a peer claim in an adult's presence - since an adult may disapprove if such a speech act is perceived as confrontational rather than information-seeking. This may be especially true if a child asks an adult to justify their claim rather than another child. As such behaviour is unlikely to be encouraged, it may be predicted that this dialogue pattern would diminish rather than develop due to lack of reinforcement. Of course another possibility - one which was referred to earlier in the thesis - is that preschoolers are unwilling, rather than unable, to produce these patterns of speech. This may partly explain why the children demonstrated more of these associations in Study 2 than when requested to do so here. McTear (1985) makes the point that many 'why' questions and statements are not answered and he says that it is very difficult to predict what will be responded to. However, he goes on to emphasise that it would be "misleading to classify children's speech as egocentric" (pg. 86) as they may be unwilling to answer or have had their attention diverted. If one returns to an example given earlier on page 234, it neatly sums up the problems involved in judging children's competence from their performance, i.e.

Two girls CH and AM had spent almost 9 minutes without using any of the 'claim-why-justification' pattern, yet when the researcher suggested it was time for them to stop and let the next dyad 'play' - they immediately state that they have not done the task they were meant to (i.e. use the relevant dialogue). They then produced a string of 'why' and 'because' sentences based on earlier sessions.

4:4:6 SUMMARY

In sum, the intervention programme was very successful in increasing the amount of complex speech acts ('justifications' and 'why' questions) used in the experimental group. However, it was less effective in eliciting two and three-part sequences and some reasons for this were given in subsections 4:4:4 and 4:4:5. Although it was encouraging to perceive no obvious variations between the different dyad combinations across conditions, it must be remembered that these data were only descriptive thus no real inferences can be made.

The results in this study were consistent with those in Studies 1 and 2 and indicate that preschool children are linguistically more adept than has often been assumed. The intervention clearly demonstrated that the production and use of complex speech acts can be increased but in isolation rather than within a dialogue sequence. Furthermore, the present data served another very important function - that of informing the researcher of issues surrounding the intervention procedure which could be altered or improved. It is hoped that by addressing these issues in the future, a programme will be developed to enable nursery school children to develop their full potential before they begin more formal schooling at age five. Several implications arising from this intervention will be discussed in Chapter 5 of this thesis.

CHAPTER 5 : GENERAL DISCUSSION

5:1 OVERVIEW

In this final chapter the main research objectives will be restated and the general findings discussed. Results will be examined with regard to 'complexity' and in relation to 'dialogue context', sex, class, plus play activity. These findings will then be viewed alongside two main theories of child development and some implications considered for educational policy and practice. Finally, a short summing-up of the research will be given at the end of the chapter.

5:2 RESEARCH FINDINGS REVISITED

The present set of studies aimed to assess how skilfully pre-schoolers could use language in both conflictual and co-operative contexts. In addition, play activity, sex of children and class were also taken into consideration. At the beginning of the research, particular focus was placed on the use of 'complex' speech acts such as giving justifications or alternatives - and which demonstrate a degree of perspective-taking. This focus was maintained throughout the thesis culminating in data which helped inform the design of a scaffolded intervention procedure that concentrated on encouraging children to employ the skilful speech strategies of 'why questions' and 'justifications'.

The following subsections will detail the general findings from the three studies. Firstly, the overall complexity of pre-schoolers' language will be considered with regard to both a conflictual and collaborative context. Secondly, the focus will shift to skilful speech use in relation to gender, class and play activity - then a brief summary will be given.

5:2:1 The Complexity of Pre-schoolers' Language across the Three Studies

It was very encouraging to perceive that the children could use a fair amount of complex speech in both conflictual and non-conflictual contexts as well as in the intervention study. These findings are more favourable than those suggested by, for example, Genishi & Di Paolo (1982) or Dorval & Eckerman (1984). It has often been argued that young children fail to take account of others' perspectives and therefore find it difficult to engage in, or maintain, 'discussion-like' dialogue. Baines (1996) highlighted that 4 year olds have more difficulty in maintaining conversations than 6 or

8 year olds - although he did note that even preschool children use 'justifications' most frequently in a dispute context.

