Children's Understanding of Political Concepts

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Abstract

Previous examinations of young children's political cognition have mainly followed a socialization framework, through large-scale surveys of children's developing comprehension of the adult political world as a knowledge-goal. However, this research was formulated in the belief that children's political understanding develops as a consequence of their attempts to comprehend the political realities present in their own social environment. Therefore, as the school represents an important micropolitical context in children's lives, this study investigated their understanding of the system of the school.

The empirical work reported in this thesis first presents a broad picture of the developmental trends in children's understanding as they attempt to make sense of the school, with their perceptions of such political concepts as power, authority, rules, roles and decision-making exhibiting differences with age. However, further empirical studies, examining the children's thinking for wider influences, suggested that the children's perceptions of the social environment are subject to a very complex pattern of influences, which are not necessarily the consequences of either age or cognitive differences. There was evidence of contextual effects on children's differentiation of school rules and of links between the children's attitudes and the attitudes of both teachers and parents. More importantly, there were indications that the children's perceptions of school were also subject to influences associated with their social categories, such as socio-economic class, gender and birth order.

Given the extent and significance of these influences on the children's thinking which were revealed in this research, it is argued that the development of social cognition in children is much too complex for an interpretation based solely on changing cognitive capacities. It is therefore concluded that this study presents compelling evidence in favour of a social representations perspective on the developmental trends in children's political thinking.
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Chapter 1

Aims and Assumptions

1.1 Introduction

Aristotle's claim, 'Man is by nature a political animal' presents a striking perspective of the important relationship between the self and society. In Aristotle's time, the *polis* would have ideally consisted of an independent community of some thousands, or a number sufficiently small to permit the total citizenry to be addressed at one time for ease of administration. The male and freeborn child grew up in the knowledge that participation in these gatherings of the polis was not only an essential right but also a duty of citizenship. Political understanding in Aristotle's time would therefore have encompassed both these aspects, right and duty, of the relationship between the self and the *polis*. But Aristotle was describing something much more fundamental about human experience than mere citizenship; he was proposing that political expression was a natural part of what it was to be human. This suggests the individual's participation in the administration of the wider community beyond family and friends is an essential part of the self.

How does Aristotle's perspective survive the centuries? Is his statement that political understanding is a fundamental part of human nature, as the self interacts with the community, still a valid description in modern societies? Given the complexity of present-day nation-states, as compared with the *polis*, with their vastly-greater populations, there are now not only considerably increased areas of state involvement and regulation, but also a much more formalised relationship between the self and society. Consequently, the area of human experience and interest covered by the political has exploded. The range and variety of points of interaction between the individual and the community, both formal and informal, and at various levels from the parochial through to the nation-state, are now so extensive, that political understanding has become a multi-faceted area of knowledge and comprehension. What has to be covered by an investigation of political understanding is therefore much greater now than in Ancient Greece and needs to be defined.

Despite this greater complexity much previous research into political cognition has generally assumed the constitution of the political to be self-evident and there has been surprisingly little attempt to define it. However, this may be a consequence of
the heavy bias in favour of investigations of political knowledge as opposed to examinations of political concept-understanding, which is the subject of this study. There is an important distinction to be made between these two broad areas of political cognition research. Areas of political knowledge are generally more clearly designated, being largely factually-based, and consist of knowledge of political institutions, parties, electoral processes, political roles etc. On the other hand, the more abstract type of political understanding, which consists of a comprehension of such central concepts as power, rules, authority, community, justice etc., is much less obvious and does require some clarification. It is this conceptual understanding that is the subject of this study of children's political cognition.

1.2 What constitutes the political?
Beginning with a general view, in a modern society politics can be broadly defined as being concerned with those areas of human activity and understanding which include (1) the ordering of our social affairs, particularly those pertaining to the distribution and control of scarce resources; (2) the establishment, transfer and maintenance of power within any society; and (3) the systems of control and regulation designed to facilitate and structure these activities (Ponton & Gill, 1982). However, the social and material relationships which would fall within such an all-encompassing description are extensive, ranging from the actions of such powerful bodies as the House of Commons, the High Court and the Privy Council on the one hand to the local golf club and the parish council on the other. Although the activities of all of these groupings and organisations could be described as political in a general sense, there are clearly fundamental differences between them which any analysis of the components of politics must acknowledge.

1.3 The nature of macropolitical understanding
In the case of the institutions and trappings of the modern nation-state, the individual's political cognition will probably be more factually-based. The political actor requires an understanding of such major political areas as political parties and their policies, government organisations and procedures, political roles, bureaucracy, legal institutions etc.. In short, in this area of political activity, the type of political understanding which probably develops is some sort of comprehension of the formalised power and legal structures in any state. Taking an over-simplified view, the major component in this macropolitical understanding for the average citizen is probably that of knowledge, with individuals gradually
learning something about the functions of the institution of the state, generally through the media. Consequently, macropolitical cognition, or comprehension of the politics of large organisations such as the nation-state, has generally been seen as the acquisition over time of a body of knowledge about the major institutions and practices of government, such as might be included in a civics text-book.

On the other hand, given that there is an undoubted remoteness of this area of political life, with little actual participation in political activities for the average citizen beyond the fairly simple task of voting in elections, the development of political understanding of the more abstract kind may form a less essential part of the individual's macropolitical cognition. An acquisition of such concepts as power, particularly as affected by inequalities or patterns of influence, or the nature and purpose of laws as opposed to their simple listing or description, is difficult for the individual in the large political arena of the state because of this distance between the citizen and the actual experience of politics. However, the political extends into all areas of life, as Aristotle's statement reminds us, and is not simply the province of the complex organisational structures of nations. There are other areas of human society where an individual may experience the political at closer hand and therefore perhaps have greater opportunity for acquiring a more abstract type of understanding.

1.4 The nature of micropolitical understanding
The individual will be confronted by political experiences, behaviours and choices in many small social groupings (Leftwich, 1984). In all societies or groups, such as the office, the psychology department, the sports club or even the family, there may be problems of power-distribution or influence. There may be the need to control access to activities and resources or to maintain order by rules. There may also be questions about decision-making processes. All these activities can be described as political. What, then, of the political understanding gained in such small groupings? Such small-scale societies may have to regulate, organise, take decisions, agree common goals, although not necessarily formally. Furthermore, the political life of the individual in a small group may be more closely and keenly experienced. Therefore, it may well be that the development of the more abstract kind of political understanding is more likely in micropolitical groupings. Any investigation of political concept acquisition may therefore be more effective in examining the understanding of such small-scale societies.
1.5 Distinctions between the macropolitical and the micropolitical

Where, specifically, do the main differences between the macro and micropolitical societies lie? There are four important distinctions between them which may affect the individual's experience, and consequently their political understanding, depending on the political arena concerned. The first important difference is the simple one of the small-scale of societies, such as clubs, families or work-places, when compared to macro-political institutions. For any individual, the sheer size of macropolitical institutions must reduce or at the very least distort the interaction between the self and the society. On the other hand, memberships of small groupings are correspondingly less remote and more tangible simply because of the restricted area of interest or membership. Secondly, while depending somewhat on the organisation and the individual, there is nevertheless generally the possibility of a much higher level of involvement in small-scale societies, making the experience of belonging to them more 'real'. Thirdly, and in part a consequence of greater involvement, the individual may have more contact with such concepts as authority, power or rules. For example, in the case of power, they may not only experience it by being subject to it, but they may actually wield it. Or in the case of rules, they may get to make the rules, and so develop an understanding which goes beyond simply having to obey them. And finally, there are may well be differences in style or approach in the two political arenas which may affect the political understanding required; the interaction between the individual and the micropolitical may well be less formalised, less dependent on specific structures and organisations, and therefore be based more on an implicit or more abstract type of understanding. Overall, then, the experience of the political in a small-scale grouping may contribute to a different type of political understanding, more abstract in kind.

These major differences between macro- and micropolitical societies collectively may also mean that the individual may develop different aspects of political understanding, depending on the area of political activity or interest experienced. In the case of the macropolitical, the probable initial emphasis will be on building an understanding of the major state institutions as a knowledge-goal. Whereas in the micropolitical, the emphasis is very much on the interaction between the individual and society, with an understanding developing more from a closer involvement or experience. Furthermore, because of the small-scale of such groupings, as the school or the office, the understanding involved may be seen as system-knowledge. It becomes possible for the individual to develop a more global
understanding than is the case with the macropolitical, with a grasp that may go beyond the various core concepts to a recognition of the inter-connections between the system-concepts. Crucially, an acknowledgement of the links may lead to a deeper comprehension; for example, an understanding of the link between rules or laws and community, may take the individual from a simplistic view of rules as a set of prohibitions to a belief that rules are good for the smooth functioning of the community as a whole. Furthermore, this could be seen as one of the components of a consent to government, and thus grasping this at the micropolitical level may have important consequences for macropolitical understanding. The individual's ability to comprehend the interconnections will greatly enhance overall political understanding.

1.6 Central political concepts
Which concepts are central to political understanding, whether macro- or micropolitical? All political systems, large and small, will display certain components. The most essential ones are community, rules or laws, power or authority, political roles, decision-making, together with links between all system-concepts with a particular emphasis on the interaction between the self and the system. There are also essential concerns about the nature and maintenance of justice or fairness, which are often included in studies of political thinking.

The importance of the central concept of community is that political understanding requires a grouping or a society with some sense of boundaries, not necessarily physical, but certainly of power. Although it is possible to talk of political relationships in dyads or other minimalist groups such as families, most political understanding involves a larger grouping which has some real presence for the individual, although the structure or limitations of the community need not be clearly defined. What is essential is that there is some sense of society, so that the other concepts of power or rules are seen to be applying to something. Power or authority is central to a political understanding because any political system, large or small, must be concerned with where power or authority resides and with what ways there are of exercising, controlling or transferring it. Furthermore, power or authority is central to comprehending the relationships and competition between individuals and groups within the system, the political roles involved, and finally how disputes are controlled and handled, so that conflict is managed, probably by a system of rules/laws. Therefore the organisation or decision-making of the system or society, mainly by the rules/laws, implicit as well as explicit, is also a part of the
political. And affecting all areas, there is the important concern for justice or fairness in all aspects of power, authority, rule- or decision-making.

What about the crucial area of the interaction between the self and the political system, particularly at the micropolitical level, which was the essential focus for Aristotle? Membership of any small-scale grouping requires the individual to make sense of the kind of roles and relationships within, whether tightly or loosely defined, to work out how and by whom power is wielded and decisions taken about the collectivity. Furthermore, any new entrant to the system has to understand, not only the explicit power structure, rules and roles, but even more essentially has to grasp more obscure aspects such as the dynamics of the system, the hidden authority patterns and the implicit rules. Additionally, the patterns of organisation may be constantly evolving and shifting, so the individual has to be alert constantly to subtle changes in function or power. In short, a thorough grasp of the system-concepts and their interconnections is essential for successful functioning in any society or group. Poor micropolitical understanding, either through ignorance or an inability to puzzle out the system, might be a handicap; good micropolitical understanding could be described as an important social skill.

1.7 Research aims and objectives
Macropolitical understanding, for all the reasons outlined above, such as its remoteness, vastness and complexity, is almost certainly slower to develop than micropolitical understanding. Indeed formal entry into the macropolitical arena is not until the age of 18, on the assumption that the new participant will only then have gained sufficient understanding to take on the full citizen's role. However, this is not the case with micropolitical understanding. It is evident that even children must be subject to micropolitical influences, from their earliest days in family life. Therefore, the assumption must be that their political understandings and beliefs are developing from those very first experiences of power, authority, rules etc. as they are subject to the power and authority of their parents and care-givers, internalise and obey the rules of their families and learn to interact with adults and children within the small society of the home. Therefore, from a developmental perspective, it is important to investigate children's political cognition in these very early years in the hope of understanding something of the first patterns of an essential social understanding.
Therefore this study set out to investigate the genesis and development of the fundamental political aspect of social interaction, as highlighted by Aristotle, by investigating the political understanding of children. The particular area chosen was their acquisition of political concepts, such as power or authority, rules or laws, community and self/system interaction.

The essential question posed is 'How does the child become a political animal?'
Chapter 2

Review of the Literature on Children's Political Cognition

2.1 Introduction

Chapter plan

The broad distinction discussed in chapter 1, between a more factually-based political understanding of political institutions and processes and a more abstract type of comprehension of political concepts, has been evident in the research history of political cognition, where there have been two distinct strands of research in recent years. Therefore this literature review will also reflect this division. After a brief introductory overview of these two main perspectives, the political socialisation perspective and the cognitive-developmental approach, the two areas will be examined in detail. This will be followed by a review of research into children's rule-understanding, which has been the only political concept which has been extensively investigated in isolation. There will then be a discussion of the most current thinking on social and political cognitive research, with particular emphasis on social representations theory. Finally, there will be an outline of the approach made in this particular study.

Research perspectives

Many reviews of research into political cognition have highlighted the problems of the multi-disciplinary interest in the area, involving political scientists, psychologists and sociologists. Turiel (1989) believes political cognition is almost unique in this respect, as an area of cognitive understanding disputed by various disciplines. Consequently, however, there has been a much greater diversity of research subjects and of theoretical and methodological approaches than in many other areas of cognitive understanding. In order to facilitate this review, therefore, the research has been divided between two generally distinct approaches.

One area of research has focused on the content of children's political understanding, viewing children as potential citizens and mapping their acquisition of information and attitudes about the adult political world as a knowledge-goal. This area of research is seen as basically factual (although not necessarily value-free); it assumes a body of knowledge and then measures the extent and the rate at which children acquire it, according to such factors as age, class, sex and culture. The main theoretical approach has been political socialisation and while some
psychologists have been involved, the area has been dominated by political scientists.

The other, much broader area of research, involving mainly psychologists, has examined children's general social understanding. While political understanding has been a specific topic in some studies, in others political comprehension has been implicitly covered by a more general interest in children's perceptions of society. Furthermore, there has been a particular emphasis on children's moral development, which is closely linked with political understanding. Therefore work in this area includes investigations into moral understanding and its intersection with political understanding; also work investigating children's reasoning about social issues; and work looking at children's understanding of such important social concepts as community, law and rules and power. The dominant perspective has been that of cognitive-developmental theory, although in recent years there has been increasing interest in social representations theory (Moscovici, 1984).

2.2 Political socialisation: the content of children's political understanding

2.2.1 Introduction: aims and assumptions

Throughout the 1960's and 1970's there was an intense period of investigation into this particular aspect of political cognition under the general heading of research in political socialisation. Stimulated by Hyman's first definition of political socialisation in 1959, there was a sustained interest in producing a theory of political socialisation, which resulted in a wealth of data from numerous surveys examining children's political attitudes and their knowledge of the macropolitical world. However, eventually the intensive interest began to wane in the face of considerable and comprehensive criticism of many aspects of the research, theoretical, methodological and substantive. It was generally acknowledged that despite the quantity of research in the area and the extensive amount of data produced, it had failed to deliver the bright future envisaged for the topic in the early 1960's.

There were problems from the outset, in the selection of research topics and perspectives. The choice of political socialisation as the main topic, namely the process of an individual's adaptation to a political environment (Allen, 1989), was probably unduly restrictive, as it is only one of the many components of political cognition. But its selection for this concentrated burst of interest was indicative of
the implicit research agenda which directed the investigations; namely that of ensuring the good order of society by imbuing the next generation with the proper political values. As Hyman described it '....humans must learn their political behaviour early and well and persist in it. Otherwise there would be no regularity - perhaps even chaos.' (Hyman, 1959, pp 9-10). Similarly, Easton and Dennis (1969) saw political socialisation as a means of alleviating the inevitable stress which citizens might otherwise experience in the political system if they had not acquired the 'correct' values, attitudes and behaviours. Further problems arose with the general adoption of a sociological perspective (Rosenberg, 1985, Cook, 1989). As a consequence, political action was regarded more as a collective activity; if the views of individuals were examined, it was only with the explicit intention of revealing the process by which the political understandings of society were internalised by the individual (Rosenberg, 1985). The whole area of research was thus somewhat value-laden.

2.2.2 Research

Given this research agenda, it was therefore hardly surprising that the bulk of the research was conducted with children. Not only was it simply assumed that adult attitudes were formed by the understandings and experiences in childhood, although there was no specific evidence of such links, but, more importantly, it was hoped that predictions of adult political actions could be made as a consequence of investigations into children's attitudes. There were several surveys of the attitudes of US children, (e.g. Greenstein, 1965, Hess & Easton, 1960, Hess & Torney, 1967, Easton & Dennis, 1969); of subgroups of children within the US (e.g. Greenberg, 1970, Jaros, Hirsch & Fleron Jr., 1968, Garcia, 1973). There were studies investigating the political attitudes of children in other countries (e.g. Greenstein, 1969, Dennis, Lindberg & McCrone, 1971, Pammett, 1971) and cross-cultural studies (Oppenheim & Torney, 1974, Sidanius, Ekehammar & Ross, 1979, Furnham, 1985). In an attempt to investigate the earliest possible link between patterns of children's attitudes and adult cognition, several surveys included children of nursery-school age (Connell 1971, Moore, Lare & Wagner, 1985). There were investigations of sex differences (Sidanius & Ekehammar, 1980, Ekehammar & Sidanius, 1982, Furnham & Gunter, 1983, Furnham, Johnson & Rawles, 1985, Furnham, 1985, Marjoribanks, 1981, Ekehammar, 1985) and of generational differences (Jennings & Niemi, 1971, Feather, 1977, Himmelweit, Humphreys, Jaeger & Katz, 1981).
Other studies which were more concerned with the content of children's political understanding looked at their knowledge of political institutions and processes. Dennis and McCrone (1970) examined children's understanding of political parties. Stradling (1977) investigated adolescents' knowledge of political institutions and procedures, and Furnham and Gunter (1983, 1987, 1989) replicated the study. Overall the amount of knowledge displayed was considered by the researchers to be unimpressive.

There were also studies which attempted to explain the process of political socialisation; some by reference to particular agents of socialisation such as the parents (Jennings & Niemi, 1968, Jennings & Langton, 1969, Langton & Karns, 1969, Sebert, Jennings & Niemi, 1974, Campbell, 1980, Tedin, 1980) or by concurrence with the school environment (Langton & Karns, 1969, Dowse & Hughes, 1971); while others examined the actual process itself through which the attitudes were acquired (Jennings & Niemi, 1974, Renshon, 1977, Cundy, 1979, Campbell, 1980, Tedin, 1980). There were also some studies which examined whether learning theory could account for the process of socialisation, with attitudes being transmitted through observational learning (Jennings & Niemi, 1974, Tedin, 1974, 1980), or through the process of stimulus generalisation with children's political attitudes being formed with reference to people or objects in their immediate environment (Levine, 1960, Greenstein, 1965, Hess & Easton, 1960, Hess & Torney, 1967, Easton & Dennis, 1969, Jaros, Hirsch & Fleron, 1968, Orum & Cohen, 1973, Renshon, 1977). However, even the insertion of learning theory did not greatly dilute the sociological approach as this is a psychological theory which fits reasonably comfortably with the socialisation perspective.

2.2.3 Methodological problems
Apart from the difficulties stemming from the structural assumptions and perspectives which directed this research, there were also methodological problems. According to Rosenberg (1985) there are two important conditions, if such studies of knowledge and attitudes are to produce valid results. First, all the participants must have a comparable understanding of the items used, and second, the responses must be interpreted in a manner which is consistent to that understanding. However, since these conditions may be best satisfied if all participants are members of the same group, and if the researcher is conversant with the understandings of that group, the validity of the whole exercise may
depend on tapping into a collective viewpoint, as opposed to individually different responses. As if implicitly concurring with this view, there are sometimes references to a 'typical' set of responses, as if the aim of the research was to reveal an 'ideal' collection of attitudes.

There were other methodological problems with some of these studies. The children were asked about the macropolitical world, because of the researchers' interest in how closely the children's attitudes or knowledge reflected those of adult political actors. But, and particularly in the case of attitude research, this effectively meant that what was being investigated was the ability of the children to remember and report those attitudes currently in the public arena, as a relatively straightforward memory task. On the whole, it excluded any examination of the children's own understanding or any subjective assessment of these attitudes (although there were some notable exceptions, such as Connell, 1971). Indeed, some researchers were actually very dismissive of children's own perceptions; Hess and Torney (1967) described children's responses in almost derogatory terms as inaccurate and distorted. Very few studies asked any open-ended questions. However, as Cook points out (1989), the socialisation perspective may be responsible for this; the researchers were not interested in probing the political understanding of children, but were seeking instead the reassurance that the political socialisation was successfully underway. The driving force in this research was the need to produce the next generation of citizens, properly inducted to their role.

The strength of the socialisation perspective also appeared to influence the interpretation of results. For example, the research by Jaros et al. (1968) into the authority perspective held by children in the deprived area of the Appalachians failed to replicate the positive views of authority reported by the middle-class children in Greenstein's 1960 study of leadership. This was seen as a failure of socialisation and attributed to insufficient training. However, the children's experience of living in depressed and deprived communities was not considered as a possible influence on their perceptions of authority and such interpretations were therefore rejected.

2.2.4 Paucity of findings
But in addition to the theoretical and methodological difficulties, the political socialisation approach has also been criticised on the grounds of the findings. Some
of the results have been criticised as being of no major import; others have been found to be unreliable. In the case of research into children's comprehension of institutions or processes, it has generally been found, as might be expected, that their political knowledge increases with age. However, the general level of knowledge displayed is fairly low, suggesting either that children are generally disinterested in the adult political world, or that the research design is flawed and thus failing to reveal the true level of their understanding. In the case of attitude research, many of the findings have been criticised for unreliability and there has been a large body of contradicting evidence which has not been explained. First, it has been claimed that the attitudes reported were often distorted by social desirability, guessing or response set patterns (Kolson & Green, 1970, Connell & Goot, 1972, Vaillancourt, 1973). Second, the effective transmission of attitudes by the agents of socialisation, such as parents, has been disputed (Jennings & Niemi, 1968, Connell, 1972, Beck, 1977), as so little of the variance in children's attitudes could be explained in this way. Finally, and beyond the control of researchers, the white middle-class children who gave such soothing responses in the surveys of the early 60's were nevertheless marching across the campuses towards the end of the decade (Arterton, 1974, Dennis & Webster, 1975), dramatically displaying how ineffective the political socialisation perspective had been. Some investigations into children's acquisition of political knowledge continued through into the 80's and 90's, therefore examining similar areas as these political socialisation studies, but they generally used a cognitive-developmental framework. Therefore they do not fall naturally into this section; while their topic of research is similar, their research perspective is more suited to the second area of research (Moore, Lare & Wagner, 1985, Furth & McConville, 1981). Also Connell (1971), already mentioned in this section because he investigated children's political knowledge, is something of an exception and will be reviewed more fully at a later point.

2.2.5 Conclusion: the decline of the political socialisation perspective

Overall, therefore, the research within the political socialisation approach, investigating the content of children's political understanding, such as their comprehension and knowledge of the political institutions and processes and also their attitudes and beliefs about the macropolitical world, has largely been eclipsed by alternative approaches. This perspective was very much a consequence of the prevailing ways of thinking about the political and social world in the 60's, The view of the child as a passive receptor of social influences, with a corresponding over-emphasis on the role of the environment, has since been rejected. The
research within the political socialisation paradigm had been based on a selective political reality which largely ignored the ways in which people, and even children, can and do make sense individually of their political environment.

2.3 The cognitive-developmental approach

2.3.1 Introduction

This research area is very extensive and will be reviewed in the following three sections. First, a brief outline will be given of the possible advantages of cognitivism for political cognition research. Second, the more general theoretical background of moral understanding research will be examined, reviewing the theories of Piaget and Kohlberg, with special reference to those aspects which are most relevant to political cognition. Finally, the research area of children's social and political understanding arising out of this perspective will be discussed, with some more important and relevant studies examined in detail.

2.3.2 The advantages of cognitivism for political cognition research

According to Turiel (1989), one of the reasons for the demise of the political socialisation approach has been the rise of alternative theories of development, such as the stage theories of Piaget and Kohlberg. The socialisation theory had placed a heavy emphasis on the child's passive absorption of attitudes and political facts, but had found scant empirical evidence to support it. On the other hand, the cognitive stage theories shifted the point of balance away from societal forces and induction towards individual action and comprehension, while still offering political scientists the possibility of a structured system linking children's thinking with adult political understanding. Furthermore, this particular perspective on children's political cognition also attracted the attention of psychologists, particularly in the area of moral understanding. Consequently, investigations into children's political cognition over the last decade have generally proceeded in the cognitive-developmental framework.

What does a stage-sequential theory of political cognition have to offer? The moral understanding theories of Piaget and Kohlberg both propose the end-point of full adult-understanding and an invariant stage-structure to achieve it. While there is undoubtedly a shift of emphasis in the direction of the individual, with children making sense of their world, nevertheless they were still on a one-way track towards the very same finishing point which the socialisation theories had
promised but failed to deliver. The stage 1 child in Kohlberg's stage theory could be described as amoral, undemocratic, insensitive to injustices or problems of individual rights, just as, similarly, the political scientist viewed the very young child as apolitical (Cook, 1989). According to these views, attaining either moral or political understanding required both development and maturity. Therefore, for those political scientists involved in this area of research, the stage-development theories still held out the chance of a theory of political development in which children's responses might predict adult political behaviour.

The inevitable links between moral and political development also encouraged the hope that the stage-developmental theories of moral understanding might be possible models for political cognition. Moral development charts the individual's process towards an understanding of right or wrong and is concerned with how one's actions are chosen or viewed. Political development, broadly speaking, is more concerned with the actions of society. It follows the growth of the individual's knowledge or belief in the ways society should act, in order to control and exercise power in the pursuit of agreed communal goals, one of which may well be a moral or just society. Consequently, political understanding, particularly as it concerns a just society, must be moderated by the perspective of the individual's moral understanding. As Haste and Torney-Purta (1992) point out, the development of political understanding presents an intriguing area of study precisely because of this interface between the more private world of moral understanding and the more public world of political understanding.

2.3.3 Theories of moral development

The definition of the moral domain

What aspects of human thought and action are governed by moral principles? What distinctive features does moral thinking demonstrate? According to Rest (1983), the area of morality is not easily distinguishable from other areas of understanding and consequently has been much disputed. Rest believes that the best available definition emanates from moral philosophy, from the work of Frankena (1970). Frankena proposed that morality consists of those standards which guide human co-operation, and in particular the allocation of rights, duties, and benefits. Furthermore he stressed the collective nature of these guidelines by asserting that they govern the crucial interaction between the individual's activities and the welfare of others. Rest extracts an essential point from this broad-ranging definition which has particular relevance to any study of political understanding,
that not all human values are moral values. Moral values are those values specifically governing interaction with others and therefore morality must deal in sharable values because it constitutes a framework for the co-ordination and co-operation among people.

**Piaget's theory: the balance of the individual in society**

While Piaget (1932) believed that moral understanding first sprang from the learning of social norms, he felt that a later and deeper knowledge would follow, as the child grew in understanding of co-operative societal processes. The child would first learn the morality of constraint, which was a relatively simple response to the punishment/reward structure imposed by adults to obtain compliance with certain rules. Subsequently, the child would come to understand, largely through peer interaction and co-operation, the purpose of prescriptive rules and would proceed to the second stage, the morality of co-operation. Piaget's aim was to demonstrate that there was a vital part of morality which the child came to grasp through cognitive understanding, and which was not imposed on the child. However, he recognised the social nature of moral judgement; it was the child's increasing social cognition, moving from a simple acceptance of adult prescriptions towards a grasp of the complexity of the social world and the need to balance competing claims, together with growing cognitive abilities, which eventually produced the morality of co-operation.

**Kohlberg's theory: the pre-eminence of an individual moral code**

The shared aspect of morality is also evident in Kohlberg's theory (1969), but he also foresaw a possible conflict between the individual and society at the higher stages of development. Kohlberg proposed three possible levels of moral development, each divided into higher and lower sub-stages. While the individual's progression through these levels reflects a growing understanding of the importance of supporting societal laws and values, moral reasoning at the highest level becomes more a matter of an inner conscience or an internalised code of ethics which might conceivably take precedence over societal rules. Thus while at stages 3 or 4, the individual reveals a comprehension of the importance of obligations based on convention or consensus, this is superseded by a higher and later understanding in stages 5 and 6 that obligations are based on a deeper natural law. Kohlberg was concerned to present the ultimate goal of post-conventional moral reasoning as a way of thinking which was as pure, abstract and context-free as the hypothetico-deductive thinking of formal operations, and consequently
shifted the focus towards a more individual code at the highest levels. However, the post-conventional levels were assumed to be attainable only by a minority, with most individuals operating at lower levels where the more collective moral codes were dominant. Furthermore, Kohlberg's belief in a stage theory meant that an understanding of the sharable values were therefore a pre-requisite for the ultimate goal of stages 5 and 6 reasoning. Therefore, the role of collective principles is still central to Kohlberg's theory, despite the emphasis on more individual values at the highest levels.

**Moral motivation: the quest for justice**
So it would appear that moral judgements are not only social judgements, in that they refer to social interactions, but that moral reasoners need to have a broad understanding of the social world, in order to grasp the possibilities, as well as the actualities, of social organisation. But what of the motivations which prompt and direct the development of moral reasoning? Do they reveal any further important links with political cognition? According to both Piaget and Kohlberg, the pre-eminent guiding principle is a straightforward concern for justice. Subsequently, Kohlberg, Levine and Hewer (1983) described four further moral orientations: (1) the promotion of the normative order, by following rules or laws; (2) the utilitarian orientation, seeking to maximise the welfare of each person; (3) the perfectionist search for the harmony of the self and the social group; and (4) the justice orientation itself, manifested in the desire to balance perspectives and to maintain the social contract. However, Colby, Kohlberg, Gibbs and Lieberman (1983) also pointed out that a desire for justice may well be the driving force behind the other three moral orientations, as all three involve some aspect of equity, of impartial treatment. If these assertions are correct, that justice is an important motivation in the development of moral reasoning, then it must provide a crucial link with political understanding. Politics is about managing power, maintaining order in society, and sharing scarce resources; in short, politics refers to those organisational structures through which the goal of the just society might indeed become reality. If justice is indeed the major motivating force in moral development, then political understanding is closely linked with moral knowledge.

**Is justice the main orientation?**
However, there has been considerable criticism of the focus by both Kohlberg and Piaget on justice as the central concept for moral development, notably by Gilligan (1982), who attacked it as being unduly restrictive and biased in favour of men.
According to Gilligan, the central concepts for women are more likely to be response and caring, leading consequently along alternative paths to moral understanding. Directly addressing the development of morality in early childhood, Gilligan and Wiggins (1987) believe that there are two important dimensions of relationships, equality and attachment, which are crucial in the growth of moral understanding. The constant tension between the child's competing needs for both attachment and equality results in moral dilemmas and conflicts, in which the development of moral understanding takes place. Furthermore, Gilligan and Wiggins suggest that either moral perspective, justice or care, can represent the concerns of the other within its own framework. If justice is the prevailing term, the care ethic is also encompassed as a matter of special duties. If the care framework is predominant, then justice is present in the concern for the self as well as for others.

There is an additional important consequence of the admission of other orientations, according to Gilligan (1982), which has a particular bearing on political understanding. She claimed that there was actually a regression in prescriptive reasoning about justice when faced with the classical dilemmas in early adulthood, but that there was, on the other hand, continued progression on real-life dilemmas. However, as Gilligan saw it, as reasoning in the response orientation is more context-relevant than in a justice orientation, this continued advance in moral reasoning is more likely to be attributable to the care and response orientation than to the justice orientation. This apparent juxtaposition of the ideal versus the pragmatic may be important in the case of political understanding, where individuals are more likely to be grappling with real-life issues. This was supported by the pattern of results found in the study by McClosky and Brill (1983) on attitudes to rights and freedoms; while individuals usually strongly supported general statements about freedoms, they were more likely to reject statements which referred to the same rights when specifically linked, as in the case of freedom of speech for the American Nazi Party. While these findings were concerned with adult participants, it highlights a major problem with the moral dilemma situations, that of the responses to hypothetical situations as opposed to real-life dilemmas. Damon (1977), Youniss (1975) and Turiel (1983) have all criticised the use of obscure moral tasks in examining children's moral understanding, which expect children to respond about unfamiliar areas such as marriage and property rights. Cook (1989) also stressed the need for tasks which are relevant to children's own experiences.
Some findings have indeed seemed to suggest that many women do not develop beyond Kohlberg's stage 3, possibly as a consequence of a rejection of the justice orientation in favour of a caring one. According to Rest (1983), the results are inconclusive, possibly confounded by crucially imbalanced educational opportunities for men and women. In addition, Kohlberg (1969) stressed the importance of involvement in society's complex institutions for high levels of moral reasoning, so that the role-taking aspects required by levels 5 and 6 are adequately practised, but such opportunities are much less likely to be available to women. A later revision of the theory, Colby and Kohlberg (1987) did acknowledge that the moral domain could be usefully enlarged so as to include the caring and response orientations. Evidently, this particular debate is a complex one. However, whether justice is or is not a male-biased orientation, it is not disputed that it is an important motivating force in moral development and it is the very centrality of the principle of justice which has attracted many political cognition researchers to the theory of Kohlberg.

The problem of universality: where does culture fit in?

However, as already discussed, the focus in Kohlberg's scheme is crucially on individual cognitive processes in the development of moral knowledge, although the role of social influences, particularly in conventional reasoning, is acknowledged. Rest's much stronger assertion of an important role for the concepts of social organisation in the development of moral reasoning, together with the concern for sharable values and other apparent social influences in the actual domain of morality itself, does unfold another area of criticism of Kohlberg. If the importance of these external, socio-cultural influences is to be acknowledged, then Kohlberg's central claim to the universality and generalisability of his stage-theory of moral reasoning may be weakened. In one such challenge, Schweder, Mahapatra and Miller (1987) revealed important differences in the moral and conventional domains between western and eastern societies. In western societies, with the generally prevailing view of humans as primarily autonomous agents, there is an emphasis on freedom, rights and justice as important moral standards, while in eastern societies, the focus is on the individual as part of a larger group with a correspondingly greater concern for rules and rituals as demonstrated by their incorporation into the moral domain.

Some of the problem with the universality of Kohlberg's theory may be a matter of focus. By revealing the underlying 'deep' structure of moral judgements as opposed
to an examination of the content of moral reasoning, or how people think rather than what they think, Kohlberg believed that a cognitive process would be revealed which could be context-free and therefore common to all. However his claim that the developmental stage-scheme of moral reasoning reveals an essential structural layer of cognitive understanding unaffected by such aspects of content as cultural differences has been strongly disputed by many critics, and not just by Gilligan with her accusation of male bias. For example, Simpson (1974) rejected the claim of cultural universality on these grounds; first, on empirical grounds, because post-conventional reasoning has not been found in all cultures studies; second, because he believed that, in claiming that the western democratic system in general represented an end-point in the development of individual moral judgement, Kohlberg was simply biased by his own western liberal perspective. Broughton (1986) also felt that Kohlberg's liberal and North American background biased him towards a view of moral development in which the resolution of conflict represented the highest point of reasoning. On the other hand, according to Broughton, a European perspective might have resulted in a more socialist path to moral understanding with an emphasis on the integration of interests within a changing system as the ultimate goal of the moral society. Haste (1986) has also challenged Kohlberg's claim of universality but believes that this theory is nevertheless a valuable account of political, if not moral, development within a particular culture, that is the western democratic tradition.

**Should moral commitment have a role in moral reasoning?**

What sort of mechanisms for change in moral reasoning have been proposed? Piaget and Kohlberg believed that cognitive processes were the main force for development, but also acknowledged the wider social influences, particularly from parents, peers and education levels. However, the cognitive-developmental approach has generally excluded such possible influences as emotion, imagination or volition. Colby and Kohlberg (1987) felt that reasoned judgements, by definition, must exclude such aspects as moral commitment, although it may be part of the full domain of moral understanding. However, this view has been widely challenged. Sullivan (1977), for example, said that moral knowledge must include an implicit duty to act and that moral commitment should consequently play a part in a development of moral understanding. Hoffman (1982) revealed that empathy appears to develop in the very young child, so may well precede and thus influence the complex cognitive operations involved in moral understanding. However, on the other hand, while Rest agrees that affective arousal must be an important
influence in the interpretation of the situation as moral, he points out that it may well hinder instead of facilitate.

Some revisions to the theory have been made to develop some theoretical constructs which would relate judgement to action, allowing a role for moral commitment. There has been some research in the 'just community', as Kohlberg accepted that positive social and emotional experiences, by enhancing the role-playing aspects of the higher stages, might make it easier to develop the cognitive aspects of moral understanding. Rawls (1971) also believed that cognitive development was not enough, that a just and caring context was required, first from parents and then from the community, and that appreciating its benefits might even precede the cognitive understanding.

As the extent of the sense of commitment, moral or political, must be an indicator of interest, knowledge etc., and may furthermore be a spurt to increasing understanding, these possible mechanisms for growth in moral commitment are important. Haste (1990) has suggested some more specific external mechanisms for moral commitment. Besides the level of moral reasoning, with post-conventional thinking possibly entailing high level of commitment, Haste suggests that first, a significant event may trigger a crisis and shift the moral perspective, such as a sudden revulsion to eating meat as a result of witnessing animal slaughter. Second, she points out that some children may be primed for moral commitment by being raised in families where such involvement is both valued and regularly displayed. In other words, a high degree of moral commitment is considered inevitable and normal. This sort of affective arousal extends well beyond Kohlberg's rather reluctant admission of some situational and emotional input, and yet, Haste claims, may not require particularly high levels of moral reasoning. Furthermore, while Kohlberg's theory has been accused of leaving a gap between judgement and action, where moral commitment results from either an important moral crisis or a high family sense of duty, action may become more likely. This suggests that the process of moral developmental change may be far more complex than the cognitive-developmental theories would suggest.

Moral reasoning versus other types of social reasoning
But how clear are the boundaries between the moral domain and other areas of reasoning? Colby and Kohlberg (1987) argued for a global view of cognitive structure, claiming that developments take place in parallel in the three domains of
logico-mathematical thinking, social perspective-taking and moral judgement. For example, concrete operations are necessary, but not sufficient, for either Stage 2 moral judgement or for Selman's (1980) social perspective-taking level. While Kohlberg claimed that empirical support for this view was not required, because moral stage definitions implied certain logical and role-taking operations, some findings do nevertheless suggest that scores are correlated across these three domains. However, moral judgement is the final dependent part of this string of connected cognitive operations; logical and role-taking operations may be in place, but the corresponding moral operations will not necessarily be produced.

Turiel (1983) disputed the interdependency of these domains, holding a different view of the relationship between moral judgements and social conventions (or the somewhat arbitrary rules of conduct evolving over time through custom or tradition). Turiel believes that the ideas of morality and convention are not connected in development and that the two separate domains are universally present and differentiated even in early childhood. The concept of moral obligation arises out of social experiences which are concerned specifically with such areas as justice, rights and the injury or welfare of others. On the other hand, the idea of conventional obligation arises out of those different areas of social interaction which do not impinge on justice, rights or others' well-being, although they may well be rule-governed or socially-structured in some way. Therefore, according to Turiel, as there are two distinct conceptual domains, arising out of different types of social interaction, the concepts of justice and the concepts of social organisation are likewise differentiated. Support for these distinct domains has been found in investigations of children's ability to distinguish between moral and conventional rules, with even pre-school children recognising some of the aspects involved (Smetana, 1981, Tisak & Turiel, 1988, Smetana & Braeges, 1990, Smetana, Schlagman & Adams, 1993). In addition, the work of Dunn and Munn (1985, 1987) has suggested some of the processes involved, with interaction between the very young child and care-givers, siblings and peers providing the nursery for this developing understanding.

However, such a distinction does not necessarily support a claim for independent and separate conceptual systems, but may simply indicate a dimension of 'wrongness' for all moral and social conventional concepts. Disputing Turiel's distinction, Rest (1983) believes that concepts of social organisation must be logically involved in both moral and social conventional reasoning and that justice
or morality would be difficult to attain without some societal framework. He also points out that both Piaget and Kohlberg, while believing that justice is the central concept in the development of moral knowledge, would also then proceed to link justice to concepts of social organisation. In fact, Rest would extend this argument further; he believes that the development of concepts of justice actually presupposes the development of social organisation, in some sense thereby echoing Kohlberg's scheme in which the post-conventional stage can only be attained after the conventional stage. Rest also postulates that the individual cannot develop the cognitive reasoning to make moral judgements without acquiring a sense of community or society. There is an evident overlap here with political understanding: if the development of moral reasoning entails some kind of parallel grasp of societal needs and structures, then political and moral cognition must be linked in some way.

**Conclusion: criticisms of moral developmental stage theory for political cognition research**

However, in spite of the apparent points of contact between the two areas of moral and political cognition, Kohlberg's theory has attracted some criticisms as a prospective model for research into political cognition. Cook (1989), who criticised the political socialisation perspective for its restrictiveness, believes that Kohlberg's theory of moral development may also be paradigmatic. He offers the example of Gilligan to support this claim; while she strongly rejects the end-point of Kohlberg's theory, her own theory also offers a sequence of stages and implies a natural and innate progression by referring to the life-cycle. Cook believes that both Kohlberg and Gilligan are trapped into making the same error. Kohlberg's individual liberalism proposes that people develop according to their own choices and volitions, whereas by the use of the term 'life-cycle' Gilligan's theory also suggests a natural and normative sequence. Therefore, both theories imply that any failure to develop is the fault of the individual. This is a consequence of the developmental stage paradigm, as Cook sees it: if variation can be attributed to age or stage, there is no requirement to look for other answers, except the individual's failure to achieve. While the political socialisation theories over-emphasised the role of the environment in political cognition, the cognitive-developmental stage theories place too heavy a responsibility on the individual.

Turiel (1989) would agree with Cook that the two approaches to political cognition, the political socialisation perspective and the moral development stage
theories have both been somewhat unbalanced or biased. However, while he recognizes the focus on the individual in the developmental-stage theories, he also points out that the role of the environment is not excluded. As Turiel sees it, the motor of development is the interaction between the individual and the environment, and cognition is as much the result of accommodation as of assimilation. However, he does point out some disadvantages in using the cognitive-stage theories as a basis for a theory of political understanding. Turiel queries the relevance of Piaget's general cognitive stages to a social area such as the political domain. Similarly, Kohlberg's theory of moral understanding may also be too restricting for an area which should include matters legal, societal, governmental and possibly economic as well. Turiel believes that a single sequence of stages could not possibly map the developmental changes in such a complex area as political understanding. In short, Turiel challenges both Piaget and Kohlberg on two important aspects; first, having postulated two different types of concepts, moral and social-conventional, Turiel does not believe that the two can be acquired through a single and unified sequence of stages; second, Turiel believes that the essential aspect of this process is social interaction, although he does acknowledge the role of individual cognitive development. Specifically with reference to research into political cognition, he believes that his theory attempts to balance the two competing areas of the environment and the development of the individual and that such a reconciliation is necessary for a theory of political cognition.

There are evidently some important aspects of moral development which must affect the growth of political understanding. There are some clear and strong connections between moral development and the social world in general, because of the evident social nature of moral reasoning, based on sharable values which are socially acquired. The development of moral understanding, particularly at the conventional and post-conventional levels, requires at the very least, an awareness of societal structures and organisations. In practice the relationship is probably fairly enmeshed, with highly developed powers of moral reasoning closely accompanied by a thorough grasp of social and political institutions. However, the moral-developmental framework would also appear to be an unnecessarily restrictive one for political cognition research, placing a possibly distorting and narrow emphasis on one component of political understanding by its concentration on the morality of human affairs.
2.3.4 Cognitive-developmental perspective: children's social and political understanding

Introduction

More specifically, what sort of links can be drawn from the extensively researched moral development area which are relevant to the investigation of children's social understanding in general and political understanding in particular? Despite the voicing of some general misgivings as outlined above, the enormous interest in the cognitive and moral development theories of Piaget and Kohlberg has greatly influenced research in children's social cognition in recent years. For example, Selman and Byrne (1974) examined role-taking, Damon (1977) and Youniss (1975) both investigated interpersonal relations and Turiel (1983) looked at the distinction between moral and conventional thinking. A number of studies have looked at children's acquisition of societal and political concepts within a general constructivist framework. Some have examined children's comprehension of specific symbols and national concepts (Jahoda, 1962, 1963, 1964, Jackson, 1972). Some studies have directly examined more closely possible links between moral understanding and social understanding, such as in the areas of legal reasoning (Tapp & Kohlberg, 1971) and children's conceptions of social welfare and justice (Torney-Purta, 1983). Both these studies revealed considerable overlap between political and moral thinking, with young people frequently evoking the role of social institutions in their responses about human rights issues. Other studies have looked at the developmental points and trends in areas of more abstract thinking by investigating children's grasp of such concepts as power, authority, rules/laws, decision-making and conflict. This aspect of social understanding is not only important in its own right, but may well influence children's more concrete understanding or their acquisition of other aspects of social knowledge or attitudes.

In the following review of the most significant and relevant research in this area, there are two main sections; first, there is an examination of specific studies of children's moral and societal reasoning; secondly, some investigations into children's political understanding are reviewed.

Moral understanding in young children

Damon (1977) has been one of the few researchers in moral reasoning who have examined the development in moral understanding in young children (aged 4-10). His investigation was somewhat restricted and consisted of children's thinking in only two areas, distributive justice and authority. Proceeding from the belief that it was essential to present such young participants with moral dilemmas from their
own experience, he presented them with familiar problems, such as one involving the sharing of candy-bars. From the very youngest children, who were concerned to satisfy their own desires, through to the oldest who put forward quite complex solutions to deal with all possible claims, the process, according to Damon, appeared to represent a sequence of unravelling confusions in the mind of the child. While there was a clear and evident logical progression in the child's social and moral thinking, Damon rejected an organised stage-like structure in children's moral reasoning. Above all, Damon believed that the child is a very active social negotiator, and that stage sequences would not be able to contain the fluid and dynamic processes he felt the children displayed. However Rest (1983) believes that children's thinking must become increasingly organised, despite Damon's findings. He also points out an important methodological difference; contrary to Kohlberg, Damon scored the choice made by the child and not the reasoning behind it, making comparisons of the two sets of findings extremely difficult.

Some interesting research (Eisenberg-Berg, 1979, Eisenberg-Berg & Roth, 1980) with pre-school participants has been undertaken in the area of prosocial moral reasoning, where laws or prohibitions do not figure. This generally supports Damon's overall contention that children's thinking may have been underestimated. Although Kohlberg's lowest level of reasoning is preoccupied with prohibitions as reasons for choices, very young children seem able to cope with prosocial dilemmas, despite the unavailability of prohibition-oriented reasoning which was previously believed to dominate their moral thinking. Rest says that this may mean that Kohlberg's classification at the lowest level is not the complete picture and that even very young moral reasoners have more varied structure and greater flexibility than Kohlberg's theory would suggest.