In Study 1, which focused on complex language in dispute situations, it was found that 'justifications' were the skilful speech acts most frequently used - followed by 'alternatives' and then 'requests for explanation'. These findings are entirely consistent with those of Eisenberg & Garvey (1981), Orsolini (1993) and Baines (1996). The aforementioned speech strategies were more likely to be found at the 'development' stage rather than the 'opposition' phase of a dispute and, 'justifications' in particular, seem to have the ability to smooth over direct challenges. It is possible that overt explanations appease the participants by giving a various views a chance to be aired, before being weighed-up and integrated by each individual in relation to their own stance. This process allows understanding to 'develop' and may lead to either rapid acceptance or more prolonged discussion until everyone is satisfied with the outcome.

A similar process occurs in the co-operative context except that participants tend to weigh-up the facts together rather than separately (and internally), resulting in a joint or co-constructed solution. It is therefore not surprising that 'justification' is also prevalent in collaborative contexts. Alternatives were used but less frequently whilst questions (especially 'why' questions) were employed quite often and effectively. All of these complex speech acts were useful in maintaining smooth interaction since they take account of others' views and needs as well as accommodating more self-centred desires. It should be noted, however, that many of the skilful speech strategies followed on from the simpler 'claim' act and Orsolini (1993) plus Pontecorvo & Girardet (1993) highlighted the close connection between 'claims-questions-justifications', thus a level of consistency across some studies has been achieved.

One particularly promising feature about the aforementioned pattern was that both participants in an exchange were involved in using complex speech and this was a favourable point in deciding which speech acts to develop or incorporate into an intervention scheme. The semi-structured scaffolded intervention procedure of Study 3 again demonstrated that nursery school children can use complex language, especially when 'taught' to do so. The intervention group produced far more of the 'justifications' and 'why questions' than the control group as well as producing the required speech sequences occasionally. In addition, the researcher asked the pre-schoolers daily to explain their given 'task' and they could do so fairly eloquently. These findings appear to demonstrate that nursery school children *are* capable of skilful discussion, understanding and learning.

Overall, then, the pre-schoolers were able to use complex language in conflictual and co-operative situations and this could be further enhanced by the use of a semi-structured, scaffolded intervention procedure. However, it is possible that the contexts of sex, class or play activity may influence the frequency of complex dialogue employed - this will therefore be the focus of the next sub-section.

5:2:2 Context Differences and Complexity

Apart from the main context difference of whether a situation was conflictual or collaborative, one must also take account of factors such as the sex and class of the children, and the type of play activity engaged in during discussion. Although previous research has been conducted, to some extent, in each of these areas - the results have often been inconsistent.

5:2:2:1 Complexity and Sex Differences

In the earlier chapters it was suggested that girls would tend to use more complex language than boys. Researchers like Sheldon (1990) or Miller, Danaher & Forbes (1984) noted that girls tend to employ more mitigated speech than their male peers. Although the *frequency* of disputes (Study 1) differed across the sexes, there were no significant main effects found for gender in relation to 'complexity' in any of the three studies. One reason for this could be the emphasis that preschool documents such as *Partners in Learning: 0-5 curriculum guidelines* have placed on encouraging peaceful negotiations including appropriate turn-taking and gently persuasive language. This could have the effect of 'softening' boys' speech patterns and bringing them more into line with the mitigating behaviour said to be demonstrated primarily by girls. It is also worth noting that no clear sex differences in speech use were noted by Dickson (1974), Cooper (1980), Hartup et al. (1988), Schober-Peterson & Johnson (1989) or Vespo et al. (1995).

5:2:2:2 Complexity and Class Differences

Although many researchers in the past have argued that middle-class children are linguistically more competent than working-class children (e.g. Bernstein, 1960; Jensen, 1968) it has always been a rather controversial issue. Class differences were noted in the conflict study but not in Study 2 which centred on co-operation. In Study 1, private nursery children were found to use more of the complex speech acts than state school children - but only at the development stage. It was also found that the advantaged children had more frequent disputes than the less advantaged children. Eisenberg & Garvey (1981) and Orsolini (1993) have stated that children use more 'justification' and compromise after or during opposition. Therefore, it may be argued

that the Class P children (who were involved in more disputes) had a greater opportunity to employ explanations and alternatives. Furthermore, there was a trend pinpointed across both Studies 1 and 2 whereby Class S girls were least likely to engage in complex speech. It was tentatively suggested that this group may be more inhibited by the presence of their male peers, or be linguistically constrained by the type of play they tend to engage in.