**Societal understanding in young children**

Furth (1980) conducted an extensive investigation of a constructivist approach to children's understanding of society, which was to provide the framework for a later investigation into political understanding (Furth & McConville, 1981). It is also a classic example of the type of research in children's social understanding which was generated by the stage-developmental approach, although there were also more qualitative aspects.

In his initial, more broadly based study of children's societal understanding, Furth stated his belief that children's social reality is a product of their own thinking, as
they constantly and continuously construct, explore and test out theories about their social environment, just as they learn about their physical environment. He also asserted that the important distinction between form and content, so essential a part of constructivist theory, was also very much a feature of children's social understanding; while the form was supplied by the child, the content was external to the child.

According to Furth, children's social understanding has three important interdependent features, ego-development, person perception and finally societal understanding, which the child acquires through cognitive development. The child's first stage is that of an undifferentiated social being, but through interpersonal relations, begins to develop a fairly rudimentary version of what Furth calls the 'self-other-society matrix', thus gaining stage 2. The final stage, which depends on increasing and more varied encounters with society, often of a very indirect nature and mediated by others, such as parents, teachers, doctors etc., consists of aspects of all three features of social cognition; a fully-developed self-concept, a comprehension of interpersonal relations (and of the morality underpinning them) and an understanding of society or the world of work. Furth believed that these stages corresponded closely with the cognitive stages of pre-operations, concrete operations and formal operations.

There were important qualitative aspects in the design of this study which Furth hoped would help to reveal the children's actively developing understanding. First, Furth focused specifically on aspects of the social world of which he believed the children, aged 5-11, would have direct, first-hand experience, such as shops and schools, thus directly avoiding those social roles or institutions about which their responses were likely to be based on mere hearsay. Furthermore, he used a generally open-ended interview so that the children's responses were not artificially constrained.

Furth described the thinking of his youngest participants in considerable detail as this represented the starting-point in the developmental path his study revealed. According to Furth, around the age of 5-6, the child displays 7 characteristics of thinking. First, the child's thought is undifferentiated, with the child largely unaware of individual differences either in persons or institutional roles, and viewing most adults other than close family or acquaintances as much the same. Second, the child's thought is personalised, with the child unable to distinguish
between personal and societal roles, thus seeing societal decisions as emanating from the free will of a particular person. Third, the child also sees the social world as ordered according to known rules, and thus unchanging and beyond the control of the individual (such as a teacher and the rules which he/she applies). Fourth, the child sees the social world generally as conflict-free and fifth, with free and easy access to money. The sixth characteristic is that the child's thinking is egotypical, with a tendency of the child to generalise from a personal experience to cover a wide range of alternative situations. Finally, the child's thinking about society is fixated on superficial aspects, as for example, the child will concentrate on the obvious external attributes of a role.

Thereafter, Furth suggested children's thinking developed through four stages of societal thinking between the ages of 5-11. The first stage, largely undifferentiated but personalised thinking as characterised above, he described as playful; it corresponds to Piaget's ego-centric. The functional stage is next; the child begins to display a basic grasp of frequently-observed, simple societal functions, such as immediate payment for goods and some role-person differences. The third stage is the part-systemic, when the child is displaying a capacity for understanding some aspects of systems and is becoming more aware of the differences between personal and societal perspectives. However, some major inconsistencies remain with an inability to grasp the nature of private profit or of government money. In the fourth stage, the systemic-concrete, most of the inconsistencies have been removed and the child has a basic overall comprehension of the workings of society, including some understanding of government, community needs and the economic system. Furth proposes that this developmental sequence is largely the consequence of changes in two specific areas: (1) the child's understanding of money and the function and business of the shop; (2) the understanding of personal and impersonal roles, with the ability to distinguish between them.

Following on from this study, Furth and McConville (1981) looked at adolescents' understanding of compromise in political and social awareness, looking at the specific areas of individual rights, the articulation of other viewpoints and the ability to distinguish between legal and moral-conventional regulations. They found a clear progression in understanding in four aspects of political understanding over the years 14-19: (1) a recognition of individual rights in contrast to those of society; (2) an ability to articulate the perspectives of others; (3) an understanding of the concept of compromise; and (4) an ability to distinguish
between conventions and legal sanctions. There are evident links here with moral understanding and in particular with the stages 5 and 6 of Kohlberg's theory, with an awareness of the complexity caused by competing perspectives in any society and of the need to balance them fairly.

**Children's political cognition**

Connell (1971) conducted a wide-ranging investigation into the political understanding of children aged 5-19. He asked children about their specific knowledge and attitudes but used open-ended interviews to probe the meanings which underlay their understanding. However, specifically rejecting the political socialisation approach in the firm belief that children actively created their own political reality, he suggested that children's orientation toward 'adult' political symbols might be shaped by their orientation to their present and more immediate political environment, such as their contact with those adults in authority over them or in their dealings with their peers.

Analysing the data, Connell postulated four stages of beliefs. First, children under 7 revealed intuitive thinking, which was characterised by an undifferentiated mixture of political and non-political thinking together with occasional inaccurate reports of half-comprehended events. In the second stage, children between the ages of 7-10 demonstrated primitive realism, in which they began to be aware of areas of political and governmental interest largely through reference to an indistinct collection of tasks and duties. In the third stage, which Connell called the construction of political order, children between the ages of 10-15 began to show a more ordered and differentiated understanding of things political. They had a clearer sense of the tasks of government and they no longer saw political power in largely personal terms but as hierarchically and institutionally structured. However, they still lacked much specific or more detailed understanding. This deficiency was made good at stage 4, when children over the age of 15 revealed more adult-like conceptions of political thinking, both about societies and policies.

Overall, the most important finding from Connell's study is not so much his model of 4 stages of political understanding, which very much reflects the prevailing developmental theories of his time, but the abiding conclusion which he drew from his research was that the development of children's political understanding would not be adequately measured through the administration of predetermined questions.
The children's responses, often revealing both spontaneity and creativity, convinced Connell that the development of political attitudes is a dynamic process and that he had therefore been right to reject a political socialisation approach.

A similar constructivist approach was used in a series of studies by Adelson and his colleagues (Adelson & O'Neil, 1966, Adelson, Green & O'Neil, 1969, Gallatin & Adelson, 1971) which examined adolescents' understanding of such concepts such as law and community. All these studies followed a similar format: children were questioned about hypothetical newly-settled societies, either on previously uninhabited islands or imaginary but viable planets. The children were asked about the advantages or disadvantages of different forms of government for these brand-new communities, the short and long-term effects of different kinds of laws and the general functions of government, law and political parties. The results demonstrated the most substantial advances in understanding took place between the ages of 11-13 and 13-15. In the first period, children shifted from concrete, tied-to-present thinking to quite mature political reasoning in at least some of the items. In the second, they became more able to reason abstractly and to make use of general principles.

One 'island' study has looked at younger children's understanding of political concepts and is therefore of greater relevance for the present study. Berti (1988) presented Italian children (6-15) with an island story and then asked them to say what would happen when the new arrivals formed a settled society. Their answers were grouped into 4 main areas: (1) collective needs; (2) conflicts; (3) political organisation and (4) laws. While older children mostly referred to each area spontaneously, younger children were prompted where necessary. Fairly broad conclusions were drawn, which were indicative of a developmental trend. The youngest group (under 8) were generally oblivious of conflicts, of the need for organisation or of the function of laws. Children aged 8-9, after some prompting, mentioned 'chiefs' who would govern by some sort of 'orders'. Children aged 10-11, demonstrated a major advance on the younger children and referred spontaneously to collective needs and political organisation. Those aged 12-13 volunteered that the whole community was responsible for law-making in some sense, while the oldest group, aged 14-15, revealed a fairly comprehensive understanding of conflict and the need for political organisations.
Most of the studies taking the narrower and more specific focus on the content of children's political understanding have followed the political socialisation approach and were reviewed in the first section. The research in this second section, covering the cognitive-developmental perspective, has been concerned with broader areas of societal understanding; although some studies have been more specifically political, they have generally examined more abstract aspects of political cognition. However, one very large study by Moore, Lare and Wagner (1985), although generally following a cognitive-developmental framework, nevertheless investigated young children's political knowledge and attitudes.

The work on the content of children's political understanding had begun with young children but as the unreliability of their answers became apparent, researchers in this area turned their attention to adolescents, in the hope that their responses would have greater stability. However, the feeling persisted that the key to political knowledge still lay with younger children, that political attitudes were probably formed in early childhood, but that methodological problems were to blame for the unreliability of the data. Therefore, the study by Moore et al. was an ambitious attempt to address some of the problems which had arisen with the earlier research on the content of children's political cognition.

There were important changes to procedure which marked this study out from previous ones. A very large sample of nearly 250 children were interviewed every year for 5 years as they moved from kindergarten into 4th grade. All children were interviewed face-to-face by the same researchers, so as to eliminate potential pencil-and-paper problems and interviewer effects. Furthermore, mindful of the criticisms of earlier studies, Moore et al. decided to use a multi-theoretical approach and the study combined both learning theory with a cognitive-developmental perspective, in the hope that this would balance both environmental influences and individual development.

Undoubtedly the study produced a wealth of detail about young children's knowledge of political roles, institutions and events and there was a general increase in content over the years studied (although some 5% of the children actually regressed). There were also some interesting findings relating to the persistence of gender differences, with girls less knowledgeable than boys; evidence of a reduction in partisanship over earlier studies; and signs of a rising awareness of particular issues. The researchers duly extracted a 3-level, 6 stage
model of children's developing political knowledge, faithfully following the cognitive-developmental paradigm. Nevertheless, and despite the size and longitudinal approach, it is still difficult to see that this study represents any real major advance in the understanding of children's political cognition. While the knowledge children possess is of interest, and particularly over a 5-year span, it is still only one very small part of their political understanding. The research revealed nothing of the meanings underlying the children's responses, offered no clue to the influences on them, gave no information about the ways children actively and continuously make sense of the political environment. Despite the 5-year time-plan, there is little sense of any dynamism in the children's understanding. As Palonsky (1987) points out, with the emphasis on the collection of quantifiable data together with the focus on the content of children's political knowledge, the findings from Moore et al.'s study may constitute a highly restrictive view of how children construct their political lives.

But there have been other more fundamental criticisms of Moore et al.'s study. Turiel (1989) believes that combining theories is a strategy for confusion; with both learning and cognitive-developmental theories involved, there must be uncertainty about whether changes are due to increased content or changed structure. Merelman (1989) also criticises Moore et al. for their failure to distinguish between the two theories. But in addition and more importantly, he directly challenges their model of political development; specifically, Merelman believes that the stages have no real basis and that the validity of Moore et al's 'cognitive threshold variables', upon which the whole sequence depends, has not been sufficiently established. Despite a determined and intensive commitment to a cognitive-developmental approach, the general conclusion seems to be that Moore et al's study has not provided any decisive answers about investigating children's political understanding. While undoubtedly making a contribution to the troubled research area of children's political cognition, the main impact of Moore et al's study appears to have been an intensification of the search for a new approach to this area.

2.3.5 Conclusion: general criticisms of the cognitive-developmental perspective
The cognitive-developmental view has also drawn more general criticism. Turiel (1989) argues specifically against a cognitive-developmental approach to political cognition based on either Piaget or Kohlberg. Turiel feels that a stage-sequential theory would be totally inadequate in the case of political cognition, as he believes
that children's political development requires mapping a complex web of interconnected domains of social judgements, which are constructed on the basis of the individual child's social experiences. Emler and his colleagues have also been critical of a cognitivist approach to social understanding in general (Emler, 1987, Emler, Ohana & Dickinson, 1990, Emler & Ohana, 1993). The following specific points of contention have been raised: (1) as a consequence of the central role for universality, the constructivist perspective is unable to explain social influences sufficiently; (2) there is a similar deficiency in accounting for differences in content of thinking, which are trivialised, ignored or described as variations of level; finally (3) cognitivism places a heavy and possibly distorting emphasis on the importance of logic and objectivity, thus denying the existence of alternative social understandings. It would appear, therefore, that this perspective may also have some shortcomings for a study of political cognition.

2.4 Children's rule-understanding

2.4.1 Introduction

While most political cognition research has taken a broad brush approach, there have been some central concepts within children's political understanding which have been the subject of more focused examinations. Some of these have already been reviewed; for example, the concept of power was investigated, notably by Greenstein in his study of the benevolent leader (1960) and the concept of community was looked at by Adelson and O'Neil (1966). There has also been some research into children's comprehension of law within the main political socialization framework, as a major component of governmental knowledge. In addition, the studies by Adelson and his colleagues into adolescents' conceptual understandings, and the later replication by Berti with younger children (all previously reviewed), were concerned with the nature of law, amongst other subjects. The concept of law, however, is closely associated with the understanding of rules and this area of children's comprehension has been researched by psychologists across the developmental social cognition field and from perspectives other than the political.

2.4.2 Theories of rule-understanding

Both Piaget and Kohlberg were interested in children's developing understanding of rules. Piaget (1932) believed that children initially see rules as rigid and obeyed without question, as a consequence of this perceived immutability. But eventually,
around the age of 10, children appreciate the consensual basis for most rules and therefore understand that they may be changed. Kohlberg (1969) similarly felt that young children perceive rules as fixed and the consequence of authority but with age come to understand that they are socially constructed and consequently dismantled. Therefore, both theories envisage a fairly simple progression, although not clear-cut stages as such. Corsaro (1990), in his investigation of nursery school children's understanding of rules, implied a possible reason for the youngest children's unbending reaction to rules. He suggested that the children's first task is simply to internalise the rules, and then having learnt them, they come to realise that rules must be applied and interpreted in a social context. This would indicate that children's initial fixed reaction to rules only softens when they have sufficient rule-knowledge to broaden their understanding.

In more recent years, the most important aspect of research into children's rule-understanding has been concerned with a developing ability to distinguish between moral and conventional rules, because it is believed to play such an essential part in the overall comprehension of the social environment. Turiel's theory of social understanding, which has already been briefly reviewed in the previous section, sets out the case for the distinction between the two types of rules.

Following the views of the moral philosopher Dworkin (1978), Turiel (1983) proposed the existence of two separate domains of social thinking, the moral and the social-conventional. All rule-understanding is based ultimately on factual knowledge about the social world; however, moral rule-understanding does not depend on this informational content alone, but derives its force from an important and highly-valued set of principles, which are held to be rule-independent. Furthermore moral rules are about matters of ultimate wrongness, and consequently unalterable and not dependent on either social context or authority. They are concerned with such areas as hurting others, fairness, trust and justice. By contrast, conventional rules are held to be constructs of certain social groupings, designed to regulate social interactions within particular cultures or social units. These shared understandings, such as religious strictures, dress conventions, table manners, politeness rules etc., are held to be relativistic and dependent on context, role and possibly on authority as well. As they are consensually-constructed, their wrongness is not self-evident and must be learnt, and they can be changed.
As a consequence of these definitions, Turiel proposes that social judgements are organised within the two domains of knowledge as a consequence of their pertaining to different kinds of social interactions. Furthermore he believes that there are some crucial qualitative differences between conventional and moral rule-understanding which separate the two types of social reasoning. For example, children eventually come to understand that some actions are judged wrong more on their consequences, particularly causing harm to others, than on the existence of a rule or punishment. Children, from a very early age, are able to recognise hurt and distress in others and are therefore alerted to this special quality in areas of moral concern.

2.4.3 Research
Following this proposed distinction between two sorts of social judgement, there has been sustained interest in investigating children's ability to differentiate between moral and conventional rules. Some researchers have included further distinctions between rules; such as prudential rules which are concerned with children's safety (Schweder, Turiel & Much, 1981, Tisak & Turiel, 1986); academic rules (Blumenfeld, Pintrich & Hamilton, 1987); or second-order conventions, which are conventional rules with major or moral-like consequences (Turiel, 1983). However, the overwhelming interest has been in the dichotomy of moral and social-conventional rules.

Research suggests that children do make this important distinction and at a very young age. For example, both in a hypothetical study (Smetana, 1981) and in real-life situations (Smetana, Schlagman & Adams, 1993), pre-school children displayed a considerable grasp of the differences involved by finding moral transgressions more 'wrong' on all dimensions; more serious, more wrong in the absence of rules, more deserving of punishment and less contextually-relative. In investigations of primary school-age children, despite manipulation of the seriousness of the act, making the consequences of the conventional act more serious than those of the moral act (Tisak & Turiel, 1988), or the presence or absence of rules, whether forbidding or expressly permitting the acts (Weston & Turiel, 1980), the children continued to evaluate moral transgressions more negatively than conventional. Overall, children demonstrate an early and effective capacity to distinguish the two moral domains, though there is some evidence from cross-cultural studies (Schweder, Mahapatra & Miller, 1987, Miller & Luthar,
1989) that this differentiation may not be universally based on the same dimensions or features.

Looking at the way this capacity develops, the earliest basis for the distinction is the greater generalisability of moral transgressions, which appears at around the age of 3, quickly followed by the other dimensions (Smetana & Braeges, 1990). In middle childhood, children extend their capacity to differentiate to a wider range of events, including unfamiliar situations (Davidson, Turiel & Black, 1983). Changing justifications with age indicate the patterns in children's developing understanding; increasingly children mention fairness, alongside continued concern for the welfare of others, in responses to moral transgressions; while an early preoccupation with authority and punishment in the case of conventional rules eventually shifts into a more positive evaluation, with such societal requirements as the need to maintain social order being cited.

How do children learn to make this distinction? Findings suggest that children learn the differentiation through social interactions, as they apprehend qualitative differences in events relating to moral or conventional transgressions (Smetana, 1985). First, differences in adult responses to events, with an emphasis on the consequences of moral transgressions, such as pain and hurt to the victim or enfringement of rights, in contrast to conventional rule-enfringements, where adults may simply tell the child to stop or make reference to rules or social order. Second, it may be that the child infers the difference from the victim's own reaction of pain or hurt, and will also have personal experiences to draw on as well. Smetana postulates a 2-stage process; the child first concentrates on the nature of the act and only if there is no harm or violation of rights will the focus switch to other aspects, such as particular rules or generalisability of the act.

In addition to these more hypothetically-based studies, some observational investigations have examined children's rule-knowledge in different contexts. For example, studies of children in families in interactions with parents, caregivers, siblings and peers (Dunn & Munn, 1985, 1987, Smetana, 1989) reveal something of the processes involved. Children learn about moral matters largely in disputes with siblings and peers, while in the case of conventional rules, these are more the subject of conflict with adults (Dunn & Munn, 1987, Smetana, 1989), and these findings accord with earlier studies (Piaget, 1932, Damon, 1977) which also concluded that children apprehend moral rules through disputes with peers.
Studies of children's understanding of rules in daycare suggest that development of conventional rule understanding requires time while moral understanding will transfer to a new context (Siegal & Storey, 1985). There have also been a few studies about children's understanding of school rules (Blumenfeld, Pintrich & Hamilton, 1987, Nucci & Nucci, 1982a, Corsaro, 1990), but these will be reviewed in a later chapter in an examination of research into aspects of school life.

Overall, there is ample evidence that children learn to make the distinction between moral and conventional rules at an early age in life and that they continue to develop and refine this ability with age. However, beyond the observational studies of rules in the family, there is relatively little research on children's understanding in special contexts, such as the school.

2.5 New approaches to children's social cognition

2.5.1 Restatement of previous research perspectives

Recent research into children's cognition has therefore been conducted from two very different perspectives, the political socialisation and the cognitive-developmental, and both approaches have been found to be deficient in certain respects. To restate the most important criticisms, the political socialisation approach has been attacked on five grounds. First, the particular area investigated, that of children's knowledge of and attitudes to the adult macropolitical world is the area of political understanding which is arguably the most remote and least meaningful for children. Second, this approach permits little, if any role, for children to construct their own political realities; the children are seen as 'tabula rasa', absorbing with age the political facts and attitudes which are known and current in the adult world, and reproducing them to order. Third, the political socialisation approach is very much a 'top-down' approach; its sociological perspective starts from the end-point of adult understanding and assumes that children's political cognition is following a path upwards to that same goal. Fourth, there are considerable methodological problems; the use of group surveys and tightly-constructed questionnaires, together with the unfamiliarity with many of the questions asked, must have considerably reduced the validity of the children's responses. Finally, there was an over-emphasis on environmental influences, due to specific definition of socialisation, which was seen as an educational process, ensuring that the future political citizens had been appropriately and effectively inducted into the prevailing political system.
On the other hand, the cognitive-developmental approach to social understanding has also been found to be inadequate in some respects, and in these six main areas in particular. First, while the political socialisation perspective leant too heavily towards environmental influences, the cognitive-developmental view may have over-emphasised the individual's role in development. While Turiel (1989) has stoutly defended against this particular criticism, claiming that development in fact stems from interactions between the individual and the environment, the theory still suffers from the implication that a failure to develop is the fault of the individual. Furthermore, with the existence of an end-point, the assumption is that children are still being measured on their attainment of adult knowledge goals. Second, individual variations in social cognition have either been ignored, trivialised or described as a slower rate of development, which are all inadequate explanations of a clear phenomenon in developmental research (Emler, 1987, Emler et al., 1990, Emler & Ohana, 1993). Third, with some notable exceptions, there has been a tendency to examine children on their understanding of the hypothetical. While this has been justified by the belief that it is the underlying structure which is being investigated, rather than the content, there is a danger that what is being revealed bears little or no relation to children's real-life understanding. Fourth, the cognitive-developmental approach is too restrictive; a single sequence of stages would be insufficient to explain development in such a complex area of understanding as the social world (Turiel, 1989). Fifth, cognitivism over-stresses the role of logic and objectivity in social reasoning, and in the process ignores the many variations in viewing and understanding the social environment (Emler, 1987, Emler et al., 1990, Emler & Ohana, 1993). Finally, a further problem has been the belief in the universality of the stage-developmental approach. The omission of culture or context as influences on social understanding is perhaps the most crucial failing of all (Emler, 1987, Emler et al., 1990, Emler & Ohana, 1993).

2.5.2 Emergent themes in developmental research
In the last few years, with the demise of both approaches, the area has been the subject of more introspective analysis and rather less data collection, with discussions of alternative approaches. However, two particular themes would appear to have been gaining in importance in developmental research. First, perhaps as a consequence of the rising unease felt over cognitivism's claim of universality, there is now a growing recognition that the possible influence and role of culture on children's understanding should be investigated. Second, there is an
increasing acknowledgement that any examination of children's beliefs, knowledge and experiences should be constructed and designed in ways which are appropriate and meaningful for young participants. Children should be asked about the world that they know and inhabit, which they are actively and continuously trying to make sense of. Turiel (1989) suggests that one way of achieving this is by replacing the broad brush approach with examinations of more limited areas of children's political understanding. Cook (1989) also favours a more restricted approach and suggests that an inductive approach, examining children's own experiences, will be most likely to reveal children's political perspectives.

An analysis by Katz (1988) of how children come to understand social issues reveals some of this new approach and thinking. Katz began by reviewing the research of social understanding in pre-school children. She felt that very young children do demonstrate some possible prerequisites for an appreciation of social issues; they show empathy, altruism, can recognise serious moral transgressions as wrong regardless of social rules, and respond to some aspects of injustice. However, they also learn group stereotypes at a very early age, such as gender and racial difference and demonstrate in-group preferences. Katz believes that the child's attention may be directed by parents, not necessarily consciously, to those who most resemble themselves, a process of 'perceptual segregation'. So as very young children are capable of demonstrating pro-social behaviour, despite learning to direct it towards those most like themselves, they do show some potential for responding to social issues.

Both Coles (1986) and Palonsky (1987) argued for a more qualitative approach to children's political cognition. Coles used open-ended interviewing of young children in a variety of countries, asking their views of the political situations in their respective countries and thereby providing a rich display of the type of political thinking even young children are capable of. Coles believed that his unstructured discussions with the children nevertheless demonstrated the dynamic processes at work in the children's thinking which would contribute to the eventual political orientation of the adult political actor. Palonsky also felt that children are not simply passive interpreters of political matter but are actively creating their personal political understandings. He attacked what he described as the 'positivist research paradigms' in political socialisation studies and suggested a two-fold examination of children's political cognition with a qualitative emphasis. First, he suggested using extended open-ended interviews, as in Coles' work, so affording
children the chance to explain their beliefs and understandings, about such political topics as minorities, the poor, the powerful, matters of fairness, sharing and justice, but, crucially, using their own terms. Second, he believed that observations of their behaviour in the classroom or playground will reveal the ways in which they act politically by showing how they organise their play, resolve disputes, make judgements about the fairness of things, react to rules etc., maintaining that the child's school experiences were central to their early political understandings.

Stevens (1982), reiterating Connell's assertion that children's personal political meanings are of prime importance, suggested that all occasions of involvement with such areas as authority or rules may be significant factors in children's acquisition of political understandings. In a qualitative study using unstructured interviews with children, she highlighted the role of the school, where the child has direct and formal experience of structures, group involvement, rules, authority, individual rights and fairness. The specific nursery for their understandings, according to Stevens, are children's experiences at play, where observation may well reveal something of their social and political understandings; for example, where do the rules of the game come from, can they be changed, who takes part and who gets to decide such matters? Stevens believes that play may constitute the 'enactive' stage in children's political understanding, helping them to develop a rudimentary grasp of democratic procedures in order to establish a simple basis for co-operation. Young children are often preoccupied with elaborate procedures for the purpose of maintaining fairness and the prevention of cheating. Thus, through play, they discover that an ethical structure will provide an ordered base for their activities.

Examinations of children's school experiences as a factor in their political understanding had been conducted previously by researchers mainly within the political socialisation framework. However they had generally investigated the school as an agent of socialisation. For example, the influence of certain styles or expression of values in school text books (Romanish, 1983) or the particular classroom climate (Torney, Oppenheim & Farnen, 1975, Cusick, 1983, Palonsky, 1986) had been examined. The emphasis is very much on the child's understanding being shaped and fashioned by the external influence of the school. On the other hand, while commenting on the paucity of most research into children's political cognition, both Stevens (1982) and Palonsky (1987) argued for a crucially different approach in future investigations of political understanding. Both proposed that the
school should be examined, not as a factor but as an important context for political learning, in which children have first-hand, daily experiences of situations, roles and relationships which afford them the opportunity of acquiring concepts and developing their political understandings. Therefore, this particular approach, using the school as the micropolitical context in which children's political thinking develops, provided the basis for the present study.

2.5.3 Social representations: an alternative research perspective
The theory of social representations (Moscovici, 1984) has emerged in recent years and is increasingly being used in investigating social understanding, in both adults and children. This theory states that the knowledge, beliefs and understandings which people report will reflect the social groupings to which they belong. Social representations form a system of values, ideas and practices with two functions, structure and process. First, they provide a structure which helps people to make sense of the social world, and second, they offer a means of communication by supplying a common social code. There is an important connection between these two functions; by providing a structure which facilitates social interaction, social representations are also supplying the means through which they themselves are constructed. The process of social representations has two component functions; first, there is anchoring, by which the unfamiliar is transformed into the familiar and second, objectification by which the abstract is converted into the concrete. The implication must be that the social representations of a particular group should assist it in the crucial task of maintaining itself, by providing both the framework and the shared understandings for social interactions which are uniquely suited to its constitution and its needs.

It is evident, then, that the social representations perspective is relevant to social cognition research because of the essential 'socialness' of social representations (Emler & Ohana, 1993); they refer to knowledge about the social world, which is socially-shared amongst the group and, most crucially, they are socially-generated. But how useful would this approach be to a study of children's social understanding? According to Duveen and Lloyd (1990), social representations support a genetic perspective because the structure of any social representation is a construction and thus the outcome of a developmental process. They suggest three different types of genetic transmissions; sociogenesis, through which the social representations evolve over time; ontogenesis, in which the individual reconstructs the social representations; and microgenesis, the everyday process of
communicating and exchanging social representations. In the case of children, sociogenesis contributes to the child's immediate social environment, consisting of the social representations of parents, caregivers, teachers, siblings and other children. For example, the child will have access to various representations of childhood itself, not merely from the people around but in books, films, television and other media (Chombart-de-Lauwe, 1984). On the other hand, microgenesis is the child's own participation in the process as information about the social world is both received and transformed by the child. Duveen and Lloyd suggest that while this may result in ontogenetic transformations in the child's understanding, it is unlikely that any sociogenetic changes will ensue.

Evidently, the theory of social representations has relevance to an examination of children's social understanding, but does it represent an improvement on the cognitive approach? Emler and Ohana (1993) specifically addressed this point, raising four distinct and important advantages of a social representations perspective, namely communication, content, culture and community. First, a social representations approach seeks to reveal children's own meanings and understandings, as communicated by them in their own terms, thus emphasising their 'real-life' knowledge as opposed to their comprehension of hypothetical or unfamiliar events. Therefore children's own reports of their perceptions of the social environment are the subject matter of investigation. Second, social representations theory shifts the focus away from the underlying structure of thought towards the actual content which children communicate, because this is where shared understandings are revealed. Social understanding is not necessarily logical because knowledge about the social environment is socially-generated for the purpose of the groups concerned and is therefore more likely to consist of shared meanings and value-judgements. Third, a social representations approach makes proper allowance for the influence of culture, with the admission of external influences. The universalism of the cognitive-developmental approach, which has been subject of considerable criticism, is duly rejected. Social knowledge, in particular, cannot be stripped from its cultural roots. Finally, social representations gives recognition to the role of community in the development of social understanding. Knowledge is socially-constructed, as well as cognitively-constructed and children's understanding will reflect the thinking of their groupings. Consequently, interest now switches to the influence of these 'natural' categories, in contrast to the categories favoured in cognitive-developmental
research, which often reflect the researcher's pre-conceptions rather than any 'real-life' grouping.

In conclusion, the social representations approach may represent an improvement on both socialisation and cognitive perspectives. It would appear that the two emerging themes in developmental research previously mentioned, that of the pressing need to include cultural influences and the equally important requirement to respect children's own social realities by investigating them in ways which allow them to reveal their understandings in their own terms, may receive sufficient consideration by this perspective. Some studies of children's social understanding have been conducted within a social representations framework and new aspects of children's social cognition have been uncovered. An example of the kind of research possible within this perspective is the investigation by Emler and Dickinson (1985) which examined the effect of social class on children's understanding of economic inequalities.

2.5.4 Review of social representations research
In the study by Emler and Dickinson (1985), working-class and middle-class children were asked about various class-typical occupations, responding both to specific questions, such as estimates of pay, and also to open-ended questions designed to probe their understanding of income differences. In support of social representations theory, the variations revealed in the children's knowledge and beliefs about income inequalities were almost entirely associated with class, with fewer age differences than a cognitive-developmental perspective would predict. While both groups of children believed that inequalities of income were justified, the middle-class children's responses revealed both a greater range of incomes and also a higher degree of conviction that such differences were justified. They also offered a greater variety of justifications for the income inequalities and were more likely to attribute housing differences to pay differentials. As Emler and Dickinson point out, these results are consistent with the view that knowledge about levels of income is unevenly distributed in society according to socio-economic class membership. The content of children's knowledge is socially-constructed according to this pattern, with the two groups of children displaying the variations in understandings and beliefs which make up the social representations of their respective classes.

There have been other studies within the social representations perspective which
also suggest that it may be an appropriate research framework for political cognition. In the expectation of finding some association between moral reasoning and views of authority, Moscovici (1990) looked at children's responses to moral dilemmas as a function of their educational experiences. He believed that their social representations would depend on the 'style' of authority in their school and would then feed through into different moral reasoning. Some of the children were in 'participatory' school systems, in which everyone felt they had a say in decisions and authority was obeyed because it was respected. Other children attended 'integrative' schools, in which everyone was part of an institutional system with decisions independently made and authority complied with simply out of duty (or functionalist perspective). The children from the two school systems indeed offered different responses. The children in the integrative system had a more rigid outlook, believing that authority was always right; a perspective which might very well influence their understandings of the macropolitical world or of society in general. These findings would suggest that the responses to the moral dilemmas given by these children were influenced by the concepts gained in the specific social environment of their schools, in this case the political concept of authority.

2.5.5 Further support for the new approach
With specific reference to the development of political understanding, Palonsky (1987) would support this approach. He suggested that children's cognition should be investigated by looking at the ways children appropriate information from their home, school and communities, which they then use to construct an individual political perspective. Haste (1986) also directly proposes that the micropolitical context of the community is a very important factor in the development of political understanding. While an understanding of moral and political development may be gained from a focus on the way the individual structures and restructures their thinking as a response to challenging external events, the area can also be investigated by looking at the social context itself, such as an examination of 'just' communities, schools or families. How these communities take decisions, deal with conflicts, distribute power and authority and manage 'democratic' input (although in the case of children equality will be limited by age) will contribute to the child's wider political consciousness.

Haste (1990) has also raised the question of a social representations perspective for political cognition research. In a possible model for investigating the development of the child's political understanding, Haste describes a dynamic relationship
between the child's cognitive structure and both the micro-political context of these 'local' first-hand practical experiences of political systems and the macro-political context of the broader cultural system, such as the prevailing political ideologies and rhetoric. The individual child is the agent in constructing meaning but from within his/her own social, cultural and historical context. Haste believes, like Moscovici (1984), that such experiences lead to different social representations and may consequently produce political thinking which will depart from a classical moral judgement. The political here is a more pragmatic and concrete response, and subject to possibly greater influence by experience, than the responses evinced by the traditional moral dilemmas of Kohlberg. The moral understanding of the child, while it is a crucial factor in the development of political understanding, is nevertheless only one of many complex influences.

2.6 Conclusion
Overall, therefore, the conclusion to be drawn from this review of the political cognition literature is that a social representations framework may offer a more suitable approach for an investigation of children's political understanding. It appears to represent a new solution to the debate between environmental influences and individual cognitive processes and there is clearly a growing body of interest in this perspective for research into social understanding. However, there is one final point to be made in this discussion; there is a specific advantage in a social representations approach for research into political understanding in particular. If social representations are truly about the prevailing pattern of social beliefs and solutions current in any society, then they are likely to be ultimately a consequence of the power distribution in that grouping. Power is about politics; so, in this respect, social representations theory would appear to be uniquely suited to a study of children's political understanding.
Chapter 3

Development within the Social Context of the School

3.1 Introduction
Social representations therefore provided the theoretical framework for this present study, as it was viewed as offering a promising new approach for an investigation into children's political cognition. From within this perspective, choices were then made about more particular aspects of this research, which affected the general orientation of the investigation.

3.2 Micropolitical contexts
Clearly, social representations theory places a heavy emphasis on children's understandings and beliefs of their actual social environment, rather than on their appraisals of hypothetical situations. The work of Adelson and his colleagues (1966, 1969), followed by Berti (1988), produced interesting accounts of children's acquisition of political concepts, which have had a considerable influence on the areas chosen for this present study. However, the children's responses were based on hypothetical communities. While such hypothetical studies as these may indeed reveal some aspects of children's understanding, they inevitably prompt further questions. First, what is the relationship between the understanding of hypothetical societies, as described in the work of Adelson and others, and the understanding of real-life political systems? Are they closely linked or is the hypothetical so divorced from real-life understanding that they are better viewed as two separate areas? If so, then it becomes essential to examine children's political understanding within a real-life context. Second, how and where do children develop the understanding which they bring to their analysis of hypothetical societies? If, as would seem possible, their understanding of the hypothetical is being informed by real-life experiences and thus dependent on actual situations, how and where do children experience political systems? Since young children fail to reveal much knowledge of macropolitical systems, according to the traditional large-scale surveys, then it may be that micropolitical systems, as outlined in the first chapter, provide the 'nursery' where children come to grasp something about the nature of the political.
3.3 The school as context
Undoubtedly one of the most influential of social contexts experienced by the young child is the primary school. First, the school is an important context because it is an enduring one; for example, young children enter the primary school around the age of 4-5, are likely to remain in the same school until the age of 11, representing a considerable proportion of time in their lives. Second, the school derives considerable influence from its statutory requirement to provide the main context for children’s formalised cognitive development. Indeed the school has been specifically designed as a system which will provide the most effective environment for promoting children's cognitive growth. Finally, the school is also a vital context for social development, as children experience it as their first social system after the family, gaining a new and different perspective on the vital interaction between self and system, learning to relate both to adults outside the family and also to their peers. Minuchin and Shapiro (1983) describe school-children as ‘members of a small society, in which there are tasks to be done, people to relate to and rules that define the possibilities of behaviour ..........(affecting) aspects of social behaviour and development’ (p. 198). They believe that there is an important connection between long-term social functioning and experience in school, as a consequence of both the importance and the length of the impact which school makes on the lives of children, even though subsequent social experiences and contexts will probably affect and alter the social understanding gained in school. Therefore, this early system-knowledge may well be a developmental pointer to subsequent institutional understanding and furthermore, variations in school experiences may result in differences in system-understanding in adult life (Emler, Ohana & Moscovici, 1987).

What about the school as a political context? The primary school certainly contains many of the aspects of micropolitical systems in general, as outlined in the first chapter. First of all, the sense of system is very strong, even for a very young child. Schools have a real physical presence with names, possibly uniforms, geographical locations and boundaries. There are also specially designated roles for all participants, which exist only within the school, such as headteacher, teachers, pupils etc.; even though they may not be very clearly-defined for the youngest children, they are well aware of them. The system of the school makes demands on each member, and not just the teachers; even the children have a role to learn, that of pupil. Equally, each participant has expectations of the system. Second, there is also a clear sense of belonging to a community which is actively fostered in the
children in particular and there are frequent references to the school as a society with communal needs and requirements. Competition with other schools in inter-school activities also contributes to this feeling of community. Third, conventionally there is a hierarchical power-structure, involving headteacher and teachers, and possibly including some parents as well. Decisions by these special groups are taken on behalf of the community as a whole and while children are unlikely to be appraised directly of the organisational structure involved, they are nevertheless regularly made aware of the collective will through new rules or decisions announced in assembly. Finally, and perhaps most importantly of all, there are rules to regulate the system, both explicit and implicit, including a large number of socio-conventional rules particular to the school concerned.

Overall, the school is a complex, multi-faceted community with many of the hallmarks of a micropolitical society. How do the children come to make sense of it? This study set out with the aim of examining young children's understanding of the school as a system on the assumption that acquisition of political understanding may well begin in these early years as the child struggles to make sense of the school as a system. In the school, the child comes into daily contact with such concepts as power, authority, rules, community and decision-making. The child must learn to adopt the impersonal role of pupil and to interact with non-family adults, also taking on impersonal roles, who have considerable authority over them. They have to internalise a large body of rules, many of which may seem arbitrary, but whose transgression may result in serious consequences for the child. For a large part of their lives, they are members of a compact and distinct community. In the process of adapting and developing within this micropolitical community, it is the contention of this study that children may well be constructing their earliest political understandings and beliefs, after the family.

The school is undoubtedly an important social context for children. However, the overwhelming focus in research in schools has been on the educational context. Schools are entrusted with the important task of fostering children's formalized cognitive development, and consequently, there has been a wealth of research into all aspects of the school's educational environment, such as teaching styles and practices, curriculum matters, reading methods, number concept, etc., across the full age-range, with the aim of maximising the academic functioning of the school. There has been relatively much less research into children's understanding of social aspects of the school, despite the importance of knowing something of children's
thinking about the school-as-context during a crucial period in their cognitive development.

3.4 Review of school-based research
Some studies into social aspects of the school have been conducted from a broadly sociological and quantititative perspective (e.g. Davies, 1982, Stevens, 1982) and have therefore been less interested in individual differences and more concerned with overall patterns. Davies (1982) reported children's unstructured discussions in which children exchanged views on aspects of school life. In the study by Stevens (1982), the children's unprompted group discussions about both school matters and the wider political world revealed that they had an understanding of the need for societies to be rule-governed. They also indicated developing expectations of the system of the school, that it would promote justice, fairness, equality of treatment and generally ensure the general good. Stevens suggests that this may be an important precursor to a belief in the concept of public good. Overall, the children's reports suggest that an understanding of the school, as a microscopic society, may assist children's developing political beliefs and thinking.

There has also been some sustained interest in the question of school ethos or the effects of the social and academic climate of the school. Finlayson (1973) proposed a series of questionnaires for investigating school climate in secondary schools. He suggested using both pupils' and teachers' perceptions of various aspects of school life in order to map out what he defined as the 'organisational climate', (relations amongst teachers and between the head and the staff) and the 'social climate', (behaviour of pupils, pupil-teacher relationships and school/community interaction). Others have investigated possible links between the social environment of the school and academic attainments. For example, Hargreaves, Hestor and Mellor (1975) examined the effects of deviance in the classroom. Furthermore, following on from Finlayson's analysis, Rutter, Maughan, Mortimor and Ouston (1979) conducted an extensive examination into possible associations between school processes, which they defined as the organisational features which create the social context of the school, and academic outcomes. Having examined an extensive range of processes, they concluded that there was an important social institutional effect of the school, made up of a series of process variables acting in combination, which contributed to the ethos of the school. They argued that the culture or patterns developed by the school as a social organisation might therefore be a factor in the academic attainments of the school.
Some research has examined particular aspects of school life, often within an 'environmental niche' such as the classroom or the playground. For example, children's and teacher's perceptions of rewards and punishments were investigated by Harrop and Williams (1992). Blatchford, Creeser and Mooney (1990) examined children's playground games and playtime. There have also been many studies of bullying (e.g. Stephenson & Smith, 1989, Tattum & Lane, 1989, Whitney & Smith, 1993).

However the most extensive specific area to be explored has been children's understanding of rules within the school-context. Several investigations, seeking to explore domain-discrimination, have probed young children's conceptions of moral and conventional rules within the school context (Weston & Turiel, 1980, Dodsworth-Rugani, 1982, Nucci & Nucci, 1982a, 1982b, Tisak & Turiel, 1986, Blumenfield, Pintrich & Hamilton, 1987, Tisak & Turiel, 1988, Hamilton, Blumenfield, Akoh & Muira, 1989). Other studies have looked at school-rule understanding with reference to other areas of school life. Geiger and Turiel (1983) investigated young adolescents' understanding of socio-conventional rules as a factor in disruptive behaviour. Cullingford (1988) examined children's perceptions of rules with respect to their attitudes to discipline. Laupa and Turiel (1986) looked at children's understanding of both adult and peer authority with relation to commands.

In a study within a social representations framework which has already been briefly discussed, Emler, Ohana and Moscovici (1987) looked at children's understanding of the institutional roles of classroom teacher and head teacher, examining, among other areas, the powers of the teachers to make or change rules. Children, as early as the age of 7, appeared to understand that teachers' powers, with respect to school regulations, were not unlimited and that authority was probably hierarchically distributed, although this was largely intuitive rather than substantive. Their responses suggested that they had grasped the basic fundamentals of the teacher's role. Furthermore, and of direct relevance for this study, Emler et al. argued that the children had developed some understanding of the power-structure and organisation of the school.

However, what of the child's understanding of the school as a whole community, as a microscopic society? The task of settling in at school is probably a daunting one for the new reception year pupil. Schutz (1971) described children entering the
system of the school as relatively powerless strangers, expected to adjust to a series of strange rules without any pre-existing relationships for assistance, where success depends on rapid assessment and adoption of the pupil's role, without any clear description of exactly what is required of them. The school is clearly an extensive system, with much of its workings, structure and power-patterns invisible and unexplained to the young pupil. It is, in microcosm, a multi-faceted and multi-layered society and undoubtedly presents a considerable interpretative problem for children (Emler et al., 1987). According to Brownell (1989), it is this typical complexity of the social environment which probably makes heavy demands on the young child's developing social understanding. And yet, for successful functioning, the young pupil needs to have an understanding of the school as a whole and complex environment, with a developing grasp of the interconnectedness of such aspects as rules, roles, power and community.

This comprehension of the wider purpose and structure of the school both transcends and affects their understanding of particular areas within the school, such as the class-room or the playground, or of specific topics such as rule-knowledge. For example, the children's conception of the school as a system may well affect their comprehension of conventional rules, because such rules depend on the authority structure for validity (Smetana, 1993). Laupa and Turiel (1986) examined children's assessments of different levels and concepts of authority and found that children were generally conscious of differences in the status of authority when reacting to commands. Furthermore, as Corsaro (1990) explained, children learn that knowledge of rule-content is not sufficient, but that rules must be applied and interpreted in social context. Therefore how children do come to make sense of the school as a microscopic society may well affect their understanding of more specific aspects of school life as rules, roles or classroom practices.

Furthermore, Minuchin and Shapiro (1983) highlight the potentiality offered to the child, by membership of the school community, for acquiring some conceptions of how a social system, beyond and outside the family, functions and for experiencing the interaction between the self and system. They point out that schools offer an unrivalled and largely untapped possibility for mapping the child's relationship to non-parental authorities at different times and ages, as their social understanding develops, and for examining the effects of different styles of authority on the child's growing sense of responsibility, not only for their immediate circle of peers and
teachers but also for the community as a whole. Stevens (1982), in her qualitative account of children's reports of school-life with a political perspective, also maintains that children are offered considerable opportunities, as they make sense of the school system, of developing their understanding of the requirements of any community.

Emler et al. (1987), in the course of examining children's beliefs about the institutional roles of teachers, also revealed something of how children understood the authority structure, since a full comprehension of organisation roles can only be achieved through some understanding of the system they apply to, as the roles are partly defined by the structure. Dodsworth-Rugani (1982), besides probing children's rule-domains, also compared their concepts of school rules with their concepts of social structure. She found that the children's thinking on rules, and conventional rules in particular, was indeed affected by their perceptions of such areas as authority, role function and social organisation; with age, the children's thinking both on the function of rules and their grasp of the social structure appeared to develop in similar ways. Ohana (1986) looked at children's discourse on rules and responsibilities as a function of the type of school attended, and found that the talk of children from so-described 'traditional' schools differed from that of children in 'experimental' schools, in a way that suggested that different school structures would result in different understandings of such areas as authority, rule-function and the requirements made by the system on both pupil and staff.

According to Moscovici (1990) reviewing the same study, the children also demonstrated different choices when responding to moral-reasoning dilemmas. Importantly, these findings showed very few age differences, thus suggesting that it was the variation in the context of development which was the important factor here. It would appear to be the case, then, that children's overall understanding of the system of the school is an important factor in their social knowledge of other school areas such as rules, roles and authority.

3.5 Conclusion
3.5.1 Themes and frameworks
The overall intention of this study was to examine the political cognition of young children. The investigation was designed and conducted in accordance with the insights which were drawn from the research history of this particular area of children's social understanding, as reviewed in the preceding chapters. Therefore, before commencing the reports of the research undertaken, for the purpose of
clarification, it is important to reiterate briefly the most central conclusions and to emphasise the research themes which arose out of them.

In particular, there were two essential points emanating from the literature survey which were of major importance in shaping this study. First, the two main theoretical frameworks within which most political cognition research has been conducted, namely political socialization and cognitive constructivist, would appear to be deficient in various ways as previously discussed and were rejected for this particular study. Second, for the purpose of this research, political cognition was conceived as encompassing a very broad area of human activities, beliefs and understandings, which is central to most collective and social interactions in many types of groupings, informal as well as formal, private as well as public, thus challenging the more conventional and restrictive views prevalent in much previous research. Partly as a consequence of these insights arising from the literature review, there were some important themes which not only predominated at the inception of this research, but were also strongly interwoven throughout all the studies undertaken.