5:2:2:3 Complexity and Play Activity

Four types of play activity (individual pursuits, sand & water play, construction plus symbolic activities) were included in Study 1 and significant differences were found across these in relation to the production of skilful language. It was demonstrated that simple speech acts were more prevalent in individual pursuits plus sand & water play whilst construction and symbolic activities appeared to encourage complex dialogue. It is perhaps unsurprising that imaginative play tends to lead to skilful discussion since this type of activity involves creating and sharing ideas which may have to be clarified, extended or elaborated upon for all participants to understand and take part in. Researchers such as Ervin-Tripp (1977), Garvey (1991), Goncu (1993), Nicolopolou (1993), Smilansky (1968) and Verba (1993) all stress the power of fantasy play for encouraging socio-cognitive gain. There appears to be more debate over the usefulness of construction play. However, the initial building phase often gave way to more fantasy-like play and boys, especially, enjoyed engaging in starship fights or robot wars with associated 'role' dialogue. The results indicated that girls contributed more speech to symbolic play during disputes whereas boys produced most dialogue during construction activities. This was borne out by a significant result for the interaction effect between gender and type of play activity. There was a similar, but non-significant, trend for Study 2 and this might be due to the smaller sample size - which may be reducing to a trend what was significant in the conflict research. This variation in play activity and gender has been highlighted by several other researchers including Lomax (1979), Ross & Browne (1993), Wood & Attfield (1996) and Sheridan (1999). Indeed, they all highlighted the apparent link between play and language development as well as the need for young children to engage in a range of activities to maximise the opportunities for socio-cognitive growth.

Findings in relation to class indicated that, for Study 1, there was a significant variation for the main effect of class. Class P children engaged in each of the four activities (but particularly symbolic play) more than their state nursery peers. In Study 2, the Class P children again tended to produce more dialogue during symbolic play whilst the Class S children employed more speech acts during construction play. This

was not significant but again it is worth bearing in mind the smaller sample size involved in the co-operation research. Nevertheless, the trends appear to be rather consistent and thus worth highlighting. These patterns may be associated with children's play 'habits' at home. It was suggested in earlier chapters that stereotyped activities may predominate at home (e.g. boys being discouraged from playing with home-corner materials). Familiarity with play items\environments may influence children's choices of play at nursery school and it was previously argued that this may be one reason why girls spend more time in symbolic play (often the home-corner) but less in construction play and vice-versa for boys. On the other hand (especially with parent or teacher support), more novel playthings may appeal to some children. Tizard & Hughes (1984) stated that middle class children are less likely to have access to, or encouraged to play with, 'sand and water' activities at home compared to working class children. Yet in Study 1, it was the private nursery preschoolers who tended to be prevalent in this area. The effect of 'novelty' on development has been debated in the past with Cooper & Cooper (1984) suggesting that a lack of experience with particular materials or situation may result in poorer reasoning - since children are thought not to have sufficient relevant background information to draw upon for explanations. In contrast, Smilansky (1968) and Jensen (1968) both believe that familiar materials can result in routine speech whilst novel playthings and scenarios help expand a child's linguistic and behavioural repertoire.

In order to assess the effect of novelty on linguistic competence, a beetle task was introduced in the second study . Although some caution is needed when viewing the findings (due to the small sample size and time involved no statistical analyses were conducted), indications were that the novel task appeared to encourage a degree of question use with accompanying justifications. Often, however, these explanations were vague and unclear thus it could possibly be argued that, in new situations, the children lack the background experience on which to base their explanations. It therefore appears that both sets of researchers (cited in the preceding paragraph) are correct to some extent - that is, more complex dialogue was produced but this did not always make sense. Nevertheless, the novel task did seem to attract and maintain the children's attention and this fact was useful when planning the design for Study 3.

The findings seem to indicate that context, and especially immediate context (such as the type of exchange or play activity) has an effect on the complexity of speech produced. This is particularly promising because it implies that by adjusting the immediate situation, it may be possible to overcome any limitations imposed by other variables such as the class or sex of child.