3.5.2 Child-centred research
First, the research undertaken was very much child-centred in the belief that children's opinions are of importance and value. In particular, the work of Palonsky (1987), Coles (1986) and Connell (1971) revealed some of the richness of children's political understandings if the children were allowed to report their own political realities rather than those of the adult world. To this purpose, the agenda was largely set by the children, using ideas, expressions and descriptions of the social world of the school which had been engendered by them. Furthermore, the content domain for this research was the children's perceptions of the school, an important and very familiar context in their lives. This therefore fits well with the broadly-based definition of political cognition used in this research, which proposes that most collective or social gatherings can provide the opportunity to develop political understandings. Indeed the school presents children with a daily experience of such political concepts as power, authority, rules, roles and decision-making. Furthermore, as a micro-society, it also offers a possibly unrivalled opportunity to comprehend the connections between these concepts and to come to an understanding of the interaction between the self and the system. It is proposed that children, as a consequence of their attempts to make sense of the social environment, will construct their own political realities and that these will be best
revealed when they are allowed to report what is to familiar to them in their own terms. Therefore, the intention was to reveal children's developing political beliefs and understandings through an investigation of their perceptions of the school, as the children endeavour to make sense of the school as a micro-political system.

3.5.3 Development within a social context
Second, the idea that development occurs within a social context was also an important theme of this research. Children's development does not take place in a vacuum and it was an essential tenet of this research that their growing and changing beliefs and perceptions about the social world will reflect in some way the context in which those understandings are acquired. The school is arguably the most important social context of their young lives, after the family, and a comprehension of their understanding of the school may shed fresh light on their social development. In addition, the school is also the context formally designed to foster their cognitive development and some understanding of any possible context-effects may assist in promoting their intellectual functioning. Therefore, the context of development was seen as an important factor in the actual path of that development, with the pattern of children's changing beliefs and understandings reflecting influences emanating from the school-as-context.

3.5.4 Social representations perspective
Finally, the theoretical framework adopted for this research was that of social representations theory. As the political socialization approach over-emphasises the role of the environment, while the cognitive constructivist approach stresses that of the individual, the social representations perspective was thought to offer a better balance between these two aspects, by examining the beliefs and understandings of individuals but with respect to their social groupings. Therefore, the interpretative framework of this theoretical approach can reconcile the developing political understandings of individuals with any effects arising from their membership of various social groupings. In the light of the study by Emler and Dickinson (1985), it was expected that children's political cognition would vary as a consequence of their social groupings.

3.6 Plan of the empirical studies
Therefore the first study consisted of open-ended interviews of children about many aspects of school life, thus probing their general understanding of the school in their own terms. These interviews were then used to generate the topics,
categories and descriptions which formed the basis of the interview schedules used in the subsequent studies. In the second study, the children were asked about a very broad range of topics, such as rules, power, authority, roles of head and class teacher and decision-making, both in order to establish a basic understanding of multiple aspects of school life and also in preparation for a closer focus in subsequent studies. The third study therefore examined the specific and well-researched area of children's rule-understanding in greater depth and in the light of the findings about their understanding of the system of the school from the second study, in particular as a consequence of their perceptions of power and authority. There was also an investigation of other influences on the children's understanding by an inquiry into school ethos through an examination of children's and teachers' attitudes about their schools. Finally, the fourth study investigated still wider influences on the children's understanding by including parental attitudes, in addition to those of the children and the teachers, and by examining possible additional factors such as the social categories of socio-economic class and birth-order in the family. The broadly-based understanding of the school, as revealed in the second study, was also re-examined in the fourth study, in order to check upon the possible generalizability of the findings.
Chapter 4

Study 1: Children's Perceptions of School: an Explorative Study

4.1.1 Introduction
This first study was designed as a qualitative investigation of primary school children's understanding of the school in order to establish a framework for subsequent studies. One of the prime motivations for this research was the belief that children construct their political knowledge, thinking and beliefs through active participation in the political environment of their lives. Therefore the essential starting-point for this study was an unstructured exploration of children's understanding of an important and familiar context of their lives, namely the micro political system of the school, in order to access their own political perceptions. There were three important aims: (1) to explore children's thinking about school in the broadest possible way; (2) more specifically, to conduct an initial examination of their understanding of political concepts within the school context; and (3) to discover the types of categories and choice of terms which children would use to structure and describe their thinking about school life.

4.1.2 Children's perceptions of the school
First, in the absence of very little previous research in this area, the study was to probe children's thinking over a very wide range of different aspects of school life, in order to gain some insight into their understanding of this important context in their life. It would also hopefully reveal something of the ways in which their thinking developed and changed as they moved up through the school. To this end, they were allowed a considerable amount of freedom in the areas they wished to discuss and were encouraged to talk about school as they wished, in order to gauge their perceptions of those areas of school life which seemed most important to them.

4.1.3 Children's political understanding
Secondly, however, and as unobtrusively as possible, the children were also more specifically directed towards certain aspects of political understanding, if these topics were not spontaneously mentioned. The intention was to investigate their thinking about such specific political concepts as rules, authority, power and decision-making, using the school as the context of their understanding. Therefore, while still generally allowing the children to talk about those topics they were most
interested in, these political areas were raised where necessary. As suggested by Stevens (1982), Palonsky (1987), it was hoped that this approach would ascertain the children's own political realities.

4.1.4 Children's descriptions and terminology
Thirdly, it was hoped that by encouraging the children to speak very freely, with as little prompting as possible, that the study would reveal the language, choice of categories and terminology used by the children, as they described their perceptions of school life in ways as natural and unstructured as possible. According to Emler and Ohana (1993), it is essential to discover the children's own descriptions and accounts, as it is through the actual communication of thinking that the children's social realities should be revealed. Furthermore, as the children's own terminology and categories would be ascertained in this way, this would facilitate the construction of subsequent interview schedules and would hopefully result in a more accurate understanding of the children's thinking.

4.2 Method
4.2.1 Sample
A total of 14 children were interviewed, all from one primary school in the London borough of Richmond. They were drawn from all 7 years in the school, from Reception and Years 1-6, with a boy and a girl being randomly selected by the teachers from each class. The ages ranged from 4 (but nearly 5) to 11.

4.2.2 Procedure
The children were all interviewed singly in a room set aside for the study. They were told that the researcher was interested in writing about children's views of school and would therefore be talking to lots of children. Once the children had agreed to help they were shown how the tape-recorder worked. They listened to their own voices being played back, in order to ensure that they would not feel intimidated by the machine in any way. They were also assured of anonymity.

The length of the sessions varied, depending somewhat on the sociability of the child and on the age of the child, as older children generally offered fuller responses than younger ones. The average time taken was about 30 minutes. All the children appeared to be interested and happy in the sessions. The discussion usually opened with the general question, 'tell me about some of the things you do in school?'. Thereafter, there was a very broad schedule of possible questions (see
Appendix A), although the actual words used depended on the child in question. The whole process of the interviews was very much paced and directed by the children. The terminology and descriptions used were therefore those which made most sense to each child, in order to ensure that he/she had every opportunity to talk about the most important aspects of school life in the most appropriate ways.

4.2.3 Core topics for discussion
However, there were some core topics, which were selected prior to interviewing, on the basis of the specific focus on the children's understanding of the school as a political system. First, the role and power of the head teacher was pre-designated, as the head teacher has clear importance and centrality in the hierarchy of school organisation; therefore the children's perception of his/her part in school life may well be a key aspect of their understanding of the school system as a whole. The discussion was directed towards exploring certain questions about the school organisation: who was in charge, who took decisions, who was responsible for doing that etc.

Secondly, school rules were also specifically designated for discussion, as systems may be more or less dependent on rules, implicit and explicit, for both maintenance and smooth functioning. Indeed rules may incorporate, through their content, an important sense of purpose of the system, or indeed may provide the clearest indication of its actual existence. They are also an evident point of contact between the self and the system. The children were asked why did school have rules? Who made them up? Were they good rules, all of them? They were also encouraged to talk about specific rules, together with justifications.

Finally, decision-making was also a pre-selected topic, both in the broadest sense of the school and also in the classroom or the playground. Decision-making is an essential function of any system and an important part of the processes involved in the maintenance of any community. In addition it is a vital aspect of self-system interaction. It is also a system-concept which children can and do experience, through peer-interaction, in more proactive ways than their more passive encounters with such concepts as rules. The children were encouraged to talk about how things were decided in school, both with the peers and in classroom settings.

With respect to these three core topics, almost all of the 14 children touched on both the role of the head teacher and school rules without specific prompting, thus
providing some simple confirmation of the centrality of these school aspects in children's thinking. Decision-making was also spontaneously offered by many children as a topic for discussion, but not by all. However, this particular school had a flourishing school council which was, at the time of the interviews, conducting an impressive exercise in school democracy by polling the entire school about the uses of the playground space. Therefore, decision-making in this particular school was a topic of high salience for the children at the time of the interviews.

4.2.4 Analysis
No statistical analysis was made, as the sample was too small to provide any meaningful results. Each child's interview was transcribed and then examined for any themes and trends, with particular attention given to any possible developmental changes. The transcripts were simply used as very broad descriptions of the types of issues and ways of thinking which characterised the children's perceptions of their school.

4.3 Discussion
The children's interviews are described under the three core headings: (1) the headmaster, (2) rules and (3) decision-making in school. Other themes which arose, such as a sense of community or the role of the class teacher, were more incidental and are discussed as they emerged, within those three main areas. To facilitate the reporting, the children's responses are grouped in the following age-bands: (1) Young, made up of Reception and Years 1 and 2; (2) Middle, Years 3 and 4; and (3) Old, Years 5 and 6. These groupings were to form the basis for the eventual analyses in the main research, with one difference; the Young group in the subsequent studies contained Years 1 and 2 only, as the Reception children were excluded for reasons which will be explained in due course.

4.3.1 The role of the head
Young Group (Reception and Years 1-2)
During the discussion of his job, the children made reference to those tasks which are most evident, such as taking assembly, showing people around the school, telling people off, working in an office, writing letters and printing things. However, with the exception of one of the Reception Year children, there were also early signs of an understanding of his wider role by such references as 'in charge', 'takes care of the school', 'looks after important things', 'says important things' and
'rules the school'. One child said the head decided everything in the school except the games in the playground. There was however an indication that children of this age tend to report on what they actually see or experience, while one seven-year-old was much exercised by the difficulty of describing the head's role because he had not actually 'seen' him in his office, a problem which other children also mentioned.

However there was little evidence of a comprehension of school hierarchy. One child reported that the head 'helps the teachers' while another reported that the head told the teacher what to do, but this was with reference to actual classroom interventions and not in an organisational sense. All but one of this group, however, were clear that the head teacher was more important than the class teacher, one child citing his powers to tell people off as the justification for this, another simply pointing out that he was 'the head of the school'. On the whole, the children find it quite difficult to specify the actual activities of the head, but have a possibly intuitive sense of his overall role and importance.

**Middle Group (Years 3-4)**
There was a rather longer litany of activities. Besides the usual ones mentioned by the youngest children, there were now some additional ones which were suggestive of a growing understanding both of the head's pivotal role and of the organisational requirements of a mini-society. One child said the head 'pays money to get things and organises everything'. Another said that the head 'goes into classes and does things the teachers can't do' and that 'he plans things for the school'. However, rather contrary to this greater understanding of the head's role, there were some interesting responses to the question about who was more important, the head teacher or their class teacher. Two of the children responded that the class teacher was more important than the head. One child offered as justification the fact that the class teacher actually teaches, possibly hinting at a growing understanding of one of the essential purposes of school. The other child gave a very practical, if possibly incorrect reason, that it would be easier to get another head teacher than a class teacher. Again, there was little spontaneous discussion which suggested a grasp of the hierarchy of the school organisation.

**Old Group (Years 5-6)**
Again there were the usual lists of tasks, together with clear and general agreement on the importance of the head teacher. However, none of the children were able to
go beyond the sort of general statements about his central role by giving any substantial examples of important tasks. One child offered as evidence his conducting of governors and parents around the school. Another showed some evidence of a developing sense of community pressures by suggesting that the head teacher 'makes sure everybody fits in with everyone else, keeps everything running'.

When discussing the relative importance of the head teacher and the class teacher, the children were prompted to suggest other vital tasks, as they worked out their choice. One child, having decided that the head was more important, offered as evidence the opinion that 'he hires the teachers and runs the place'. But there was also possible signs of a growing recognition of the teachers as an important collective power in the school. One child believed that all teachers, the head teacher included, were of equal importance, because all of them 'help us to learn'. Another also cited the crucial role of teaching as defining who was important, as it was the most vital task in the school, but gave the edge to the head teacher because 'he does other things as well'. Alongside this developing understanding of the role of the staff, the children were also inclined to criticise teachers, unlike any of the younger children, possibly from a more discriminating stance or perhaps as a consequence of increased confidence in their own opinions. These older children had also had a longer time in which to develop their perceptions of teachers.

There is little here in these responses to suggest a grasp of the hierarchy, but one child did offer a glimpse of a wider understanding by saying that her form-teacher and the deputy head were also important in the school. She also volunteered that both the head and deputy head worked together, 'organising things'. It may be that the other children also had some sense of the spread of organisation in the school, but if so, they did not mention it.

4.3.2 Rules

**Young Group (Reception and Years 1-5)**

There was a distinction between the very youngest children, in the Reception class, and those in Years 1 and 2. The Reception class children had a considerably less-developed understanding of the concept of a school-rule, although they were very ready to offer examples of rules at home. However, only a year older, the Year 1 children have a very good understanding of a school-rule, and were able to furnish numerous examples.
Talking about the reasons for rules, the children offered the injury or safety justification of not hurting self or others, where appropriate. They also talked about damaging school property; for example, 'you mustn't kick footballs against the windows, or they could break'. On the other hand, the children tended to mention 'naughtiness', or 'people will tell you off' as the justification where no harm was involved. Therefore, non-moral rules, with no clear or simple consequence, were often seen as defining good and bad behaviour; for example, the reason given for not saying 'naughty words' was that 'you get sent outside Mr. Thompson's room'. Socio-conventional rules are both harder to elucidate and much less likely to be explained (Smetana, 1993), and in addition, the youngest children are having to grapple with the extensive amount of conventional rules in the school.

Perhaps as a consequence of this more limited understanding of the rationale behind some school rules, the very youngest children tended to display some trepidation when asked what would happen if there were no school rules. One child said 'we wouldn't know anything' and there was an evident sense that rules were necessary if children were to avoid being punished. However, the children in Year 2 were already less likely to feel that good behaviour was dependent on the existence of rules, and more likely to think that most people would behave well in their absence.

Who makes up the rules? This was generally and confidently viewed as the head teacher's job, across this age band, although one child did volunteer that the rules came from God. The head teacher knew what rules to make, according to one child, because he 'sees which behaviour hurts'. However, there was also the suggestion that the teachers might help the head to make up the rules and one child mentioned the role of the School Council in rule-formation.

All the children thought that their school rules were good and sensible on the whole. But they were unhappy at the thought that children might contribute to the process of making the rules; several said that children would make silly rules, while one of the year 2 boys said that the youngest children, and the boys in particular, would be incapable of making good rules.

Middle Group (Years 3-4)
By now, there was a very clear understanding of what a rule is, with the children offering a good range of justifications. The need to ensure safety or the avoidance
of harm was still the predominant reason for rules, but the socio-conventional rules which the younger children talked of in terms of 'naughtiness' are now seen to be about 'fairness'. This growing interest in the fairness of rules, which was very evident in the discourse of this age group about rules is more commonly associated with moral rules. It may be that these children are displaying an understanding of the second-order conventional rules, as described by Turiel (1987). It may also reflect a tendency for teachers to frame even socio-conventional rules in moral terms, in order to enforce compliance from the children.

There is also a developing comprehension that rules are not the only way to ensure good behaviour, suggesting that internal reasons were becoming established at this point. One child specifically referred to rule-breaking when he was young because he 'didn't understand what's right and wrong then', thus stressing the acquisition of a sense of knowing about good and bad behaviour by this age. However, one child felt that rules were still needed to prevent the extremes of bad conduct, such as 'crime and accidents'

On the question of who made the rules, there were clear signs of a broadening comprehension. The head teacher still figured prominently, and it was suggested that he had a kind of ultimate veto, but the teachers were also believed to be involved, although with lesser powers than the head. But even more interestingly, a role for children was also claimed; the children's discourse often suggested that children had an indirect influence on rules, although the processes were unspecified.

The rules were generally evaluated favourably. This age group, on the whole, voiced very little criticism of their school.

**Old Group (Years 5-6)**

The children in this group were inevitably the most confident about the rules, both their content and purpose. They offered an extensive series of justifications for a variety of rules, including safety, and like the Middle group, they also frequently cited the need for fairness. There was, however, also a growing awareness of the overall needs of the school as a society, with rules seen as essential for keeping order so that everyone could pursue the business of learning. One child mentioned that rules were about 'money', in the sense of those rules seen to be about protecting the school environment from costly damage. There was also a recognition of the
different needs of the various ages of children in the school; mere prohibitions were viewed as inadequate, but particularly for the younger children, and the children felt that it was essential that rules should be adequately explained.

However, perhaps as a consequence of this belief that rules should be properly explained, these children were also capable of quite a mature and critical approach to the way the school was run. When evaluating the rules in their school, while most saw them as good and sensible, there were some sharp comments as well. One child felt that rules were too often simply a matter of 'don't do that', without subsequent elaboration, and further instanced a particular case of an unfair decision by a teacher. Another child criticised at some length a particular playground rule, and specifically claimed it was unfair. Another child also detailed rules which she felt were not sensible.

On the question of rule-formation, there were clear signs of an understanding of the spread of power in the school. The head, the deputy head, the teachers, the school council and parents were all mentioned as being involved in rule-making. John Patten, the then Secretary of State, was also suggested by one child. In addition, all these older children believed that children did and should take part in the process of rule-making. One child, in support of this, commented that 'the children are actually what makes a school a school' while another remarked that 'they'd understand why it was good to vote for it'.

There was an emerging sense of community running through all the interviews of these older children. One child expressed considerable concern about the feelings of the losing minority in a recent school-wide vote and talked about finding ways of making them happy, despite the outcome. Another child said that 'we're all together in the school', meaning adults as well as children. There was also talk about the feeling of responsibility children felt in the top class, to set a good example to the younger children. Besides being further evidence of a sense of community, it also suggests that the older children have a belief in their own place and importance in the school, and are beginning to understand something of the role of the pupil.
4.3.3 Decision-making

Young Group (Reception and Years 1-2)
In the playground, the youngest had a very pragmatic approach to disagreements. They generally suggested that they would simply split up if there was conflict over what to play. However, one child talked in terms of compromising and of diffusing the situation by using a rhyming game to choose someone.

In the classroom, they all knew about putting their hands up and the biggest groups winning. However, their justifications for this were much more likely to be that it was quickest, or because the class teacher thought it was fair, rather than any grasp of democratic principles. There was still a lot of talk about running races, or tossing coins, for deciding things, even in the classroom. There was, though, a marked leap in understanding in the Year 2 children, possibly because they had by then become part of the school council system, with increased understanding of the processes of collective decision-making. For while there was still a strong emphasis on the practicalities of the various methods discussed, they also displayed a growing sense of the need for a proper discussion of all issues, to be followed by majority decision-making.

Middle Group (Years 3-4)
In the playground, these children were more likely to work through their disagreements than the younger ones. They were very keen on using rhymes to choose someone although they were also much preoccupied by the ways these methods could be rigged, with the need to be seen to be fair very much an evident concern.

With reference to decisions taken in the classroom, there was still an emphasis on pragmatics, with the children talking about the need to take quick decisions. One child also favoured the more random methods, like pulling names from hat or rhymes, because it would remove the need to make a decision altogether and avoid arguments. However, alongside these practical considerations, there was also a clear growing need for fairness and there was talk of how much preferable the secret ballot was to simply putting up hands. There was discussion of how undue influences, such as favouritism, might sway results and also a first mention of the need to choose the 'best' person. Therefore there was generally a switch away from concern with the mechanics of decision-making to an interest in the end result obtained. There was also an understanding of the need to fit the method to the
particular task; for example, while rhymes were seen as suitable in the playground, they would not work in the classroom setting.

**Old Group (Years 5-6)**

These children had sorted out playground disputes and had well-established methods for deciding what to play and with whom. There was even mention of voting.

In the classroom, there was much talk of the majority, with particular reference to the fact that majority decision-making meant the largest possible number of people would be content with the outcome. Fairness was now the paramount concern, with considerable interest in the perceived advantages of secret ballots. There was also a belief in the necessity of ensuring that the maximum numbers of children had their say and were happy, both with the process and the conclusions reached. Decision-making, as described by these years, was seen very much as a communal activity.

However, there was also a growing concern with the 'losing' minority, which had been absent from the discourse of the other younger groups. There was discussion about the needs of the minority and the necessity of helping them to be reconciled to majority decisions, thus revealing a further sense of community requirements.

### 4.4 Conclusion

This opening study was designed to reveal something of children's thinking about the school, both in broad terms and also more specifically as a micro-political society. While acknowledging the obvious limitations imposed by interviewing such a small number of children, the study was nevertheless successful in generating possible themes and areas for subsequent, more structured studies. Furthermore, as the children were given considerable freedom to choose their own areas of discussion, choice of categories and terminology, as far as was possible, it was hoped that an interview schedule constructed on the basis of their responses would provide an effective tool for reflecting and mapping their developing thinking. Although the sample was extremely small, and no major conclusions can be drawn from such a limited qualitative study, two points are worth noting.

First, it was apparent from the interviews that these children were actively trying to make sense of the system of the school. The children, even the youngest, readily offered their constructions of school life and supported their thinking with reasons
and justifications. More specifically, there was also good evidence from their accounts to suggest that children are confronted, on a daily basis, with such political concepts as power, authority and rules, and that their political thinking may develop as a result of their attempts to comprehend the micro political system of the school. It would therefore appear to be a fruitful context for researching their political understanding.

Secondly, there was some evidence that children's thinking undergoes changes during their years in school, as there were some differences between the age groups. However, while age or maturity is a possible factor, the variations need not be the consequence of cognitive differences. One of the disadvantages of qualitative studies with children is that there is an important emphasis on their ability to express their thinking adequately; a failure to report any particular perceptions does not necessarily mean that the children do not possess them. The differences in thinking displayed by older children may simply reflect their greater capacity to describe their understanding. In this respect, a more structured study, which offers children responses to choose from, may be more effective in tapping into the thinking of the younger children, as there will be less dependence on the children's ability to describe their understanding.

The interviews, therefore, provided an initial outline of children's developing perceptions of school life, with the emergence of several themes as children move up through the school. The investigation of these themes formed the basis of the next study. Using the children's ways of description and categorisation, an interview schedule was constructed to explore their thinking in a more systematic and structured fashion.


5.1 Introduction
This study aimed to map the developmental changes in children's understanding of the school in the primary school years as a microscopic society, investigating some important system-concepts, such as rules, roles, community, self/system interaction and power, and the links between them. The specific areas chosen for investigation were influenced by the study by Berti (1988) into young children's comprehension of political concepts (see Chapter 2). This suggested that children's developing political understanding fell broadly into 4 main areas: (1) the need for organisation; (2) the existence of collective needs; (3) the function of laws; and (4) the overall responsibility of all community members to establish an ordered society. In short, the children demonstrated a growing understanding that all societies need some means of regulating their members for the benefit of all. It could therefore be argued that they were, in fact, revealing a developing system-knowledge. This study set out to map some of the trends in this understanding.

The overall aim, therefore, was to focus on children's understanding of the school as a micropolitical system. Using the themes and terminology generated by the exploratory study, an interview schedule was drawn up. In particular, the aims were: (1) to assess children's understanding of both overall rule-function, as part of the system, and also to probe their thinking about moral and socio-conventional rules in the context of the school; (2) to determine children's comprehension of the authority/power hierarchy of the school, particularly with reference to rules; (3) to investigate the children's understanding of the roles of the head teacher and the class teacher; (4) to assess the children's thinking about the process of decision-making within the society of the school. This very broad examination into various aspects of their understanding of the school was necessary in order to investigate a range of system-concepts. The children's thinking on any one system-concept may well be influenced by and connected to their comprehension of other system-concepts. Furthermore, their grasp of the system as a whole may also be dependent on their understanding of individual aspects.

The children's understanding was analysed as a function of age, in order to identify developmental trends, and as a function of gender, in order to examine possible
differences in moral development between girls and boys (Gilligan, 1982). Their responses were also examined for differences based on social groupings (Moscovici, 1984). The children were drawn from four schools, so their thinking was analysed as a function of the school attended in order to examine any differences which might be attributable to variations in social environments.

5.2 Method
5.2.1 Sample

Schools
Four primary schools took part in the study, all in the London Borough of Richmond. One of the schools had also taken part in Study 1, but none of those children were interviewed for this study. All the schools were fairly close neighbours, but two schools in particular were only about ½ mile apart and their respective intakes were drawn from very similar areas. There was considerable variation in size, the largest school being over twice the size of the smallest. Furthermore, using the numbers eligible for free school meals as a very basic index, there were variations in socio-economic class background (Table 5.1).

Table 5.1 Schools: number on school roll and % eligible for free school meals

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>NUMBER ON ROLL JAN '94</th>
<th>% ELIGIBLE FOR FREE SCHOOL MEALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>269</td>
<td>22</td>
</tr>
<tr>
<td>School 2</td>
<td>412</td>
<td>16</td>
</tr>
<tr>
<td>School 3</td>
<td>184</td>
<td>24</td>
</tr>
<tr>
<td>School 4</td>
<td>373</td>
<td>5</td>
</tr>
</tbody>
</table>

Children
144 children were drawn from years 1-6 in these four primary schools. They were randomly selected by the teachers, who were asked to present a cross-section of children in respect of academic ability, but equal numbers of each year and sex. Reception year children were excluded because the study was conducted early in the academic year in October and they may have had difficulty responding while they were still settling in to school life. The children were grouped into three age groups for the purpose of analysis, Young containing 48 children from Years 1 and 2, Middle containing 48 children from Years 3 and 4 and Old containing 48
children from Years 5 and 6. Each age group contained equal numbers of boys and girls. There were thus 3 (age) x 2 (gender) x 4 (school) independent groups. Table 5.2 provides a breakdown of the mean age and age range of the children in each group.

Table 5.2 Mean age and age range of the subjects.

<table>
<thead>
<tr>
<th>Age</th>
<th>Gender</th>
<th>N</th>
<th>Mean age</th>
<th>Age range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>Girls</td>
<td>24</td>
<td>6.3</td>
<td>5.0 - 7.1</td>
</tr>
<tr>
<td>(Yrs 1+2)</td>
<td>Boys</td>
<td>24</td>
<td>6.3</td>
<td>5.3 - 7.1</td>
</tr>
<tr>
<td>Middle</td>
<td>Girls</td>
<td>24</td>
<td>8.2</td>
<td>7.2 - 9.1</td>
</tr>
<tr>
<td>(Yrs 3+4)</td>
<td>Boys</td>
<td>24</td>
<td>8.1</td>
<td>7.3 - 8.8</td>
</tr>
<tr>
<td>Old</td>
<td>Girls</td>
<td>24</td>
<td>10.2</td>
<td>9.2 - 11.1</td>
</tr>
<tr>
<td>(Yrs 5+6)</td>
<td>Boys</td>
<td>24</td>
<td>10.1</td>
<td>9.3 - 11.0</td>
</tr>
</tbody>
</table>

The 24 subjects in each subgroup were made up of 3 children, of the appropriate sex, drawn from each of the relevant years in each of the 4 schools.

5.2.2 Procedure

The previous study, in which children's views over a wide range of topics were explored by open-ended questions, was used to generate both the questions in the interview schedule and the fixed options from which the children selected their responses. The interview schedule was then piloted in two of the 4 schools used subsequently for the main study. However, no child participating in the pilot study was also included in the main study. No major problems emerged and only minor adjustments were made to the schedule for the main study.

The children were questioned about four main areas: (1) the overall purpose and function of school rules, together with their understanding of some specific rules; (2) direct power/authority questions relating to aspects of overall organisation in the school; (3) their perceptions of the roles of the head teacher and the class teacher; and (4) decision-making processes in the classroom. In many cases, the response involved sorting cards, on which the possible answers were printed in clear simple words.
The children were interviewed singly, with each interview taking approximately 15-25 minutes depending on the child. They were told that there were no right or wrong answers and assured of anonymity. The researcher gave a broad description of the schedule, saying that all the questions were about school and also checked specifically that each child understood what a rule was and could furnish an example. The children were also shown some of the cards to be used and told they would be asked to select their answer from the cards displayed (5 or 6 depending on the question). For some questions, they were asked to continue with further choices after making their initial choice. In each case, the researcher always read all the cards out carefully for each question and was alert to any children whose poor reading skills meant they might have needed further assistance in reading. Help was given whenever judged to be necessary. A large proportion of the responses required choosing between cards very simply labelled with 'the head teacher', 'the parents', 'the teachers' etc. The cards were laid out on the table in front of the child in a differently randomised order for each question and for each child. The interview schedule, and the possible answers to each question, are given in Appendix B. The order of the questions was randomised, but there were some linked questions. Some questions about school organisation (1, 3, 5 and 16) had to be followed by the standard question (2, 4, 6 and 17) asking whether anyone else was involved. After the children had chosen the school jobs which they believed either the head teacher (question 18) or their class teacher (questions 20) were responsible for, they then put the four most important jobs in order (questions 19 and 21 respectively). Finally, the questions about ways of taking decisions (22 and 24) were followed by asking the children why they believed that way was best (23 and 25).

5.2.3 Analyses

The type of data was categorical. No judgement was needed in coding responses as the categories were literal and non-interpretative. As the aim was to investigate the relationship between these categorical responses and age, gender and school, log linear analysis was used to investigate possible associations between response, age, gender and school. In addition, correspondence analysis was used to examine groups of linked responses, such as all the questions relating to power/authority, in order to reveal overall trends across the age-spectrum. Correspondence analysis (Hammond, 1988, 1993), by using well-established geometric principles, provides a pictorial representation of the relationship between categories and between individuals and groups. It permits a multi-dimensional analysis of categorical data.
by providing a plot of the relationship between the groups and the types of responses given by the children. This graphical representation reveals those answers which are most exclusively associated with each group and which therefore best discriminate the thinking of the children at different age-points.

5.3 Results
There were no major significant associations with gender in any of the analyses; therefore only the distributions of responses with respect to age and school are reported here, in that order. The results are reviewed as follows:
(1) power/authority; (2) rule understanding; (3) head teacher's and teacher's roles; and (4) decision-making processes.

5.3.1 Perceptions of power/authority

*Analysis of differences attributable to age*
When responding to questions about school organisation (questions 1-6 in the interview schedule), most of the children in all age groups predictably chose the head teacher as their first response. When they were asked who runs the school (question 1), 94 per cent of the Young group, 92 per cent of the Middle group and 88 percent of the Old group answered that the head teacher did. There were similarly large proportions in the choice of the head teacher in the responses to other power questions: (1) who makes up the rules, question 3: 92 per cent, 90 per cent and 88 percent in the Young, Middle and Old groups respectively; and (2) who can get the rules changed, question 5: 85 per cent, 79 per cent and 57 per cent respectively.

But significant age differences began to emerge when the children were then asked about the possible involvement of others. When asked if others were involved in various aspects of school organisation, such as running the school and making up the rules, both the Middle and Old groups acknowledged, to a significantly greater extent than the younger group, the role played by teachers (questions 2 and 4); see Tables 5.3 and 5.4). Their responses therefore were indicative of a hierarchy of authority, which was less apparent in the choices made by the Young group.
Table 5.3 Others' involvement in running the school analysed by age

(Numbers in this and in subsequent tables represent the number of children in each age group who provided that response)

<table>
<thead>
<tr>
<th>AGE</th>
<th>ALL STAFF</th>
<th>PARENTS</th>
<th>CLASS TEACHER</th>
<th>CHILDREN</th>
<th>OTHERS</th>
<th>NO-ONE ELSE</th>
<th>HEAD/TEACHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>20</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>10</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>Middle</td>
<td>30</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Old</td>
<td>34</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>17</td>
<td>21</td>
<td>8</td>
</tr>
</tbody>
</table>

a For previous (first-time) response, all eight children selected 'all staff'.

Log linear sig effect of age: $\chi^2 (12) = 29.2$, $p<0.005$

Post hoc $\chi^2$ tests:

1. All staff Young vs Middle significant: $\chi^2 (1) = 3.4$, $p<0.05$
   Young vs Old significant: $\chi^2 (1) = 7.2$, $p<0.005$

2. No-one else Young vs Middle significant: $\chi^2 (1) = 5.5$, $p<0.05$
   Young vs Old significant: $\chi^2 (1) = 7.2$, $p<0.005$

No other paired comparisons significant.

Table 5.4 Others' involvement in making the rules analysed by age

<table>
<thead>
<tr>
<th>AGE</th>
<th>ALL STAFF</th>
<th>PARENTS</th>
<th>CLASS TEACHER</th>
<th>CHILDREN</th>
<th>OTHERS</th>
<th>NO-ONE ELSE</th>
<th>HEAD/TEACHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>15</td>
<td>3</td>
<td>9</td>
<td>1</td>
<td>7</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Middle</td>
<td>25</td>
<td>2</td>
<td>9</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Old</td>
<td>28</td>
<td>5</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>10</td>
<td>27</td>
<td>4</td>
<td>13</td>
<td>16</td>
<td>6</td>
</tr>
</tbody>
</table>

a For previous (first-time) response, 4 children selected 'all staff', 2 selected 'class teacher'.

Log linear sig effect of age: $\chi^2 (12) = 22.2$, $p<0.05$

Post hoc $\chi^2$ tests:

1. All staff Young vs Middle significant: $\chi^2 (1) = 3.5$, $p<0.05$
   Young vs Old significant: $\chi^2 (1) = 6.1$, $p<0.05$

2. No-one else Young vs Middle significant: $\chi^2 (1) = 2.8$, $p<0.05$
   Young vs Old significant: $\chi^2 (1) = 7.7$, $p<0.005$

No other paired comparisons significant.
However, when asked 'who can get the rules changed' (question 5), there was a significant age difference even in the first-time answers (see Table 5.5). While most of the children in all three age groups replied with the head teacher, the Old group were significantly less likely to give this answer. Amongst their alternative responses, they showed a significant increase, over the Young group, in their choice of parents as rule-changers.

**Table 5.5 Who can get the rules changed analysed by age**

<table>
<thead>
<tr>
<th>AGE</th>
<th>HEAD TEACHER</th>
<th>ALL TEACHERS</th>
<th>PARENTS</th>
<th>CLASS TEACHER</th>
<th>CHILDREN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>41</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Middle</td>
<td>38</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Old</td>
<td>27</td>
<td>5</td>
<td>10</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>106</td>
<td>10</td>
<td>16</td>
<td>2</td>
<td>9</td>
</tr>
</tbody>
</table>

(N=143 because of missing data)

Log linear sig effect of age: \( \chi^2 \) (10) = 19.9, p<0.05

Post hoc \( \chi^2 \) tests: (1) Head teacher Middle vs Old significant: \( \chi^2 \) (1) = 4.8, p<0.05

Young vs Old significant: \( \chi^2 \) (1) = 8.5, p<0.005

(2) Parents Young vs Old significant: \( \chi^2 \) (1) = 4.7, p<0.05

No other paired comparison significant.

**Table 5.6 Who is most important in the school analysed by age**

<table>
<thead>
<tr>
<th>AGE</th>
<th>HEAD TEACHER</th>
<th>CHILDREN</th>
<th>OTHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>36</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Middle</td>
<td>31</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Old</td>
<td>18</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>35</td>
<td>24</td>
</tr>
</tbody>
</table>

Log linear sig effect of age: \( \chi^2 \) (10) = 26.3 p<0.005

Post hoc \( \chi^2 \) tests: (1) Head teacher Middle vs Old significant: \( \chi^2 \) (1) = 6.0, p<0.05

Young vs Old significant: \( \chi^2 \) (1) = 12.2, p<0.005

(2) Children Middle vs Old significant: \( \chi^2 \) (1) = 8.5, p<0.005

Young vs Old significant: \( \chi^2 \) (1) = 8.3, p<0.005

No other paired comparisons significant.
While the majority of both the Young and Middle groups saw the head teacher as most important in the school (question 7; see Table 5.6), a majority of the Old group gave other responses. They were significantly less likely to choose the head teacher and significantly more likely to respond that children were the most important, than either the Young or Middle groups.

Using correspondence analysis to combine all the power questions (questions 1-7), all the responses which discriminated between the youngest and oldest children's thinking were identified. These answers therefore suggest the starting point for the youngest children's thinking and the end-point for the oldest children's thinking.

**First choice answers: who has the power?**

There was a significant one-dimensional solution accounting for 80% of the inertia (questions 1, 3, 5 and 7; see Figure 5.1). The plot showed clear age differences, with the main difference being between the Middle and Old groups. The thinking of the Young and Middle groups was fairly closely aligned ($\chi^2=47.96$, df=22, $p<0.005$).

**Young group's most discriminating responses:**
- Class teacher can get the rules changed
- Children run the school
- Class teacher makes the rules
- Class teacher is most important in the school
- Others make rules
  ('Others' includes dinner ladies, caretaker, secretary or unspecified)

**Old group's most discriminating responses:**
- Parents make the rules
- Others are important
- Teachers run the school
- Parents can get the rules changed
- Children are most important in the school
- Parents are most important in the school
- Children can get the rules changed
- Teachers can get the rules changed
Figure 5.1 First choice answers to the power questions by age

- Children run the school
- Class teacher can get the rules changed

Class teacher makes the rules

- Young
- Middle
- Old

Children are most important in the school
Children can get rules changed
Others are important
Others make rules

Parents make the rules
Parents are most important in the school
Parents can get the rules changed
Teachers run the school
Teachers can get rules changed

$X^2 = 47.96$, df = 22, $p < 0.005$ Unlabelled dots represent non-discriminating responses
Figure 5.2 Second choice answers to the power questions by age

\[ X^2 = 62.56, \text{ df}=22, p<0.0001 \] Unlabelled dots represent non-discriminating responses
Second choice answers: anyone else involved?
Again, there was a significant one-dimensional solution here, accounting for 86% of the inertia (questions 2, 4, and 6; see Figure 5.2), and demonstrating clear age-trends ($\chi^2= 62.56$, df=22, $p<0.0001$).

Young group's most discriminating responses:
Others also can get the rules changed
No second person makes the rules
No second person runs the school
Others also run the school
Others also make rules

Old group's most discriminating responses:
Children also can get the rules changed
Children also run the school
Head teacher also can get the rules changed
Head teacher also runs the school

Spread of power and organisation
A further correspondence analysis was used to provide a more focused picture of the children's perceptions of the spread of power and organisation in the school. Using their first and subsequent responses to these questions, who runs the school (questions 1 and 2), who makes up most of the rules (questions 3 and 4), who can get the rules changed (questions 5 and 6) and who knows about good and sensible rules (questions 16 and 17), the numbers of replies given by the children, whether they offered one (usually the head teacher), two or even sometimes three answers, produced a significant one-dimensional solution. This accounted for 89% of the inertia (see Figure 5.3; $\chi^2= 31.22$, df=13, $p<0.005$), and revealed clear age differences.

Young group's most discriminating responses:
Only one person makes the rules
Only one person runs the school
Only one person can get the rules changed
Only one person knows about good rules

There were no discriminating responses for the Old group.
Figure 5.3 Perceptions of spread of power by age

χ² = 31.22, df=13, p<0.005 Unlabelled dots represent non-discriminating responses
Analysis of differences attributable to school

The children's responses to the power questions revealed fewer differences when examined for school differences. There were no significant differences for any of the first-time power questions; the children from all the four schools were most likely to choose the head as running the school, (question 1, 97%, 83%, 92% and 92% respectively), making the rules, (question 3, 97%, 81%, 83% and 97%) and changing the rules (question 5, 80%, 61%, 78% and 78%).

However, with the second-time responses, the children's responses suggested that their perceptions of other layers in the school hierarchy were different. When asked about others' involvement in rule-making (question 4, see Table 5.7), the children in school 3 were significantly less likely to report that the teachers had a say and when asked about others' ability to get the rules changed (question 6, see Table 5.8), the same children were significantly more likely to claim that no-one else was involved. There were also significant differences between schools when the children assessed the likelihood that teachers were involved in getting the rules changed (Table 5.8).

Table 5.7 Others' involvement in making the rules analysed by school

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>ALL STAFF</th>
<th>PARENTS</th>
<th>CLASS TEACHER</th>
<th>CHILDREN</th>
<th>OTHERS</th>
<th>NO-ONE ELSE</th>
<th>HEAD A TEACHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>19</td>
<td>2</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>School 2</td>
<td>17</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>School 3</td>
<td>9</td>
<td>4</td>
<td>10</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>School 4</td>
<td>23</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>10</td>
<td>27</td>
<td>4</td>
<td>13</td>
<td>16</td>
<td>6</td>
</tr>
</tbody>
</table>

a For previous (first-time) response, 4 children selected 'all staff', 2 selected 'class teacher'.

Log linear sig effect of school: $\chi^2 (18)=31.6, p<0.05$
Post hoc $\chi^2$ tests: All staff School 3 vs Schools 1,2 and 4 combined significant: $\chi^2 (1)=8.4, p<0.05$
No other paired comparisons significant.
Table 5.8 Other’s involvement in changing the rules analysed by school

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>ALL STAFF</th>
<th>PARENTS</th>
<th>CLASS TEACHER</th>
<th>CHILDREN</th>
<th>OTHERS</th>
<th>NO-ONE ELSE</th>
<th>HEAD Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>21</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>School 2</td>
<td>13</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>School 3</td>
<td>13</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>School 4</td>
<td>24</td>
<td>5</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>18</td>
<td>12</td>
<td>2</td>
<td>5</td>
<td>26</td>
<td>10</td>
</tr>
</tbody>
</table>

*For previous (first-time) response, 8 children selected 'all staff', 2 selected 'class teacher'.

Log linear sig effect of school: $\chi^2 (18)=29.1, p<0.05$

Post hoc $\chi^2$ tests:
1. No-one else School 3 vs Schools 1,2 and 4 combined sig: $\chi^2 (3)=6.3, p<0.05$
2. All staff School 2 vs School 4 significant: $\chi^2 (1)=5.6, p<0.05$
3. School 3 vs School 4 significant: $\chi^2 (1)=5.6, p<0.05$

No other paired comparisons significant.

**Second choice answers: anyone else involved?**

Again, using correspondence analysis to provide a multivariate analysis, the plot of first choice answers by school (questions 1, 3, 5 and 7) was non-significant. However, there was a significant one-dimensional solution of the second choice answers (questions 2, 4 and 6; see Figure 5.4) accounting for 58% of the inertia and demonstrating school trends ($\chi^2= 44.54$, df=23, $p<0.005$). This suggests that children's understanding of the organisational hierarchy of the school does depend on the school they attend, but the resulting plot was too complex to interpret with any great certainty, beyond the general statement that there were environmentally-based differences.

**Spread of power and organisation**

This was further explored by another correspondence analysis which examined the numbers of responses made by the children by school to the questions, who runs the school (questions 1 and 2), who makes up most of the rules (questions 3 and 4), who can get the rules changed (questions 5 and 6) and who knows about good and
Figure 5.4 Second choice answers to the power questions by school

- Head teacher also makes rules
- Class teacher also runs the school
- School 1
- School 2
- School 3
- School 4
- Others also can get the rules changed
- Children also can get the rules changed

\[ \chi^2 = 44.54, \text{ df}=23, p<0.005 \] Unlabelled dots represent non-discriminating responses
Figure 5.5 Perceptions of spread of power by school

\[ x^2 = 31.94, \text{ df} = 14, p < 0.005 \]  Unlabelled dots represent non-discriminating responses
sensible rules (questions 16 and 17); whether the child answered with one person only (usually the head teacher), or two or sometimes three people. This produced a significant one-dimensional solution, accounting for 73% of the inertia and also demonstrating school trends (see Figure 5.5; $\chi^2 = 31.94$, df=14, $p<0.005$). This was easier to interpret; school 3 was clearly at one end of the dimension, while the other 3 schools were fairly closely clustered together, with school 4 at the furthest point at the other end of the dimension.

**School 3's most discriminating responses:**
Only one person knows about good rules
Only one person can get to change the rules
Only one person runs the school

**School 4's most discriminating response:**
Three 'people' run the school

**5.3.2 Perceptions of school rules**

*Analysis of differences attributable to age*

When the children were asked for the most important reason for having school rules and obeying them (question 8; see table 5.9), a similar proportion of each age group chose a moral justification for school rules (safety of others). However, there were significant differences with age in the frequencies for three other categories. About a quarter of both the Young and Middle groups chose the informative function for school rules, as defining good behaviour, a justification largely ignored by the Old group. On the other hand, about a third of the children in both the Middle and Old groups opted for the community function of school rules, as good for the whole school. A substantial proportion of the Young group also claimed that school rules were for the protection of school things.

The children were also asked about the justifications for a moral rule (question 10), not fighting in school, and a socio-conventional rule (question 11), not using 'naughty' words. Their socio-conventional rule-understanding revealed no differences, but the youngest group's responses to the moral rule were significantly less likely to claim the safety of others, and correspondingly more likely to offer as justification that such behaviour was naughty and would be punished (see Table 5.10).
Table 5.9 Function of school rules analysed by age

<table>
<thead>
<tr>
<th>AGE</th>
<th>SAFETY OF SELF</th>
<th>SAFETY OF OTHERS</th>
<th>COMMUNITY</th>
<th>INFORMATIVE</th>
<th>PROTECTION OF SCHOOL THINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>1</td>
<td>16</td>
<td>4</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Middle</td>
<td>2</td>
<td>12</td>
<td>15</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Old</td>
<td>5</td>
<td>18</td>
<td>19</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>46</td>
<td>38</td>
<td>31</td>
<td>21</td>
</tr>
</tbody>
</table>

Log linear sig effect of age: $\chi^2 (8) = 35.0, p<0.0001$

Post hoc $\chi^2$ tests:
1. Community Young vs Middle significant: $\chi^2 (1) = 6.6, p<0.05$
   Young vs Old significant: $\chi^2 (1) = 11.2, p<0.0005$
2. Informative Middle vs Old significant: $\chi^2 (1) = 3.4, p<0.05$
   Young vs Old significant: $\chi^2 (1) = 3.4, p<0.05$
3. Protection Young vs Middle significant: $\chi^2 (1) = 3.1, p<0.05$
   Young vs Old significant: $\chi^2 (1) = 11.4, p<0.0005$

No other paired comparisons significant.