5:2:3 Summary

In sum, the pre-schoolers could use complex speech acts in both conflictual and co-operative contexts, with 'justification' being the most frequent complex speech strategy employed. There were no significant main effects for sex, but private nursery children used more complex dialogue in dispute situations than their state-school peers. Play activity seemed to be linked to linguistic competence with both symbolic and construction activities being associated with the most skilful exchanges. Girls and Class P children produced more complex tactics in symbolic play whilst boys and Class S pre-schoolers appeared to use more skilful speech during construction play. However, one must be careful not to draw causal inferences from the results since it could be that the most articulate children are attracted to symbolic and construction play rather than this type of play helping elicit the complex speech produced. For more conclusive evidence, one would have to put the same child in different contexts and note the results. Introduction of a novel task tended to engage and maintain the children's attention as well as promoting the use of questions and attempts at justification. An intervention using puppets and a semi-structured scaffolding procedure demonstrated that pre-schoolers' linguistic skills can be further enhanced. It therefore appears that nursery school children are capable of a high level of communication skills and some implications of this for learning will be addressed in the following section.

5:3 THEORETICAL AND PRACTICAL IMPLICATIONS

5:3:1 Developmental Theory and Research

The results from the current research are both supportive and contradictory to the theoretical model of children's development proposed by Piaget (1926) and his followers. In agreement with their proposed ideas, it was found that 'conflict' did indeed appear to encourage socio-cognitive growth as evidenced by increased perspective-taking and complex language use. However, this seems to take place at a younger age than many of the Piagetian-oriented researchers believe. Most of the pre-schoolers' exchanges were dialogic in nature and easily maintained by the children, even in the face of opposition. Partners were relatively responsive, tending to provide 'justifications' and 'alternatives' especially in the event of challenges being made. This type of dialogue is therefore more characteristic of Stage 2 Type 2 speech than the Stage 2 Type 1 talk which Piaget (1926) stated was typical of preschool children.

It was reported in previous chapters that Vygotsky (1962), and proponents of his ideas, believed that children were generally socio-centric and that they developed through co-operation with others - especially an adult or a more cognitively advanced partner. The findings of the present research are pretty consistent with Vygotskian

proposals. It does appear that co-operation, as well as conflict, can help promote the skilful language associated with a degree of socio-cognitive growth but it may be argued that even same-age peers (rather than an adult or older partner) can be instrumental in development.

Hence it appears that a variation in experience, rather than just the amount of experience, is crucial for socio-cognitive growth - since development occurs when there is exposure to, and resolution of, a variety of perspectives. Thus two children of differing backgrounds (and experiences) may create a situation for learning which is as effective as the one provided by an adult-child pairing.

Although many researchers still take the perspective of either Piaget (1926) or Vygotsky (1962), the present research demonstrated that both conflictual and co-operative contexts were effective in promoting complex dialogue. It was also found that there were conflict sequences present within co-operative exchanges and this is complementary to Killen & Naigles' (1995) finding that collaborative dialogue is relatively common during disputes. These results reinforce the view that there is a fair amount of overlap between conflictual and co-operative dialogue. This, of course, is consistent with the proposals of Charlesworth & Dzur (1987), Charlesworth (1996) and LaFreniere (1996) who perceive conflict and collaboration as serving the same function - that is encouraging negotiation and reasoning. Therefore, it may possibly be more useful to perceive Piaget's and Vygotsky's theories (which predominantly focus on conflict and co-operation respectively) as complementary rather than dichotomous. Kruger (1993) and others have argued that development occurs by being exposed to, and trying to consolidate (through a process of reasoning), a variety of different opinions or perspectives. It is not the context of 'conflict' or 'co-operation' which is important but whether the circumstances contain the 'ingredients' conducive to growth. Therefore, it seems that development is not so much 'age-related' as 'experience-related' - that is, involving the experience of being exposed to different viewpoints and practice in balancing these to achieve a satisfactory solution.

Thus it appears from the current findings that young children are capable of complex language as they undergo and experience the circumstances required for socio-cognitive development. Their ability to learn under such conditions was demonstrated more directly in Study 3. Since educational guidelines often draw on Piagetian tenets, they tend to underestimate children's potential for learning and they may be advised to alter their focus from simple age-related achievement to take more account of the

benefits of perspective-taking experiences. The following subsections will now be outlining some of the practical implications from across the three studies.

5:3:2 Practical Considerations and Implications of the Three Studies

There are several reasons why this research would be useful to all those interested in the language development and associated socio-cognitive growth of young children. Many of the results have shown that preschoolers *are* capable of producing and using skilful language but one must also take context into consideration.

Firstly, one must take account of emotion which appears to be a prime motivator in learning. Clearly, conflict is highly salient to children since their own interests are often at stake. The children would therefore be more likely to be at their persuasive best (hence language performance should be at its peak) in order to maximise the chances of attaining their goal. It may be more difficult to understand where the motivation comes from in collaborative situations. However, many researchers believe that children get a great deal of pleasure and satisfaction from sharing and pooling resources to achieve a group objective. Indeed these researchers claim that children 'do better' in this context that they do when working alone or competing with others (e.g. Orlick,1981a; Musatti, 1993). Donaldson (1978) emphasises that increased motivation and awareness can aid learning, both about self and others, and she urged those responsible for designing educational curricula to take account of children's own interests and motivations. Although preschool guidelines stress that teachers should promote co-operative behaviour, the benefits of non-physical conflict appear to be largely overlooked. It may therefore be worthwhile to encourage teachers to perceive conflict occurrences in the classroom as opportunities for facilitating pupils learning - rather than stopping disputes as would be the usual course of action.

Secondly, it was demonstrated in Studies 1 and 2 that the type of activity may have a part to play in children's linguistic development with symbolic and construction play tending to be associated with complex dialogue. Although both symbolic and construction play appear to stimulate pre-schoolers exchanges, girls appear to avoid construction activities and dominate symbolic play, whilst boys may find this latter activity 'sissy'. Yet Ross & Browne (1993) stress "it is important to tackle inequalities in educational experiences at this early stage" (pg. 8). It would therefore be of possible benefit if teachers were to ensure that all children get access to, and become familiar with, learning materials - and can use them unhindered and confidently (e.g. Sheridan, 1999).

In Study 2, the beetle task was introduced because of its novelty, but due to the small time scale and small sample size involved - only descriptive statistics were examined. Nonetheless, this novel task seemed to elicit a relatively high number of questions at the link stage. Indeed, Webb (1982) stressed that explanations were more useful in new contexts and not necessarily beneficial in situations that are already familiar. It may be that the questions asked in novel circumstances elicit 'justifications' which are more effective in promoting cognitive growth than those routine queries produced during well-rehearsed play. As stated earlier, this concurs with the view of Smilansky (1968) and Jensen (1968) who believed that novel play materials\scenarios could aid language development - since the participants would have to elaborate and extend their present knowledge to fit the new circumstances. However, Cooper & Cooper (1984) argued that novelty would inhibit children's explanations because they do not have the relevant experience to draw upon to make sense of the new situation. As noted previously, Study 3 indicated that preschoolers did use relatively more complex speech acts even if the exchange was not always entirely coherent. It therefore seems that 'novelty' is a good way to 'encourage' children to extend their verbal and non-verbal repertoire - but it seems obvious that this must be supplemented with support or further practice to establish clearer and more integrated speech patterns. This was done, rather effectively, in Study 3 whereby novel materials were introduced but a scaffolded procedure was employed alongside the novel materials to model and support complex patterns of speech.

It should again be highlighted at this stage that the intervention procedure was generally successful in eliciting complex speech from the experimental group. However, there was a small decrease in the amount of 'justification' use on the final (unsupported) day as well as a lack of 'claim-why' and 'claim-why-justification' sequences. Since Study 3 clearly showed that preschoolers are responsive to intervention, this lack of frequently producing 'justification' or the aforementioned sequences may be deemed relatively unimportant in relation to the findings as a whole. Nonetheless, it would be logical to briefly consider the issue at this point.