Table 5.10 Moral rule justification analysed by age

<table>
<thead>
<tr>
<th>AGE</th>
<th>SAFETY OF SELF</th>
<th>SAFETY OF OTHERS</th>
<th>COMMUNITY</th>
<th>PUNISHMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>5</td>
<td>17</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>Middle</td>
<td>3</td>
<td>26</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Old</td>
<td>6</td>
<td>29</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>72</td>
<td>44</td>
<td>14</td>
</tr>
</tbody>
</table>

Log linear sig effect of age: $\chi^2 (6)=19.4, p<0.005$

Post hoc $\chi^2$ tests:
1. Others' safety Young vs Old significant: $\chi^2 (1) = 5.1, p<0.05$
2. Punishment Young vs Old significant: $\chi^2 (1) = 9.0, p<0.0005$

No other paired comparisons significant.

There were further significant age differences in understanding revealed by the children's responses to a rule-scenario (question 12; see Table 5.11). While 79 per cent of the Old group agreed that they would be prepared to break the rule in order to fetch help more quickly, only 17 per cent and 25 per cent of the Young and Middle group said they would defy the rule.
Table 5.11: Children's responses to rule scenario analysed by age

<table>
<thead>
<tr>
<th>AGE</th>
<th>OBEY THE RULE</th>
<th>BREAK THE RULE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>40</td>
<td>8</td>
</tr>
<tr>
<td>Middle</td>
<td>36</td>
<td>12</td>
</tr>
<tr>
<td>Old</td>
<td>10</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td>86</td>
<td>58</td>
</tr>
</tbody>
</table>

Log linear sig effect of age: $\chi^2(2) = 48.3, p<0.0005$
Post hoc $\chi^2$ tests:
- Young vs Old: $\chi^2(1) = 35.1, p<0.0005$
- Middle vs Old: $\chi^2(1) = 26.1, p<0.0005$
No other paired comparisons significant

The children were also asked to evaluate the rules in their school (question 14; see Table 5.12). Overall, two-thirds of the Young and Middle children thought they were all good, but the Old group were significantly less approving than the two young groups.

Table 5.12: Evaluation of school rules analysed by age

<table>
<thead>
<tr>
<th>AGE</th>
<th>ALL GOOD</th>
<th>NOT ALL GOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>33</td>
<td>15</td>
</tr>
<tr>
<td>Middle</td>
<td>33</td>
<td>14</td>
</tr>
<tr>
<td>Old</td>
<td>19</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>58</td>
</tr>
</tbody>
</table>

(N=143 because of missing data)
Log linear sig effect of age: $\chi^2(4) = 28.1, p<0.0001$
Post hoc $\chi^2$ test:
- Middle vs Old significant: $\chi^2(1) = 7.8, p<0.005$
- Young vs Old significant: $\chi^2(1) = 7.8, p<0.005$

Analysis of differences attributable to school
There were no differences in the children's rule-justifications which were attributable to school. However, there were differences in two more indirect aspects of rule-understanding. First, when the children were questioned about the ways of acquiring rule-knowledge (see question 15; Table 5.13), the children in
school 3 were significantly less likely to respond with the most popular choice of the head teacher and significantly more likely to say that they learnt about the rules from their parents. Secondly, when the children were asked to make an indirect evaluation of those in authority over them, by responding to the question, who knows about good and sensible rules (question 16; see Table 5.14), while large proportions chose the head teacher first time (81%, 69%, 61% and 69% respectively), there was a significant difference in the second time answers. The children in school 3 were significantly more likely to respond that no-one else knew about good and sensible rules.

Table 5.13 Who tells about the rules analysed by school

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>SELF</th>
<th>CLASS</th>
<th>HEAD</th>
<th>FRIENDS</th>
<th>PARENTS</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TEACHER</td>
<td>TEACHER</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School 1</td>
<td>5</td>
<td>6</td>
<td>23</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>School 2</td>
<td>3</td>
<td>4</td>
<td>23</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>School 3</td>
<td>9</td>
<td>7</td>
<td>12</td>
<td>2</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>School 4</td>
<td>5</td>
<td>12</td>
<td>18</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>29</td>
<td>76</td>
<td>7</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

Log linear sig effect of school: $\chi^2(15) = 26.9, p<0.05$
Post hoc $\chi^2$ test: Head teacher School 3 vs Schools 1, 2 and 4 combined sig: $\chi^2(1) = 4.0, p<0.05$
Post hoc Fisher exact prob. test: Parents School 3 vs Schools 1, 2 and 4 combined sig: Fisher $z = 2.6, p<0.05$
No other paired comparisons significant.
Table 5.14 Others' knowledge of good and sensible rules analysed by school

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>ALL STAFF</th>
<th>PARENTS</th>
<th>CLASS TEACHER</th>
<th>CHILDREN</th>
<th>OTHERS</th>
<th>NO-ONE</th>
<th>ELSE</th>
<th>HEAD(^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>17</td>
<td>1</td>
<td>10</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>School 2</td>
<td>19</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>School 3</td>
<td>11</td>
<td>3</td>
<td>7</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>School 4</td>
<td>18</td>
<td>6</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>12</td>
<td>27</td>
<td>2</td>
<td>5</td>
<td>7</td>
<td>26</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) For previous (first-time) response, 21 children selected 'all staff', 4 selected 'parents', 1 selected 'class teacher'.

Log linear sig effect of school: \(\chi^2(18)=32.7, p<0.05\)
Post hoc Fisher exact prob. test:
No-one else School 3 vs Schools 1, 2 and 4 combined sig: Fisher \(z=2.7, p<0.05\)
No other paired comparisons significant.

5.3.3 Perceptions of head teacher's and class teacher's roles

Analysis of age differences

The children were asked about 12 specific tasks (questions 18, 19, 20 and 21). Having selected those which they believed were done by the head teacher or the class teacher respectively, they were then asked to choose the four most important tasks in each case.

The three top duties of the head were agreed across all age groups; (1) making up the rules; (2) showing people around the school; and (3) paying the bills. The Middle and Old group were agreed on the choice of the fourth job, that of writing letters to parents. The Young group's fourth job was punishing children.

There was a similar degree of unanimity about the duties of the class teacher. The three top tasks were agreed across all age groups: (1) teaching children; (2) deciding what was learnt in class; and (3) punishing children. The Old and Middle groups chose as the fourth job, organising school trips, while the Young group opted for writing letters to parents.
Both their overall perceptions and their choice of the central tasks were then analysed by correspondence analysis and some differences did emerge. The children's overall view of the head teacher's role revealed no age differences. However, the children's selection of the 4 most important tasks did produce a significant one-dimensional solution based on age and accounting for 70% of the inertia (see Figure 5.6; $\chi^2= 27.55$, df=13, p<0.05).

**Young group's most discriminating responses:**
Head teacher cleans the school
Head teacher takes assembly

**Old group's most discriminating responses:**
Head teacher teaches children
Head teacher chooses a new teacher
Head teacher writes letters

With respect to the children's responses about the class teacher, their choice of the four most important tasks did not reveal any age differences. On the other hand, there was a significant one-dimensional solution accounting for 81% of the inertia and based on their overall perceptions of the class teacher's role (see Figure 5.7; $\chi^2= 25.09$, df=13, p<0.05).

**Young group's most discriminating responses:**
Class teacher cleans the school
Class teacher buys the food for school dinners
Class teacher pays the bills
Class teacher chooses a new teacher

**Old group's most discriminating response:**
Class teacher organises school trips

**Analysis of School Differences**
There were no significant school differences in perceptions of either the head teacher's or the class teacher's role.
Figure 5.6 Head teacher’s most important jobs by age

$\chi^2 = 27.55, df=13, p<0.05$ Unlabelled dots represent non-discriminating responses
Figure 5.7 Class teacher’s jobs by age

- Class teacher buys the food for school dinners
- Class teacher cleans the school
- Class teacher chooses a new teacher
- Class teacher pays the bills

$\chi^2 = 25.09$, df=13, p<0.05 Unlabelled dots represent non-discriminating responses
5.3.4 Decision-making

Analysis of Age Differences

The children were asked to say which method they would choose in each of two classroom scenarios which involved children in a collective decision-making process (questions 22 and 24; see Tables 5.15 and 5.17). They were also asked to select a justification for their choice (questions 23 and 25; see Tables 5.16 and 5.18).

In the case of choosing the child to go to the show (Table 5.15), both the Young and Middle groups were significantly more likely than the Old group to pass the decision over to the class teacher. The Young group was also more likely to opt for a game. However, the Old group was more likely to suggest either 'names in a hat' or a vote. The differences in the choice of method for the outing displayed similar patterns (Table 5.17). Again, the Young and Middle groups were significantly more likely than the Old group to want the class teacher to make the decision, while the Old group was more likely than the Young group to opt for a vote.

The justifications were very similar in both scenarios (Tables 5.16 and 5.18). In both, the Old group was significantly more likely to justify their choice of method on grounds of fairness, while the Young group in both scenarios and the Middle group in the outing decision were significantly more likely to be concerned to avoid an argument.

Analysis of school differences

There were no significant school differences to any of the questions about decision-making.
**Table 5.15 Method of decision for show ticket analysed by age**

<table>
<thead>
<tr>
<th>AGE</th>
<th>CLASS TEACHER</th>
<th>NAMES IN HAT</th>
<th>VOTE</th>
<th>GAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>24</td>
<td>12</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Middle</td>
<td>27</td>
<td>19</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Old</td>
<td>13</td>
<td>25</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>56</td>
<td>17</td>
<td>7</td>
</tr>
</tbody>
</table>

Log linear sig effect of age: $\chi^2 (6)=31.9, p<0.0005$

Post hoc $\chi^2$ or Fisher exact prob. tests:

1. Class teacher
   - Young vs Old significant: $\chi^2 (1)=4.4, p<0.05$
   - Middle vs Old significant: $\chi^2 (1)=7.2, p<0.005$

2. Names in hat
   - Young vs Old significant: $\chi^2 (1)=6.3, p<0.05$
   - Middle vs Old significant: $\chi^2 (1)=4.7, p<0.05$

3. Vote
   - Young vs Old significant: $\chi^2 (1)=6.3, p<0.05$
   - Young vs Middle significant: $\chi^2 (1)=7.6, p<0.005$
   - Fisher $z=2.3, p<0.05$

4. Game
   - Young vs Middle significant: Fisher $z=2.3, p<0.05$
   - Young vs Old significant: Fisher $z=2.3, p<0.05$

No other paired comparisons significant

**Table 5.16 Justification for show ticket method analysed by age**

<table>
<thead>
<tr>
<th>AGE</th>
<th>QUICKEST</th>
<th>FAIREST</th>
<th>NO ARGUING</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>8</td>
<td>11</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Middle</td>
<td>4</td>
<td>16</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Old</td>
<td>1</td>
<td>26</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>53</td>
<td>48</td>
<td>30</td>
</tr>
</tbody>
</table>

Log linear significant effect of age: $\chi^2 (6)=29.1, p<0.0005$

Post hoc $\chi^2$ tests:

1. Fairest
   - Young vs Old significant: $\chi^2 (1)=8.6, p<0.005$
   - Middle vs Old significant: $\chi^2 (1)=3.4, p<0.05$

2. No arguing
   - Young vs Middle significant: $\chi^2 (1)=6.3, p<0.05$
   - Young vs Old significant: $\chi^2 (1)=7.5, p<0.005$

3. Other
   - Young vs Middle significant: $\chi^2 (1)=7.6, p<0.005$

No other paired comparisons significant
Table 5.17 Method of decision for outing analysed by age

<table>
<thead>
<tr>
<th>AGE</th>
<th>TEACHER</th>
<th>TOSS COIN</th>
<th>VOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>20</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Middle</td>
<td>21</td>
<td>8</td>
<td>19</td>
</tr>
<tr>
<td>Old</td>
<td>11</td>
<td>9</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>30</td>
<td>62</td>
</tr>
</tbody>
</table>

Log linear sig effect of age: \( \chi^2 (4) = 9.7, p < 0.05 \)

Post hoc \( \chi^2 \) tests: (1) Teacher Young vs Old significant: \( \chi^2 (1) = 3.0, p < 0.05 \)
Middle vs Old significant: \( \chi^2 (1) = 3.8, p < 0.05 \)
(2) Vote Young vs Old significant: \( \chi^2 (1) = 6.1, p < 0.05 \)
No other paired comparisons significant

Table 5.18: Justification for outing method analysed by age

<table>
<thead>
<tr>
<th>AGE</th>
<th>QUICKEST</th>
<th>FAIREST</th>
<th>NO ARGUING</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>10</td>
<td>11</td>
<td>22</td>
<td>5</td>
</tr>
<tr>
<td>Middle</td>
<td>5</td>
<td>18</td>
<td>18</td>
<td>7</td>
</tr>
<tr>
<td>Old</td>
<td>2</td>
<td>34</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>63</td>
<td>47</td>
<td>17</td>
</tr>
</tbody>
</table>

Log linear sig effect of age: \( \chi^2 (6) = 28.4, p < 0.0005 \)

Post hoc \( \chi^2 \) tests: (1) Fairness Young vs Old significant: \( \chi^2 (1) = 20.2, p < 0.0005 \)
Middle vs Old significant: \( \chi^2 (1) = 9.4, p < 0.0005 \)
(2) No arguing Young vs Old significant: \( \chi^2 (1) = 8.8, p < 0.005 \)
Middle vs Old significant: \( \chi^2 (1) = 5.4, p < 0.05 \)
No other paired comparisons significant

5.4. Discussion

The children's perceptions of the school varied with age, not only in such specific areas as rules, roles and power, but there was also a growing awareness of the interconnections, which suggested a developing system-knowledge. There were also
some indications of social environmental influences; the school attended by the child appeared to be a factor in their understanding in some aspects of power and rule comprehension. However, there were no effects of gender. If there are gender differences in moral development (Gilligan, 1982), these do not appear to affect young children's comprehension of the school, as measured using the methods adopted in the present study. The discussion deals first with the differences attributable to age and then with school-based differences.

5.4.1 Rules
Rules, whether explicit or implicit, play an essential role in any system, providing a collective framework for defining and shaping the actions of all members. All new entrants to any system must internalise the rules in order to function successfully within the system. The extensive system of moral and socio-conventional rules in most primary schools presents the young primary school pupil with a challenging task.

The children were asked why schools had rules, in order to assess whether they comprehended the importance of rules within the system and selected from five functions: (1) safety of self; (2) safety of others; (3) community; (4) informative; and (5) protection of school things. The prime moral rule-justification, the safety of others, was the most popular overall and was selected by approximately similar numbers from each group (33%, 25% and 38% respectively). Some school rules are indeed framed with children's safety in mind. However, Blumenfield, Pintrich and Hamilton (1987) found children tended to justify both moral and conventional school rules in terms of others' welfare. In addition, many conventional school rules may be explained by teachers in terms of others' perspectives, possibly for additional leverage and thus encouraging children to claim moral purpose. But this justification may also represent a pre-school understanding imported into the school rule-system, as very young children display their clearest responses to rules when judging moral transgressions (Smetana, 1993). However, the youngest children's responses to the specific moral rule, not fighting in school, would suggest that this view should be treated with some caution. Their tendency to reject the moral justification, when taken together with their significantly increased choice of the punishment option, is perhaps indicative of the influence of context on their moral understanding. Young children may display a well-developed moral rule comprehension in familiar situations, such as the family, but the school represents a new context. Their understanding may be affected, both by the quantity and
complexity of school-rules and also by the increased prescriptive emphasis. However, given the responses by the Middle group, the children have adapted their understanding by the middle years of primary school.

While the youngest group displayed some difficulties with the specific moral rule justification, it is understanding the conventional rule-structure in schools, more concerned with the promotion of order than with children's safety, that makes the greatest demands. This may be reflected in the age-differences in the choice of the other overall rule-functions. The children in the young and middle groups were significantly more likely to choose the informative function of school rules (i.e. their purpose is to define good behaviour for them). There are two possible reasons for this. First, children need time to make sense of the rules, particularly any implicit or inadequately explained ones. Secondly, this is may be a consequence of the wealth of socio-conventional school rules, which are less-easily assimilated and less likely to be explained than moral rules (Smetana, 1993). By contrast, the older children may have felt confident that they both knew the rules, and also the behaviour they were designed to elicit, probably independently of their rule-knowledge. This interpretation is reinforced by the children's responses to the rule-scenario. While the Young and Middle groups were overwhelmingly determined to stick with the rules, despite the pressures to get help quickly, most of the Old group displayed a similarly clear belief that the rule should be broken. The sharp contrast in their responses to the situation further suggests that the oldest children have come to a mature comprehension of the nature and purpose of rules within the society of the school, which even permits them to contemplate breaking rules when adjudged necessary.

Children in both the middle and older groups were inclined to link the good functioning of a community with the rules designed to order it, by being significantly more likely to say that the rules were for the good of the whole school. This may represent a growing awareness, with age, not only of the community of the school, but also of its requirements, such as a system of rules. Furthermore, while the youngest children did not tend to make this response, they may nevertheless be displaying a developmental precursor to this later more global rule-comprehension by their significantly greater tendency to say that school rules are for the protection of school things. While many school rules, looked at in isolation, may appear to be about the fabric of the school, a more mature understanding may view the rules collectively as good for the whole system. However, while this belief
in the benefit of rules to the community is generally desirable for its overall smooth functioning, it may also be the reason for the oldest children's more critical evaluation of their school rules. Having come to comprehend a higher purpose for rules, they may have therefore tended to adjudge them more harshly than the middle and young groups as a consequence.

Overall, the evidence of a gradual growth in understanding of the community function of rules, may indicate the development of a comprehension of the connection between the functioning of a community and the laws designed to regulate it. It could be further argued that this represents an awareness of the requirements of the system as a whole, as opposed to the younger children's tendency to be preoccupied with specific rules and their purpose, and therefore a considerable advance on the thinking of the young children. With regard to political cognition, this early understanding that laws are for the good of all, may be a vital component of the consent to government, which must itself be fundamental to the maintenance and function of any political entity.

5.4.2 Power/authority
Power or authority are concepts which are on daily display in the life of the school. The children are aware, from their very first years, that they are required to respond to and obey the head teacher and teachers without questioning, or suffer the consequences.

Inevitably, the head teacher was the common theme in the responses to many of the power and authority questions. When the children were asked such questions as who makes the rules, who can get the rules changed etc., there was a predictably popular choice of the head teacher, in all groups. Even the very youngest children were confident of his or her supremacy, though this may be more intuitive than substantive, as they were often confused over the head's specific role. The pre-eminence of the head teacher was to be expected; the head has very high visibility in school life and is also prominent in school discourse.

However, differences emerged when the children were asked the power questions for a second time, "is anyone else involved?". While the youngest group tended to believe that the head teacher's authority was unchallenged, both the two older groups claimed that teachers were involved in many of these areas. Therefore, around the age of 7-8, children increasingly report a hierarchy of power of teachers
and head teacher in school organisation, reflecting similar findings by Emler et al. (1987). However, given the youngest children's tendency to believe in the autocracy of the head, this subsequent understanding by older children that teachers were also involved in the organisational structure, must necessarily entail a grasp of hierarchy; by gaining a comprehension of the teachers' role, the children must become aware of a second level in the system.

With more indirect power areas, such as who can get the rules changed, the oldest group revealed a further shift in perception. Their responses, besides including teachers, often mentioned parents. Parents are, in a crucial sense, peripheral to the system, as they are located outside the school. Therefore, by suggesting parental input in such areas as rules, children are postulating more subtle forms of power. Overall, the perceptions of the oldest group revealed an understanding of the multi-layered and diverse power structure in the school.

These trends in children's thinking about the power/authority structure in the school is supported by the correspondence analyses. Examination of the first-time answers, although heavily dominated by the head's role, still revealed some age differences. The youngest children's most discriminating responses offered a view of school management which persistently mentions the class teacher, as running the school, changing the rules, and making the rules. By contrast, the oldest children's perceptions, as revealed by their most discriminating responses tended to refer to all teachers, parents and children. Over the primary school years, the children's thinking, besides the core understanding of the head's role, would appear to move from an emphasis on the class teacher by the youngest pupils, to a hierarchy of power in the school involving all teachers, with some further parental influence.

This pattern is reinforced by the second-time answers, questioning whether anyone else was involved, and therefore more directly addressing the children's perception of power-diversification, and also by the correspondence analysis specifically examining their perceptions of the spread of power. The differences in thinking reveal that the youngest children believe either that the head's power is undiluted or that unspecified, or specified but inappropriate others, such as dinner-ladies, are involved. On the other hand, the essential difference in thinking displayed by the oldest children is the emphasis on children themselves as being able to get rules changed and even as being involved in running the school. In short, there appears
to be a growing belief in different levels of involvement in the system, both on matters of direct and indirect authority and influence.

There was a further indication of the oldest children's growing belief in their own part in school life. In the responses to the question about who was most important in the life of the school, while the overwhelming choice of the Young and Middle groups was the head teacher, the Old group's choices suggested a very different perspective on the school. The oldest children suggested a belief in their own status and value in the school, with a majority of the oldest children claiming that children were most important in the school. With regard to political cognition, the individual's sense of place in any society, or the interaction between self and system, is a central aspect of system understanding. It is an important measure both of the effectiveness of the system in managing the community and of the individual's view of the system itself. It would therefore appear that the oldest children have a good comprehension of the society of the school as a whole.

Furthermore, by advancing a more qualified approval of the rules in their school, the oldest children were prepared to offer critical opinions, despite their own place at the lowest level in the system. This suggests that the oldest children feel that being powerful in a system is not necessarily the same as being important. It could be argued that this value attaching to the individual, and not necessarily dependent on power, is an essential part of political understanding. Overall, the responses of the oldest children would appear to indicate that they have a good grasp of the nature and purpose of the school and their own place within it, and that these beliefs could well provide the basis for a wider political understanding in adult life.

5.4.3 Roles
The school presents children with early and important experiences of institutional roles, both in their own acquisition of the role of pupil and in their comprehension of a series of roles within the school-system, such as teachers, dinner ladies, school secretaries and caretakers. Children have to assess the part played by each one, before being able to make the appropriate response required of them in interactions. Furthermore, subtle gradations of power, which may be perfectly apparent to the adults concerned, may confront the Year 1 child with a complex interpretative problem, such as the distinctions between head teacher and class teacher, with the further complications of such peripheral roles as classroom assistants or student teachers.
The questions about the head teacher's and class teacher's roles were simply designed to elicit a straightforward description of the two roles from the children, while the questions about power/authority and rules probed their perceptions of organisational duties and hierarchy. As the children's responses were indicative of a considerable amount of agreement about the roles of both head and class teachers across the age groups, a fairly clear picture of the children's thinking about the two roles emerged. In the case of the class teacher, four central tasks were selected by large numbers of each group: teaching children, deciding what was learnt in class, punishing children and writing letters to parents. It is probable that the children's close and regular involvement with their class teacher, together with the class teacher's more limited and clear-cut position, assisted even the youngest children to assess their roles. However, according to the correspondence analysis, the discriminating responses of the Young group showed that some of them were more likely to believe that the class teacher was involved in such unlikely tasks as cleaning the school, buying food for school dinners, paying the bills and choosing a new teacher. Therefore, some of these youngest children, while they may have reached an early understanding of the core tasks of the class teacher's job, were still unsure about many other aspects. They had yet to grasp which school tasks were not part of the class teacher's remit, perhaps because their understanding had not developed sufficiently to encompass the roles of other school personnel.

Looking at the children's perceptions of the head teacher's role, again there was considerable unanimity about the core duties, with children in all age-groups choosing the tasks of making the rules, showing people around the school and paying the bills. In the case of rule-making, although it was possible that the children might have been alerted to this task by other questions in the interview, rules are seen by children as almost a defining feature of the school system and it would be expected that they would perceive rule-making as vital to the job of the head teacher, given their understanding of his importance in the school system. They would also have frequent experience of the head teacher's responsibility for dealing with visitors. However their choice of paying the bills is very much an organisational task which would not readily spring to mind and is unlikely to have been specifically witnessed by the child. Therefore, this choice is further support for the findings about children's comprehension of power and organisation in the school, revealing a very early understanding of the centrality of the head's role.
With respect to the age trends revealed by the correspondence analysis, the youngest children's tendency to choose 'punishing naughty children' possibly reflects their preoccupation with the prescriptive aspects of school life. On the other hand, the preference of some of the oldest children for the task of choosing a new teacher, suggests a developing comprehension of the pivotal role played by the head in the organisation of the school, which extends beyond the more obvious organisational duties. This contrasts particularly with the youngest children's predisposition to believe that the class teacher is responsible for this task.

The other discriminating response given by some of the oldest children, that the head teacher also has the task of actually teaching children, suggests that they are more likely to appreciate that teaching is not simply a matter of being a regular class teacher. For the younger children, teaching may well be seen as a strictly-defined activity which takes place in the classroom, is conducted by their class teacher and may even be further constrained by the subject matter, with topics such as reading and mathematics included and art and games excluded. Therefore, by their greater inclination to report teaching as a task undertaken by the head teacher, the Old group not only offer further evidence of their more comprehensive understanding of the head teacher's role, but are also developing an understanding that teaching is a broad description of many activities.

5.4.4 Decision-making
Within any system, decision-making is an important process. All societies need come to a view about any necessary action or reaction on its part, whether such matters are the task of one individual, or a few people or whether all members are involved in some aspect of the process. In this study, while the two situations presented to the children were hypothetical, they were designed to reflect the types of decision-making which are probably regular features of classroom life in the hope of probing their thinking about those processes which were very much within their own experience.

With regard to both scenarios, the youngest children displayed an inclination to abdicate responsibility for the decision in favour of the class teacher. They tended to be preoccupied with the avoidance of argument and, by passing over the ultimate determination to the teacher, they would probably ensure a minimal amount of dissension. The Middle group were also most likely to say that the teacher should choose, however they also displayed growing signs of an increasing interest in the
fairness of the process, as opposed to the youngest children's concern about argument.

This developing interest in fairness was the crucial feature of the Old group's thinking and probably dictated their choice of methods. From about the middle years of primary school, children's discourse about all decisions and processes affecting them, both with their peers and in interactions with adults, becomes greatly concerned with fairness and this was probably the case here. With age, it would appear that children become increasingly concerned with participation, therefore rejecting those methods which involved delegating choice to the teacher in favour of methods involving all members. Therefore, the Old group were heavily in favour of voting when deciding on the class outing.

However, this was not the case with the other scenario. The older children's growing interest in greater participation may have been tempered by their strongly developing desire for fairness, which may have led them to reject the method of voting in the show ticket scenario. There was an important distinction between the two scenarios, which the older children may have recognised. Voting represents a fair method where the task involves ascertaining the wishes of the greater number, or the consensus of the majority, which was the case with the class outing. However, when the selection of an individual is concerned, in the absence of any particular criteria, such as the best-behaved or most hard-working child for example, the fairest method was the pure and equal chance of names in a hat. In this case, voting would have brought problems of favouritism, which some children mentioned. The problem of favouritism was also referred to by some of the older children when they rejected the method giving responsibility to the teacher. Clearly, fairness is the most crucial aspect of decision-making for the oldest children and may even cause them to doubt the actions of a teacher. Given that fairness is arguably an essential component of justice, which, in turn, is one of the central concepts of political understanding, this is an important trend in children's developing thinking.

5.4.5 Comparisons with Berti's hypothetical study

This study set out, in part, to examine the findings about young children's developing political understanding of a mythical community by investigating children's 'real-life' comprehension of the micro political community of the school.
Overall, there was evidence of developmental trends in all areas of children's understanding of the system of the school, which broadly echoed the findings of Berti (1988). However, there were particular parallels in the perceptions of rules/laws and power/authority which most closely reflected the areas investigated by Berti.

**Perceptions of laws/rules**

In Berti's examination of children's understanding of the function of laws in the island community, she found first of all an early belief that laws had a simple prohibitory function. This developed into an understanding held by older children, emerging first at about the age of 7 or 8, that the community as a whole benefited from a system of laws. There were broadly similar trends in this study. While the youngest children also showed a tendency to be preoccupied with the prohibitive aspects of rules, by selecting the informative function, the older children were more likely to reveal a more global understanding that rules were for the good of the whole school.

**Perceptions of power**

On Berti's island, the youngest children, under the age of 7, talked about the need for policemen, while those children aged 8-9 mentioned 'chiefs who give orders'. The oldest children in Berti's study, at 12-13 a little older than the oldest children in the present study, demonstrated that all parts of the community were needed in the task of regulating the system and their responses suggested that it was the job of the whole community to make laws. There were similar patterns in the present study. The youngest children tended to see power as concentrated, fairly absolute and remote, reflecting the emphasis on policemen and chiefs. On the other hand the older children in the present study revealed a growing understanding that power is likely to be diffused, multi-layered, possibly wielded indirectly and, in the case of parental influence, from a position external to the system. It could be argued that all these aspects of understanding are indicative of a broadening comprehension of the wider community of the school and the inter-connections between different components of the system.

**5.4.6 Variations attributable to school**

There were many aspects of the children's understanding which transcended school boundaries. There were no significant differences in their comprehension of the roles of head teacher and class teacher. Their understanding and expectations of the
processes of decision-making were very broadly similar in all four schools. With respect to rules, their basic understanding of the specific moral and socio-conventional rules, together with their grasp of the overall function of school rules, showed no important variations at all. In fact the children's understanding showed large areas of consensus in all areas of the study.

However, it is precisely this extensive area of agreement which makes the significant differences which did emerge so interesting. All of the variations between schools were concentrated in one area of the children's comprehension; they were all related to the children's understanding of organisation, hierarchy and authority in the school. Furthermore, in all cases of difference, the pattern presented was of the children in one particular school displaying an alternative developmental path to the children in the other three schools. The school in question, school 3, was one of the two schools which were such close neighbours that their respective 'pools' of pupils were largely overlapping, yet the responses from the two sets of children were significantly different in important areas of organisational understanding.

The responses of the children in school 3 suggested that some of them were less aware of the role played by teachers. When asked about others' involvement in making the rules, they were significantly less likely, than any of the other 3 schools, to say that teachers were. When questioned about the part played by others in getting the rules changed, they were similarly less likely to mention teachers (although school 2 displayed a similar pattern here) and perhaps more surprisingly, they were significantly more likely to say that no-one else was involved. There was a similar pattern in their responses to the question, 'who knows about good and sensible rules', with the children from school 3 again significantly more likely to say that no-one else did. The children in school 3 also were less likely to report that they mostly learnt about the rules from the head teacher and were more likely to say that their parents were their main source of information about rules. The correspondence analysis looking at the children's perception of the spread of power graphically demonstrated the gulf in understanding between the school 3 children and those in the other schools. The responses of the school 3 children failed to indicate a growing sense of hierarchy; indeed, their most discriminating responses were almost the same as those of the youngest group in the equivalent analysis by age. Overall, the school 3 children tended to display a different comprehension of the school in important areas of organisation and authority.
What possible explanations are there for these findings? The children in school 3, unlike the children in the other schools, may have failed to develop an understanding of the hierarchical nature of the organisation of their school. Alternatively it could be that these children had quite correctly perceived that a different style of organisation existed in their school, perhaps one in which the teachers play less of a role than in the other schools. The organisation of the school is unlikely to be specifically explained to the children and they will be developing their comprehension in many ways; for example, through observations of actions and behaviours in school or through school discourse by pupils, teachers, parents and others involved in the school. If there is a different type of organisation in their school, social representations theory would predict that these children's social understandings would reflect this. The social environment in which children are developing their social comprehension will affect the content of their thinking. The development of social knowledge takes place in a social environment, and variations in context may result in differences in understanding.

However, the reasons for the differences are less important than the possible consequences; the children from school 3 may be developing a different understanding of the school than the other children. Ohana (1986) argued that certain styles of school managements might promote different types of understanding in children, which may consequently affect their later participation in other institutional systems. Consequently, if children's understanding of the school as a society does form part of their early construction of political understanding, these differences in thinking could affect their adult political cognition. Because of these differences, Study 4 was designed to explore possible links between the social environment and children's thinking.

5.5 Conclusion
Drawing all the disparate threads together, it is possible to plot the children's developing understanding of the system of the school, using the patterns and trends revealed by the children's responses. The child's access is by first grasping the role of the head teacher, and all the children clearly understood the position and importance of the head in the school system. Then, in the middle primary school years, children begin to acknowledge the next layer down in the power hierarchy, that of the teachers. Finally, the oldest children display further changes; first they suggest that parents have influence in school matters, and second, their responses claim an important part for children. Their developing understanding of each
system-concept also appears to be linked to others, contributing to their overall comprehension of the system of the school. This developing understanding may well be a developmental precursor to later institutional knowledge, thus providing a pattern for the future acquisition of system-knowledge. For this reason, variations in school systems may ultimately influence aspects of adult political thinking.

In conclusion, there was broad evidence of developmental trends in the children's understanding of the system of the school. Children's thinking about such areas as rules, roles, community and power do undergo change in the early school-years. While their general cognitive development may account for this, the changes may also be a consequence of their attempts to make sense of a vital context in their lives, by interpreting the complex and extensive system of the school.
6.1.1 Introduction
In contrast to the breadth of investigation in the previous study, this study was much more specific in intention. It was designed to probe two main areas: (1) children's rule-understanding within the school system; and (2) school differences, in order to probe the variations which had emerged in the second study.

6.1.2 Children's rule-understanding
Children's rule-understanding was selected as a specific focus for this study for two reasons. Firstly, the intention was to examine a central system-concept, such as children's comprehension of school rules, in the belief that their understanding of such an essential component might well be a function of their perception of the school as a micropolitical system, which had been explored in the second study. Secondly, rule-discrimination is an area of children's social knowledge which has been extensively investigated (see chapter 2) as the development of an ability to differentiate between the moral and social-conventional domains, which is seen as an important aspect of social understanding and a crucial task for the young child. Studies in this area (Smetana & Braeges, 1990, Smetana et al.,1993) have revealed that very young children, and certainly most pre-school children, display competent skills of rule-differentiation. The ability to discriminate between moral and social-conventional rules appears to be fairly well-established before entry into primary school. Furthermore, studies of older children have suggested that children continue to fine-tune their ability to discriminate and to extend their understanding to more complex situations. Therefore, an examination of primary school children's school-rule understanding, particularly in the case of moral rules, should be probing an area of social knowledge which the child has acquired before attending school.

However, there is an important factor in children's rule-understanding which has been relatively under-researched; that of the social context in which they acquire their rule-knowledge. While the understanding of moral rules, once established, is considered to be context-free, socio-conventional rule-understanding is dependent...
on the society or grouping to which it applies and in each new context, children may well be confronted with a fresh body of socio-conventional rules. It may be that their efforts to extend their knowledge to encompass the rules in a new situation, for example the extensive range of unfamiliar school-rules for the new primary-school pupil, will affect their socio-conventional rule-understanding, particularly while they may be struggling to come to understand other aspects of their new surroundings.

But it may not be simply their perception of conventional rules which is affected. While moral understanding, once established, is believed to be context-free, the actual acquisition of rule-understanding, moral and conventional, does not take place in a vacuum. Children first learn about rules in a specific context, that of the family, in interaction with their care-givers and their peers, and their early attempts to differentiate take place within this important context. The exact part played in the development of their rule-knowledge by specific aspects of this context, such as the types of interactions, roles and authorities within it, is not as yet fully understood. Therefore, it may well be that the child's entrance into a new social context affects their rule-understanding, both as a consequence of the context in which they acquired their rule knowledge, and as a response to the change in context as they become part of the school. In short, even their moral understanding, despite the belief that it should simply transfer from one context to another, may be affected.

Furthermore, the context of the school is not only an unfamiliar one for the new pupil, it is also an extremely complex one, as the second study suggested. Power or authority is an important aspect of school life and children have to grapple with the intricacies of the organisational and power structure of the school, with a number of 'strange' adults wielding considerable authority over them. In addition, there is also a direct connection between those in power or authority, the head teacher and other teachers, and the school-rules; the exercise of power, which helps to define those in authority, is largely achieved through the existence of the school-rules which those in authority seek to enforce. The comprehension of rules is therefore inextricably enmeshed with the understanding of power or authority. Therefore, children are confronted with two central components of the school-system which they are required to understand, not only in isolation, but more importantly in conjunction.
However the findings of the second study revealed that children require time to make sense of the system of the school, and in particular, to grasp the interconnections between the various different aspects. Therefore, despite the likely pre-establishment of sound skills of rule-discrimination, this study set out to examine if children's rule-domain understanding was affected by their entry into the primary school as a new pupil, thereby becoming subject to an unfamiliar system of authority and power. More specifically, this study sought to investigate children's moral understanding within the school context, as this area of their rule-comprehension was believed to be the earliest to be secured and the least affected by context, once established in the first years of family life.

Therefore, the children were presented with hypothetical instances of rule-breaking and their comprehension of the moral and social-conventional domains was thereby examined by questioning them on the traditional dimensions, such as generalisability, rule-independence, authority-independence, changeability and seriousness. The hypothesis proposed that children's rule understanding within the specific context of the school would appear to be less well-founded than studies of pre-school children's rule-understanding would suggest. The expectation would be that the youngest children's rule-discriminating abilities might appear to regress as a consequence of the new context to their rule-understanding and that their responses on the customary dimensions would be less differentiated than might be expected from studies of younger children. However, it would be predicted that the oldest children, having fully-adapted to the school context and having a good comprehension of the system of the school, would be able to make the necessary distinctions between the rule-domains.

6.1.3 Examination of school differences
The second main aim of this third study was to investigate the unexpected variations revealed in the second study which appeared attributable to school differences. While there were undoubtedly large areas of consensus across the four schools, with general agreement on the roles of the head teacher and class teacher, the processes of decision-making, and in almost all areas of rule-understanding, there were nevertheless important and significant differences in the reports given by the children in one school about organisational and authority patterns in their school. The tentative conclusion was that the children had either failed to perceive correctly the normal and traditional hierarchical power structure in their school, or
that they had accurately reported on an organisational system which was indeed different.

The investigation of these apparent school differences was approached in two ways. First, in an attempt to uncover any variations in actual school practice, the children were asked to reflect and report on actual incidents of rule-transgression in their schools in the hope that possible differences in the organisational structure might thereby be revealed. Secondly, there was an investigation of the children's attitudes and feelings about the school in the hope that this might produce some measure of school climate or ethos. The importance of the ethos of the school as a essential component of its overall success was one of the main conclusions of Rutter et al (1979) from their very extensive examination of numerous possible factors in both the academic and social life of the school. They believed that school ethos was an elusive concept, possibly the consequence of a complex interaction between various elements, particularly the characteristics of the school as a social institution, and thus would be extremely difficult to ascertain or quantify. Therefore, this study took a simpler and more direct approach; as it would be generally expected that ethos might be felt and thus reported on by those subject to its influence, it was measured by questioning both the children and teachers about their feelings and attitudes to the school.

In addition, this study was considerably broadened by the inclusion of a teacher's questionnaire in two parts. First, the teachers were asked to report on their possible reactions to the same incidents of rule-transgression to which the children responded. It was hoped that this would provide both an additional source of information about actual school practices and also a means of comparison with the children's views. It was expected that the teachers' reports would represent some sort of bench-mark and that the children's perspectives would be examined for the proximity of their accounts to those of the staff. Furthermore, the teachers' reports of actual practices might reveal a possible source of the variations in the children's responses which were discovered in the second study. If consonance between the children's and teachers' responses was found, this would be evidence consistent with a theoretical position which attributes children's responses to social influences, rather than to children's individual cognitive problem-solving in isolation from specific social context.
Secondly, the teachers were also questioned about their attitudes to the school, in order to have an additional perspective on the school ethos. Again, it would be expected that the teachers' views would represent a standard against which the children's attitudes might be examined. Overall, the inclusion of teachers' responses should not only present a fuller picture of the social and organisational context of the school but might also reveal something of a possible source of the variations in the children's opinions. Indeed, from a social representations perspective, it is essential to move outwards from the exclusively child-centred approach of the first and second studies, in order to probe some of the prevailing views of other participants in the system of the school.

6.2 Method
6.2.1 Sample
Children
The same four primary schools which took part in the second study were used again (see chapter 5), some 7 months after the second study, but still within the same academic year. Almost all of the 144 children in the first study (95%) were re-interviewed, with just 7 children, spread across the four schools, unavailable this time, in most cases because they had left the school. They were replaced by children of the same sex and year as appropriate. As the questions and tasks posed by this study were very different from those in the second study, it was considered that there were unlikely to be any major problems of contamination between the two sets of results. On the other hand, the process should be greatly facilitated by the fact that the children would settle more quickly to the interview, as they had worked with the researcher before.

Because of the lapse of time between the two studies, the age range and mean age of the children in each group was different in this study (Table 6.1). The same age groups were used for the analysis, with Young containing 48 children from Years 1 and 2, Middle containing 48 children from Years 3 and 4 and Old containing 48 children from Years 5 and 6, and with equal numbers of boys and girls as before. There were, therefore, 3 (age) x 2 (gender) and 4 (school) independent groups.
Table 6.1 Mean age and age range of the subjects

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<td></td>
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<td>8.8</td>
<td>7.8 - 9.7</td>
</tr>
<tr>
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<td></td>
<td>8.7</td>
<td>7.8 - 9.4</td>
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<tr>
<td>Old</td>
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<tr>
<td>(Yrs 5+6)</td>
<td>24</td>
<td>10.8</td>
<td>9.8 - 11.7</td>
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<tr>
<td>Boys</td>
<td></td>
<td>10.7</td>
<td>9.8 - 11.6</td>
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</tbody>
</table>

The 24 subjects in each subgroup were made up of 3 children, of the appropriate sex, drawn from each of the relevant years in each of the 4 schools.

Teachers

All full-time teachers were given a questionnaire. All four head teachers, however, were excluded as it was felt that their special responsibilities for the overall well-being of the school might unduly influence their responses to the attitude questions. In addition, some part-time teachers were also issued with questionnaires, as advised in each school by the head teacher, where it was felt that their hours of work were sufficiently great (and in every case in excess of 'half-time') to ensure that their responses would be based on an appropriate level of experience and knowledge of the school.

Response-rates were about 73%; 8 out of 10 issued in School 1, 7 out of 11 in School 2, 7 out of 9 in School 3 and 8 out of 11 in School 4, thus a total sample of 30 teachers. As the questionnaires were anonymous, it is not possible to ascertain the percentage of full-time to part-time teachers. However, most of the questionnaires must have been completed by full-time teachers, as there were no more than 1 or 2 part-time teachers in any of the four schools who 'qualified' for inclusion on the number of their hours worked.

For the purpose of analysis, there were 4 independent groups of teachers, according to the school they taught in.
6.2.2 Procedure

Children

The interview schedule (see Appendix C) was piloted in two schools on different children from those used in the main study and only minor adjustments to wording were necessary. As before, the children were all interviewed singly, told there were no right or wrong answers and assured of anonymity. They were also told that there were two parts to the interview and some time was taken to ensure that they were comfortable with the types of questions. The full interview schedule, which took approximately 15-25 minutes to administer to each child, is given in Appendix C.

(1) Rule-scenarios

They were first told that they would be asked about situations in which school rules were broken. As almost all the children had discussed rules with the interviewer before, very little explanation was required. For those few children who were new to the study, the interviewer made sure that they understood what a rule was and all were able to offer several examples. The interviewer also talked briefly about the types of questions which they would be asked, such as how bad was the transgression, could the rule be changed etc..

The children were asked about 6 hypothetical scenarios in which specific school-rules were broken. There were two moral rule situations, scenarios 1 and 2; (1) pushing a child off a climbing frame and (2) taking a child's book. However, there were four socio-conventional rule scenarios, which were sub-divided into two groups. In response to Turiel's belief (1987) that the socio-conventional domain contains some rules which have more serious and moral-like consequences, called 'second-order' conventions, two scenarios reflected this type of transgression, scenarios 3 and 4; (3) running in the corridor, where such an activity might be adjudged likely to cause an accident and (4) leaving school library books scattered on the floor, where again either injury to person or to property might be seen as possible. The final pair of socio-conventional scenarios were chosen to represent those school rules which may appear more arbitrary to children, because their purpose is either not known or harder to surmise in the absence of an explanation, scenarios 5 and 6; (5) crossing a 'forbidden' line in the playground and (6) calling a teacher by her first name. Thus, there were two rules in each of the three categories, in order to ensure that differences between the categories were not solely due to specific features of the particular scenarios presented for each category.
In all 6 cases, the scenario was very briefly described; the child was told that there was an express school rule forbidding the particular action, but otherwise there was no indication of purpose and minimal detail beyond a simple account of what happened. The two examples of each rule-type were differentiated by having a boy versus a girl as the principal protagonist (see Appendix C). The scenarios were presented in a randomised order. Once the scenario had been carefully read to the child (and repeated where the interviewer occasionally felt this was necessary), the first question was designed to elicit the child’s view of the likely response by a teacher:

(1) Now supposing that was a rule in your school, and a teacher saw........, what do you think the teacher would do?

Thereafter, the questions followed a differently randomised order for each scenario and were designed to test the usual dimensions. Therefore, for each scenario, the child was asked:

(2) Would it be OK to do that if the child’s mother or father said the child could?
(3) Would it be OK to do that if a teacher said the child could?
(4) Would it be OK to do that if the head teacher said the child could?
(5) If the teacher didn’t see, should the child tell the teacher?
(6) Do you think what the child did was bad or not bad? Very, quite, a little or not bad?
(7) Do you think this rule could be changed?

Finally, the child was asked the following two questions which were presented at the end, to avoid confusing the child by introducing such complications early in the schedule.

(8) Supposing there wasn’t a school rule about ........, then do you think it would be right or wrong?
(9) Supposing (this happened) somewhere else, but not in school, then do you think it would be right or wrong?

Questions 2, 3, 4, 5, and 7 were coded as follows: yes=1; no=0. Questions 8 and 9 were coded as follows: right=1; wrong=0. Question 6 was coded as follows: very bad=1; quite bad=2; just a little bad=3; and not bad=4.

(2) Attitude Statements
The children were told that they would also be asked some questions about how they felt about their school. These were introduced to them as ‘spaghetti’ questions, in order to ensure their full attention for the explanation of the five points of
response. The interviewer proceeded to ask the child how much they liked spaghetti in the following fashion. The children were told to watch the interviewer carefully. The interviewer, holding a pencil in front of the child like an indicator on an imaginary barometer, first moved the pencil over to one side while saying the words 'I love spaghetti'. Then, very clearly describing a semi-circle in the air and moving the pencil right over to the other side, the interviewer said 'I hate spaghetti'. Finally, the interviewer moved the pencil into the middle position, straight up and said 'I'm not sure, I don't know, I don't love spaghetti but I don't hate it either'. The child would then be encouraged to choose the position which represented his/her feelings about spaghetti. Further examples would be given, usually involving food which was fairly certain to elicit great likes or dislikes and also indecision or ignorance, so that the child had experience of giving positive, negative and undecided views. Once this was secure, which generally took only a couple of examples, the interviewer then introduced the mid-points by asking whether the spaghetti etc. was loved (or hated) 'a little' or 'a lot'. This would also be practised until the interviewer was sure the child understood what was required. Then, finally, the interviewer explained that the subsequent 'spaghetti' questions would be about school, rather than food, and that some of them would be more complicated, but that the procedure would be the same. Although this sequence had to be followed with great care, particularly with the youngest, the children generally appeared to be quite comfortable with the attitude questions.

There were 18 attitude questions: (1) four questions directly addressed the child's perception of their own place in the school (I like this school; I think I would be sad to leave this school; this is a good school; I'm happy in this school); (2) four questions related to the school as a working environment (this is a good school for learning things in; most people work well in this school; most people try hard to get things done here; in this school it is important to be hard-working); (3) four referred to the school as a social/community environment (it's important in this school that people get along well; most people here care about this school; this is a friendly school; most people here are keen for this school to do well); (4) three questions about power/authority (this school is run well; most things are done fairly in this school; I think people in this school usually make good decisions about what happens here); and finally (5) three questions relating to self/system interaction (it's easy to get things changed here if you don't like them; people here are interested in what I think about school; in this school people try hard to make everyone understand what's going on). The attitude questions were scored on a 5-point scale:
agree strongly = 5; agree = 4; uncertain = 3; disagree = 2; disagree strongly = 1.

The attitude questions were usually presented in groups of 3, in between the rule-scenarios. The order of the questions was randomised, although the interviewer usually presented the easier questions first, and consequently some of the harder questions were asked last. Occasionally, a child needed some clarification or asked for the question to be repeated. For each question, the interviewer held the pencil and moved it according to each of the three main positions, positive, negative and undecided/don't know. If the child responded with positive or negative, they were then asked to qualify their response.

There were some concessions in procedure as a consequence of the youth of the participants. The positive and negative points demonstrated by the interviewer with a pencil were always in the same position; an attempt to vary them caused some uncertainty and confusion in the piloting. In addition, some children used to emphasise their responses by pointing to the appropriate point and were puzzled by any switch. For similar reasons, each attitude question was always introduced with the positive statement first, then the negative and then the undecided/uncertain statement. Although both these practices may well have introduced biases in the responses, they ensured that the children remained comfortable and attentive to the procedure. They were able to concentrate on the sentiments expressed without being distracted by any changes in the interviewer's actions. Overall, it was felt that these advantages outweighed the admitted disadvantages.

**Teachers**
The teachers filled in a questionnaire (see Appendix D) which was also in two parts. First, they responded to the identical rule-transgression scenarios by describing how they would react to such an incident by (1) a child in Years 1 or 2, (2) a child in Years 3 or 4, and (3) for a child in Years 5 or 6. They were also asked to rate the incident for seriousness (very seriously=1, quite seriously=2, not very seriously=3 and not at all seriously=4), again for each of the three age groups. Secondly, they had a short series of 12 attitude questions to respond to on a 5-point scale: agree strongly = 5; agree = 4; uncertain = 3; disagree = 2; and disagree strongly = 1. The statements covered 3 main areas: (1) four questions referred to the teacher's perception of their own place in the school (I find working in this school very unsatisfactory; I think I would be very sorry to move to another school; I don't feel particularly attached to this school; I feel very fortunate to be teaching
in such a good school); (2) four questions related to the working environment (this school has an excellent learning environment; there is a strong emphasis on hard work in this school; some people here just don't put enough effort into working in this school; overall, both children and staff work really well in this school); and (3) four questions which referred to the social/community aspects of the school (most people here, children and staff, are very keen for this school to do well; overall, there isn't a very friendly atmosphere in this school; there's not much sense of pride in this school; there isn't any friction amongst the staff here).

6.3 Results

Children's responses
There were several different types of analyses. First, the categorical responses to the criteria judgements on the rule-scenarios were analysed by a mixed 6 (rule-scenario) x 3 (age) x 4 (school) x 2 (gender) ANOVA, with repeated measures on the first factor and independent groups on the other factors, in order to investigate the children's overall rule-differentiation. However, log linear analysis was then used to explore possible individual associations between response, age, gender and school. Correspondence analysis was also used to explore children's rule-understanding. Secondly, the children's attitude responses were subjected to reliability analysis in order to construct a scale of items which might represent an overall measure of the children's satisfaction with their school. In addition, correspondence analysis was also used to examine children's total attitude ratings as a factor in their rule-understanding. Finally, the children's rule discourse was analysed by two coders. Initial interrater reliability was 86% and subsequent discussion managed to resolve the disputed items.

Teachers' responses
The teachers' seriousness ratings were analysed by a mixed 6 (rule-scenario) x 4 (school) ANOVA, with repeated measures on the first factor and independent groups on the second factor. Their attitude responses were subjected to reliability analysis in order to construct a scale of items which might provide an indication of the teachers' satisfaction with their school. Finally, the open-ended responses about their possible actions in the event of witnessing the transgressions were also subjected to analysis by the two coders. Interrater reliability was 89%, with eventual agreement on all disputed items after discussion. However, all the teachers' data had to be treated with extreme caution, because the sample was unavoidably very small. The data was essentially used in conjunction with the
children's data, to provide a point of comparison in such areas as school climate, discourse about rules and punishment and seriousness ratings of the rules, as an additional means of evaluating the children's perceptions.

6.3.1 Children's criterion judgements: rule-differentiation
The children's mean responses across the 6 scenarios are displayed in Table 6.2. The children, as expected, rated the two moral transgressions as significantly more serious, more generalisable, less rule or authority dependent, less changeable and more likely to be reported than the socio-conventional transgressions. There were also significant differences between the mean responses for the two 'second-order' socio-conventional transgressions and the two 'arbitrary' socio-conventional transgressions, which also suggested that the children perceived a difference between the two sub-divisions of conventional rules. In short, the children duly displayed the expected rule-differentiation between the 3 types of rules.

However, there was a complication. There were also a significant difference between the seriousness ratings for the two examples of each rule-type, and in all three pairs, the transgression which was attributed to a boy offender was viewed as significantly more serious that the action attributed to the girl offender. This distinction between the actions of boy and girl protagonists was also a feature of the teachers' seriousness ratings, with similar significant differences between the paired transgressions. It was also still apparent in a comparison of the ratings made by boy and girl participants separately (see Table 6.3) although the only significant difference actually between boy and girl participants was on their seriousness assessments for Moral 1 (boy protagonist) with boys reporting a significantly higher seriousness rating than the girls. Thus while all the participants, children and teachers, ordered the 6 transgressions on the dimension of seriousness in the predicted fashion, they all also perceived some differences between the pairs of rules. This might have been the gender of the protagonist, though not necessarily so; there may have been intrinsic differences in the actions themselves. However, while such significant differences between the two rule-examples did not extend through to all the other criterion judgements, seriousness is arguably the most crucial criterion for assessing the transgressions. Therefore the criterion judgements were also analysed as two separate sets of three transgressions, one containing those rules broken by boys and the other containing those rules broken by girls. This was necessary in order to establish an important and basic premise of
the study, that the children had indeed been able to differentiate the 3 different sorts of rules, without any possible confound such as the gender of the protagonist.

Table 6.2 Children's mean responses to criterion judgements

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<td>(.32)</td>
<td>(.49)</td>
<td>(.48)</td>
<td>(.42)</td>
<td>(.46)</td>
</tr>
<tr>
<td>(3) PARENTS</td>
<td>.01</td>
<td>.03</td>
<td>.03</td>
<td>.02</td>
<td>.10</td>
<td>.11</td>
</tr>
<tr>
<td></td>
<td>(.08)</td>
<td>(.16)</td>
<td>(.16)</td>
<td>(.14)</td>
<td>(.31)</td>
<td>(.32)</td>
</tr>
</tbody>
</table>

^aAverage of teachers' ratings for Young, Middle and Old groups.
Table 6.3 Children's mean seriousness ratings by gender

<table>
<thead>
<tr>
<th>PROTAGONIST</th>
<th>MORAL 1</th>
<th>MORAL 2</th>
<th>S/CON 1</th>
<th>S/CON 2</th>
<th>S/CON 3</th>
<th>S/CON 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIRLS</td>
<td>BOY</td>
<td>GIRL</td>
<td>BOY</td>
<td>GIRL</td>
<td>BOY</td>
<td>GIRL</td>
</tr>
<tr>
<td></td>
<td>1.39*</td>
<td>1.61</td>
<td>1.93</td>
<td>2.08</td>
<td>2.14</td>
<td>2.58</td>
</tr>
<tr>
<td></td>
<td>(.57)</td>
<td>(.70)</td>
<td>(.83)</td>
<td>(.87)</td>
<td>(.84)</td>
<td>(.96)</td>
</tr>
<tr>
<td>BOYS</td>
<td>1.21*</td>
<td>1.60</td>
<td>1.99</td>
<td>2.07</td>
<td>2.22</td>
<td>2.74</td>
</tr>
<tr>
<td></td>
<td>(.50)</td>
<td>(.69)</td>
<td>(.91)</td>
<td>(.78)</td>
<td>(.92)</td>
<td>(.98)</td>
</tr>
</tbody>
</table>

*p<.05

Table 6.4 F ratios for the analyses of variance of criterion judgements

<table>
<thead>
<tr>
<th>PROTAGONIST</th>
<th>BOY (MORAL 1, S/CON 1 AND 3)</th>
<th>GIRL (MORAL 2, S/CON 2 AND 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ruletype F (df = 2)</td>
<td>Ruletype x Age F (df = 4)</td>
</tr>
<tr>
<td>SERIOUSNESS</td>
<td>69.35**</td>
<td>3.43*</td>
</tr>
<tr>
<td>GENERALISABLE</td>
<td>64.02**</td>
<td>0.61</td>
</tr>
<tr>
<td>RULE-DEPENDENT</td>
<td>74.36**</td>
<td>4.26**</td>
</tr>
<tr>
<td>CHANGEABLE</td>
<td>14.49**</td>
<td>0.89</td>
</tr>
<tr>
<td>AUTHORITY-DEPENDENT</td>
<td>(1) HEAD</td>
<td>135.40**</td>
</tr>
<tr>
<td>(2) TEACHER</td>
<td>173.36**</td>
<td>3.40*</td>
</tr>
<tr>
<td>(3) PARENTS</td>
<td>7.17**</td>
<td>1.44</td>
</tr>
<tr>
<td>REPORT</td>
<td>11.39**</td>
<td>1.83</td>
</tr>
</tbody>
</table>

*p<.05 ** p<.005
Table 6.5 Post hoc tests of significance between rule-types: boy protagonists

<table>
<thead>
<tr>
<th></th>
<th>SERIOUSNESS</th>
<th>RULE-DEPENDENT</th>
<th>GENERALISABLE</th>
<th>CHANGEABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MORAL 1</td>
<td>1.30</td>
<td>.10</td>
<td>.02</td>
<td>.27</td>
</tr>
<tr>
<td>VS S/CON 1</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>*</td>
</tr>
<tr>
<td>VS S/CON 3</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>S/CON 1</td>
<td>1.96</td>
<td>.27</td>
<td>.35</td>
<td>.36</td>
</tr>
<tr>
<td>VS MORAL 1</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>*</td>
</tr>
<tr>
<td>VS S/CON 3</td>
<td>*</td>
<td>**</td>
<td>n/s</td>
<td>*</td>
</tr>
<tr>
<td>S/CON 3</td>
<td>2.18</td>
<td>.60</td>
<td>.42</td>
<td>.51</td>
</tr>
<tr>
<td>VS MORAL 1</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>VS S/CON 1</td>
<td>*</td>
<td>**</td>
<td>n/s</td>
<td>*</td>
</tr>
</tbody>
</table>

*p<.05  **p<.005  n/s = non-significant

Table 6.6 Post hoc tests of significance between rule-types: girl protagonists

<table>
<thead>
<tr>
<th></th>
<th>SERIOUSNESS</th>
<th>RULE-DEPENDENT</th>
<th>GENERALISABLE</th>
<th>CHANGEABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MORAL 2</td>
<td>1.60</td>
<td>.14</td>
<td>.06</td>
<td>.33</td>
</tr>
<tr>
<td>VS S/CON 2</td>
<td>**</td>
<td>**</td>
<td>*</td>
<td>n/s</td>
</tr>
<tr>
<td>VS S/CON 4</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>S/CON 2</td>
<td>2.08</td>
<td>.22</td>
<td>.15</td>
<td>.38</td>
</tr>
<tr>
<td>VS MORAL 2</td>
<td>**</td>
<td>**</td>
<td>*</td>
<td>n/s</td>
</tr>
<tr>
<td>VS S/CON 4</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>S/CON 4</td>
<td>2.66</td>
<td>.55</td>
<td>.53</td>
<td>.58</td>
</tr>
<tr>
<td>VS MORAL 2</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>VS S/CON 2</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
</tbody>
</table>

*p<.05  **p<.005  n/s = non-significant
When the two sets of rules were analysed separately in this way, the children's judgements still revealed very significant differences across most of the criteria (see Table 6.4), suggesting that the children did perceive the moral transgressions, the 'second-order' conventional transgressions and the arbitrary conventional transgressions in different ways, as had been predicted. There were significant differences on all of the eight criteria for both sets of transgressions. Post hoc testing (see Tables 6.5 and 6.6) of the two sets of transgressions on the four most crucial criteria, seriousness, rule-independence, generalisability and changeability, generally supported the hypothesis that the children would perceive the three types of rules significantly differently; not only were the moral rules seen as more serious, less rule-dependent, more generalisable and less capable of change than the 'second-order' conventional (the next type on the dimensions), but there were also a number of significant differences between the two conventional types. The arbitrary conventional rules were overall seen to be the most rule-dependent, least generalisable, least serious and most capable of change; although some of the differences just missed significance levels, they were in the right directions.

6.3.2 Children's moral rule-understanding

Differences attributable to age: log linear analyses.

Overall, therefore, the children duly perceived the moral transgressions as the most reprehensible on all criteria. However there were some significant age differences in the log linear analysis of individual responses (see Tables 6.7 and 6.8). In the case of Moral rule 1 (Table 6.7), pushing the child off the climbing frame, while there were no significant variations in the assessments of seriousness or generalisability (OK elsewhere), the youngest children were significantly more likely to say that the action would be acceptable in the absence of a school rule and both the Young group and the Middle group were significantly more inclined to reply that the rule could be changed. Furthermore, the Young and Middle groups showed a significant tendency, over the Old group, to report that the transgression would be acceptable if the head teacher gave permission.

With Moral rule 2 (Table 6.8), taking the child's book, there were similar differences; both the Young and Middle groups were significantly more likely to believe that the rule could be changed and also significantly more inclined to say that the action would be acceptable in the absence of a school rule. There was also a significant difference in one of the authority measures, that of the teacher in this case, but the pattern was unusual; both the Young and the Old groups were
significantly more likely to believe that a teacher could give permission for the action.

Table 6.7 Children's responses to moral rules analysed by age: Moral 1: pushing child off climbing frame

<table>
<thead>
<tr>
<th>SERIOUSNESS</th>
<th>OK ELSE WHERE</th>
<th>OK IF NO RULE</th>
<th>CHANGE RULE</th>
<th>OK IF HEAD SAYS</th>
<th>OK IF TEACHER SAYS</th>
<th>OK IF PARENT SAYS</th>
<th>REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>very bad</td>
<td>34</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>10</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>quite bad</td>
<td>37</td>
<td>9</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>little/not bad</td>
<td>35</td>
<td>13</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>106</td>
<td>34</td>
<td>4</td>
<td>3</td>
<td>15</td>
<td>38</td>
<td>16</td>
</tr>
</tbody>
</table>

(1) OK if no rule. Log linear significant effect of age $\chi^2(2)=9.9$ $p<.05$
Post hoc $\chi^2$ tests:
   Young vs Old significant: $\chi^2(1)=6.6$ $p<.05$
(2) Change rule. Log linear significant effect of age $\chi^2(2)=8.4$ $p<.05$
Post hoc $\chi^2$ tests:
   (a) Young vs Old significant: $\chi^2(1)=4.1$ $p<.05$
   (b) Middle vs Old significant: $\chi^2(1)=5.7$ $p<.05$
(3) OK if head says. Log linear significant effect of age $\chi^2(2)=7.6$ $p<.05$
Post hoc Fisher exact prob. tests:
   (a) Middle vs Old significant: Fisher $z=1.6$ $p<.05$
   (b) Young vs Old significant: Fisher $z=2.1$ $p<.05$

No other paired comparisons significant
Table 6.8 Children's responses to moral rules analysed by age: Moral 2: taking child's book

<table>
<thead>
<tr>
<th>SERIOUSNESS</th>
<th>OK ELSEWHERE</th>
<th>OK IF NO RULE</th>
<th>CHANGE RULE</th>
<th>OK IF HEAD SAYS</th>
<th>OK IF TEACHER SAYS</th>
<th>OK IF PARENT SAYS</th>
<th>REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>very bad</td>
<td>26</td>
<td>14</td>
<td>8</td>
<td>5</td>
<td>8</td>
<td>22</td>
<td>10</td>
</tr>
<tr>
<td>quite bad</td>
<td>26</td>
<td>16</td>
<td>6</td>
<td>2</td>
<td>10</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>little/not bad</td>
<td>21</td>
<td>26</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>56</td>
<td>15</td>
<td>8</td>
<td>20</td>
<td>48</td>
<td>24</td>
</tr>
</tbody>
</table>

(1) Change rule. Log linear significant effect of age $\chi^2 (2)=16.0 p<.0005$
  Post hoc $\chi^2$ tests:
  (a) Young vs Old significant: $\chi^2 (1)=11.3 p<.0005$
  (b) Middle vs Old significant: $\chi^2 (1)=8.9 p<.005$

(2) OK if teacher says. Log linear significant effect of age $\chi^2 (2)=14.6 p<.005$
  Post hoc Fisher exact prob. tests:
  (a) Young vs Middle significant: Fisher $z = 2.8 p<.05$
  (b) Middle vs Old significant: Fisher $z = 2.3 p<.05$

(3) OK if no rule. Log linear significant effect of age $\chi^2 (2)=7.2 p<.05$
  Post hoc $\chi^2$ tests:
  (a) Middle vs Old significant: $\chi^2 (1)=4.7 p<.05$
  (b) Young vs Old significant: $\chi^2 (1)=2.8 p<.05$

No other paired comparisons significant.

**Differences attributable to age: correspondence analyses**

The children's moral rule-understanding was analysed by correspondence analyses for age differences. The first moral scenario, pushing the child off the climbing frame, produced an insignificant plot. However, there was a significant one-dimensional for the second moral story (Moral 2), taking the child's book, with 72% of the inertia accounted for ($\chi^2=30.77$, df=12, $p<0.005$). The understanding of the oldest group would appear to be different from both of the youngest and middle groups (see Figure 6.1).

**Young group's most discriminating responses:**
Action not bad
Action a little bad
OK if no rule
OK elsewhere
Rule can be changed
Figure 6.1 Moral 2: Taking the child’s book analysed by age

\[ \chi^2 = 0.77, df = 12, p < 0.005 \text{ Unlabelled dots represent non-discriminating responses} \]
Old group's most discriminating response:
Parents could allow this

6.3.3 Children's socio-conventional rule-understanding
Differences attributable to age: log linear analyses
The scenario of the child running in the corridor (see Table 6.9) produced the most unanimous response of all the 6 rules. The only significant difference was in levels of seriousness; both the Young and Middle groups were much more likely to say that the action was very bad, while the Old group were correspondingly more inclined to report that it was only quite bad. The other 'second-order' conventional infringement, leaving library books on the floor, produced a much more varied response (see Table 6.10). Both the Young and Middle groups were significantly more inclined to say that the rule could be changed and that the action would be acceptable outside school. There was a also a significant difference to the question asking about reporting the action; the Old group displayed a greater reluctance to tell a teacher about the violation. Finally, there was a further unexpected difference in an authority measure; the Middle group was significantly more likely than either the Young or Old group to respond that the action would be acceptable if a teacher said so, thus the reverse of the finding in the case of the child taking the book.

With respect to the more arbitrary socio-conventional rules, crossing the line and addressing the teacher incorrectly (see Tables 6.11 and 6.12), there were variations in seriousness, with the Young group in both cases significantly more likely than either the Middle or Old groups to view the infringement as serious, and also in the likelihood of reporting the action, with both Young and Middle groups much more inclined to tell a teacher than the Old group. There were further differences in the authority measures in the case of the teacher's name; with respect to the head's authority, the Young group were significantly less likely than either the Middle or the Old group to believe he/she could permit it, while they were also much less inclined that the Old group to say that a teacher could allow this action.
Table 6.9: Children’s responses to socio-conventional rules analysed by age:
S/Con 1: running in the corridor

<table>
<thead>
<tr>
<th>SERIOUSNESS</th>
<th>OK ELSE</th>
<th>OK IF NO RULE</th>
<th>CHANGE RULE</th>
<th>OK IF HEAD SAYS</th>
<th>OK IF TEACHER SAYS</th>
<th>OK IF PARENT SAYS</th>
<th>REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>very bad</td>
<td>quite bad</td>
<td>little/ not bad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>23</td>
<td>14</td>
<td>11</td>
<td>16</td>
<td>18</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>M</td>
<td>20</td>
<td>16</td>
<td>12</td>
<td>18</td>
<td>9</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>O</td>
<td>8</td>
<td>24</td>
<td>16</td>
<td>16</td>
<td>12</td>
<td>12</td>
<td>21</td>
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<tr>
<td>Total</td>
<td>51</td>
<td>54</td>
<td>39</td>
<td>50</td>
<td>39</td>
<td>52</td>
<td>65</td>
</tr>
</tbody>
</table>

(1) Seriousness. Loglinear significant effect of age $\chi^2 (6)=19.8 \ p<.005$
Post hoc $\chi^2$ tests:
(a) Very bad. Young vs Old significant $\chi^2 (1)=9.3 \ p<.005$
    Middle vs Old significant $\chi^2 (1)=6.1 \ p<.05$
(b) Quite bad. Young vs Old significant $\chi^2 (1)=3.5 \ p<.05$
No other paired comparisons significant.
Table 6.10 Children's responses to socio-conventional rules analysed by age: S/Con 2: leaving library books on the floor

<table>
<thead>
<tr>
<th>SERIOUSNESS</th>
<th>OK ELSE</th>
<th>OK IF NO RULE</th>
<th>CHANGE RULE</th>
<th>OK IF HEAD SAYS</th>
<th>OK IF TEACHER SAYS</th>
<th>OK IF PARENT SAYS</th>
<th>REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>16</td>
<td>24</td>
<td>8</td>
<td>12</td>
<td>14</td>
<td>24</td>
<td>19</td>
</tr>
<tr>
<td>M</td>
<td>14</td>
<td>21</td>
<td>13</td>
<td>8</td>
<td>10</td>
<td>21</td>
<td>27</td>
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<tr>
<td>O</td>
<td>6</td>
<td>23</td>
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<td>68</td>
<td>40</td>
<td>21</td>
<td>32</td>
<td>55</td>
<td>63</td>
</tr>
</tbody>
</table>

(1) OK if teacher says. Loglinear significant effect of age $\chi^2 (2)=9.0$ p<.05

Post hoc $\chi^2$ tests:
(a) Young vs Middle significant. $\chi^2 (1)=5.3$ p<.05
(b) Middle vs Old significant. $\chi^2 (1)=5.3$ p<.05

(2) Change rule. Loglinear significant effect of age $\chi^2 (2)=10.3$ p<.05

Post hoc $\chi^2$ tests:
(a) Young vs Old significant. $\chi^2 (1)=7.7$ p<.05
(b) Middle vs Old significant. $\chi^2 (1)=4.8$ p<.05

(3) Report. Loglinear significant effect of age $\chi^2 (2)=21.5$ p<.0005

Post hoc $\chi^2$ tests:
(a) Middle vs Old significant. $\chi^2 (1)=6.1$ p<.05
(b) Young vs Old significant. $\chi^2 (1)=13.7$ p<.0005

(4) OK elsewhere Loglinear significant effect of age $\chi^2 (2)=13.4$ p<.005

Post hoc $\chi^2$ and Fisher exact prob. tests:
(a) Middle vs Fisher $\chi =2.1$ p<.05
(b) Young vs Old significant. $\chi^2 (1)=8.9$ p<.05

No other paired comparisons significant
Table 6.11 Children's responses to socio-conventional rules analysed by age: S/Con 3: Crossing playground line

<table>
<thead>
<tr>
<th>SERIOUSNESS</th>
<th>OK ELSE WHERE</th>
<th>OK IF NO RULE</th>
<th>CHANGE RULE</th>
<th>OK IF HEAD SAYS</th>
<th>OK IF TEACHER SAYS</th>
<th>OK IF PARENT SAYS</th>
<th>REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>very bad</td>
<td>18</td>
<td>20</td>
<td>10</td>
<td>23</td>
<td>24</td>
<td>22</td>
<td>32</td>
</tr>
<tr>
<td>quite bad</td>
<td>9</td>
<td>23</td>
<td>16</td>
<td>17</td>
<td>28</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>little/not bad</td>
<td>6</td>
<td>21</td>
<td>21</td>
<td>20</td>
<td>34</td>
<td>21</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
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<td>64</td>
<td>47</td>
<td>60</td>
<td>86</td>
<td>73</td>
<td>116</td>
</tr>
</tbody>
</table>

(1) Seriousness. Loglinear significant effect of age $\chi^2 (6)=18.4 p<.05$

- Post hoc $\chi^2$ tests:
  - (a) Very bad. Young vs Middle $\chi^2 (1)=3.3 p<.05$
  - (b) Very bad Young vs Old $\chi^2 (1)=6.7 p<.005$
  - (c) Little/not bad Young vs Old $\chi^2 (1)=4.8 p<.05$

(2) OK if head says. Loglinear significant effect of age $\chi^2 (2)=10.5 p<.05$

- Post hoc $\chi^2$ tests:
  - (a) Young vs Middle $\chi^2 (1)=2.7 p<.05$
  - (b) Young vs Old $\chi^2 (2)=7.6 p<.005$

(3) OK if teacher says. Loglinear significant effect of age $\chi^2 (2)=7.6 p<.05$

- Post hoc $\chi^2$ tests:
  - Young vs Old $\chi^2 (1)=5.7 p<.05$

(4) Report. Loglinear significant effect of age $\chi^2 (2)=9.6 p<.05$

- Post hoc $\chi^2$ tests:
  - (a) Middle vs Old $\chi^2 (1)=3.0 p<.05$
  - (b) Young vs Old $\chi^2 (1)=5.9 p<.05$

No other paired comparisons significant
Table 6.12 Children's responses to socio-conventional transgressions analysed by age: S/Con 4: addressing teacher

<table>
<thead>
<tr>
<th></th>
<th>SERIOUSNESS</th>
<th>OK ELSEWHERE</th>
<th>OK IF NO RULE</th>
<th>CHANGE RULE</th>
<th>OK IF HEAD SAYS</th>
<th>OK IF TEACHER SAYS</th>
<th>OK IF PARENT SAYS</th>
<th>REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>very bad</td>
<td>quite bad</td>
<td>little/not bad</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Y</td>
<td>12</td>
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<td>20</td>
<td>26</td>
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<td>18</td>
<td>8</td>
</tr>
<tr>
<td>M</td>
<td>4</td>
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<td>25</td>
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<td>23</td>
<td>13</td>
</tr>
<tr>
<td>O</td>
<td>1</td>
<td>16</td>
<td>31</td>
<td>27</td>
<td>25</td>
<td>23</td>
<td>23</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>49</td>
<td>78</td>
<td>76</td>
<td>78</td>
<td>83</td>
<td>75</td>
<td>44</td>
</tr>
</tbody>
</table>

(1) Seriousness. Loglinear significant effect of age $\chi^2 (6)=16.0, p<0.05$

Post hoc $\chi^2$ tests:
(a) Very bad. Young vs Middle $\chi^2 (1)=3.7, p<0.05$
(b) Very bad. Young vs Old $\chi^2 (1)=8.9, p<0.005$

(2) Report. Loglinear significant effect of age $\chi^2 (2)=14.1, p<0.005$

Post hoc $\chi^2$ tests:
(a) Young vs Old. $\chi^2 (1)=12.4, p<0.0005$
(b) Middle vs Old $\chi^2 (1)=5.0, p<0.05$

**Differences attributable to age: correspondence analyses**

Using correspondence analysis, two of the socio-conventional rules produced significant solutions. In the case of the story concerned with library books left on the floor (S/Con 2), there was a one-dimensional solution with 79% of the inertia of accounted for ($\chi^2=22.87, df=12, p<0.05$). There was considerable diversification in the children's thinking, with distances between all three groups (Figure 6.2).

**Youngest group's most discriminating responses:**
OK elsewhere
Action very bad

**Oldest group's most discriminating responses:**
Action not bad
Action a little bad
Figure 6.2 S/Con 2: Leaving library books on the floor analysed by age

$\chi^2=22.87$, df=12, p<0.05 Unlabelled dots represent non-discriminating responses
Figure 6.3 S/Con 3: Crossing the playground analysed by age

\[ x^2 = 21.47, \text{ df}=12, p<0.05 \]

Unlabelled dots represent non-discriminating responses
The other scenario with a significant solution was concerned with one of the arbitrary rules, not crossing the playground line (S/Con 3). Again, there was a one-dimensional solution, with 73% of the inertia accounted for ($\chi^2=21.47$, df=12, $p<0.05$), with the thinking of the youngest group apparently more differentiated from both the other two groups (Figure 6.3).

**Youngest group's most discriminating responses:**
Action very bad
Parents could permit

**Oldest group's most discriminating response:**
Action a little bad

6.3.4 Children's rule-understanding as a function of school or gender
Out of the 72 individual variables, there were only a very few significant associations with either school or gender, probably within what might be expected by chance. It would appear that neither of these factors are of major importance in children's school rule-understanding and therefore these associations are not reported.

6.3.5 Comparison of teachers' and children's responses
*Seriousness ratings analysed by age*
The teachers' and children's perceptions of the seriousness of the infringements (see Table 6.13) were very closely aligned. There were no significant differences between teachers and children in the total ratings (Table 6.13, bottom rows). With respect to the analysis by age, using the teachers' ratings for the specific age groups, the Young and Middle groups tended to give higher ratings than the teachers for seriousness, while the Old group inclined to lower ratings, but these differences were not significant. There were only two significant variations; first, the youngest children were inclined to report a significantly higher rating for the seriousness of the two 'second-order' conventional rules, running in the corridor and leaving books on the floor, than the teachers did when assessing the actions if committed by children in Years 1 or 2; secondly, in the case of the child taking a book, the Old group of children viewed this violation significantly less seriously than the teachers.
Table 6.13 Teachers' and children's mean seriousness ratings by age

<table>
<thead>
<tr>
<th>OFFENDER</th>
<th>MORAL 1</th>
<th>MORAL 2</th>
<th>S/CON 1</th>
<th>S/CON 2</th>
<th>S/CON 3</th>
<th>S/CON 4</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>TEACHERS</td>
<td>1.47</td>
<td>1.87</td>
<td>2.27*</td>
<td>2.43**</td>
<td>2.30</td>
<td>3.10</td>
</tr>
<tr>
<td></td>
<td>(.51)</td>
<td>(.64)</td>
<td>(.69)</td>
<td>(.77)</td>
<td>(.99)</td>
<td>(.92)</td>
</tr>
<tr>
<td>CHILDREN</td>
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<td>1.63</td>
<td>1.77*</td>
<td>1.85**</td>
<td>1.93</td>
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<td>(.95)</td>
<td>(1.11)</td>
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<td>2.33</td>
<td>2.77</td>
</tr>
<tr>
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<td>(.51)</td>
<td>(.64)</td>
<td>(.70)</td>
<td>(.92)</td>
<td>(.94)</td>
</tr>
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<td>2.17</td>
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</tr>
<tr>
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<td>(.90)</td>
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<tr>
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<td>1.21**</td>
<td>1.90</td>
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<td>2.22</td>
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</tr>
<tr>
<td></td>
<td>(.52)</td>
<td>(.41)</td>
<td>(.61)</td>
<td>(.63)</td>
<td>(.93)</td>
<td>(.94)</td>
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<tr>
<td>CHILDREN</td>
<td>1.27</td>
<td>1.58**</td>
<td>2.27</td>
<td>2.35</td>
<td>2.44</td>
<td>2.90</td>
</tr>
<tr>
<td></td>
<td>(.45)</td>
<td>(.54)</td>
<td>(.87)</td>
<td>(.81)</td>
<td>(.87)</td>
<td>(.83)</td>
</tr>
<tr>
<td>TOTAL</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
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<td>1.36</td>
<td>1.54</td>
<td>2.11</td>
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<td>2.32</td>
<td>2.82</td>
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<tr>
<td></td>
<td>(.44)</td>
<td>(.43)</td>
<td>(.56)</td>
<td>(.62)</td>
<td>(.85)</td>
<td>(.83)</td>
</tr>
<tr>
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<td>2.18</td>
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<td>(.54)</td>
<td>(.69)</td>
<td>(.87)</td>
<td>(.82)</td>
<td>(.88)</td>
<td>(.97)</td>
</tr>
</tbody>
</table>

*p < .05    **p < .005

Seriousness ratings: 1 = very bad. 2 = quite bad. 3 = a little bad. 4 = not bad.
Discourse about rules

Two aspects of the children's discourse on rules was analysed for associations with age: (1) any mention of punishment; and (2) any mention of the head teacher (see Tables 6.14 and 6.15). For the purpose of the tables, the data was converted into percentages so as to provide a means of comparison with the teachers' discourse, which was similarly transformed.

With respect to the children's references to punishment, there were significant differences with age in all of the rules except Moral 1, with older children being more likely to talk about some sort of punishment. Punishment was more likely to be mentioned in the case of moral infringements. With respect to the mention of the head teacher when talking about the rules, it was significantly more likely to be made by the Young or Middle group children, than the Old, in their reports of 3 of the 6 scenarios. Almost half the Young and Middle groups referred to the Head when talking about Moral 1, a preoccupation which did not appear to be shared by the teachers.
Table 6.14 Children's and teachers' discourse about rules analysed by age: percentages mentioning punishment.

<table>
<thead>
<tr>
<th></th>
<th>MORAL 1</th>
<th>MORAL 2</th>
<th>S/CON 1</th>
<th>S/CON 2</th>
<th>S/CON 3</th>
<th>S/CON 4</th>
</tr>
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<tbody>
<tr>
<td>YOUNG</td>
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<td>48</td>
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<td>53</td>
<td>80</td>
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<td>3</td>
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<td>77</td>
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<td>4</td>
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<td>40</td>
<td>53</td>
<td>80</td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>OLD</td>
<td>68</td>
<td>75</td>
<td>60</td>
<td>88</td>
<td>56</td>
<td>25</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>77</td>
<td>57</td>
<td>60</td>
<td>77</td>
<td>37</td>
<td>7</td>
</tr>
</tbody>
</table>

Children's responses: significant associations with age

1) Moral 2 Loglinear significant effect of age $\chi^2(2)=8.2\ p<.05$
   
   Post hoc $\chi^2$ tests:
   (a) Young vs Old $\chi^2(1)=6.3\ p<.05$
   (b) Middle vs Old $\chi^2(1)=3.0\ p<.05$

2) S/CON 1 Loglinear significant effect of age $\chi^2(2)=6.3\ p<.05$
   
   Post hoc $\chi^2$ tests:
   (a) Middle vs Old $\chi^2(1)=5.1\ p<.05$

3) S/CON 2 Loglinear significant effect of age $\chi^2(2)=12.9\ p<.005$
   
   Post hoc $\chi^2$ tests:
   (a) Young vs Middle $\chi^2(1)=3.8\ p<.05$
   (b) Young vs Old $\chi^2(1)=10.1\ p<.005$

4) S/CON 3 Loglinear significant effect of age $\chi^2(2)=6.0\ p<.05$
   
   Post hoc $\chi^2$ tests:
   (a) Young vs Old $\chi^2(1)=3.4\ p<.05$
   (b) Middle vs Old $\chi^2(1)=3.4\ p<.05$

5) S/CON 4 Loglinear significant effect of age $\chi^2(2)=11.0\ p<.005$
   
   Post hoc $\chi^2$ tests:
   (a) Young vs Middle $\chi^2(1)=6.1\ p<.05$
   (b) Middle vs Old $\chi^2(1)=6.7\ p<.05$

No other paired comparisons significant
Table 6.15 Children's and teachers' discourse about rules analysed by age: percentages mentioning head teacher.

<table>
<thead>
<tr>
<th></th>
<th>MORAL 1</th>
<th>MORAL 2</th>
<th>S/CON 1</th>
<th>S/CON 2</th>
<th>S/CON 3</th>
<th>S/CON 4</th>
</tr>
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<td>11</td>
</tr>
<tr>
<td>TEACHERS</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
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<td>13</td>
<td>13</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
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<td>10</td>
<td>4</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>17</td>
<td>17</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Children's responses: significant associations with age

(1) Moral 1 Loglinear significant effect of age $\chi^2 (2)=7.3 \ p<.05$
Post hoc $\chi^2$ tests:
(a) Young vs Old $\chi^2 (1)=4.5 \ p<.05$
(b) Middle vs Old $\chi^2 (1)=4.5 \ p<.05$

(2) S/Con 1 Loglinear significant effect of age $\chi^2 (2)=11.3 \ p<.005$
Post hoc $\chi^2$ tests:
(a) Young vs Old $\chi^2 (1)=7.9 \ p<.05$

(3) S/Con 2 Loglinear significant effect of age $\chi^2 (2)=10.7 \ p<.005$
Post hoc Fisher exact prob. tests:
(a) Young vs Old Fisher $z = 2.1 \ p<.05$
(b) Middle vs Old Fisher $z = 2.1 \ p<.05$

No other paired comparisons significant

Analysis of seriousness ratings by school

There was also considerable unanimity between the children and the teachers in their schools in assessments of seriousness (see Table 6.16). There was only one incidence of a significant difference; the children in School 1 gave a significantly lower assessment of seriousness to the child taking the book than their teachers did.
Table 6.16 Teachers' and children's mean seriousness ratings by school

<table>
<thead>
<tr>
<th>OFFENDER</th>
<th>MORAL 1</th>
<th>MORAL 2</th>
<th>S/CON 1</th>
<th>S/CON 2</th>
<th>S/CON 3</th>
<th>S/CON 4</th>
</tr>
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<tbody>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEACHERS</td>
<td>1.42 (.50)</td>
<td>1.29* (.29)</td>
<td>2.09 (.65)</td>
<td>2.63 (.70)</td>
<td>3.05 (.80)</td>
<td>3.46 (.62)</td>
</tr>
<tr>
<td>CHILDREN</td>
<td>1.33 (.68)</td>
<td>1.67* (.76)</td>
<td>1.97 (.84)</td>
<td>2.03 (.91)</td>
<td>2.42 (.94)</td>
<td>2.86 (.99)</td>
</tr>
<tr>
<td>SCHOOL 2</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEACHERS</td>
<td>1.38 (.60)</td>
<td>1.48 (.48)</td>
<td>1.95 (.77)</td>
<td>2.00 (.82)</td>
<td>1.86 (.66)</td>
<td>2.43 (.96)</td>
</tr>
<tr>
<td>CHILDREN</td>
<td>1.22 (.48)</td>
<td>1.44 (.73)</td>
<td>2.00 (.79)</td>
<td>1.97 (.84)</td>
<td>2.11 (.85)</td>
<td>2.53 (.97)</td>
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<tr>
<td>SCHOOL 3</td>
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<tr>
<td>TEACHERS</td>
<td>1.19 (.41)</td>
<td>1.57 (.64)</td>
<td>2.00 (.65)</td>
<td>2.05 (.67)</td>
<td>1.93 (.85)</td>
<td>2.29 (.79)</td>
</tr>
<tr>
<td>CHILDREN</td>
<td>1.25 (.50)</td>
<td>1.64 (.59)</td>
<td>1.86 (.102)</td>
<td>2.03 (.77)</td>
<td>2.06 (.95)</td>
<td>2.67 (1.04)</td>
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<tr>
<td>TEACHERS</td>
<td>1.38 (.50)</td>
<td>1.67 (.54)</td>
<td>2.29 (.55)</td>
<td>2.42 (.51)</td>
<td>2.21 (1.02)</td>
<td>2.92 (.94)</td>
</tr>
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<td>CHILDREN</td>
<td>1.39 (.49)</td>
<td>1.67 (.68)</td>
<td>2.00 (.83)</td>
<td>2.28 (.74)</td>
<td>2.14 (.76)</td>
<td>2.58 (.87)</td>
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</tbody>
</table>

*p<.05
Seriousness ratings: 1 = very bad. 2 = quite bad. 3 = a little bad. 4 = not bad.

Teachers' and children's attitude ratings

Children's attitudes
A principal components factor analysis with oblimin rotation failed to extract any meaningful factors. However, reliability analysis indicated that the attitude statements had a high internal consistency, once four of the 18 items were excluded. Therefore, the 14 items which appeared most closely associated were combined into an overall measure of children's satisfaction with the school. On the basis of the reliability analysis, the four statements which were deleted from the total list of items because of greater variability were as follows: (1) one statement referring to self perceptions (I think I would be sad to leave this school); (2) one statement referring to community/social feelings (it's important in this school that people get along well); (3) one statement from those concerned with the working environment (in this school, it is important to be hard-working); and (4) one statement from the section referring to self-system interaction (it's easy to get
things changed here if you don't like them). The remaining 14 items had a high alpha rating of 0.86, so represented a good standard of internal consistency, while still retaining the essential original balance of items.

*Teachers' attitudes*

Again, a principal components factor analysis with oblimin rotation failed to reveal any meaningful factors, possibly because of the small numbers of both items and participants. As in the case of the children, reliability analysis was used to construct a measure of satisfaction with the school and consequently, four items were deleted. Two excluded statements were from those referring to the working environment: (1) there is a strong emphasis on hard work in this school; and (2) some people here just don't put enough effort into working in this school. The other two excluded statements were from those concerned with the social/community aspects: (3) most people here, children and staff, are very keen for this school to do well; and (4) there's not much sense of pride in this school. All four statements concerned with self-perceptions remained. The balance of items was not as good as the children's list, but the alpha of 0.95 for the final eight items was very high, suggesting a very good degree of internal consistency.

*Analyses*

Having constructed a list of items for both the teachers and children, the respective mean scores were then examined for differences of age and school (see Table 6.17). There were no main effects in the children's total attitude scores when analysed by either age or school. However, planned comparisons designed to investigate possible differences between the children in School 3 and the children in the other schools, as a consequence of the findings in study 2, revealed a significant interaction between age and school. The mean attitude score for the oldest group of children in School 3 was significantly lower than the average of the combined scores of the other three schools. A similar planned comparison, examining the mean attitude scores for the teachers, found that the mean attitude score for the teachers in School 3 was very significantly lower than those mean totals of the teachers in the other three schools.
Table 6.17 Teachers' mean attitude totals analysed by school and children's mean attitude totals by school and age

<table>
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<tr>
<th></th>
<th>SCHOOL 1</th>
<th>SCHOOL 2</th>
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<th>SCHOOL 4</th>
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<td>57.67</td>
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<td>(4.9)</td>
<td>(8.3)</td>
<td>(11.2)</td>
<td>(8.0)</td>
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<td>58.25</td>
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<td></td>
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<td>(6.0)</td>
<td>(7.1)</td>
<td>(7.3)</td>
<td>(6.0)</td>
</tr>
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<td>57.39</td>
<td>55.92</td>
<td>58.00</td>
</tr>
<tr>
<td></td>
<td>(6.9)</td>
<td>(7.6)</td>
<td>(8.9)</td>
<td>(7.3)</td>
</tr>
<tr>
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<td>38.50</td>
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<td>31.00</td>
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<td></td>
<td>(1.8)</td>
<td>(2.3)</td>
<td>(8.6)</td>
<td>(4.8)</td>
</tr>
<tr>
<td>N</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>8</td>
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</tbody>
</table>

(1) Old Group Planned comparison, sig effect of school
School 3 vs Schools 1, 2 and 4, t = 2.44 (3), p < .05
(2) Teachers Planned comparison, sig effect of school
School 3 vs Schools 1, 2 and 4, t = 3.07 (3), p < .005

A closer examination of the individual items revealed those attitude statements which had resulted in significantly lower ratings by the Old group of School 3 than the Old groups of the other schools. The oldest children in School 3 gave significantly lower ratings to the following statements: (1) I like this school; (2) this is a good school to go to; (3) this is a good school for learning things in; (4) this school is run well; and (5) people here are interested in what I think about school. The significantly more negative ratings by the teachers of School 3 were given in response to the following statements: (1) I find working in this school very unsatisfactory; (2) I don't feel particularly attached to this school; (3) I feel very fortunate to be teaching in such a good school; and (4) Overall, both children and staff work really well in this school (with items (1) and (2) reversed for scoring purposes).
6.3.6 Analysis of children's rule-understanding as a function of attitudes

Using the children's attitude totals, the children were split into three groups for the purpose of analysis. A median split could not be used, as two groups could not be subjected to correspondence analysis. However, a tertiary split produced a reasonable division, giving the following groups: (1) low attitude group (N=48), representing the bottom 33% of total attitude scores (range = 30-54); (2) middle attitude group (N=44), representing the middle 31% of the total attitude scores (range = 55-61); and (3) high attitude group, (N=52), representing the top 36% of total attitude scores (range = 62-70).

An analysis of their rule-understanding produced significant one-dimensional solutions for four of the six rule scenarios: Moral 1, pushing a child off the climbing frame; S/Con 1, running in the corridor; S/Con 2, leaving library books on the floor; and S/Con 4, addressing the teacher.

In the case of Moral 1, pushing the child off the climbing frame, the dimension accounted for 86% of the inertia ($\chi^2=37.39$, df=12, p<0.0005), with the thinking of the low attitude group appearing to be differentiated from both the other two groups (Figure 6.4).

**Low attitude group's most discriminating responses:**
Parents can permit
Action not bad
OK elsewhere
Head can permit
Teacher can permit
Action quite bad

There were no discriminating responses for the high attitude group.

With the children's understanding of the scenario relating to running in the corridor (S/Con 1), the significant dimension accounted for 81% of the inertia ($\chi^2=47.47$, df=12, p<0.0005). The judgements of the high attitude group would appear to be more differentiated from the other two groups (Figure 6.5).

**Low attitude group's most discriminating responses:**
Action not bad
Figure 6.4 Moral 1: Pushing child off the climbing frame analysed as a function of attitudes

\[ x^2 = 37.39, \text{ df} = 12, p < 0.0005 \]

Unlabelled dots represent non-discriminating responses.
Figure 6.5 S/Con 1: Running in the corridor analysed as a function of attitudes

- **Middle attitudes**
  - Action a little bad
  - Head can permit
  - Teacher can permit
  - Low attitudes

- **High attitudes**
  - Action very bad

$x^2 = 47.47, \text{ df}=12, p<0.0005$ Unlabelled dots represent non-discriminating responses
Action a little bad
Head can permit
Teacher can permit

**High attitude group's most discriminating response:**
Action very bad

In the one-dimensional solution for the children's judgements of the scenario concerned with leaving the library books on the floor (S/Con 2), 75% of the inertia was accounted for ($\chi^2=30.22$, df=12, $p<0.005$), with the top attitude group again appearing more differentiated from the others (Figure 6.6).