Although it was obvious that the experimental group were employing much more skilful speech acts overall than the control group, it would be satisfying to improve the intervention results and procedure even further. To achieve this it may be necessary to employ the scaffolding over a longer period and different researchers have used various time-spans for their programmes. There does not seem to be any 'hard and fast' rule and pre-schoolers may need a longer intervention due to their young age. Being younger means they get distracted more easily and they appear not to have the

attention span to focus for much longer than a ten minute session. Fey (1988) when talking about language-impaired children, strongly states "the expectation of most clinicians that relatively brief periods of language intervention will enable...children to learn and apply adult-like language rules immediately and consistently in conversational contexts is not warranted" (pg. 277). He also warns against perceiving language intervention procedures as having "enormous, almost magical, teaching power" (pg. 277, Fey, 1988) and stresses the need for "frequent exposure to relevant language models" (op cit.) The word 'relevant' is the critical term here because Fey believes that the most effective interventions are those which are as natural as possible. Although this intervention grew out of the natural patterns produced spontaneously by the children in Study 2, it could be that the 'unnaturalness' of the researcher drawing attention to these linguistic patterns has, perhaps, inhibited the pre-schoolers to some degree. However, an examination of the video-recordings revealed no obvious evidence of this.

It was obvious that the nursery children enjoyed the play materials and understood the task to some degree but it may be more beneficial for them to develop the language patterns in the more usual context of home or school. The question-answer scenarios employed frequently by parents and teachers appear to have given children some knowledge and experience of this pattern which they put to good use during the intervention. It may therefore be helpful if this could be extended to 'claim-why' and 'claim-why-justification' sequences of speech acts. However, as previously suggested, it may be quite difficult to persuade adults to let themselves be questioned by children, especially in relation to their own decisions or behaviour - as it may be perceived as a challenge to their authority. Nonetheless, in extending this practice to a familiar, everyday situation - there should be an improvement in children's use of complex speech acts and perspective-taking abilities. Fey (1988) concurs "if models are presented during the course of communicative acts rather than as sets of unrelated sentences with no social value, the child may learn that the rule is useful not just to play "the ..game", but also to communicate experiences and ideas, to gain information, and to manipulate the environment in important ways" (pg. 277). Once children perceive the 'human sense' (Donaldson, 1978) of these linguistic patterns, they will therefore find them easier to use and do so more frequently. To recap, it thus appears that the main issue with the intervention procedure was one of transfer from a training session (which will always, by definition, be somewhat unnatural) to 'real life' and thus may be somewhat difficult to resolve completely.

Thirdly, group composition is also important for successful learning. All boy groups tend to engage in more disputes than girl only groups whilst girls are generally seen as more co-operative than boys. It may be difficult to strike a balance between male conflict which facilitates learning, and that which degenerates into more physical conflict. The picture becomes even more complex in relation to mixed groups since girls may be more passive in the presence of boys, and this is especially true in relation to activities like construction (in both conflict and co-operative contexts) - where stereotyped attitudes may promote this as a male domain, one in which boys are seen as the 'expert'. The consequence of this, as stated earlier, is that girls may avoid this area (especially when boys are present) and so miss out on an activity that appears to be associated with complex speech.

5:4 CONCLUSION

To conclude, the current research indicates that preschool children can frequently employ complex speech strategies in both conflictual and co-operative contexts and this is partly in keeping with both Piagetian plus Vygotskian theories. However, the findings depart from the aforementioned proposals in two main ways. Firstly, the results demonstrated that children can take part in complex dialogue at a younger age than Piagetian theorists suggest. Secondly, Vygotsky tended to focus on the advantages of learning in tandem with an older, more experienced other and Study 3's scaffolded intervention procedure further demonstrated this. However, this present study also showed that even same-aged others can effectively stimulate and support development. The findings also indicated that there were no main effect of sex differences in relation to skilful speech but that private nursery children produced more complex language at the development stage of a dispute situation, than their state-school peers. Language use appears to vary with play activity with symbolic and construction play being associated with complex speech acts, whereas individual pursuits or sand & water play were not. A novel beetle task encouraged question use but 'justifications' given were often unusual or unclear, possibly due to lack of experience with the play materials. In addition, a semi-structured, scaffolded intervention procedure which incorporated novel materials was found to be rather effective in eliciting complex dialogue. Taking all of the findings together, it may be suggested that experience of different contexts can over-ride, or be more important than, other variables such as the sex, class or age of a child and this may have some implications for future psychological or educational policy and practice.

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APPENDIX 1

ODING SHEET

Participants 0 = ... 1 = ... Area ....
(Counting opposer as 0, enter sex and add numbers as necessary

Precipitating Event (Circle NV or V plus one other)

V	V	Obj	Pla	Acc	Cla	Notes

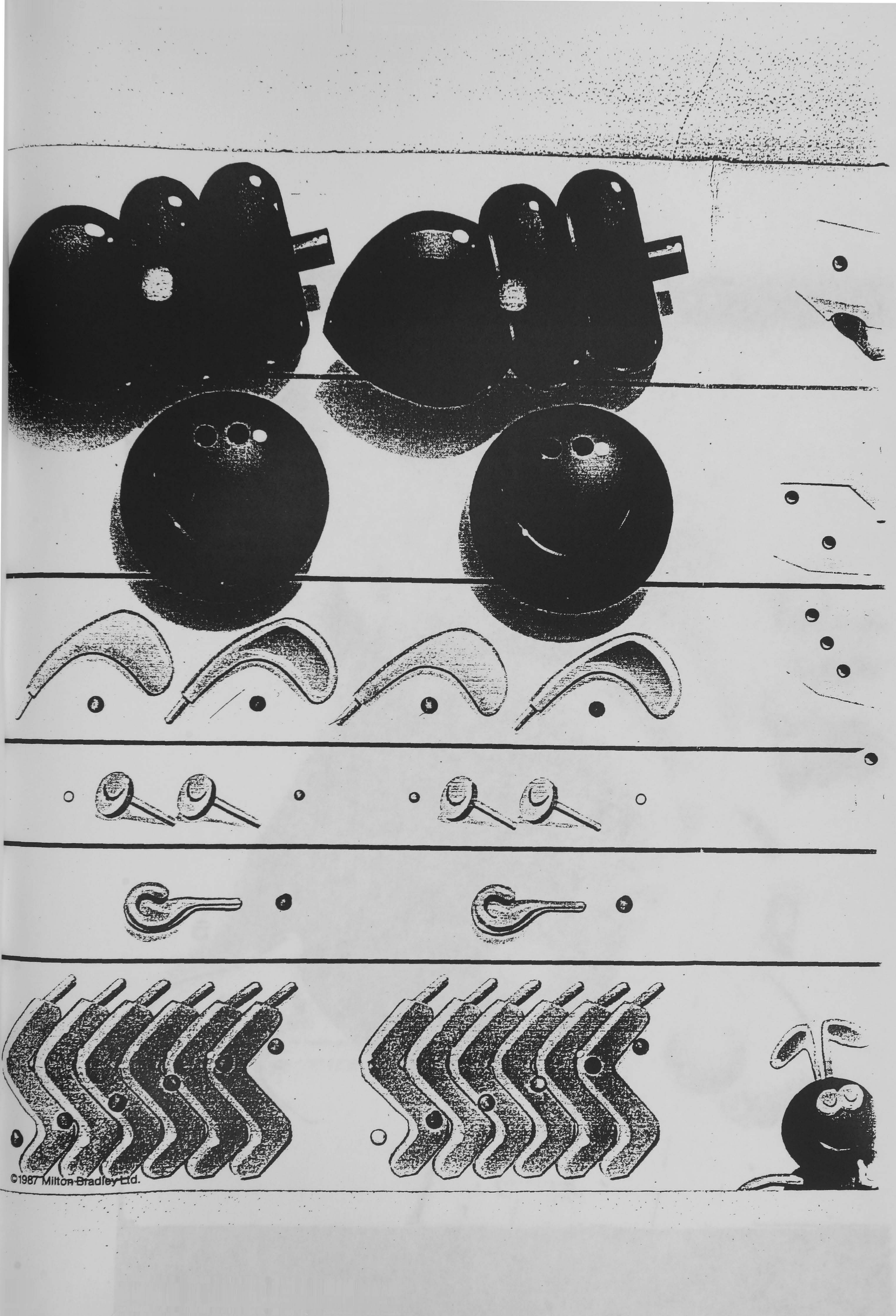
2. Oppositional Event (Circle one)