**Low attitude group's most discriminating responses:**
Parents can permit
Action not bad
Action a little bad
Head can permit
Rule can be changed
Teacher can permit

**High attitude group's most discriminating responses:**
OK elsewhere
Action very bad

Finally, in the case of the scenario in which the child wrongly addressed the teacher (S/Con 4), the significant dimension accounted for 82% of the inertia ($\chi^2=58.39$, df=12, $p<0.0005$). The thinking of all three groups would appear to be differentiated (Figure 6.7).

**Low attitude group's most discriminating responses:**
Parents can permit
Action not bad
Teacher can permit

**High attitude group's most discriminating response:**
Action very bad
Figure 6.6 S/Con 2: Leaving library books on the floor analysed as a function of attitudes

- Action not bad
- Low attitudes
  - Head can permit
  - Rule can be changed
- Middle attitudes
  - Teacher can permit
- High attitudes
  - Ok elsewhere
- Action very bad
- Parents can permit

$x^2=30.22$, df=12, p<0.005 Unlabelled dots represent non-discriminating responses
Figure 6.7 S/Con 4: Addressing the teacher analysed as a function of attitudes

\[ x^2 = 58.39, \text{ df} = 12, \ p < 0.0005 \]
Unlabelled dots represent non-discriminating responses
6.4 Discussion
6.4.1 Children's general rule-discrimination
As had been predicted, the children's responses to the rule-infringement scenarios were indicative of an overall comprehension of the differences between the various types of rules described. But the children were not only apparently alert to the traditional distinction between the moral and socio-conventional domains of rule-understanding, but they also seemed able to perceive differences between the socio-conventional violations, according to the division proposed by Turiel (1983). The breaches of 'second-order' conventions, whose contravention might result in more major or moral-type consequences or social disorder, were viewed differently and generally more seriously by the children than those conventional rules which seem more arbitrary and less momentous in effect. Overall, the children displayed the competent social skills of rule-discrimination which have been regularly reported in previous studies, but with this additional refinement of an ability to differentiate between the various types of socio-conventional rules.

The skills displayed by the children are perhaps an indication of the complexity of the social environment, even for the young; social rule-comprehension is too multifaceted to be subscribed by only two rule-domains. And this interpretation was given added emphasis by the children's additional discrimination which resulted in the emergence of differences between the two rule-type examples. Effectively, the six rule-infringements were arranged along a spectrum, with the boy offender's action always being perceived as the more serious in each pair. Furthermore, the teachers ranged the infringements in a similar way.

In the absence of any systematic manipulation of gender of protagonist, it is difficult to interpret these findings. The original decision to use two scenarios for each of the three ruletypes was specifically designed to ensure that any differences between the categories would not be solely the consequence of the intrinsic features of any particular story. The gender of the protagonist was not controlled as previous researchers investigating this area, such as Smetana (1985), have been generally dismissive of gender as a factor in children's rule-differentiation, even though some theorists have expounded the view that there might be different developmental paths for boys and girls in moral reasoning (Gilligan, 1982). For example, Smetana (1985), in a study investigating preschool children's conceptions of transgressions, specifically argued against an examination of sex differences on the grounds that previous studies had failed to find any. However, in the light of
these unexpected but interesting findings, it would clearly be an area which would warrant further and more systematic examination. Two unpublished studies which have addressed this problem came to conflicting conclusions; one study (Edwards, 1993) found that boy protagonists received higher negative ratings than girl protagonists in relation to moral transgressions; in the other study (Detert, 1993) boys and girls were not rated differentially when breaking rules, although boys were perceived as more likely to break rules in general. However, the general trend of these findings may reflect the view that stereotypical gender perceptions prevail in school settings, with reports by both teachers and children that boys are less well-behaved than girls. These perceptions may be the most likely cause for the differential ratings which appeared in this study.

But it may also be the case that intrinsic differences in the pairs of infringements were by sheer chance always to the detriment of the boy offender. For example, the study by Tisak and Turiel (1988) into the variation in seriousness of transgressions by similar-aged children expressed the view that moral violations could be subdivided according to their consequences. Physical injury, such as causing a child to fall, would be deemed to be a major consequence, while stealing would have more minor consequences. However, that might be too simplistic a conclusion; the children in Tisak and Turiel's study gave identical assessments of seriousness to moral infringements, whether the consequences were viewed as major or minor. But overall, it would appear that even relatively simple scenarios, such as those presented in this study, may prompt both conscious and unconscious differentiation on other criteria, beyond those examined here. Nevertheless, despite these problems, the essential conclusion to be drawn from the children's responses is that they displayed overall the predicted understanding of the different types of social rules. This was unaffected either by their school or their sex.

6.4.2 Children's moral rule-understanding

Overall, the children duly acknowledged the crucial importance of moral rules by their judgements on all the criteria, generally supporting the view that an understanding of moral rules is established prior to school entry (Smetana, 1981, 1985, Smetana & Braeges, 1990, Smetana, Schlagman & Adams, 1993). But individual responses did reveal some important variations in the moral understanding of some of the younger children. There was also a significant age-based solution in the correspondence analysis for Moral 2, taking the child's book, which revealed that both the Young and Middle group's thinking was less
established than that of the Old group for what was generally seen as the less serious of the moral transgressions. While there was substantial agreement across the age groups about the considerable seriousness of the moral breaches and with almost all of the children expressing the view that such actions would be just as wrong in other places, nevertheless, despite the strength of these judgements, some of the younger children were prepared to temper their views on some of the other dimensions.

With both the moral infringements, there were signs of some confusion over the role of authority (Tables 6.7 and 6.8). With regard to pushing a child off the climbing frame, while the large majority of all children (90%) said that the head teacher could not authorise this action, the Young and Middle group children were significantly more likely to say that this violation would then be acceptable. In the case of taking the child's book, some of the Young and surprisingly some of the Old group displayed tendencies to say that a teacher might authorise this violation. Furthermore, there were some children in all 3 groups inclined to report that this could also be permitted by the head teacher. In addition, and possibly related to these understandings, there were large numbers of children in both the Young and Middle groups who said that these rules might be changed; 31% Young and 35% Middle, as compared with only 13% Old, in the case of the climbing frame; 46% Young and 42% Middle, compared with 13% Old, with the taking of the book. While it might be argued that there were conceivable situations in which immoral actions might be sanctioned, such as taking someone's property, it is hard to envisage any possible justification for pushing a child off a climbing frame. In addition some of the children's moral understanding displayed further ambivalence when they reassessed the violations in the absence of rules. With both moral infringements some of the Young and Middle groups were significantly more prepared, than the Old group, to say that the contraventions would be acceptable if there was no rule.

These findings suggest an interesting contradiction. While the children were generally agreed that these two incidents represented very serious violations, and that they would be almost entirely as wrong in another location, some of the younger children were effectively prepared to qualify that apparently tough position. They would therefore appear to be both cognisant of the distinctive gravity and generalisability attached to moral transgressions, which understanding, according to the studies of much younger children (Smetana, 1993), they would
have acquired well before their entry into school, but were apparently nevertheless influenced by other considerations to judge these violations in somewhat contradictory fashion on the other criteria of changeability, authority- and rule-dependence.

With regard to rule-dependence (Tables 6.7 and 6.8), it may be that the responses of some of the younger children may reflect their tendency to see rules generally as informative (see Chapter 5), as defining what is good and bad behaviour, rather than having higher purpose, such as the avoidance of injury or hurt. There were some further indications of this in the second study (see Chapter 5) when the youngest children displayed a greater tendency to justify the specific moral rule, not fighting in school, with the punishment option instead of the moral one. It might then follow from this particular understanding, that an action, in the absence of a rule, even an immoral one, might appear to become acceptable. While moral understanding is held to be rule-independent with even pre-school children displaying some knowledge of this, it would appear that some younger children's thinking may become confused when confronted with the extensive school-rule system. Furthermore, the scenarios may have inadvertently encouraged the children to see even the moral infringements as being rule-dependent, because the children were expressly told that there was an actual rule forbidding the action. While the older children, with their more mature rule-understanding, were less likely to be influenced, some of the younger children might have been struck by the salience of the rule to the story. This is also general support for the view of Corsaro (1990) that rule-understanding within a context develops in a two-stage process; while children are still struggling with the first stage, that of simply internalising the extensive rule-system of school, it may be that the presence or absence of rules would appear to be the most salient feature when assessing them. Only later, with the rules safely grasped, do they become able to balance other aspects involved in judging rules.

The variations in responses to the role of authority may also reflect the younger children's more immature understanding of school rules, but is probably more likely to be a consequence of their preoccupation with the power of the head in particular, and the teachers to a lesser extent. Authority is a central component of the school system and these younger children, still adapting to the complex life of the school and the new roles within it, may be over-conscious of the power of the head and teachers. It may be, given the apparent conflict between those in authority
and the nature of the action, that the children simply make the wrong choice, because the question of authority is more salient.

But it need not be a matter of conflict so much as different perceptions. The children know that the staff have the responsibility to tell you what you must do and must not do and they may understand from this that teachers are capable of authorising or sanctioning all actions, within the school context. It is also possible that some of the younger children feel they should always comply with a teacher's order without question, perhaps out of fear of the possible punishment or perhaps out of a belief that teachers always know what is right, and that they instinctively extend that understanding to these situations.

Overall, these results are supportive of the hypothesis that children's moral rule-understanding will require some re-adjustment to the new context of the school and also of the more general view that the context in which children are developing their thinking, even their moral reasoning, may be a factor in that comprehension (Brownell, 1989, Schweder et al., 1987, Miller & Luthar, 1989). This is despite the belief that such knowledge should be context-free and despite the studies which suggest that children's moral rule-discrimination is well-established prior to school entry and should transfer to a new context (Siegal and Storey, 1985). This was to be expected, given the findings of the second study which revealed the centrality not only of rules, but also of the closely-linked concepts of authority and power in the children's understanding of the school-system. The apparent contradictions in the responses of some of the younger children to the moral scenarios in this study are indicative of their attempts to balance the competing claims of moral rule-understanding with their perceptions of the school structure. However, as the responses of the older children would suggest, children eventually re-establish their rule-discrimination abilities, and successfully adapt them to the new situation. The study by Laupa and Turiel (1986) supports the view that this is a short-lived inconsistency in the youngest children's rule-understanding. They examined the responses of children aged 7-11 (thus similar to the Middle and Old groups in the present study) to situations in which adults in authority effectively ordered children to harm others and found that almost all the children refused to comply.

6.4.3 Children's socio-conventional rule-understanding
The age differences in the children's socio-conventional rule understanding (Tables 6.9-6.12) were also to be expected, but for more straightforward reasons. As socio-
conventional rules are directly context-dependent, it would be expected that new entrants to any system would need time to develop their grasp of the rules. Furthermore, schools have an extensive conventional rule-structure, which make greater demands on their comprehension than moral rules because their wrongness is less evident and less likely to be elucidated (Smetana, 1993). In this study, however, two of the conventional rules, not running in the corridor and not leaving library books on the floor, were chosen as examples of conventional rules with possible serious consequences which the children might be expected to appreciate. The other two, not crossing a line in a playground and addressing a teacher correctly, were selected to represent the more arbitrary type of rules, whose purpose is less evident.

Overall, the children's responses to the socio-conventional rules display a considerable variety of judgements. The findings generally support the view that children's assessments of the relative importance of criteria will change with age, producing shifting patterns of judgements. The correspondence analyses provide support for this assessment of age-based trends; the younger children's thinking was generally more diverse while the older children's thinking appeared to have attained some degree of consensus. While this means that the data is much harder to interpret, it is also further evidence that children may be actively sorting and categorising social situations on many dimensions beyond those presented to them, reflecting again the multi-faceted and complex nature of the social environment, particularly in assessments of the socio-conventional domain.

However, there were some straightforward developmental trends. Ratings of seriousness decreased both along the rule-spectrum and with age and this was the most predictable of all the dimensions. Since this is probably the most basic of judgements, this provides an interesting contrast with the fluctuations in some of the other dimensions, suggesting that seriousness is a criterion which may be somewhat independent of other criteria. Therefore, it may be that children may be conscious of the lesser gravity of socio-conventional transgressions, but will nevertheless react to such rules in fairly standard fashion. In support of this view, in an unpublished paper, Harris (1996) reported findings which suggested that preschool children were extremely capable at assessing and reporting appropriate compliance in response to arbitrary rules which appeared to be totally lacking in any logical or sensible purpose.
There were also no age differences in evaluations of the infringements in the absence of a school rule, with children's judgements reflecting the decreasing seriousness with increased acceptance of the actions. There was also a fairly straightforward trend in the children's readiness to report the events; while the Young and Middle groups barely deviated from around 90%, the Old group's willingness to tell a teacher declined sharply and significantly, probably only partly because of their more accurate assessment of the decreasing importance of the rule, but perhaps more likely as a consequence of growing peer solidarity.

Other dimensions suggested that more complex influences might be at work. The question of the changeability of the socio-conventional rules provided an interesting pattern. The Old group of children, as with the moral infringements, were least likely to say that the socio-conventional rules might be changed, although the only significant difference was in the case of the library books left on the floor. This provides an interesting contrast with their declining seriousness assessments and increased reluctance to report the events. It is possible that it reflects the older children's increasing realisation (see Study 2) that school rules are for the benefit of the whole community and, despite decreasing seriousness, that conventional school rules are still of value for the school as a whole. This was particularly evident in their judgements of the generalisability of the rule about putting library books back on the shelves; they were almost unanimous in saying that this infringement would be unacceptable elsewhere, while the other groups of children were significantly more likely to approve it, suggesting that the older children were much more conscious of the possible social disorder from such action.

This greater awareness of the community value of rules by the older children may also have been partly responsible for some interesting patterns in the assessments of authority in the conventional scenarios. Generally, there was increasing understanding that heads and teachers could authorise these actions, across the conventional spectrum, with 45%, 44%, 80% and 75% of the children reporting the head could give permission in the rules 1-4, while 40%, 35%, 77% and 44% of the children reported that a teacher could (Tables 6.9-6.12). But within this general trend, the age groups reported different positions. In the case of the library books, the Middle group of children were significantly more likely than either the Young or the Old to say that a teacher could authorise this action, with perhaps the older children again influenced by the possible serious consequences. With the
playground line, the youngest children were significantly less likely to believe this action could be sanctioned. With the scenario about addressing the teacher, although the differences were not significant, the relative positions were reversed, with the youngest children tending to say that this could be permitted. Overall, this is further evidence of the varying emphases and changing perceptions that the different groups of children brought to their judgements of the rules.

6.4.4 Children's rule-understanding as a function of attitudes
There were indications that the children's assessments of school ethos were related to their rule-differentiation in four of the rule scenarios (Moral 1, S/Con 1, S/Con 2 and S/Con 4). The thinking of those children in the lowest attitude group appeared to be more diverse and less focused than the children with high total attitude ratings, in a reflection of the age-based significant solutions where the younger children's thinking also seemed to be more varied. The low attitude group children seemed less decided on assessments of seriousness and the role of authority.

There are several possible relationships between their apparent uncertainty about the rules and their less favourable assessments of the school climate; either the children's lower satisfaction in the school may be a consequence of their less confident understanding of the rules, or their lower happiness ratings may influence their internalisation and comprehension of the rules. Either way, it is a further indication that school ethos is a crucially important factor in the overall success of a school, both socially and academically. But more importantly, it is also additional evidence that children's social judgements are influenced by the context in which that understanding is developing. Therefore, it would have been interesting to have examined this relationship as a function of school, particularly in view of the results from School 3, but the resultant plot of 12 groups would have been too complex.

6.4.5 Conclusion: children's rule-understanding
Overall, therefore, there would appear to be some indications that children are very actively evaluating the rules in their social environments and that their perceptions and understandings will develop and change with age. More crucially, and in support of the hypothesis, there is evidence here that children's rule-discrimination abilities are affected by their entry into a new social environment. While age differences in their perceptions of conventional rules were to be expected, because of the relatively greater dependence on context, the fluctuations and inconsistencies
revealed in the moral understanding of some of the younger children were less predictable, following earlier findings that their moral knowledge was well-founded prior to school entry (Smetana & Braeges, 1990, Smetana et al., 1993). But this study would suggest that some of the youngest pupils need time to adjust their understanding to encompass the centrality of the concepts of power and authority in the system of the school. In the process of adaptation during the early years in the primary school, their moral reasoning may show some signs of imbalance. However, while there were differences attributable to age, there were negligible signs of school influences; this suggests that school rule systems are either very largely similar, or that children's appraisal of them follow a generally common pattern, changing mainly with age. Thus it is the change of context from family to school which appears to have the most effect, with minimal variation attributable to the type of school.

6.4.6 Children's and teachers' perceptions compared
The results from the extremely small sample of teachers need to be treated with great circumspection. Nevertheless, they were an additional source of information about the system of the school and there were three main areas where their perceptions might be usefully, if cautiously, contrasted with those of the children: (1) ratings of seriousness of infringements; (2) discourse about rules; and (3) total attitude scores.

Judgements of seriousness: age variations
While the serious criterion was the only one of the many dimensions which was assessed by both teachers and children, it is arguably the most basic and important. Furthermore, it displayed the most regular and expected pattern of all the criteria. Perhaps the most striking conclusion to be drawn from the teachers' and children's seriousness judgements is how similar they appear, not only in the overall ratings, but also in the age-based assessments (Table 6.13) with only three points of significant difference. Two variations are concerned with judgements by the youngest group of children of both the 'second-order' conventional infringements, with the children inclined to rate them as more serious than the teachers. The third difference is between the teachers and the oldest group of children and concerns the more serious of the moral violations, pushing the child off the climbing frame, with the teachers making a more serious assessment than the children. However, the overall patterns are otherwise very similar. There would appear to be a good level of understanding between the children and teachers as to the seriousness of
these violations and thus there should be correspondingly fewer instances of friction or disagreement.

**Judgements of seriousness: school variation**

There was apparently even closer alignment when the children's and teachers' perceptions of seriousness were examined according to school. There was only one area of significant difference, in the assessment of one of the moral rules by the children and teachers in School 1. Otherwise, there was a remarkable level of agreement, even in the case of the conventional rules, where greater variations might have been expected, although the standard deviations did tend to increase across the rule-spectrum. Overall, these seriousness ratings, both as a function of age and as a function of school, suggest that there is considerable consistency in the ways infringements are handled by teachers for all ages of children and in all four schools.

**Discourse on rules**

(A) Mention of punishment

There was an expected general decrease in the chances of children mentioning punishment across the rule-spectrum (Table 6.14), which was largely echoed by the teachers, suggesting that seriousness ratings and discipline levels may be correlated, with the most serious violations attracting the most chastisement. There was some disturbance to the pattern with respect to the scenario about the library books, which seemed to result in much higher punishment referrals than the other 'second-order' convention.

With respect to age differences, apart from the first moral violation, where references to punishment were very similar, there was generally an increasing chance of the children mentioning punishment with age. However, any analysis of children's discourse as a function of age must recognise that children are likely to report more with age, simply because of their greater fluency and vocabulary and that the significant differences may reflect this variation in ability. There may be an additional explanation; the teachers' reports were increasingly likely to mention punishment with age, probably because older children are expected to behave better and might be therefore more likely to suffer as a consequence.
(B) Mention of head teacher
Given the possibility that younger children report less than older children, because of lesser fluency, the trends in mention of the head teacher are in the opposite direction (Table 6.15); in all six scenarios, the Young and Middle group are more likely to mention the head teacher, with some significant differences in three of the rules. In the case of the more serious moral rule, pushing the child off the climbing frame, nearly half the children in the Young and Middle groups suggest that the disciplining teacher would refer to the head teacher in some way. The types of reference are either direct, by saying that the child would be sent to the head, or more indirect by suggesting the child might have to stand outside the head's door. However, these percentages are considerably higher than those of the teachers, who make minimal reference to the head teacher; only with the Old group, do the levels appear to be reasonably close. Overall, the younger children make more frequent reference to the head teacher than the older children, but the teachers' percentage would appear to suggest that the older children have a more accurate perception of the discourse about rules. Some of this is due in part to the older child's greater experience and knowledge of the school rule-system and patterns of discipline. But equally, the younger children's greater preoccupation with the head teacher, which was so apparent in the second study, may well have influenced their reports.

**Teachers' and children's attitude statements**
The overall impression to be gained from all the comparison points between the children and teachers, as reviewed so far, is that there is a considerable level of agreement between the two main groups participating in school life, even though the findings cover an extremely limited area. In both the judgements of seriousness of the violations and in the discourse about rules, teachers and children appear to report reasonably close perceptions of school life. This apparent alignment of perceptions is generally more the case with the older children, the assumption being that children's and teachers' assessments and understandings will become more closely aligned with the increasing age, and thus knowledge and experience of school, of the child.

As for school differences, the whole study produced minimal indications of school influences, with all the major variations in rule-discrimination being attributable to age instead. In all the results reviewed so far, there have been no indications of any possible factor in the significant school differences which emerged, somewhat unexpectedly, in the second study. However, the investigation into the children's
and teachers' attitudes to their school was undertaken with the express purpose of exploring these differences and the analysis indeed provided an interesting finding. While there were no overall school or age differences in the children's attitude totals, there was an interaction between age and school, and the attitude total reported by the oldest children in School 3, was significantly lower than those for the other three schools. Furthermore, the attitude totals for the teachers, produced a similarly significant dip in those reported by the teachers in School 3.

It is difficult to be certain what was being measured in either the children's or the teachers' list of attitude statements and thus what was represented by the overall levels obtained. While this part of the study was designed to examine school ethos, there is no way of knowing if these scales are indeed measuring school climate. However, there are some aspects which may be seen as providing some 'circumstantial' support to the lesser claim that these attitude totals represent separate and individual indications of the children's and the teachers' satisfaction with their respective schools. Firstly, in both lists of statements, a variety of different types of feelings and attitudes were covered, including self-perceptions, statements about social or community attachment, statements about the working environment and in the children's list, statements about power/authority and self/system interaction, in an attempt to examine a range of school perceptions. Second, there were high alpha ratings for both reliability analyses, suggesting that the combined statements have good internal consistency.

However, while the two scales may have some individual consistency and thus possibly represent some measure of satisfaction in the children and the teachers as separate groups, there is no way of ascertaining if the scales are sufficiently similar to offer a means of comparison. But as individual measures, and in particular, given the pattern of school differences in the second study, the essential point is that it is the participants from School 3, both teachers and oldest children, who appear to be out of line with the responses of the participants in the other schools. In other words, the distribution of attitude totals by the teachers and the oldest children, when analysed by school, show very similar patterns. The alignment of their reports suggest that both the oldest children and the teachers in School 3 have similar perceptions of the school as a social and as a working environment. This evidence of shared understandings and experiences must be seen as support for those theoretical approaches which include children's social environment in their explanations of children's development (Moscovici, 1984, Duveen & Lloyd, 1990,
The restriction of the significant difference to the oldest children's responses can be seen as some additional support. There is other evidence in this and the previous study that the oldest children, for such possible reasons as greater maturity, longer experience of school life or developing cognitive abilities, report more accurate perceptions of the school. Thus for example they have a more complete picture of the system of the school, are capable of more mature rule-discrimination and their rule-discourse more closely followed the rule-discourse of the teachers. Furthermore, it is also possible that the nature of their relationship with the teachers might be qualitatively different from those of the younger children, as the oldest children may have the most opportunity for contact with the staff and thus to be more aware of their attitudes towards the school. It could, therefore, be argued that if there is a prevailing school ethos which teachers are aware of, then the oldest children, for all the reasons above, might be the most likely, or even as in this instance the only children, to reflect this.

6.5 Conclusion
The study set out to explore children's rule-discrimination in the belief that, despite being established prior to school entry, their social rule understanding would be affected by the new context to their lives. The findings suggest that this was indeed the case. Not only was the children's socio-conventional rule understanding affected, but more importantly, the younger children displayed inconsistencies in their moral understanding. Their moral judgements may have been affected by their developing perceptions of the central system-concepts of power and authority within the school context, despite the prevailing view amongst moral development researchers that moral knowledge is context-free. Furthermore, the children's assessments of school ethos also appeared to be linked to their rule-understanding. More generally, this gives support to the view of children's development which would include children's social environment as a vital component in their understanding.

However, there were also some unexpected inconsistencies as the children's rule-differentiation which revealed variations within the categories of rules. These were possibly caused by the gender of the protagonist, with the transgressions of boys being adjudged more seriously than those of girls. There were some indications that this was a general understanding in the community of the school, as teachers
displayed much the same tendency to differentiate as the children. This would suggest that stereotypical gender-based perceptions may still be prevalent in schools, despite explicit attempts to eradicate them. Furthermore, these similar perceptions may be seen as still further support to the view that children's understanding of the social world will reflect the social context in which they are developing and may be shared with other members of it.

The second aim of the study was to probe the unexpected variations in the second study which appeared attributable to school differences. Although the children's rule-understanding revealed minimal school effects, there was an important finding in the assessments of attitudes and feelings about the school, with the oldest children and the teachers in School 3, the school which had produced the different responses in study 2, reporting lower levels of attitude totals and significantly different from the other three schools. While these results must be viewed with extreme caution, for such reasons as the small sample of teachers and problems of validity, nevertheless, when taken in conjunction with the variations in the findings from study 2, they suggest that one possible reason for the school differences may be that there is a different school ethos in School 3 than in the other three schools. But perhaps there is a more important, though again tentative, conclusion to draw from these findings: that the older children and teachers, as members of the same social environment, may report very similar perceptions, with the children either subject to the same influences which assist the teachers to form their attitudes, or alternatively being directly affected by the teachers' feelings about the school. Taken with the findings that levels of attitude ratings are linked to social rule-judgements, it is further support for the view that school ethos is an important factor in children's understanding. Therefore, having extended this overall examination of the social system of the school to include the teachers, the next essential step would appear to be an investigation of the wider social context to probe the role the parents' perceptions play in the children's understanding of the school. This was one of the purposes of study 4.
Chapter 7

Study 4: An Examination of Wider Influences on Children's Perceptions of School Life.

7.1.1 Introduction
The overall objective of this research is to examine the development of children's understanding of political concepts within the school context. The previous studies have progressed from a general probing of the children's comprehension of the school system to a more specific investigation of the possible effects of their developing political perceptions on other areas of social understanding, such as rule comprehension, together with an examination of any possible influences on their knowledge. This fourth and final study drew from all three studies, both by re-examining some previous aspects and also by pursuing new areas which were prompted by the earlier findings.

7.1.2 Issues arising from the previous studies
Studies 1 and 2 were broadly concerned with the children's comprehension of the system of the school. From the wide range of findings, a general picture of children's understanding has emerged. This suggests that the youngest children in the school begin by grasping the role and importance of the head, proceeding to a comprehension of the organisational hierarchy and the part played by the teachers and parents and finally understanding something of their own contribution to the school system. Therefore one of the aims of this fourth and final study, was to replicate this pattern of responses in different schools in order to assess the generalisability of this pattern of system-understanding. To this end, the children's interview schedule for Study 4 (see Appendix E) included the questions about power/authority (questions 1-7), the questions about the roles of the head and class teacher (questions 10, 11, 12 and 13) and two of the more general questions about rules (questions 8 and 9) which had been posed in Study 2. The questions which were excluded were mainly those concerned with decision-making and some more specific questions about rules.

Study 3 was more closely focused on the specific area of children's discrimination of school rules, but also extended the more general investigation by exploring the feelings and attitudes of both the children and their teachers about their school. This examination of the attitudes held by the two main participating groups in
school life revealed some similarities in their thinking. The children and teachers may construct their perceptions by drawing on similar sources or there may be some pattern of cross-influences, or perhaps some combination of both effects is responsible. Whatever the origin, direction or arrangement of these possible influences, the similarities give some support to the view that the measurement scales were assessing school ethos. If schools do indeed have 'climates', it might be expected that both teachers and children would become aware of them and make similar reports about them.

7.1.3 Wider influences on children's thinking
However, children's perceptions of school life may also be generated or influenced by people and events which are external or previous to their experience of school. It was therefore the intention of this fourth study to extend the investigation of influences on children's understanding to examine the wider context of the school through three further factors, all emanating from outside the school: first, possible influences emanating from the parents would be explored; second, there would be an investigation of differences in the children's thinking which might be attributable to socio-economic class (Emler & Dickinson, 1985); and third, in view of the importance of children's earliest social interactions suggested by studies of early family life (Dunn & Munn, 1985, 1987), the children's responses were to be analysed as a function of their birth order. However, there was no intention to include gender as a variable in this study. This was partly a consequence of the selection of birth-order and socio-economic class as variables, in addition to age, whose influence on children's understanding of political concepts was made evident in the earlier studies; the intended sample size was deemed sufficient for these three variables but would not support a fourth. But the exclusion of gender was also partly in recognition of the negligible effects of gender in all the previous studies.

With respect to the examination of parental attitudes, it was clear from some of the children's responses in the previous studies that parents were considered by children to have important opinions and views about school and also to play a part in school life, although they were not generally concerned with the actual day-to-day functioning of the school beyond occasionally helping with some non-academic activities. The older children in particular sometimes mentioned 'the parents' when responding to questions about power and authority in the school system. It is also generally the case that most parents display an interest in their
children's schools, and were therefore likely to comment on aspects of school life which might extend beyond a basic concern for their child's well-being. Children might be exposed to their parents' feelings about their school. It would therefore be expected, on the basis of the correlations in the third study, that there might also be some relationship between children's and parental attitudes. Again, as in the case of the teachers, this could be a reciprocal association; while the children's construction of attitudes might well be influenced by the feelings of their parents, the children also represent the parents' main source of information, both direct and indirect, about the school through their reports of school life.

There was an additional advantage in including parental attitudes about the school. School climate, as described by Rutter et al. (1979) and Finlayson (1973), is believed to be a pervasive and global feeling which is experienced by all who come into contact with the school. Even occasional and peripheral visitors, such as parents or educational officials, are believed to become aware of the 'tone' of the school, even though their experience of the school may be brief or minimal. Therefore, by the inclusion of parental attitudes, in addition to the attitudes of the children and the teachers, the investigation of school ethos could be extended to include the reported feelings of three possible groups of susceptible persons.

With respect to the inclusion of class as a variable, the importance of socio-economic groupings as a factor in children's social understanding has been suggested by several investigations (Emler & Dickinson, 1985, Jahoda, 1979). According to some of these studies, children's social groupings would appear to have greater import in accounting for variations in their understanding of the social environment than the children's age categories. Therefore, it is possible that social groupings could also influence children's understanding of the system of the school. In addition, it could be argued that children's political thinking might be one of the areas of social understanding most susceptible to socio-economic influences, given the class-based nature of much political thinking.

The interest in the role played by birth order in children's social understanding stems from the detailed and intricate observational studies of the family (e.g. Dunn & Munn, 1985, 1987, Smetana, 1989), which revealed something of the complex patterning of such aspects as social emotions, rule-understanding etc. through the interactions of mothers or caregivers with children and siblings. The arrival of a second child in the family changes the basic interactional setting, thus resulting in a
different social context for second-born children to that of the first or only child. Furthermore there may be greater opportunities for social development with the birth of a second child; for example, there appear to be greatly enriched possibilities of developing moral rule-understanding through conflicts with siblings (Smetana, 1989) or more general rule-knowledge through simple observations of an older sibling's rule violations and the mother's response. With the reporting of these very early differences in social interactions, it might be expected that children's social knowledge in later years may still be a function of their birth order in the family and that the children's understanding of the school might be affected.

In addition, there is possibly a more direct effect on children's comprehension which may be influenced by their family position. Second-born and subsequent children will have the reported experiences and perceptions of their older siblings which may then influence or be absorbed into their own understandings. In the case of school, this may be further enhanced by the younger child attending the same school, possibly while the older child is still a pupil. It would be expected, therefore, that birth order might well be influential in the child's understanding of the school.

With a prospective sample size of between 100 and 120, the aim was to examine a fairly simple split between only/first-born children and second/later-born children. More complex distinctions, such as assigning only-children to a separate category, or taking account of age-gaps between siblings, while this may have provided a better reflection of the actual differences in family contexts, would have required a much larger sample. Therefore the emphasis was more on the presence or absence of possible sibling feedback about schools, rather than the variations in social interactions in the family setting brought about through birth-order. However, both only and first-born children do have the common experience of being the only child in a family, and even if this is for a very limited length of time for those children who subsequently gain siblings, there may nevertheless be enduring effects from these early years.

Thus the intention was to re-examine the children's understanding of power, rules and roles within the system of the school as a check upon the possible generalizability of the findings from the previous studies. There was an additional aim to explore further the attitudes and feelings which children and teachers held about their respective schools, together with the inclusion of an investigation of
parental attitudes. There was also a third area of inquiry which had been included in an early pilot study, but had been rejected subsequently from the interview schedule due to pressure of length. This concerned the children's perceptions of the school with respect to their own part in the system. This was examined by probing their understanding of the purpose of the school and their perceptions of their own role as pupil within it. It was expected that the children's thinking in both these areas would reveal age-trends which might be linked to their developing system-understanding. Furthermore, it was also believed that there might also be associations with socio-economic class and birth-order.

7.2 Method
7.2.1 Sample

Schools
Two primary schools took part in the study, once again from the London Borough of Richmond, neither of which had participated in any of the previous studies. Their selection was based on their free school meals (FSM) ratios, which were used as a very approximate indicator of socio-economic class. School 5 had a very low FSM ratio and School 6 had a fairly high FSM ratio (see Table 7.1). This should therefore mean that the intakes of the two schools should be broadly different; School 5 was generally middle-class, while School 6 had a fairly high intake of working-class children. While there had been some variation, none the schools in Studies 2 and 3 had such a high free school meals ratio as School 6 in this study. Socio-economic class is arguably one of the most important social categories, but is extremely difficult both to define and ascertain in the case of children. Thus socio-economic class was operationalised by drawing the sample from two schools with very different class-based populations, according to their FSM ratios.

Table 7.1 Schools: number on school roll and % eligible for free school meals

<table>
<thead>
<tr>
<th>School</th>
<th>Number on roll Jan. '94</th>
<th>Total FSM as % of roll (Years 1 - 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 5</td>
<td>225</td>
<td>2.9</td>
</tr>
<tr>
<td>School 6</td>
<td>174</td>
<td>49.2</td>
</tr>
</tbody>
</table>

Children
112 children were drawn from the years 1-6 in these two primary schools, 57 from School 5 and 55 from School 6. However, there was an important change from the
earlier studies in the way the sample was drawn. As the inclusion of the parental
data was a major aim of this study, the children were not randomly selected by the
teachers, but were mainly self-selected on the basis of a completed parental
questionnaire. All parents were issued with a questionnaire (see Appendix F) and
the completion and return of this questionnaire was the starting-point for drawing
up the sample. The vast majority of the children who took part in the study were
randomly selected from those children whose parents completed the questionnaire.
However, there were some exceptions for reasons which are elaborated below.

There were differential response rates from the two parent populations. The
response rate was extremely high from the parents of School 5, possibly as a
consequence of the overall higher socio-economic status, and approximately 65%
of the parents responded. As a consequence, with 57 children interviewed, not all
the children whose parents completed the questionnaire were needed for the study.
Inclusions were based on such factors as the need to balance birth-order, the
availability of the child at time of interviews, and the need to avoid interviewing
more than one child from any family. In fact, with these consideration in mind, 3
children without parental questionnaires had to be included, one in the Young
group, and 2 in the Old group. As already discussed, in view of the minimal gender
effects in previous studies and interest in other variables in this study, namely age,
birth-order and school, gender was not of major concern; however, the sample was
also roughly balanced for gender (see Table 7.2).

The response rate from School 6 was approximately 38% and this was just about
sufficient to provide 55 children to take part in the study. However, there were
some inevitable adjustments and as a consequence of the much lower response rate,
some 16 children had to be included without parental questionnaire for one of
several reasons. First, some parents, possibly because of language difficulties,
would appear to have misunderstood the questionnaire, but there were insufficient
'surplus' children to exclude these children from the sample. Second, again for
reasons of the lower response rate, it was not always possible to avoid interviewing
two children from the same family; however, in both instances of this, the parental
questionnaire was only included once. Third, a particular problem arose in one
year, Year 3, where there was a particularly low response rate; in this case, two
children had to be randomly selected by the teacher as in the previous studies in
order to provide a balanced sample. Overall, out of the 55 children, 16 children
(29% of the sample drawn from School 6) were included without parental
questionnaires, 4 in the Young group, 5 in the Middle group and 7 in the Old group. Again, the categories for age and birth-order were of prime concern, with gender of secondary interest, although the sample was reasonably balanced for gender.

As before, the children were grouped into three age groups for the purpose of analysis, Young containing 36 children from Years 1 and 2, Middle containing 37 children from Years 3 and 4 and Old containing 39 children from Years 5 and 6. Table 7.2 gives the breakdown of the mean age and age range of the children.

**Teachers**
As before, all full-time teachers were given a questionnaire and both head teachers were excluded. Some part-time teachers were included, on the advice of the head teachers, if they were judged to work in excess of 'half' time, but there was no way of distinguishing between full and part-time teachers as the questionnaires were again anonymous. Response rates were as follows: (1) 90% in School 5 (9 out of 10 completed; (2) 78% in School 6 (7 out of 9 completed). For analysis, there were 2 independent groups of teachers according to the school they taught in.

**7.2.2 Procedure**
There were three instruments in the study: the parents' questionnaire; the teachers' questionnaire; and the children's interview schedule.

**Parents**
The parents' questionnaire (see Appendix F) was used to provide the basic biographical details about the child, such as date of birth, sex, class year and birth position. The parents were also asked to provide brief details of any school position held or of any assistance in school which was regularly given by either parent. Obviously, the questionnaire was not anonymous, however the parents were assured that their responses would not be disclosed by the researcher. However, the main part of the questionnaire were the 7 attitude statements, probing their feelings towards the school. These were answered on a 5-point scale, ranging across 'strongly agree', 'agree', 'uncertain', 'disagree' and 'strongly disagree' (rated thus: strongly agree = 5; agree = 4; uncertain = 3; disagree = 2; and strongly disagree = 1). Two of the questions (1 and 7) were concerned with the parents' perceptions of the working environment of the school; two questions (3 and 6) referred to the social environment; and three questions (2, 4 and 5) addressed the parents' feelings about their own role in the life of the school.
Table 7.2. Mean age and age range of the subjects

(Birth 1 = only or first-born; Birth 2 = second or later-born)

<table>
<thead>
<tr>
<th>Birth 1 Age Range</th>
<th>N</th>
<th>School 5</th>
<th>School 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young (Years 1+2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birth 1</td>
<td>12</td>
<td>6.9</td>
<td>7.0</td>
</tr>
<tr>
<td>Birth 2</td>
<td>5</td>
<td>6.7</td>
<td>6.9</td>
</tr>
<tr>
<td>Middle (Years 3+4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birth 1</td>
<td>10</td>
<td>8.8</td>
<td>8.9</td>
</tr>
<tr>
<td>Birth 2</td>
<td>9</td>
<td>8.8</td>
<td>8.8</td>
</tr>
<tr>
<td>Old (Years 5+6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birth 1</td>
<td>7</td>
<td>10.8</td>
<td>10.8</td>
</tr>
<tr>
<td>Birth 2</td>
<td>13</td>
<td>10.6</td>
<td>10.6</td>
</tr>
<tr>
<td>Total</td>
<td>112</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The sample was approximately balanced for gender as follows:

School 5
- Years 1 and 2: 10 girls and 7 boys
- Years 3 and 4: 11 girls and 9 boys
- Years 5 and 6: 10 girls and 10 boys

School 6
- Years 1 and 2: 10 girls and 9 boys
- Years 3 and 4: 9 girls and 8 boys
- Years 5 and 6: 11 girls and 8 boys
**Children**

The children's interview schedule was in two parts (see Appendix E), which took approximately 15-25 minutes to administer to each child, and all of the questions had either been used in previous studies or in earlier piloting. The first part consisted of: (1) all the power/authority questions from the interview schedule used in Study 2, as the main intention was to re-examine the picture of children's system understanding which emerged from that study; (2) the questions about the tasks which constituted the role of head teacher and class teacher, also from Study 2; (3) some of the questions about rules from Study 2; and (4) the new questions about the children's perception about the function of the school and their role as pupil. The second part consisted of 14 attitude questions, again answered on the 5-point scale described in the previous study (scored thus: agree strongly = 5; agree = 4; uncertain = 3; disagree = 2; disagree strongly = 1). These were the statements which were shown by reliability analysis to have high consistency. As before, the mean total attitudes were examined for associations with age, school and birth-order and used for comparison with the parents' and teachers' ratings of the school.

The procedures were similar to those in the previous studies. The children were interviewed singly. They were told that there were no right or wrong answers and assured of anonymity. The researcher gave broad descriptions of the interview schedule, saying that all the questions were about school and also checked specifically that each child understood what a rule was and could furnish an example. With respect to the card-sorting questions, the same procedure was followed as in study 2; the children were shown some of the cards to be used and told they would be asked to select their answer from the cards displayed (5 or 6 depending on the question). In the case of the attitude questions, the researcher went through the lengthy and careful procedure detailed in Chapter 6, so as to be certain that each child was confident and comfortable with the attitude statements.

The questions were presented in a randomised order, although as before, there were some necessary restrictions to this procedure. Some questions were linked; the questions about school organisation (1, 3 and 5) had to be followed by the standard question (2, 4 and 6), asking whether anyone else was involved. The questions about school jobs, head teacher's and class teacher's (questions 10 and 12), were followed by the choice of the most important jobs in order (questions 11 and 13).
The presentation of the attitude questions was exactly as before, with the interviewer using a pencil to highlight the points on the scale (see Chapter 6). The order was also randomised, but with the same restrictions as before. First, the interviewer generally presented some of the easier questions first, with an inevitable preponderance of harder questions towards the end. Second, each attitude question was always introduced with the positive statement first, then the negative and then the undecided/uncertain statement. As before, it was believed that the disadvantage of any biases thus introduced would be outweighed by the straightforwardness of the procedure, which would make it easier for the children to comprehend the questions and to concentrate on the accuracy of their responses.

**Teachers**

As in study 3, the teachers filled in a short questionnaire (see Appendix G) probing their feelings towards their school. This was composed of the 8 attitude statements from Study 3 whose high consistency was established by the reliability analysis (see Chapter 6). The responses were given on a 5-point scale and scored as in the previous study: strongly agree = 5; agree = 4; uncertain = 3; disagree = 2; and strongly disagree = 1. As before, the questionnaires were anonymous.

**7.3 Results**

**7.3.1 Children's responses**

There were two different types of data. First, the attitude responses, having been assessed for reliability as before, were used as points of comparison with parental and teachers' attitudes in indications of levels of satisfaction with the respective schools. Second, the remaining responses were all categorical and log linear analysis was used to investigate the relationship between response and age, school and birth order. Furthermore, correspondence analysis was used to examine groups of linked responses in order to investigate overall trends (see Chapter 5). The results are reviewed in the following order: (1) the children's understanding of power/authority; (2) their understanding of the roles of head and class teacher; (3) their overall perceptions of the school; (4) the attitudes held by children, teachers and parents about their respective schools; and (5) the children's understanding as a function of their attitudes.
7.3.2 Children's perceptions of power/authority

*Analysis of differences attributable to age: log linear analysis*

The responses to the questions about school organisation (question 1-7 in the interview schedule) produced similar trends to those in the earlier study, with most of the children in all groups choosing the head teacher as their first response. When they were asked who runs the school (question 1), 83 per cent of the Young group, 94 per cent of the Middle group and 90 per cent of the Old group answered that the head teacher did. The other power questions produced similarly large numbers of children choosing the head teacher: (1) who makes up the rules, question 3: 97 per cent, 89 per cent and 77 per cent in the Young, Middle and Old groups respectively; and (2) who can get the rules changed, question 5: 89 per cent, 68 per cent and 56 per cent respectively.

However, as in the earlier study, significant age differences began to emerge when they were asked about the possible involvement of others, with the Young group significantly less likely to recognise the spread of organisational authority in the school (questions 2, 4 and 6; see tables 7.3, 7.4 and 7.5). In addition, both the Middle and Old groups were more likely than the Young group to report the specific contribution made by teachers in such tasks as running the school and getting the rules changed (questions 2 and 6). This supported the findings in the earlier study which also suggested that the responses of the youngest children were not indicative of an understanding of the hierarchy of authority.

The recognition, by the Middle and Old groups, of the spread of power in the school-system was most apparent in the first-time answers to the question 'who can get the rules changed' (question 5; see Table 7.6). As in study 2, this was the only power question to produce significant age variations in the first-time responses. The majority of children in all three groups attributed this authority to the head teacher, but significantly fewer children from the Middle and Old groups than the Young. The Middle and Old groups were correspondingly more likely to make other responses, although their greater propensity to choose the teachers was not significant this time.

The children's responses to the question 'who is most important in the school' (question 7) produced very similar trends to those in the previous study (see Table 7.7). The Old group of children were significantly more likely to say that children were most important and correspondingly significantly less likely to choose the
head teacher. However, in this study, the Middle group were much closer to the pattern of the Old group, whereas previously they had tended to respond in a way similar to the Young group.

Table 7.3 Others' involvement in running the school analysed by age

<table>
<thead>
<tr>
<th>AGE</th>
<th>ALL STAFF</th>
<th>PARENTS</th>
<th>CLASS TEACHER</th>
<th>CHILDREN</th>
<th>OTHERS</th>
<th>NO-ONE ELSE</th>
<th>HEADTEACHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOUNG</td>
<td>12</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>MIDDLE</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>OLD</td>
<td>27</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>59</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>10</td>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>

For previous (first-time) response, 4 selected 'all staff', 5 selected 'others' and 1 chose 'class teacher'.

Log linear sig effect of age: \( \chi^2 (12) = 37.7, p<.0005 \)

Post hoc chi and Fisher exact prob. tests:

(1) All staff

Young vs Middle significant: \( \chi^2 (1) = 2.8, p<.05 \)

Young vs Old significant: \( \chi^2 (1) = 7.7, p<.005 \)

(2) Others

Middle vs Old significant: Fisher z = 2.3, p<.05

No other paired comparisons significant.

Table 7.4 Others' involvement in making the rules analysed by age

<table>
<thead>
<tr>
<th>AGE</th>
<th>ALL STAFF</th>
<th>PARENTS</th>
<th>CLASS TEACHER</th>
<th>CHILDREN</th>
<th>OTHERS</th>
<th>NO-ONE ELSE</th>
<th>HEADTEACHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOUNG</td>
<td>18</td>
<td>0</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>MIDDLE</td>
<td>23</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>OLD</td>
<td>22</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>TOTAL</td>
<td>63</td>
<td>4</td>
<td>15</td>
<td>4</td>
<td>3</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

For previous (first-time) response, 7 selected 'all staff', 2 selected 'children', 2 selected 'parents' and 1 chose 'other'.

Log linear sig effect of age: \( \chi^2 (12) = 21.3, p<.05 \)

Post hoc Fisher exact prob. tests:

No one else Young vs Middle significant: Fisher z = 2.4, p<.05

Young vs Old significant: Fisher z = 2.5, p<.05

No other paired comparisons significant.
Table 7.5 Others' involvement in changing the rules analysed by age

<table>
<thead>
<tr>
<th>AGE</th>
<th>ALL STAFF</th>
<th>PARENTS</th>
<th>CLASS</th>
<th>CHILDREN</th>
<th>OTHERS</th>
<th>NO-ONE ELSE</th>
<th>HEAD TEACHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOUNG</td>
<td>9</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>MIDDLE</td>
<td>19</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>OLD</td>
<td>18</td>
<td>8</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>TOTAL</td>
<td>46</td>
<td>13</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>22</td>
<td>16</td>
</tr>
</tbody>
</table>

a For previous (first-time) response, 7 selected 'all staff', 3 selected 'parents', 2 selected 'class teacher', 2 selected 'children' and 2 selected 'others'.

Log linear sig effect of age: $\chi^2 (12) = 39.5, p<.0005$

Post hoc $\chi^2$ tests:
(1) All staff Young vs Middle significant: $\chi^2 (1) = 3.3, p<0.05$
Young vs Old significant: $\chi^2 (1) = 2.8, p<0.05$
(2) No-one else Young vs Middle significant: $\chi^2 (1) = 8.8, p<.005$
Young vs Old significant: $\chi^2 (1) = 13.8, p<.0005$

No other paired comparisons significant.

Table 7.6 Who can get the rules changed analysed by age

<table>
<thead>
<tr>
<th>AGE</th>
<th>HEAD TEACHER</th>
<th>ALL STAFF</th>
<th>PARENTS</th>
<th>CLASS TEACHER</th>
<th>CHILDREN</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOUNG</td>
<td>32</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MIDDLE</td>
<td>25</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>OLD</td>
<td>22</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>79</td>
<td>12</td>
<td>9</td>
<td>3</td>
<td>7</td>
<td>2</td>
</tr>
</tbody>
</table>

Log linear sig effect of age: $\chi^2 (10) = 26.6, p<.005$

Post hoc $\chi^2$ and Fisher exact prob. tests:
(1) Head teacher Young vs Middle significant: $\chi^2 (1) = 3.7, p<0.05$
Young vs Old significant: $\chi^2 (1) = 8.3, p<0.005$
(2) Parents Young vs Middle significant: Fisher $z = 2.1, p<0.05$
(3) Children Young vs Old significant: Fisher $z = 1.8, p<0.05$

No other paired comparisons significant.
Table 7.7 Who is most important in the school analysed by age

<table>
<thead>
<tr>
<th>AGE</th>
<th>HEAD TEACHER</th>
<th>CHILDREN</th>
<th>OTHERa</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOUNG</td>
<td>28</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MIDDLE</td>
<td>21</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>OLD</td>
<td>21</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>70</td>
<td>29</td>
<td>13</td>
</tr>
</tbody>
</table>

a Other includes 'all teachers', 'class teacher' as well as children's own choices

Log linear sig effect of age: \( \chi^2 (10) = 18.1, p<.05 \)

Post hoc \( \chi^2 \) tests: 
1. Head teacher: Young vs Middle significant: \( \chi^2 (1) = 2.8, p<.05 \)
   Young vs Old significant: \( \chi^2 (1) = 3.7, p<.05 \)
2. Children: Young vs Middle significant: \( \chi^2 (1) = 2.8, p<.05 \)
   Young vs Old significant: \( \chi^2 (1) = 5.0, p<.05 \)

No other paired comparisons significant.

**Analysis of age differences: correspondence analyses**

Correspondence analysis was again used as a means of examining the overall trends in the children's thinking about power and authority in the school. When all the power questions were combined (questions 1-7), most of the children, in all age-groups, were agreed on the central role of the head teacher. The most discriminating responses for the youngest and oldest children indicated that the differences in understanding across the age-spectrum were broadly similar to those in the earlier study; the youngest children's responses mentioned the class teacher, while the oldest children's responses presented a wider comprehension by talking of teachers, parents, others and even children.

**First choice answers: who has the power?**

There was a significant two-dimensional solution here (questions 1, 3, 5 and 7; see Figure 7.1). The first dimension accounts for 63% of the inertia \( (\chi^2=97.12, \text{df}=23, p<.0005) \), and is most likely to represent an age-based solution, with the Young and Old groups at the outer points. The Young group's responses mention the class teacher, while the Old group's answers reveal a wider understanding by referring to teachers, parents and children as well. The second dimension accounts for the remaining 37% of inertia \( (\chi^2=55.15, \text{df}=21, p<.0005) \) and mainly differentiates the responses of the Middle group. Therefore, within a developing trend from Young to Old, the Middle group's thinking would nevertheless appear to differ from both the other groups. They would appear to have the beginnings of a wider understanding.
by their references to parents but have yet to gain the comprehension exhibited by the Old group of the spread of power.

**Young group's most discriminating responses:**
Class teacher runs the school
Class teacher is most important in the school

**Old group's most discriminating responses:**
Others make the rules
Class teacher makes the rules
Children can get the rules changed
Teachers can get the rules changed
Children make the rules
Parents make the rules
Teachers make the rules
Teachers are most important in the school

**Middle group's most discriminating responses:**
Parents are important in the school
Others are important in the school
Parents can get rules changed

**Second choice answers: anyone else involved?**
Again, there was a significant two-dimensional solution (questions 2, 4 and 6; see Figure 7.2). The first dimension accounted for over 75% of the inertia ($\chi^2=201.87$, df=22, p<.0005) and would appear to represent an association with age. As in the previous study, the younger children were less aware of the hierarchy of power, by stating that no others were involved in some organisational tasks. On the other hand, the older children gave further indication of their greater comprehension of the spread of power with more reference to children and parents.

The significant second dimension accounted for some 24% of the inertia ($\chi^2=58.58$, df=20, p<.0005). As in the case of the first choice responses, while there would appear to be a general age-trend, this dimension would appear to differentiate the thinking of the Middle group; although their perceptions would appear to be closer to those of the Old group than the Young, they have yet to realise fully the extent of the power hierarchy.
Figure 7.1 First choice answers to the power questions analysed by age

Parents are important in the school

Others are important in the school

Parents can get rules changed

Children make the rules

Parents make the rules

Children can get the rules changed

Teachers make the rules

Teachers are most important in the school

Teachers can get the rules changed

Others make the rules

Class teacher makes the rules

Class teacher runs the school

Class teacher is most important in the school

Dim.1: $X^2=97.12, df=23, p<.0005$  
Dim.2: $X^2=55.15, df=21, p<.0005$  
Unlabelled dots represent non-discriminating responses
Figure 7.2 Second choice answers to the power questions analysed by age

- Children also can get the rules changed
- Others also can get the rules changed
- Others run the school
- No second person can get the rules changed
- No second person makes the rules
- Class teacher also runs the school
- Parents also make the rules
- Head teacher also can get the rules changed
- Middle
- Old
- Parents also can get the rules changed
- Young
- Children also run the school
- Parents also run the school

Dim.1: $x^2=201.87$, df=22, p<.0005 Dim.2: $x^2=58.58$, df=20, p<.0005 Unlabelled dots represent non-discriminating responses
**Young group's most discriminating responses:**
Class teacher also runs the school
No second person makes the rules
No second person can get the rules changed
Others also can get the rules changed

**Old group's most discriminating responses:**
Children also run the school
Parents also run the school
Head teacher also makes the rules
Parents also can get the rules changed
Head teacher also can get the rules changed
Parents also make the rules

**Middle group's most discriminating responses:**
Children also can get the rules changed
Others run the school

**Analysis of differences attributable to school, birth-order and gender**
There were no major significant differences in the log linear analyses of the responses to the power/authority questions which were attributable to either school or birth-order. However, in view of the significant two-dimensional correspondence analyses, which suggested that the children's perceptions might have been subject to other influences, beyond that of age, further correspondence analyses were undertaken. Therefore, all the power/authority questions were examined as a function of school or birth-order in order to ascertain if either might have been responsible for some of the variance which remained unexplained in the children's overall perceptions of power. Furthermore, while gender had not been included initially, and was not applied as a factor in the log-linear analyses, it was felt that the exploration should cover all the available social categories, in order to examine fully the possible influences at work.

In each of these additional analyses the additional factor of school, birth-order and gender was investigated separately, for both first and second choice responses, thus six extra analyses were conducted. However in each of them, the new factor was examined in interaction with age; therefore the additional analyses of the children's understanding of power, both first and second responses, were (1) age x school;
(2) age x birth-order; and (3) age x gender. Age is already seen to be a factor in children's understanding of power, and investigating the possible interaction of age with these other factors meant that any developing trends due to the additional factors of school, gender and birth-order could be examined. However, there was no attempt to analyse more complex interactions by investigating three or more factors, as such correspondence analyses would have been extremely difficult to interpret. Therefore, none of these additional correspondence analyses examined more than two factors at any one time, as detailed above.

In fact all of the analyses detailed below produced significant solutions, many with multiple dimensions, indicating that children's thinking on power and authority may be influenced by their membership of social categories. However, only the first two dimensions were examined, as interpreting multiple dimensions is extremely complex, but in any case, in all the analyses, the first two dimensions accounted for a very large part of the variation.

**Differences associated with school and age**

**First choice answers: who has the power?**

There was a highly significant solution with several dimensions, with the first two dimensions accounting for 64% of the inertia (see Figure 7.3). The first dimension accounted for 33% of the inertia ($\chi^2=224.24$, df=26, $p<.0005$) and the second dimension for 31% ($\chi^2=204.91$, df=24, $p<.0005$). The plot would suggest that the two schools' developmental paths are different, with the responses of the Young and Old of School 5 representing the two outer points of the first dimension, while those of the Young and Old of School 6 constitute the outer points of the second dimension. While the responses of the Old of School 5, and to a large extent by the Middle group of School 5 as well, would suggest a good understanding of the spread of power in the school, the comprehension of the Old group of School 6 would appear to be less extensive.

**Young School 5 group's most discriminating responses:**

Others can get rules changed
Others run the school
Teachers run the school

**Old School 5 group's most discriminating responses:**

Children make rules
Figure 7.3 First choice answers to the power questions analysed by age and school

Class teacher  
Others make rules  

○ Others can get rules changed  
○ Teachers are the most important  
○ Children can get rules changed  

○ Teachers run the school  
○ Others run the school  

Young School 5  
Middle School 6  

Old School 5  
Old School 6

○ Children are important  
○ Parents make rules  
○ Parents can get rules changed  

○ Class teacher runs school  
○ Class teacher is the most important  
○ Class teacher can get the rules changed  

Dim.1: $x^2=224.24$, df=26, $p<.0005$  
Dim.2: $x^2=204.91$, df=24, $p<.0005$  
Unlabelled dots represent non-discriminating responses
Children can get rules changed
Parents can get rules changed
Parents make rules
Children are important

**Young School 6 group's most discriminating responses:**
Class teacher runs school
Class teacher is the most important
Class teacher can get the rules changed

**Old School 6 group's most discriminating responses:**
Class teacher makes rules
Others make rules
Others can get rules changed
Teachers are the most important

**Second choice answers: anyone else involved?**
Again, there was a highly significant solution with several dimensions (see Figure 7.4), with the first two dimensions accounting for 71% of the inertia, with first dimension accounting for 50% ($\chi^2=416.3, \text{ df}=25, \text{ p}<.0005$) and the second dimension for 21% ($\chi^2=159.13, \text{ df}=23, \text{ p}<.0005$). However, the responses given by the Young and Old of each school would suggest that the children of the two schools follow the same broad developmental path, with similar starting and end points; however, the two Middle groups differ considerably, with the Middle group of School 6 appearing to diverge from the general age-trend.

**Young School 5 group's most discriminating responses:**
Class teacher also runs school
No second person makes rules
No second person can get rules changed
Others also can get rules changed

**Old School 5 group's most discriminating responses:**
Children also run the school
Parents also can make the rules
Parents also run school
Figure 7.4 Second choice answers to the power questions analysed by age and school

Dim.1: $x^2=416.3$, df=25, $p<.0005$  
Dim.2: $x^2=159.13$, df=23, $p<.0005$  
Unlabelled dots represent non-discriminating responses.
Parents also can get rules changed

_Middle School 6 group's most discriminating responses:_
Children also can get the rules changed
Parents also make rules

_Differences associated with birth-order and age_  
**First choice-answers: who has the power?**
There was a significant multi-dimensional solution, with the first two dimensions accounting for 65% of the inertia (see Figure 7.5); the first dimension accounted for 31% ($\chi^2=197.34$, df=26, p<.0005) and the second for 24% ($\chi^2=151.29$, df=24, p<.0005). The responses of the Young group of only/first-born children refer to the class teacher, and would appear to be less knowledgeable of the organisation of the school when compared to the responses of the Young second/later-born, whose understanding seems more similar to both the two Middle groups. The responses of the two Old groups seems to show them developing in the same direction, although there are some points of distinction.

_Young Birth 1 group's most discriminating responses:_
Class teacher runs the school
Class teacher is most important
Class teacher can get rules changed

_Old Birth 1 group's most discriminating responses:_
Class teacher makes the rules
Others make the rules
Children can get the rules changed
Teachers are most important

_Middle Birth 2 group's most discriminating responses:_
Others most important
Children make the rules
Parents make the rules
Parents can get the rules changed
Figure 7.5 First choice answers to the power questions analysed by age and birth-order

○ Others most important

Children make the rules
Parents make the rules

Parents can get the rules changed
Class teacher makes the rules

Middle Birth 2

Class teacher is most important
Class teacher can get rules changed
Class teacher runs the school

Young Birth 1

Middle Birth 1

Old Birth 1

Old Birth 2

Teachers are most important
Teachers make rules

Others can get the rules changed

○ Others make the rules

Dim.1: x^2=197.34, df=26, p<.0005  Dim.2: x^2=151.29, df=24, p<.0005  Unlabelled dots represent non-discriminating responses
Old Birth 2 group's most discriminating responses:
Others make the rules
Teachers run the school
Others can get the rules changed
Teachers make rules

Second-choice answers: anyone else involved?
The first two dimensions accounted for 76% of the inertia (see Figure 7.6). The trends revealed suggested that the thinking of the two groups differed in the early days of school but converged over their time in school, in a pattern similar to the first choice power answers. However, there were some differences within that general trend. The responses of the Middle group of second/later-born children showed some variation from the general path. Furthermore, this time it was the second/later-born group of Young children whose responses appeared to show the least understanding in this analysis, with their greater tendency to deny others' involvement in making or changing the rules. The first dimension accounted for 54% of the inertia ($\chi^2=479.95$, df=25, p<.0005) and the second for 23% ($\chi^2=188.0$, df=23, p<.0005).

Young Birth 2 group's most discriminating responses:
Class teacher also runs school
No second person makes the rules
No second person can get the rules changed

Old Birth 1 and 2 groups' most discriminating responses:
Children also run the school
Parents also run school
Head teacher also make the rules
Head teacher also can get the rules changed

Middle Birth 2 group's most discriminating responses:
Children also can get the rules changed
Others also run the school
Others also can get the rules changed
Parents also make the rules
Figure 7.6 Second choice answers to the power questions analysed by age and birth-order

- Children also run the school
- Parents also run school
- Head teacher also make the rules
- Old Birth 2
- Old Birth 1
- Middle Birth 1
- Middle Birth 2
- Young Birth 1
- Young Birth 2
- No second person can get the rules changed
- No second person makes the rules
- Class teacher also runs school
- Unlabelled dots represent non-discriminating responses

Dim.1: \( x^2 = 479.95, \) df = 25, p < .0005
Dim.2: \( x^2 = 188.0, \) df = 23, p < .0005
Differences associated with gender and age
First choice-answers: who has the power?
Again, there was a significant multi-dimensional solution (see Figure 7.7), with the first two dimensions accounting for 59% of the inertia. In the reverse of the patterns according to birth-order, the plot would suggest that the thinking of boys and girls about power is initially similar but develops differently over their years in school. The first dimension accounted for 33% of the inertia ($\chi^2=195.43$, df=26, $p<.0005$) and the most discriminating responses were given by the Young and Old groups of girls. The second dimension accounts for 26% of the inertia ($\chi^2=152.85$, df=24, $p<.0005$) and the most discriminating responses are from the Middle and Old groups of boys.

Young Girls' most discriminating responses:
Class teacher runs the school
Class teacher is most important
Class teacher can get the rules changed

Old Girls' most discriminating responses:
Others make rules
Class teacher makes rules
Children can get the rules changed
Children make rules
Parents make rules

Middle Boys' most discriminating responses:
Others are most important
Parents are most important
Children make rules
Parents make rules

Old Boys' most discriminating responses:
Teachers most important
Teachers make rules
Parents can get the rules changed
Teachers can get the rules changed
Figure 7.7 First choice answers to the power questions analysed by age and gender

Dim.1: $x^2=195.43$, df=26, $p<.0005$  
Dim.2: $x^2=152.85$, df=24, $p<.0005$  
Unlabelled dots represent non-discriminating responses
Figure 7.8 Second choice answers to the power questions analysed by age and gender

- Children also can get the rules changed
- Parents also make rules
- No second person can get the rules changed
- Parents also run the school
- No second person makes the rules
- Others also can get the rules changed
- Class teacher also runs school

Dim.1: \( x^2 = 398.55, \text{df} = 25, p < .0005 \)
Dim.2: \( x^2 = 155.68, \text{df} = 23, p < .0005 \)
Unlabelled dots represent non-discriminating responses
Second-choice responses: anyone else involved?
There was a significant multi-dimensional solution (see Figure 7.8), with the first two dimensions accounting for 71% of the inertia. Again, the plot would suggest that both boys and girls start out with very similar thinking, following similar paths, but that the perceptions of the oldest children show some signs of divergence. The first dimension accounted for 50% of the inertia ($\chi^2=398.55, \text{df}=25, p<.0005$) and the most discriminating answers were given by the Young and Old group of girls. The second dimension accounted for 21% of the variance ($\chi^2=155.68, \text{df}=23, p<.0005$) and the most discriminating responses were given by the Middle and Old group of girls. It would appear that the responses of the older girls report a wider spread of power than the boys of the same-age.

Young Girls’ most discriminating responses:
Class teacher also runs school
No second person makes the rules
No second person can get the rules changed
Others also can get the rules changed

Old Girls’ most discriminating responses:
Children also run the school
Parents also run the school
Parents also can get the rules changed

Middle Girls’ most discriminating responses:
Children also can get the rules changed
Parents also make rules

7.3.3 Children’s perceptions of head teacher’s and teachers’ roles
Analysis of age differences
As before, the children were asked about 12 specific tasks (question 10). Having selected those which they believed were done by the head teacher or the class teacher respectively, they were then asked to choose the four most important tasks in each case (question 11). In this study, the analyses were confined to this latter more focused choice, in view of the extensive data involved.

Overall, the top duties of the head were generally agreed by all age groups. The three top duties were: (1) making the rules; (2) punishing children; and (3) writing
letters to parents. The Young and Middle group were agreed on the fourth duty, that of paying the bills, while the Old group opted for the task of teaching. There were very much the same choices as the children in the earlier study.

There was less unanimity over the class teacher's top duties. All age groups chose the tasks of teaching children and writing letters to parents. The further choices were: (1) organising trips (Young and Old groups); (2) punishing children (Middle and Old groups); and (3) deciding what was learnt in class (Young and Middle groups). Overall, these were the same tasks chosen in the other study, although the order was different.

**Perceptions of the head teacher's role as analysed by age**
The children's choice of the central tasks for each role was then subjected to correspondence analysis and some differences began to emerge. The children's choice of the head teacher's four most important jobs produced a significant two-dimensional solution (see Figure 7.9). The first dimension accounted for 65% of the inertia ($\chi^2=34.98$, df=12, $p<.005$) and appeared to be age-based, with the most discriminating responses being given by the Young and Old groups. These closely reflected the responses in Study 2. The significant second dimension accounted for 35% of the inertia ($\chi^2=18.3$, df=10, $p<.05$) and appeared to mark the thinking of the Middle group as different from both the Young and Old.

**Young group's most discriminating response:**
Head teacher takes assembly

**Old group's most discriminating responses:**
Head teacher teaches
Head teacher chooses a new teacher

**Middle group's most discriminating response:**
Head teacher shows people around the school

**Perceptions of the class teacher's role as analysed by age**
With respect to the children's responses about the class teacher, their choice of the four most important tasks also produced a significant 2-dimensional solution (see Figure 7.10) which appeared to show age differences. The first dimension accounted for 72% of the inertia ($\chi^2=59.93$, df=12, $p<.0005$), and the second for
Figure 7.9 Head teacher's most important jobs analysed by age

- Head teacher shows people around the school
- Head teacher chooses a new teacher
- Head teacher teaches
- Head teacher takes assembly

Dim.1: $x^2 = 34.98$, df = 12, $p < .005$
Dim.2: $x^2 = 18.3$, df = 10, $p < .05$
Unlabelled dots represent non-discriminating responses
Figure 7.10 Class teacher's most important jobs analysed by age

Class teacher makes the rules

- Class teacher shows people around the school
- Class teacher chooses a new teacher

Class teacher punishes naughty children

- Young

Class teacher pays the bills

- Middle

Class teacher buys the food for school dinners

Dim.1: \( x^2 = 59.93, \text{ df} = 12, p < .0005 \)

Dim.2: \( x^2 = 22.87, \text{ df} = 10, p < .05 \)

Unlabelled dots represent non-discriminating responses
28% of the inertia ($\chi^2=22.87$, df=10, p<.05). They appeared to differentiate the thinking of all three groups.

**Young group's most discriminating responses:**
- Class teacher chooses a new teacher
- Class teacher shows people around the school
- Class teacher buys the food for school dinners

**Old group's most discriminating responses:**
- Class teacher punishes naughty children
- Class teacher makes the rules

**Middle group's most discriminating responses:**
- Class teacher punishes naughty children
- Class teacher pays the bills

**Analysis of differences attributable to school, birth-order and gender**

As the age-based analyses of head teacher's and teacher's role had produced two significant dimensions, further correspondence analyses were performed in order to explore whether any additional factors, such as school, birth-order or gender, were influencing the children's perceptions. As before, the analyses were based on an interaction between the factor and age, in order to examine the developing trends.

All of the analyses reviewed here (and also all of the analyses of the children's perception of all jobs which are not reviewed here) produced significant multi-dimensional solutions, suggesting that the children's understanding of the roles of the head teacher and the class teacher, besides changing over time, is also influenced by their membership of social categories, such as gender, birth-order and school. However, there were greater variations revealed by the analyses of the head teacher's role, while the plots of the children's thinking about the class teacher's role showed more unanimity and growing convergence with age.

**Differences attributable to school and age**

**Perceptions of the head teacher's role**

The plot of head teacher's most important jobs would suggest that the two schools had very different conceptions of the head teacher's role (see Figure 7.11). There was a significant multi-dimensional solution with the two top dimensions.
Figure 7.11 Head teacher's most important jobs analysed by age and school

Head teacher decides what you learn in your class

Head teacher shows people around the school

Old School 5
Middle School 5
Young School 6

Head teacher organises school trips

Head teacher chooses a new teacher

Old School 6
Middle School 6

Dim.1: $x^2=46.03$, df=15, $p<.0005$ Dim.2: $x^2=27.12$, df=13, $p<.0005$ Unlabelled dots represent non-discriminating responses
accounting for 73% of the inertia. The first dimension accounted for 46% of the inertia ($\chi^2 = 46.03$, df=15, p<.0005). The most discriminating responses were given by the Old group of School 5 and the Old group of School 6. The second dimension ($\chi^2 = 27.12$, df=13, p<.0005) distinguished between the perceptions of the Old and Young groups of School 5.

**Old School 6 group's most discriminating responses:**
Head teacher shows people around the school
Head teacher decides what you learn in your class

**Old School 5 group's most discriminating responses:**
Head teacher organises school trips
Head teacher chooses a new teacher

**Young School 5 group's most discriminating responses:**
Head teacher takes assembly

**Perceptions of the class teacher's role**
With respect to the children's perceptions of the class teacher's most important tasks, the analysis suggests that, while the thinking of the youngest children in the two schools is fairly different, their understanding shows some signs of converging with their experience of school life. This suggests that there is indeed more uniformity about the role of the class teacher than that of the head. There is a significant multi-dimensional solution (see Figure 7.12) with the two main dimensions accounting for 68% of the inertia. The first dimension ($\chi^2 = 139.04$, df=15, p<.0005) accounted for 41% and was partly the consequence of one extremely discriminating response given by the Young of School 5 which effectively distinguished these children from all the others. The second dimension accounted for 27% of the inertia ($\chi^2 = 91.41$, df=13, p<.0005). This likewise effectively singled out the thinking of one of the groups, that of the youngest group of School 6.

**Young School 5 group's most discriminating response:**
Class teacher chooses a new teacher

**Young School 6 group's most discriminating responses:**
Class teacher buys the food for school dinners
Class teacher pays the bills
Class teacher shows people around the school

**Differences attributable to birth-order and age**

**Perceptions of the head teacher's role**

The plot of the children's responses (see Figure 7.13) to the questions about the head teacher's role, analysed by birth-order, revealed very different developmental paths in the thinking of the two groups. There would appear to be a particularly large variation between the thinking of the two Old groups. There was a significant multi-dimensional solution with the two main dimensions accounting for 63% of the inertia. The first dimension ($\chi^2=93.59$, df=15, p<.0005) accounted for 36% of the inertia and distinguished the Young and Old groups of only/first-borns. The second dimension ($\chi^2=70.01$, df=13, p<.0005) accounted for 27% of the inertia and differentiated the thinking of the Middle and Old group of second/later-borns.

**Young Birth 1 group's most discriminating response:**
Head teacher writes letters to parents

**Old Birth 1 group's most discriminating responses:**
Head teacher decides what you learn in your class
Head teacher teaches

**Middle Birth 2 group's most discriminating response:**
Head teacher buys the food for school dinners

**Old Birth 2 group's most discriminating response:**
Head teacher chooses a new teacher

**Perceptions of the class teacher's role**

With respect to the children's responses about the role of the class teacher, as analysed by birth-order, the plot suggests very different starting points in the two group's thinking, but that they converge over their time in school. There is a multi-dimensional solution, with the two main dimensions accounting for 82% of the inertia (see Figure 7.14). The first dimension ($\chi^2=165.70$, df=15, p<.0005) accounted for 52% of the inertia, with the discriminating responses given by the Young and Old groups of second/later-borns. The significant second dimension
Figure 7.12 Class teacher's most important jobs analysed by age and school

- Class teacher shows people around the school
- Class teacher buys the food for school dinners
- Class teacher pays the bills

Unlabelled dots represent non-discriminating responses.

Dim.1: $x^2 = 139.04$, df = 15, $p < .0005$
Dim.2: $x^2 = 91.41$, df = 13, $p < .0005$

Class teacher chooses a new teacher.
Figure 7.14 Class teacher’s most important jobs analysed by age and birth-order

- Class teacher makes the rules
- Class teacher pays the bills
- Class teacher shows people around the school
- Class teacher chooses a new teacher
- Class teacher buys the food for school dinners

Dim.1: $x^2=165.70$, df=15, $p<.0005$  
Dim.2: $x^2=93.44$, df=13, $p<.0005$  
Unlabelled dots represent non-discriminating responses
\( \chi^2 = 93.44, \text{df}=13, p<.0005 \) accounted for 30% of the inertia and largely distinguishes the Middle group of second/later-born children by the response 'class teacher pays the bills'.

**Young Birth 2 group's discriminating responses:**
- Class teacher chooses a new teacher
- Class teacher buys the food for school dinners
- Class teacher shows people around the school

**Old Birth 2 group's discriminating responses:**
- Class teacher makes the rules
- Class teacher punishes naughty children

**Middle Birth 2 group's discriminating response:**
- Class teacher pays the bills

**Differences attributable to gender and age**
**Perceptions of head teacher's role**
It would appear that the two groups, girls and boys, begin their school lives with different understandings of the head teacher's role, but that their thinking converges towards the top of the school (see Figure 7.15). There was a significant multi-dimensional solution with the two main dimensions accounting for 72% of the inertia. The first dimension \( \chi^2 = 86.43, \text{df}=15, p<.0005 \) accounted to 40% of the inertia and the most discriminating responses were given by the Old group of girls and the Young group of boys. The second dimension \( \chi^2 = 67.48, \text{df}=13, p<.0005 \) accounted for 32% of the inertia and the most discriminating responses were given by the Middle groups of boys and girls, suggesting that the views of boys and girls diverge further before they reach a more common understanding in the top classes of the school.

**Old Girls' most discriminating responses:**
- Head teacher teaches children
- Head teacher chooses a new teacher

**Young Boys' most discriminating response:**
- Head teacher takes assembly
Figure 7.15 Head teacher's most important jobs analysed by age and gender

Dim.1: $x^2 = 86.43$, df = 15, p < .0005
Dim.2: $x^2 = 67.48$, df = 13, p < .0005

Unlabelled dots represent non-discriminating responses
Middle Boys' most discriminating response:  
Head teacher buys the food for school dinners

Middle Girls' most discriminating response:  
Head teacher makes the rules

Perceptions of the class teacher's role  
This analysis again suggests that boys and girls begin with different understandings but that their thinking, while changing, still remains at variance at the top of the school. There was a multi-dimensional solution (see Figure 7.16) with the two main dimensions accounting for 84% of the inertia. The first dimension ($\chi^2=124.14$, df=15, $p<.0005$) accounted for 54% of the inertia and the most discriminating responses were given by the Old and Young groups of girls. The second dimension ($\chi^2=69.25$, df=13, $p<.0005$) accounted for 30% of the inertia and the most discriminating responses were given by the Old girls and the Middle group of boys.

Young Girls' most discriminating responses:  
Class teacher chooses a new teacher  
Class teacher shows people round the school  
Class teacher buys the food for school dinners

Old Girls' most discriminating responses:  
Class teacher makes rules  
Class teacher punishes children

Middle Boys' most discriminating response:  
Class teacher pays the bills

7.3.4 Children's overall perceptions of school  
The individual log-linear analyses revealed some differences, mainly of age, in the children's responses to a combination of questions examining their general perceptions of the school: those questions about (1) rules (questions 8 and 9); (2) the overall function of school (question 14); and (3) the role of pupil (question 15). However, it was decided to exclude these tables from the results section, as the reporting of each and every set of individual responses seemed unnecessarily pedantic, when contrasted with the overall view presented by a correspondence
analysis of the combined responses. The tables reporting the log linear analyses are therefore included in Appendix H.

As the age-based analysis revealed two significant dimensions, further analyses were undertaken to explore the possible effects of school, birth-order and gender. All these analyses produced further significant solutions which are reviewed below.

**Differences attributable to age**
The correspondence analysis produced a significant two-dimensional solution (see Figure 7.17); the first dimension accounted for 75% of the inertia ($\chi^2=94.85$, df=15, p<.0005) and distinguished between the Young and Old groups. The second dimension accounted for the remaining 25% ($\chi^2=31.06$, df=13, p<.005) and distinguished the thinking of the Middle groups, thus presenting three different sets of responses within the general developmental trend.

**Young group's most discriminating responses:**
Children go to school to learn to behave
School rules are to prevent school things from damage

**Old group's most discriminating responses:**
Children go to school to be with other children
Break the rule (rule scenario)

**Middle group's most discriminating response:**
Best pupil is the best-behaved pupil

**Differences attributable to school and age**
There was a significant multi-dimensional solution, with the two main dimensions accounting for 71% of the inertia (see Figure 7.18). The children's responses revealed a similar overall trend but there was some divergence in the oldest children's thinking. The first dimension accounted for 45% of the inertia ($\chi^2=202.51$, df=18, p<.0005) and differentiated between the Young of School 6 and the Old of School 6. The second dimension accounted for 26% of the inertia ($\chi^2=113.37$, df=16, p<.0005) and mainly distinguished the thinking of the youngest children in School 5.
Figure 7.16 Class teacher's most important jobs analysed by age and gender

- Class teacher makes rules
- Class teacher shows people round the school
- Class teacher chooses a new teacher
- Class teacher pays the bills
- Class teacher buys the food for school dinners
- Class teacher punishes children

Unlabelled dots represent non-discriminating responses.

\[ x^2 = 124.14, \text{ df}=15, p<.0005 \]
\[ x^2 = 69.25, \text{ df}=13, p<.0005 \]
Figure 7.17 Perceptions of school analysed by age

- Children go to school to be with other children
- Break the rule (rule scenario)
- Old
- Middle
- Young
- Children go to school to learn to behave
- School rules are to prevent school things from damage
- Best pupil is the best-behaved pupil

Dim.1: $x^2=94.85$, df=15, $p<.0005$  
Dim.2: $x^2=31.06$, df=13, $p<.005$  
Unlabelled dots represent non-discriminating responses
**Young School 6 group's most discriminating responses:**
Children go to school to learn how to behave
School rules are to prevent school things from damage

**Old School 6 group's most discriminating response:**
Children go to school so as to be with other children

**Young School 5 group's most discriminating response:**
Best pupil is the most hard-working pupil

**Differences attributable to birth-order and age**
There was a significant multi-dimensional solution (see Figure 7.19), with the two main dimensions accounting for 70% of the inertia. The first dimension accounted for 49% ($\chi^2=207.53$, df=18, $p<.0005$), and the second dimension for 21% ($\chi^2=87.63$, df=16, $p<.0005$). The plot would suggest that the thinking of the two groups is different as reported by the youngest children, but with age their perceptions become very similar. The Middle group of the second/later borns would appear to develop at a faster rate than the other Middle group, and their understanding is much closer to the oldest children.

**Young Birth 2 group's most discriminating responses:**
Children go to school to learn how to behave
Best pupil is the cleverest child
Children go to school because they must
School rules are to prevent school things from damage

**Differences attributable to gender and age:**
There was a significant multi-dimensional solution (see Figure 7.20), with the two main dimensions accounting for 67% of the inertia; 45% by the first dimension ($\chi^2=201.15$, df=18, $p<.0005$) and 22% by the second ($\chi^2=94.29$, df=16, $p<.0005$). It would appear that the thinking of youngest girls and boys is fairly closely aligned but that differences in their perceptions of school emerge with age.

**Young Girls' most discriminating responses:**
Children go to school to learn how to behave
Best pupil is the cleverest child
School rules are to prevent school things being damaged
Figure 7.18 Perceptions of school analysed by age and school

- Children go to school so as to be with other children

Old School

Best pupil is the most hard-working pupil

Young School

Children go to school to learn how to behave

School rules are to prevent school things from damage

Middle School

Dim.1: $x^2=202.51$, df=18, $p<.0005$  Dim.2: $x^2=113.37$, df=16, $p<.0005$  Unlabelled dots represent non-discriminating responses
Figure 7.19 Perception of school analysed by age and birth-order

Dim.1: \( x^2 = 207.53, \text{ df}=18, p<.0005 \)
Dim.2: \( x^2 = 87.63, \text{ df}=16, p<.0005 \)

Unlabelled dots represent non-discriminating responses
Figure 7.20 Perceptions of school analysed by age and gender

○ Children go to school to be with other children

Best pupil is the cleverest child ○

○ Old Girls

○ Old Boys

● Middle Girls

● Middle Boys

○ Young Girls

○ Young Boys

Children go to school to learn how to behave ○

School rules are to prevent school things being damaged ○

Dim.1: $x^2=201.15$, df=18, $p<.0005$ Dim.2: $x^2=94.29$, df=16, $p<.0005$ Unlabelled dots represent non-discriminating responses.
Old Boys' most discriminating response:
Break the rule (rule scenario)

Old Girls' most discriminating response:
Children go to school to be with other children

7.3.5 Attitude ratings: children, teachers and parents

Children's attitudes
A principal components factor analysis with oblimin rotation again failed to reveal any meaningful factors. Therefore the children's attitude ratings were analysed as in the previous study by reliability analysis, which again suggested that the statements could be used as an overall measure of satisfaction with the school. The reliability analysis had a very high alpha rating, 0.87, which was almost identical to the rating in the third study, suggesting a good standard of internal consistency. ANOVA revealed that the mean total attitudes showed significant main effects of both age and birth-order (see Table 7.8); the Young group of children had higher ratings than the other two age-groups and the Only/First-born children also reported higher ratings than the Second/Later-born children. There were no differences with either school (see Table 7.9) or gender (see Table 7.8), however, nor were there any interaction effects.

Table 7.8 Children's mean attitude totals analysed by age, birth-order and gender

<table>
<thead>
<tr>
<th>AGE</th>
<th>MEAN ATTITUDES</th>
<th>sds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>59.91</td>
<td>8.0</td>
</tr>
<tr>
<td>Middle</td>
<td>55.46</td>
<td>7.5</td>
</tr>
<tr>
<td>Old</td>
<td>54.32</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Significant effect of age. Young vs Middle, Old  \( F (2, 106) = 5.40, p < 0.05 \)

<table>
<thead>
<tr>
<th>BIRTH-ORDER</th>
<th>MEAN ATTITUDES</th>
<th>sds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only/First</td>
<td>58.40</td>
<td>7.7</td>
</tr>
<tr>
<td>Second/Later</td>
<td>54.18</td>
<td>7.6</td>
</tr>
</tbody>
</table>

Significant effect of birth-order.  \( F (1, 107) = 8.19, p < 0.005 \)

<table>
<thead>
<tr>
<th>GENDER</th>
<th>MEAN ATTITUDES</th>
<th>sds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls</td>
<td>57.48</td>
<td>7.4</td>
</tr>
<tr>
<td>Boys</td>
<td>55.21</td>
<td>8.4</td>
</tr>
</tbody>
</table>

Children: N=109 because of missing data
**Teachers' attitudes**
The unavoidable problem of sample size was exacerbated by the discovery that 4 of the teachers in School 5 had collaborated on their questionnaires. The exclusion of their responses reduced the sample of School 5 teachers to just five (9 out of 10 questionnaires distributed having been completed). In the case of School 6, seven out of nine questionnaires were completed. Therefore, the teachers' data has to be viewed with even more circumspection than in the previous study.

Factor analysis was not considered because of the small sample. As before, reliability analysis was used in order to establish if the statements would collectively provide a measure of satisfaction with the school. This produced a high alpha rating for the teachers' attitudes of 0.89, slightly lower than the alpha for the teachers' attitudes in the previous study, but still indicative of a very good internal consistency. A t-test showed that there was no significant difference between the two schools (see Table 7.9).

**Table 7.9. Teachers' mean attitude total analysed by school and children's mean attitude total by school and age**

<table>
<thead>
<tr>
<th>AGE</th>
<th>SCHOOL 5</th>
<th>SCHOOL 6</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOUNG</td>
<td>59.06</td>
<td>60.63</td>
<td>59.91</td>
</tr>
<tr>
<td></td>
<td>(8.5)</td>
<td>(7.7)</td>
<td>(8.0)</td>
</tr>
<tr>
<td>MIDDLE</td>
<td>55.20</td>
<td>55.76</td>
<td>55.46</td>
</tr>
<tr>
<td></td>
<td>(8.0)</td>
<td>(7.1)</td>
<td>(7.5)</td>
</tr>
<tr>
<td>OLD</td>
<td>53.89</td>
<td>54.74</td>
<td>54.32</td>
</tr>
<tr>
<td></td>
<td>(6.2)</td>
<td>(8.4)</td>
<td>(7.3)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>55.90</td>
<td>57.09</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(7.7)</td>
<td>(8.1)</td>
<td></td>
</tr>
<tr>
<td>TEACHERS</td>
<td>37.50</td>
<td>32.14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.9)</td>
<td>(4.8)</td>
<td></td>
</tr>
</tbody>
</table>

Children: N=109 because of missing data

**Parents' attitudes**
A principal components factor analysis with oblimin rotation did not extract any useful factors. Therefore, reliability analysis was again used to construct a measure of satisfaction with the school and consequently, two items were deleted. The two
excluded statements both referred specifically to parents' involvement in school and were as follows: (1) I wish there were more opportunities for parents to become more involved; and (2) on the whole, I believe parents should leave education to the teachers. The remaining 5 items were more general assessments of the social and working environment of the school. The alpha rating for these 5 items was 0.72, thus lower than the alpha ratings for the teachers' and children's attitudes, but still indicating a satisfactory level of internal consistency.

Using the mean attitude scores, ANOVA revealed that there were no significant differences according to school, age of child, gender or birth-order (see Table 7.10). One individual item, namely parents' perception of their welcome in school, showed a significant difference based on school; the parents of School 6 reported a greater feeling of being made welcome than the parents of School 5.

Table 7.10 Parents' and children's mean attitude totals analysed by school and age

<table>
<thead>
<tr>
<th>CHILDREN</th>
<th>YOUNG</th>
<th>MIDDLE</th>
<th>OLD</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHOOL 5</td>
<td>59.06</td>
<td>55.20</td>
<td>53.89</td>
<td>55.90</td>
</tr>
<tr>
<td></td>
<td>(8.5)</td>
<td>(8.0)</td>
<td>(6.2)</td>
<td>(7.7)</td>
</tr>
<tr>
<td>SCHOOL 6</td>
<td>60.63</td>
<td>55.76</td>
<td>54.74</td>
<td>57.09</td>
</tr>
<tr>
<td></td>
<td>(7.7)</td>
<td>(7.1)</td>
<td>(8.4)</td>
<td>(8.1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PARENTS</th>
<th>SCHOOL 5</th>
<th>20.68</th>
<th>20.15</th>
<th>20.44</th>
<th>20.41</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(2.2)</td>
<td>(3.2)</td>
<td>(2.6)</td>
<td>(2.7)</td>
<td></td>
</tr>
<tr>
<td>SCHOOL 6</td>
<td>22.47</td>
<td>21.00</td>
<td>19.75</td>
<td>21.28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.3)</td>
<td>(3.1)</td>
<td>(3.1)</td>
<td>(2.9)</td>
<td></td>
</tr>
</tbody>
</table>

Children: N=109 because of missing data

Correlations of children's attitudes and parents' attitudes

While there were no significant differences between the parents' total attitudes according to age, school or birth-order, there was a significant correlation between the attitudes of individual children and those of their parents (see Table 7.11), supporting the view that children's and parents' feelings about the schools are linked in some way. Further analyses revealed significant correlations in subsets of the sample (see Table 7.11); it would appear that the attitudes of the youngest
children, the only/first-born children, the children from School 6 and the boys more closely correlate with those of their parents.

Table 7.11 Correlations of parents' and children's attitudes by age, school, birth-order and gender.

<table>
<thead>
<tr>
<th>Age</th>
<th>r</th>
<th>N</th>
<th>School</th>
<th>r</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>.42*</td>
<td>30</td>
<td>School 5</td>
<td>.12</td>
<td>52</td>
</tr>
<tr>
<td>Middle</td>
<td>.21</td>
<td>32</td>
<td>School 6</td>
<td>.51**</td>
<td>39</td>
</tr>
<tr>
<td>Old</td>
<td>.09</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Birth-Order</th>
<th>r</th>
<th>N</th>
<th>Gender</th>
<th>r</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>First/only</td>
<td>.29*</td>
<td>50</td>
<td>Girls</td>
<td>.19</td>
<td>54</td>
</tr>
<tr>
<td>Second/later</td>
<td>.25</td>
<td>41</td>
<td>Boys</td>
<td>.40*</td>
<td>37</td>
</tr>
</tbody>
</table>

| Total       | .29**| 91 |

*p<.05 **p<.005 (all 2-tailed)

Children: N=109 because of missing data

A correlation matrix revealed the closest correlations involved statements 1, 3 and 6 from the parents questionnaire and statements 5, 10, 12 and 14 from the children's attitudes list (see Table 7.12).

**Parents' involvement in school**

The parents were asked whether they contributed to the school in any regular way, by working as a Governor or for the PTA, or by helping in school (see Table 7.13). The large majority of parents in both schools who responded to the questionnaire were not involved. Overall, the parents of School 6 were much more likely to be involved in school than the parents of School 5, with around a third of the parents reporting some contribution. However, the parents of the youngest School 5 children reported the highest involvement level of all (39%), although it reduced sharply to about half that for the other two age groups of School 5 children.
This school has an excellent learning environment. This is a good school to go to. .23*

Everyone seems to get on well here. Most things are done fairly in this school. .32**

Everyone seems to get on well here. I'm happy in this school. .28*

Everyone seems to get on well here. I think people in this school usually make good decisions about what happens here. .26*

There isn't a very friendly atmosphere at ........ school (inverted) I'm happy in this school. .31**

There isn't a very friendly atmosphere at ........ school (inverted) I think people in this school usually make good decisions about what happens here. .24*

p<.05 **p<.005

Table 7.13 Percentages of parents involved in school by age of child and school

<table>
<thead>
<tr>
<th>SCHOOL 5</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NO INVOLVEMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>85</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>SOME INVOLVEMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>15</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCHOOL 6</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NO INVOLVEMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>65</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>SOME INVOLVEMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>35</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>
7.3.6 Analysis of children's understanding as a function of attitudes

Using the children's attitude totals, the median was used to split the sample into high and low attitude groups as follows: (1) low attitude group, N= 53, range = 37-55, 49% of the sample; (2) high attitude group, N= 56, range = 56-70, 51% of the sample (total sample = 109, because of missing data). The sample was further subdivided according to school, thus giving four groups for the purpose of analysing the relationship between the children's thinking and their attitudes towards their school: (1) School 5 low attitude group, N=28; (2) School 5 high attitude group, N= 26; (3) School 6 low attitude group, N= 25; (4) School 6 high attitude group, N= 30. These four groups were then used in three correspondence analyses examining the following areas: (1) children's understanding of power, first choice answers; (2) children's understanding of power, second choice answers; and (3) children's overall perceptions of the school.

Children's understanding of power/authority, first choice-answers

There was a significant multi-dimensional solution here (questions 1,3,5 and 7; see Figure 7.21). The first two dimensions account for 84% of the inertia; the first dimension accounts for 59% of the inertia ($\chi^2=128.47$, df=24, $p<.0005$), while the second dimension accounts for 25% ($\chi^2=53.31$, df=22, $p<.0005$). The first dimension differentiates the thinking of the School 5 low attitude group from the other three, suggesting that the understanding of the children in School 5 may be related to the level of their satisfaction in the school. This difference is not apparent in School 6.

School 5 low attitude group's most discriminating responses:
Others are most important
Children make the rules
Parents can get the rules changed
Teachers run the school
Teachers make the rules

School 5 high attitude group's most discriminating responses:
Parents are most important
Parents make rules
Class teacher runs the school
Others run the school
Others can change the rules
Figure 7.21 First choice answers to the power questions analysed by school and total attitudes

Class teacher runs the school

Teachers run the school

Parents can get the rules changed

School 6 Low Att.

Others are most important
Children make the rules

School 6 High Att.

School 5 Low Att.

School 5 High Att.

Others run the school

Others can change the rules

Parents are most important

Dim.1: $x^2=128.47$, df=24, $p<.0005$  Dim.2: $x^2=53.31$, df=22, $p<.0005$  Unlabelled dots represent non-discriminating responses
Figure 7.22 Second choice answers to the power questions analysed by school and total attitudes

○Others also change rules

● School 5 High Att.