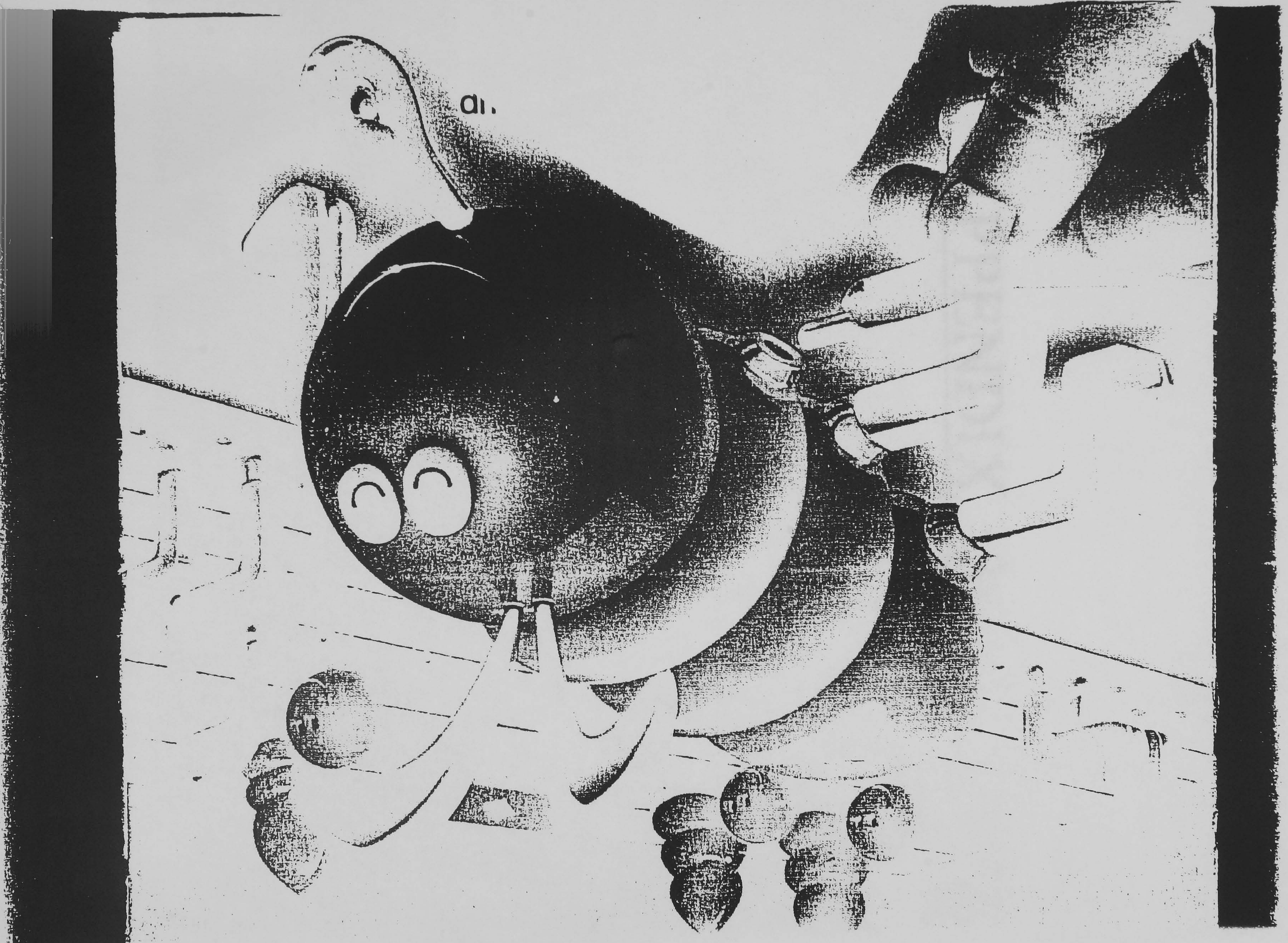
Sim	Jus	Alt	?	Notes

3. Development (Tick one in each line)

Rep	Jus	Alt	ReqJ	For	?	Notes

APPENDIX 2

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APPENDIX 3


BIG SHINY SPACESHIP


Seaweed Slooper
My hair is turquoise and blue and green.
I'm the sleepiest seaweed you've ever seen.
School on Saturn
Mucky Martians
Keep Out
Aliens
ABOUT