○ Children also make rules

○ Class teacher also makes rules

● School 6 Low Att.

Others also make rules

● School 6 High Att.

○ Children also change rules

○ Children also run the school

Head teacher also changes rules

● School 5 Low Att.

Head teacher also makes rules

○ Parents also run school

○ Parents also make rules

Dim.1: $x^2=74.28$, df=23, p<.0005 Dim.2: $x^2=59.46$, df=21, p<.0005 Unlabelled dots represent non-discriminating responses
Children's understanding of power/authority, second-choice answers
There was a significant multi-dimensional solution here (questions 2, 4 and 6; see Figure 7.22), with the first two dimensions accounting for 72% of the inertia. The first dimension accounted for 40% ($\chi^2=74.28$, df=23, $p<.0005$), while the second accounted for the remaining 32% ($\chi^2=59.46$, df=21, $p<.0005$). Overall, the first dimension differentiated the thinking of the low attitude group in School 6 from the other three groups. The second dimension differentiated the understanding of the low and high attitude groups in School 5.

School 5 low attitude group's most discriminating responses:
Parents also make rules
Parents also run school
Head teacher also changes rules
Children also change rules
Head teacher also makes rules

School 5 high attitude group's most discriminating response:
Others also change rules

School 6 low attitude group's most discriminating responses:
Others also make rules
Children also run the school
Children also make rules
Class teacher also makes rules

Children's perception of school
There was a significant two-dimensional solution (questions 8, 9, 14 and 15; see Figure 7.23), with the two dimensions accounting for 86% of the inertia. The first dimension accounted for 47% ($\chi^2=45.32$, df=16, $p<.0005$) and the second dimension for 39% ($\chi^2=37.13$, df=14, $p<.005$). The first dimension appears to differentiate the understanding of the School 6 low attitude group from the other three groups. The second dimension reveals differences in thinking between the low and high attitude groups of School 5.

School 6 low attitude group's most discriminating responses:
Children go to school to be with other children
Best child is the cleverest child
Figure 7.23 Perceptions of school analysed by school and total attitudes

- Rules are for behaviour
- Rules are to prevent damage to school things

- School 5 High Att.
- School 6 High Att.
- School 5 Low Att.
- School 6 Low Att.

- Children go to school to be with other children
- Best child is the cleverest child
- Children must go to school

Dim.1: $x^2=45.32$, df=16, p<.0005 Dim.2: $x^2=37.13$, df=14, p<.005
Unlabelled dots represent non-discriminating responses
*School 5 low attitude group's most discriminating response:*
Children must go to school

*School 5 high attitude group's most discriminating responses:*
Rules are for behaviour
Rules are to prevent damage to school things

7.4 Discussion
This fourth study had three main aims. First, it was designed to re-examine children's understanding of the system of the school. This was undertaken by investigating their comprehension of power, authority, roles and rules, which had also been probed in the second study, and also by exploring a new aspect of their system-knowledge, their overall perception of the school, in particular in relation to the child's own role as pupil. Secondly, having revealed something of children's understanding of the school, and, additionally, having probed the more immediate context of their developing comprehension in the third study by examining any possible relationships with the attitudes and feelings of the teachers, this study set out to examine any influences on the children's understanding emanating from the wider school context. Therefore, the role of such factors as socio/economic class and birth-order were examined for any possible relationship to children's understanding, with the eventual re-investigation of gender as well. Thirdly, in pursuit both of this wider context of children's perceptions but also in furtherance of the examination of school ethos undertaken in the third study, an investigation of parental attitudes was included; together with the repeated exploration of children's and teachers' attitudes, it was hoped to obtain some additional understanding of school climate.

7.4.1 Children's system-knowledge
To begin with the replication of the children's understanding of the system, the findings of this study relating to power were very largely supportive of the picture which emerged from the second study. As before, both the log linear and the correspondence analyses were indicative of a developmental trend in the children's thinking about power and authority. Following the pattern of the earlier findings, the children first displayed an early grasp of the centrality and importance of the head teacher. They then indicated a growing understanding of the role of the teachers in the middle primary school years. Finally, the responses of the older children showed them gaining a wider perception of the spread of power in the
encompassing the roles of parents and even children in the organisation of the school. Furthermore, as in the earlier study, there were signs that children develop an understanding of their own importance in school, suggesting a growing sense of their own place and value in the system of the school, in contrast to the indications of powerlessness in the responses of younger children, with their greater much emphasis on the supremacy of the head, in particular.

There was further support for the earlier findings in the analyses of the children's perceptions of the roles of head teacher and class teacher. As in the earlier studies, there was considerable unanimity about the four most important tasks for both the head and the class teacher, although there were also some differences according to age. The oldest children inevitably revealed the best understanding of both roles. For example, in the case of the head teacher, they revealed their superior comprehension by citing organisational tasks not easily observable, such as 'choosing a new teacher', while the youngest children were more likely to mention the obvious, though relatively less important tasks, such as 'taking assembly'. However, the responses given by the children, both overall and in their age-groups, were very similar to those reported in the earlier study. There would appear to be considerable unanimity about these two roles.

In the additional area of system-knowledge examined in this study, that of the children's overall perception of the school, there were also differences apparently attributable to age. For example, while most of the children in all age-groups reported that the function of school was in order to 'learn things like reading and writing', the thinking of the youngest children, perhaps as a consequence of their preoccupation with rules and behaviour which was evident in the earlier studies, was differentiated by a belief that the function of school was to 'learn how to behave'. This was in contrast to the Old group's discriminating response that the function of school was to 'be with other children', thus emphasising their greater understanding of the social importance of school, as demonstrated in the earlier study.

On the whole, the findings of this study gave further evidence of the changes in children's thinking about the system of the school, during their school years; not only were the broad findings of the second study sustained, but the trends in societal understanding, suggested by Berti's hypothetical study (1988), were also generally supported. Children's growing comprehension of the school, particularly
through an acknowledgement of the nature of communal needs and requirements, would appear to be a precursor for a more extensive system-knowledge, with an increasing grasp of the essential connections between such system concepts as power, rules and roles.

7.4.2 Investigation of wider influences

However, while all these areas exhibited age differences, there was also some evidence that other influences were at work. In some of the log linear analyses and in all of the age-based correspondence analyses, there were suggestions of further significant effects on the children's understanding, beyond the differences due to age. Therefore, these findings gave additional emphasis and support to the second specific aim of this study, namely to explore wider influences on the children's understanding. In all of the areas of understanding which were subjected to multivariate analysis, the children's understanding of power, their comprehension of the roles of head and class teacher and their overall perception of the school, there were indications of other influences beyond that of age. Examinations on the basis of age and school, age and birth-order and age and gender all produced significant solutions on several dimensions. The conclusion would appear to be that, while there are evident age-trends in all of these areas, there are nevertheless other influences within those general developmental patterns.

Differences attributable to school

While the general age-based tendencies were evident in the overall direction of the developing understanding in the children of both schools, there were also signs of different patterns of thinking within those trends. There were evident variations in the children's understanding in all the analyses, some greater than others, which would appear to be school-based. However, overall, these were not particularly notable or striking when the discriminating responses were examined in detail. Indeed, it is difficult to extract any meaningful conclusions from particular responses in multi-dimensional solutions. But the whole essence of correspondence analysis is the emphasis on more global analyses, as opposed to individual items. Therefore, the essential point is to recognise the combined effect of all these significantly different developmental paths. The picture which emerges is that the children's thinking is developing in different ways, according to the school they attend, within the general and evident age-trends.
However, in the case of the answers to the power questions, there were some interesting and possibly revealing distinctions between the two schools which do deserve closer examination. While the responses of the children of School 5 appeared to reflect fairly closely the general age-trend revealed in the age-only analysis, in both their first-choice and second-choice answers, the understanding of the children of School 6 seemed to diverge from the general path, despite apparent similarities in the comprehension of the Young groups in both schools. With the first-choice power questions, the difference in the paths is quite notable; the Middle and Old group of School 6 appear almost to be developing on a different dimension; in particular, the oldest children in School 6 would appear considerably less aware of the involvement in school organisation by parents and children. With the second-choice power questions, the difference in paths is less striking, but again the pattern would suggest that the children in School 6 fail to attain the type of understanding displayed by the children in School 5.

Given that there was a specific and important difference between the two schools, namely socio-economic class, it is impossible to ascertain whether this social category was the major factor in the children's varying perceptions of power, or whether this is simply a case of two schools representing separate contexts of understanding. However, in the latter case, socio-economic class would be one of the contributing factors to that variation in social environment and must in any case be seen as important.

There are several possible explanations for the different paths taken by the children. It may be that there is a different organisational style in School 6, which the children correctly perceived and described. As School 6 was purposely selected because it was believed to have a largely working-class population, it could be argued that such a parent body might be expected to have less time to devote to school affairs, or perhaps more stereotypically, that they might have less inclination to do so. However, about a third of the parents of School 6 reported some involvement in the school (see Table 7.13), as opposed to around a quarter of the parents of School 5. Furthermore, it might also be expected that any major distinction between the parent bodies might have become apparent in differences in the attitude ratings. However, there was only one item in the parents' questionnaire which showed a significant difference between the two parent populations, suggesting that they were broadly similar in most aspects, despite the socio-economic differences. In the one significant variation, relating to the parents'
assessment of how welcome they felt they were in school, the parents of School 6 actually rated this more highly than the parents of the middle-class school.

However, involvement is not perhaps the same as power, which the children's responses were addressing. Parents may be active in many aspects of school life without necessarily being able to affect policy decisions, and it may be that in School 6, the parents were less able to exert real influence. If so, this might be a consequence of socio-economic class; middle-class parents are likely to be readier to take issue, more assured of their ability to achieve their aims and better equipped to make their feelings known. In combination, such feelings would constitute a greater sense of empowerment, and it may be this difference which the children are perceiving and reporting. Indeed, the significant difference in the ratings of perceived welcome in the school may actually reflect this variation in power; parents who feel confident that they can affect school decisions and are prepared to tackle issues might well cause the staff to respond to them in a less welcoming manner.

Differences attributable to birth-order
With the associations with birth-order, a pattern was easier to discern. In almost all the correspondence analyses, the thinking of the children tended to be different in the youngest group but converged during their time in school, so that the perceptions of the oldest children showed fewer variations. This would suggest that birth-order is an important factor in the children's understanding when they start school but that it diminishes over time. The impact of birth-order effects would be expected to be greater in the early years, reflecting both the recency and the uniqueness of the family as the context for children's first social interactions but their experience of a wider social environment as they enter primary school would also be expected to dilute these effects over time.

However, although the influences may diminish eventually, nevertheless their existence, and indeed their general persistence through to the middle years at primary school, makes them an important factor in children's perceptions of school life. In their responses about power, the role of the head teacher and class teacher, the children's place in the family would appear to have influenced their thinking. It may be the case that second/late-born children possess more extensive information about school life, with the additional reports of the experiences of their older siblings. However, this may be too simplistic a view; in the case of the second-
choice power questions, the responses of the youngest second/later-born children appeared to be less developed than those of the youngest first/only-born children. The processes emanating from birth-order differences may be complex. While the later born children may gain from the reported experiences of their older siblings, the only/first-born children may have other advantages from increased contact with adults. In any case, it would appear that the factor of birth-order in children's thinking about the social environment needs further, more systematic examination.

Differences attributable to gender
There was a more mixed picture from the associations with gender. In the case of the roles of the head and class teacher, some early differences in thinking between boys and girls were not apparent in the older children, who were in close agreement about the two roles. But there was, in any case, considerable unanimity amongst all the oldest children about the roles of the head and the class teacher, with fewer differences for any of the social categories examined, than in other aspects of school understanding. On the other hand, the more crucial areas of comprehension of power and the overall perception of the school revealed the reverse pattern when examined for gender differences; while the thinking of the youngest boys and girls was closely aligned, considerable variations in responses according to gender became more evident as they moved up through the school.

Again, it is difficult to ascertain the processes which might be involved in these different developmental paths. It would be expected that variations in interactions, based on stereotypical perceptions of girls and boys, held by teachers, children and parents and hinted at in the differential ratings for transgressions by boys and girls in Study 3, might contribute to gender-based differences in perceptions of school. However, if children do begin to construct their political understanding in their early comprehension of the system of the school, such differences in thinking between boys and girls may lead to variations in their later experiences and actions as adult political actors.

7.4.3 Children's system-knowledge: some interim conclusions
As the earlier study revealed, children's thinking about such concepts as power, authority, rules and roles changes considerably as they make sense of the system of the school. However, in addition to the shifts associated with age and some conceivable variations according to their particular school, it would appear that the children's thinking may also be influenced by such factors as their birth-order, their
gender and possibly their socio-economic class. In short, the children's thinking may well be subject to influences emanating from their membership of particular social categories, as they puzzle out the social environment in which they are developing their understanding. In this respect, their efforts to make sense of the social world would appear to be very similar to those of adult social actors; in understanding of the social environment, individuals may draw on all their beliefs, experiences and knowledge gained through previous interactions, all of which have served to establish and reinforce their membership of social categories. It would appear that even the youngest children's thinking may be subject to influences arising from their places in the social world. Thus, within the apparent developmental trends associated with age, there are other swirling patterns of understanding, exerting influences on the children's thinking. The picture of children's social understanding which emerges from this study would appear to be very complex.

### 7.4.4 Investigation of school ethos: attitudes of children, teachers and parents

The re-administration of the two earlier attitude questionnaires, for children and teachers respectively, produced very similarly high reliability ratings, giving some support as to their generalisability, though the difficulties with the size of the teachers' sample were particularly acute in this study. The additional examination of parental attitudes, also with a good reliability rating, meant that there was a three-pronged investigation in this study. But it is impossible to state with absolute confidence exactly what was being measured, or even if the three scales were investigating similar areas or phenomena, whether to do with school ethos or not. However, while there is no proof of validity and caution is required in interpretation, the attitude items do appear to have some coherence in all three questionnaires, given the reliability ratings, and they must accordingly gain some measure of credence from this combined effect.

The teachers' attitudes, assessed for school effects, and the parents' attitudes, assessed for school, age of child and birth-order of child effects, revealed no significant differences. But there were some significant factors in the children's feelings.

**Children's attitudes**

There were differences with age, with the youngest children very much more likely to express positive ratings about their schools. This trend was also apparent in the
earlier study, although non-significant, except in the case of School 3. The most likely cause for this difference is the differential handling of children according to age, with more allowances made for the youngest children by the teachers. The youngest children are, probably, less likely to offend, but if they do transgress, they are more likely to be treated leniently. They may also be under relatively less pressure to perform academically. They may well view their school more favourably than their older school-fellows as a consequence.

There were no differences with either gender or school, perhaps surprisingly in view of other findings in this study. It would appear that different perceptions of power, roles etc. may not necessarily be linked to varying assessments of school climate. There was, however, a difference with birth-order, giving further emphasis to the importance of this variable in assessing the social understanding of young children. Only/first-born children gave significantly more positive ratings than the second/later-born children. Given the significant age differences in ratings, perhaps the most likely cause for the more negative feelings of the second/later-born children is that they are influenced by the declining positiveness expressed by their older siblings.

**Correlations of children's and parents' attitudes**

Looking at the relationship between the attitudes of individual children and those of their parents, there were some interesting correlations. The attitudes of the youngest children, the only/first-born children, the children of School 6 and the boys were all significantly correlated with those of their parents (see Table 7.11). Furthermore, in three out of four instances, these children's groups reported more positive ratings than their comparison groups (see Tables 7.8 and 7.9).

One important conclusion must be that the relationship is apparently not entirely reciprocal, or at least not in all instances. Parents are not necessarily constructing their assessments of the school solely on the basis of their children's feelings, but are using other sources, perhaps their contact with teachers. Given that parents are often most concerned with academic matters, their ratings, even of social aspects, may be heavily swayed by their considerations of their child's progress in school. On the other hand, children must be forming their own opinions about school, using other aspects of school life and are not always subject to their parents' views. This diversion in perceptions about the school may result from different
experiences, but it also hints at the complexity behind the children's thinking. The feelings of the parents are just one factor in their ratings of the school climate.

But in that case, the existence of any correlations at all is perhaps intriguing. Children and parents do have very different experiences of school, although they must impart knowledge and feelings to each other. The age-based and birth-order correlations may be reasonably straight-forward to interpret on these grounds of information channels. In particular, the correlation in the younger age group was probably to be expected; the youngest children are much more likely to be influenced by their parents' feelings, and similarly, their parents will have had less experience of the school and be more reliant on the information they may glean from their children. This may also explain the correlation between first/only-born children's attitudes and those of their parents; again there may be a less extensive and more closely-shared base of knowledge about the school, which results in a closer expression of feelings.

However, the correlations in boys and in School 6 are harder to interpret. It may be that girls, who are generally believed to mature socially at a faster rate than boys, are simply expressing the older children's more independent feelings about the school, while the boys' pattern is closer to the younger children and thus to their parents. Using the same age-based interpretation, it is possible that the children in School 6, the more working-class school, are also less developed socially and therefore that their perceptions correlated more closely with those of their parents. This would also fit with some of the findings from the correspondence analyses which also hinted at a less developed understanding of the school in the children of School 6. But it was also the case that the parents of the children in School 6 were more likely to be involved in school in some way; thus the feelings of parents and children are more likely to be gathered from similar experiences and may be more similar as a consequence. However, in any case, it is important to reiterate that these are only correlations. It is tempting to try to extract some meaning from them but any possible linkages must be viewed as extremely speculative.

Overall, the measurement of attitudes as held by children, teachers and parents about their respective schools has been a useful and provoking source of information about their overall perceptions. Despite the difficulties of sample size with respect to the teachers, and the even greater problem of validity for all the attitude questionnaires, the three-pronged investigation of satisfaction with the
school has nevertheless suggested that this is an area which would be worth pursuing in future studies. Furthermore, it has helped to situate the children's thinking within the context of the school.

**Children's understanding as a function of attitudes**

It was apparent from the three correspondence analyses, examining the children's responses about power and their overall perceptions of the school as a system with their total attitude ratings, that there is a relationship between children's thinking and their assessments of school ethos. However, all three plots were complex and difficult to interpret, with at least two significant dimensions. There were two main conclusions to be drawn. First, it would appear that attitude levels were more likely to be associated with differences in thinking in School 5, with the children in School 6 less affected by varying assessments of school ethos. It would also appear that the low attitude groups, as in Study 3, appeared to have more diverse understanding. This was particularly noticeable in the plot representing the children's overall perception of the school; the high attitude groups, with their greater tendency to report that rules were both for defining good behaviour and preventing damage to school property, may be more conscious of the prohibitive aspects of school life.

It is tempting to speculate, on this basis, that a compliance with the strictures of school life, may be linked to a greater level of happiness in school. However, it could also be argued that such responses are indicative of a less mature understanding of the school-system, given some of the age-based results, and that the high attitude ratings may possibly be the consequence of a less well-established capacity to assess and analyse the school. Whatever the linkage, it would appear to be the case that the children's attitudes may be yet an additional influence on children's understanding of the school and thus some further evidence of the multifaceted nature of their social thinking.

**7.5 Conclusion**

The picture of the child's understanding of the school proposed by the second study was broadly supported by the findings of this fourth and final study. The children's thinking about such concepts as power, authority, rules and roles does undergo significant change during their years in school, as they gradually come to understand the various parts and overall function of the school. Their developing comprehension therefore may be a consequence of their attempts to make sense of
the system of the school. But in addition, the results from this study would suggest that children's thinking about the social world is much too complex to be explained simply by age-trends, although they are evidently an important explanatory tool. Within the age-patterns, there are signs that children's social understanding may be influenced by their membership of other social categories. Those examined in this study, namely birth-order, socio-economic class and gender, all appeared to affect their thinking in some way, thus suggesting considerable complexity as children make sense of their social environment. Furthermore, the children's assessments of school climate would also appear to be related to their understanding of the system of the school. The overall picture of the patterns involved in the development of their social thinking appears to be a complex web of many influences.
Chapter 8

Concluding thoughts and themes

This chapter consists of a review of the most important findings from the research, together with a discussion of the issues arising from them, in the following order: (1) children's political understanding; (2) school-as-context effects; and (3) wider influences on the children's thinking. Finally there is a more general discussion of the implications of the study for perspectives and theories of development.

8.1 Children’s political understanding

It was an important assumption underlying this study that children's political understanding, in the broad, inclusive sense proposed at the outset of the research (see Chapter 1), would be developed and fostered as a consequence of their attempts to comprehend the system of the school (Stevens, 1982, Coles, 1986, Palonsky, 1987, Turiel, 1989, Cook, 1989). The open-ended interviewing in Study 1 had indicated that children were actively trying to make sense of the school and that they were generally able to support their constructions with reasons and justifications. Furthermore, in the course of their time in school, children are certainly exposed, on a daily basis, to such central political concepts as power, authority, rules and decision-making, both directly as they or their peers are instructed, disciplined etc., and more indirectly as they become aware of less evident aspects of the system, such as the hierarchical organisation of power between the head and teachers, the points of involvement for parents and even eventually their own place in the system.

Concentrating on the most essential findings, there were evident developmental trends in all aspects of system-understanding. The children's thinking began with a simple and narrow focus on a few central features of the system but as they moved through the school their understanding broadened and developed to encompass more complex and wider aspects of the school system, together with the links between them. For example, the findings in Study 2 and broadly replicated in Study 4, would suggest that the children's understanding of the power hierarchy begins with a grasp of the importance and centrality of the head teacher, with the youngest children tending to believe that he or she is all-powerful and acts without assistance. Subsequently, the middle-school children may mention the involvement of teachers in the organisation of the school while the oldest children are likely to
report that parents and even children are involved, thus revealing a more sophisticated grasp of the multi-layered system of power. Children also revealed a developing sense of the value of their own perceptions of school and, with age, were more ready to advance criticism of various aspects of the system. Similarly, when asked about the purpose of rules, the youngest children tended to report that they had an informative or prescriptive function, while the oldest children had a more global understanding of the purpose of rules as benefiting the school community as a whole.

Overall, therefore, there were evident signs of developmental trends in their comprehension in many aspects which might be a consequence of their attempts to make sense of the school as a micro-political society. However, while it is not possible to establish that these perceptions contribute specifically to children's political thinking, there is some support for the view that the children's changing cognitions were indeed part of a developing political understanding. The basic patterns revealed by the findings in this study broadly echoed those of Berti's (1988) study of a hypothetical society, thus providing some corroboration through convergence. The youngest children in Berti's study focused on punitive laws under a powerful leader. The youngest children in this study began with a similarly very simply structured view of school, dominated by the power of the head and with an emphasis on the prescriptive aspects of school life. On the other hand, the oldest children in Berti's study had a good grasp of the overall requirements of a society, for the regulation, organisation and control of power and the necessary links between them for the good of the whole collective. Likewise, the oldest children in this study displayed considerable insights into the complexity of the system of the school with their reports of the involvement of teachers, parents and even children, together with their growing sense of the requirements of the community and their increasing grasp of the connections between system-concepts (Dodsworth-Rugani, 1982). For example, while they duly discriminated between the moral and two types of socio-conventional rules in a most competent fashion, they also displayed an increasing reluctance to say that socio-conventional rules could be changed, thus indicating a growing understanding of the value of all of the rules to the system of the school.

If it is the case that the children's understanding of the school is a contributing factor in their developing political cognition, then it may be important that they should attain the mature comprehension of the mini-society of the school which
was displayed by most of the oldest children. On entry to school, children become members of a community of considerable complexity, despite its relatively small size (Minuchin & Shapiro, 1983). The interpretative task is undoubtedly substantial (Emler, Ohana & Moscovici, 1987). However, despite this, children generally make sense of the school by the top years, reaching a fairly full comprehension of the system. This process of elucidation, of understanding the parts and piecing them together into the whole, may represent a valuable developmental experience. Through this process, children have the chance to understand that communities and mini-societies have an important sense of wholeness and to comprehend how all the parts build together into that entity. In short, this is an interpretative problem which most children complete fairly successfully over their time in school and which may provide the pattern for their eventual piecing together of other systems in due course. It may therefore be the case that the children from School 3, who were found, in studies 2 and 3, to exhibit a different profile of understanding from that demonstrated by the children in the other three schools, may also go on to have a different understanding of other systems they may join.

There are also possibly important links between the children's early school experiences and their understanding of the macro-political world (Minuchin & Shapiro, 1983, Stevens, 1982, Palonsky, 1987). It may be essential for the children's future role of citizen that they should be a member of a school which they judge to be a fair and just community. If children perceive the school as an effective, efficient and supportive community, they may develop an early sense of the mutual benefits to be gained in the political relationship between the law-abiding citizen and a well-run and just democracy.

However, while children's developing perceptions of the organisation of the school are of interest in their own right, there was no independent check on the veridicality of their thinking. The study would have been strengthened if some attempt had been made to examine the actual organisational structures and decision-making procedures in each school. This could have been investigated in one or more of the following ways: (1) interviewing the head teacher, both about the organisational structure and procedures, and also about the existence of school rule codes or those principles which might be considered central to the school; (2) interviews with other participants such as the deputy head, other teachers, parent-governors and secretarial staff, again specifically to ascertain the organisational structure and division of power/authority; (3) without necessarily having recourse
to interviews, it should have been possible to obtain some useful information about organisation by simply ascertaining the frequency of staff and parent/teacher meetings. Given the clear importance and centrality of the role of the head teacher which was apparent in this study, the most useful addition would have been an interview with the head. However, if any of these three investigations had been undertaken, it might have provided some explanation as to why the children and teachers in School 3 displayed such differences in understanding from those children and teachers in the other schools. In any case, in a future study, this approach could be used to pre-select schools with different types of organisations in order to examine the children's system-understanding for corresponding variations.

8.2 School-as-context effects on development

There were various patterns in this study which suggested that the children's understanding was influenced by contextual effects. For example, the differences in understanding of the power and authority patterns which were displayed by the children in School 3 (see Studies 2 and 3) could be viewed as influences emanating from variations in the organisational context of the school. Consequently, the possibility that children's understanding would be subject to effects of context was specifically tested in Study 3.

With an outline picture of the children's thinking on the power and authority structure of the school, their rule-discrimination abilities were examined to see if they were affected by the context of the school system (Dodsworth-Rugani, 1982, Laupa & Turiel, 1986). Despite many findings (Smetana, 1981, 1985, 1989, Smetana & Braeges, 1990) which suggest that children have a well-established grasp of the seriousness and importance of moral rules prior to entry into the primary school, there were evident signs that the youngest children's rule-differentiation skills were affected by the new context of the school. This was despite the otherwise extremely competent performance of most of the children in the rule-differentiation tasks, as they duly and effectively discriminated on the various criteria, with no differences between the schools. Indeed the proficiency of their rule-sorting was underlined by their differentiation between the two types of socio-conventional rules (Turiel, 1983) and by their perceiving of differences according to the gender of the protagonist. In short, the children appeared to be very actively sorting and discriminating the rules on many and various dimensions.
Therefore, the inconsistencies in the moral-rule discrimination amongst the younger children are all the more intriguing. It would appear that the assumed authority-independence of moral rules is outweighed in this instance by the new context of power and rules which confronts the youngest and newest pupils in the school. Even moral reasoning, despite the contentions of moral philosophers (Frankena, 1970, Rawls, 1971, Dworkin, 1978, Gewirth, 1978), is likely to be situated in some sort of context of authority or rule-system, and while the scenario confronting the children was hypothetical and to some extent rather unlikely, their responses nevertheless are indicative of the strength and novelty of the school context for the youngest children. Power and authority are always likely to be relevant considerations in any rule-governed situations and it is perhaps idealistic to dismiss such contexts, even when moral principles are involved. However, the contextual problems arising from a conflict between authority and moral principles are not new nor confined to young children; Laupa and Turiel (1986) found that children took the status of authority into consideration when assessing commands and Milgram's study of obedience (1963) revealed inconsistencies in the moral reasoning of adult participants which may have been similarly due to the context of authority. Thus in all situations of moral outrage, it will may be pertinent to inquire about the patterns of power and authority which are perceived by the transgressor.

There was also further evidence of school-as-context effects from the attitude responses of children and teachers. The ethos or climate of the school is a particular aspect of context, perhaps representing the emotional or spiritual context of the school (Finlayson, 1973, Rutter et al., 1979). The investigation of school ethos was prompted by the unexpected differences in the understanding of power and organisation which was reported by the children of School 3. In Study 3, the lowered ratings by both the oldest group of children and the teachers in School 3 were not only indicative of an apparently different climate in that school, in comparison to the others, but, more importantly, they were evidence that children may be receptive to school ethos, and thus alert to the emotional/social context of the school, either directly or indirectly through the teachers, though it may take time for the children to become aware of it. In whatever way, it may be that perceptions of a school climate may influence the intellectual development of the children; a more positive climate may either reflect the existence of a good working environment or alternatively may be more likely to result in one, while a more negative climate may have the opposite effect. Rutter et al. (1979), having conducted a very extensive examination of many possible influences on academic
and social outcomes, concluded that school ethos was the most important of all for predicting the success of a school. Therefore, it would be interesting to examine children's attitudes and feelings about their school for any correlation with the school's performance in the 7-year-old and 11-year-old tests.

There were also indications that children's attitude ratings might be correlated with their rule-differentiation (Study 3) and with their understanding of the school (Study 4). All these suggestions of links between these various aspects of the children's thinking, attitudes about the school, understanding of the school and rule-differentiation, are indications of the possibly web-like nature of children's thinking with the school-as-context providing the framework (Brownell, 1989, Minuchin & Shapiro, 1983). Furthermore, looking at the wider context, there were correlations between the parents and children's attitudes. So there may even be context-within-context effects here and the picture becomes ever more complex. But the essential point to stress is that the context of children's development may well be a major factor which must be taken into account when investigating the path of that development.

8.3 Wider influences on children's understanding
However, perhaps the most important findings of all were those in the final study which indicated that there may well be other external influences, related to the children's social groupings, which affects their thinking about the school. Although a picture emerged from all the studies which suggested that there were developmental trends associated with age, there were other patterns associated with other social categories such as socio-economic class, gender and birth order. The main influences were to be found in the children's political cognitions. Over the age range of the study, associations with these categories were variable; while socio-economic differences were generally apparent at most ages, differences associated with birth-order seemed to decrease over the period, while those associated with gender appeared to increase. Thus the relative importance of any one social group membership may depend on the age of the child. However, given the number and significance of the factors which emerged, the children's thinking would appear to be very complex, liable to vary according to their social group memberships.

While these may have been the most interesting findings, it was, however, very difficult to interpret them or to draw any specific or certain conclusions from these interwoven patterns in the children's thinking, beyond the fact of the existence of
these external influences. However, the crucial point which emerges must be that the development of social cognition, even for very young children, would seem to be an extremely intricate matter, apparently subject to multiple social factors. This would possibly be a consequence of the complexity of the social environment which the children are attempting to make sense of (Brownell, 1989, Schutz, 1971). Furthermore, on the basis of these findings, it might well be the case that an analysis based on other categories, such as ethnic or racial identity, or more detailed categorisations, such as more precise divisions of birth-order or socio-economic class, might yield yet further evidence of external influences on the children's thinking. Evidently, the richness of children's social perception cannot be fully elaborated by the more traditional and relatively simple categories as age and gender alone, but must be viewed as dependent on the various and multiple social groupings to which each child belongs. Therefore, these findings are generally in support of the theory of social representations (Moscovici, 1984, 1990, Emler et al., 1990, Emler & Ohana, 1993, Duveen & Lloyd, 1990).

8.4.1 Perspectives and theories of development
What are the theoretical implications of this study for perspectives on children's development? The most dominant developmental theory in recent years has been the constructivist perspective, which proposes that the child's increasing cognitive ability provides both the impetus for development and the means by which it is achieved (Piaget, 1928, 1932, Kohlberg, 1969, Furth, 1980, Flavell, 1985). Accordingly, the child's development is viewed largely as a process, in which the child actively constructs his or her own understanding in an attempt to make sense of the world. Earlier understandings form a foundation on which later, more complex understandings are constructed by the child. At each point in development, the child's understanding, across a variety of domains, exhibits a common underlying structure which is particular to that stage of development. As the child gets older, later structures subsume earlier ones. Consequently, considerable emphasis is placed on the existence of age-trends in understanding, as indicative of this development taking place. In short, it could be argued that variations in children's thinking at different age-points should be seen as supporting a cognitive-developmental interpretation of development processes.

It might be claimed, therefore, that this study offers prima facie support for a cognitive-developmental theory of children's development. There were, certainly, age-trends apparent in many aspects of the children's thinking about school, with
the older children generally reporting a clearer and more extensive comprehension than the younger groups. It could be argued, therefore, that such differences may have been the consequence of the children's increasing cognitive abilities with age, assisting them in their attempts to make sense of the school. However, this construction may be too simplistic for two reasons. First, the age-trends which were revealed may not necessarily be solely the consequence of cognitive changes, particularly since the system of the school was the context for this study. Second, the overall picture of the children's thinking which was revealed would suggest that their comprehension is a richly-interwoven and complex pattern of many social influences, with such factors as gender, socio-economic class and birth-order also contributing to their understanding. Consequently, an emphasis or concentration on age-effects alone would fail to represent the full extent of children's social understanding.

8.4.2 Implications of age-related findings
To begin with the first point, that the age-related findings need not be entirely due to cognitive changes, age is not only a marker of chronological time but is also in certain senses a social category. Social interactions can be structured by the age of the participants, in ways very similar to such social categories as gender or class. This is particularly the case when dealing with the very old and the very young, mainly because of stereotypical assumptions about the mental capacities at both ends of the age-spectrum. In the case of children, viewing the findings through a social representations perspective, it could be argued that the social representations of the school which are made available to the five-year-old pupil in Year 1 will be different from the social representations available to the child in Year 6, although both will still be collectively produced, because those involved with them, teachers, parents and other children will construct and tailor their discourse according to the age of the child they are addressing. Thus, through microgenesis (Duveen & Lloyd, 1990), the child becomes part of the social interactive process of producing, negotiating and renegotiating social representations, but the communications which take place may well be structured for their age, thus somewhat restricting any possible ontogenetic transformations. Furthermore, school is a mini-society in which age considerations are likely to be extremely pertinent, with each child belonging to a particular and easily identifiable age-stratum, thus both prompting and facilitating such differential interactions, based on age. Some part of the age-differences in understanding might therefore be attributable to such variations and consequently may fit better with a social representations perspective.
The length of time spent in a school may also be a factor contributing to age-variations in responses. System-knowledge requires, in any case, a particularly complex and multi-faceted type of social understanding which may be considerably facilitated by length of exposure to the system. Additionally, as the school is a unique and relatively enclosed mini-society, it may be difficult for children to gain much understanding of it prior to entry (Schutz, 1971, Minuchin & Shapiro, 1983). Therefore the youngest children, only one or two years at most into their primary school career, are at a considerable disadvantage, vis-a-vis the oldest children, and this more limited experience of the system of the school might also have resulted in some age-based differences in responses, which were not necessarily due to variations in cognitive capacities. This interpretation is given extra weight by the preponderance of age-differences which were across the full and relatively large age-range of 5-11 years, thus between the two extreme age-points, the Young and Old groups of children. If only two, adjacent groups of children had been examined, Young and Middle giving an age-range of 5-9 years, or Middle and Old with an age-range of 7-11 years, this would have considerably reduced the number of age-based findings, particularly in the latter case.

With hindsight, it may have been interesting to examine whether changing cognitive capacities played any part in the children's developing understanding. Perhaps the simplest way to achieve this would have been to test the IQ of all the children and examine their thinking for correlations between IQ and system-understanding. However, it would have been most unlikely that such an investigation would have been permitted by the educational authority. Alternatively, it might have been possible to have divided the children into some broad intellectual groupings by asking class teachers to assess the children in some fairly simple way; for example, as below-average, average or above-average in intellectual functioning. Again, these groups could then be examined for links with system-understanding.

8.4.3 Implications of wider influences
Second, there was a very considerable number of variations which were apparently due to social influences with limited, if any, age connections, such as gender, class and birth-order. There were also indications of contextual effects. Furthermore, the extent and persistence of some of these factors, as demonstrated by the correspondence analyses, would suggest that any interpretation of children's social understanding which ignored such social categories might be in danger of
presenting a limited and possibly distorted picture. There was evidence of different developmental paths for boys versus girls, for only and first-born children versus later-born children, and for working-class children versus middle-class children. In short, there were multiple and significant differences in the children's responses which did not appear to be age-based and which could not therefore be accounted for by a cognitive-developmental perspective alone.

If the investigation into the children's intellectual capacity had been undertaken, as proposed above, an absence of any correlations might have been seen as support for the view that children's developing social understanding is not solely a consequence of individual cognitive construction. However, in the event that some links between cognitive capacity and the understanding of the school had been discovered, this could not explain the links which were revealed in this study between the children's thinking and their membership of various social categories. Therefore, in this latter situation, an interpretation of the children's developing understanding would have to be two-fold, with the children's increasing cognitive capacities seen as responsible for some growth in thinking, while some part would be due to more social processes and interactions, such as microgenesis and ontogenesis.

8.5 Alternative theoretical perspective: social representations

However, in the absence of any systematic examination of the children's cognitive capacities, it is contended that the findings in this research suggest that: (1) those age-based differences which were found are neither necessarily or entirely evidence for a cognitive-developmental interpretation; and (2) that there were indications that the children's understandings were subject to many influences, stemming from their social group memberships and the context of their development, in addition to any possible effects due to age or changing cognitive capacity. If, then, the findings from this study cannot be completely or satisfactorily explained by constructivist theories, how do they accord with a social representations perspective? Emler and Ohana (1993) proposed a framework for comparison, based on four central points of analysis, with which they outline the advantages of the social representations approach over a cognitive-developmental one for investigations of children's social understanding: (1) communication; (2) content; (3) culture; and (4) community.
8.5.1 Communication
Children's responses about the social world, such as those in this study about their understanding of the school, would be scrutinised by cognitive-developmentalists in the hope of extracting an underlying structure or the organizing principles of their thinking. However, the social representations approach is predicated upon a notion that the actual thoughts and ideas which an individual chooses to communicate about the social world are wholly representative of that individual's social understanding and knowledge. In this study, although the children were constrained by response categories in order to facilitate the analyses, they were nevertheless responding to interview schedules which had been drawn up on the basis of open-ended discussions by children, and thus were constructed using their own vocabulary, terminology and descriptive styles. Furthermore, the content-domain of the school is an extremely familiar context in their lives. According to the social representations approach, therefore, the children's responses in this study should consist of their shared understandings about the school, or indeed their social representations of the school. In other words, what the children chose to communicate about the school should indeed be representative of their knowledge of this particular part of their social world, and may therefore be investigated with confidence as being valid and meaningful accounts of their social understandings and perceptions.

8.5.2 Content
The constructivists place emphasis on the underlying structure of thought, as indicative of logical processes in thinking, and have generally been dismissive of the content of children's thinking as a consequence. However, a social representations perspective would value the content precisely because of the belief that social knowledge is revealed through the communication of shared thoughts about the social world. Thus the content of thinking should embody the essential understanding of the social environment. Furthermore, Emler and Ohana (1993) specifically reject a major role for structure in social understanding; they argue that social knowledge is much more likely to be the consequence of ideological, and not logical considerations, as it is probably pertinent and relative to those societies in which children are developing and thus culturally-inspired.

In support of their argument, Emler and Ohana (1993) cite the two theories' different approaches to moral reasoning; while the cognitive-developmentalist proposes that moral judgements can be made on the basis of the facts in question
and in accordance with general principles, a social representations perspective would counter the implied generalizability by including social knowledge as an additional factor in the reasoning. This social representational view of moral reasoning was supported in this study by the school-as-context effects; for example, the tendency of some of the youngest children to report that the head had the authority to permit immoral actions is a general endorsement for the social representational view of moral judgements. Accordingly, social understandings are produced and reproduced within a specific social context and children's thinking about the social world is likely to reveal such contextual influences (Brownell, 1989). Indeed, it could be argued, given the youngest children's fairly simplistic understanding of the organisational context of the school and their relative preoccupation with the role of the head teacher, that all their social judgements within the school context were likely to be coloured by their perceptions of the centrality and power of the head in the system of the school.

8.5.3 Culture
Perhaps the most crucial difference between the two theories' perspectives is concerned with culture. The constructivists reject the inclusion of any relativity, asserting that even social knowledge is universal and independent of cultural considerations. On the other hand, a social representations approach would argue that external influences are likely to play a central part in any thinking about the social environment. Emler and Ohana (1993) contend that all knowledge, even those forms traditionally seen as the 'pure' intellectual property of individuals, such as mathematics, is nevertheless culturally-inspired, and that, furthermore, social knowledge is even more likely to be influenced by social factors.

This study provided support for the view that culture is the most crucial missing component in the constructivist theory of development. The findings demonstrated differences in the children's understanding which would indeed appear to be accounted for by the social groupings they belonged to, with variations which could be attributed to their gender, class or birth-order. Examination of the correspondence analyses of the children's responses in Study 4 revealed multiple developmental paths in understanding of such aspects as power, roles and perceptions of the school. In many cases, these could not be dismissed as merely differences in rates of development; in addition to the frequent and clear variations in the paths of development, there were often, and more importantly, increasing patterns of divergence which suggested that the variations in understanding might
be likely to continue and even increase. The overall picture revealed is of multiple ways of acquiring social knowledge, tailored according to the social groupings to which each child belongs, revealing many varied paths of social understanding. Any attempt to exclude or dismiss these external influences would simply ignore large areas of children's developing social understandings.

8.5.4 Community
The final proposed point of analysis is that of community. Communities provide the overall cultural framework within which children's social thinking develops. The concept of community was well-covered in this study, as it was specifically focused on the children's understanding of a vital micro-society in their lives. However, the community is not only a possibly essential feature of social representations theory, but it also must have particular relevance in any study of political understanding (Haste, 1986, 1990). It could be argued that an awareness of the role and importance of the community is the most central political concept of all, and a crucial component in the complex task of piecing together all the various parts into a well-developed understanding of the system. Thus the oldest children's responses were increasingly more likely to reflect a specific awareness of community needs and requirements and this acknowledgement of community was an important feature of their more mature and global understanding of the system of the school.

But there was other evidence of the importance of the unit of community in studies of children's social understandings. The responses from the children of School 3 provided further support for the view that communities must be examined. The differences in the children's reported conceptions of power and in the attitudes of both children and staff, when compared to the other three schools, suggested that the community of School 3 was a different kind of community from the others. As a consequence, it could be argued that the children in School 3 were developing their political thinking in a different developmental 'niche' from the children in the other schools. In addition to the more external influences revealed in the fourth study of gender, class and birth-order, the variation of the immediate community or context of development would appear to be an additional and important factor in thinking about the social environment.
8.6 Criticism of social representations perspective
However, there are also indications in this study which would suggest that the
acquisition of social understanding may not always be as socially or collectively
engendered as the theory of social representations would suggest. The children's
thinking was found to vary according to their memberships of various social
groupings, namely socio-economic class, gender and birth-order groups. However,
these groups are very different in kind and experience, and these differences may
result in variations in transmission of social representations. Essentially, these
differences may cast some doubts on the wholly collective nature of the acquisition
of all social representations.

To begin with socio-economic class, this could be described as a traditional social-
grouping; children would be expected to be surrounded in all aspects of their lives,
from home to school, by the social representations of their class and thus able to
'pick up' the appropriate thinking, according to the theory. On the other hand, there
is no experience of birth-order as a social grouping. There is no general level of
birth-order awareness which would result in groups of people interacting together
on the basis of their original family membership. Therefore, the variations in the
children's thinking which appeared to stem from their birth-order cannot have been
picked up from the same sort of collective pool as the social representations
associated with class membership were likely to be. There are two likely methods
of transmission for social representations associated with birth-order. First,
differences in early interactions in family life may result in variations in social
thinking. Second, the children may receive less or more information about the
social world, by the absence or existence of siblings. In either case, the
transmission of social representations would appear to be more individual than
collective, stemming either from differences in information made available to the
child or from variations in interactions. Furthermore, the third grouping examined
in this study, that of gender, could be seen as providing evidence both for collective
transmission and also for a more individual development of social thinking.
School-age children do undoubtedly interact in gender-based groups, providing the
sort of 'real' group experience for a traditional acquisition of social representations,
However, prior to school, the children's social representations of gender are
acquired through social interactions, on a more individual basis, in ways possibly
similar to any social representations associated with their birth-order.
Therefore, with respect to the different types of genetic transmission (Duveen and Lloyd, 1990), it is likely that the social representations pertaining to those central social categories such as socio-economic class and gender, which structure society in all aspects, may be transmitted through all 3 levels of interaction, namely sociogenesis, ontogenesis and microgenesis. On the other hand, any social representations associated with birth-order are only likely to be acquired through a microgenetic process, as there is no true group to make possible transmission at other levels.

Overall, these differences in styles and experiences of groupings, together with the implications for the transmission of social representations, would suggest that the theory of social representations may sometimes be over-emphasising the collective and social aspects of all social knowledge acquisition. There may be some individual differences in the development of social knowledge stemming from variations in social interactions, which are not the consequence of the membership of traditional social groupings such as class but dependent on more individualistic aspects of social life.

8.7 Conclusion
Nevertheless, despite the uncertainties outlined above relating to the variations in transmission of social representations, it would still appear that the theoretical framework which better fits the complex and enmeshed pattern of influences on children's political thinking, as indicated in this research, may be that of the social representations perspective. While there were apparent age-differences, these need not be wholly the consequence of changing cognitive capacities, as a cognitive-developmentalist approach would suggest. Given the specific content domain of the school, there may be other non-cognitive causes of age effects, such as the time required to experience the school system together with the particular relevance of age as structuring concept in social interactions within the school. In short, the age-differences are not necessarily supportive of a constructivist perspective.

Furthermore, beyond any debate about the nature of the age-trends reported, there is important and perhaps more compelling evidence in favour of a social representations approach from the many other factors which appeared to be influencing the children's thinking. There were indications of contextual effects, as children's responses appeared to recognise specific school-based differences in organisation and power and to variations in the ethos or climate of the school.
There were also signs that children's and parents' attitudes were correlated in some way. Wider influences were also indicated, with the children's social groupings, such as birth-order, gender and class, appearing to play an important part in the children's thinking.

Finally, the overall picture which emerges from this research is that the children's social understanding is much too complex and differentiated for an interpretation based solely on changing cognitive capacities. It is this aspect of the findings that must end this theoretical debate with the conclusion that the social representations approach offers a better interpretative framework for this research and may represent a more comprehensive perspective on children's developing understanding of the social environment.
References


Aristotle. Politics.


Appendix A

Discussion Areas for Study 1

Tell me about some of the things you did at school today/yesterday.
Who tells you/decides what things you do in class?
Does your teacher sometimes let your class decide what they want to do, say which story she will read to you, or whether you should all do painting or singing instead?
What happens then - do you all talk about it, does everyone say what they think/want?
After you have all talked about it, how do you decide which idea is best, what to do?
Does your teacher sometimes ask you to show how much you want something by putting up your hands, to see what most children want?
Do you think that is a goo/fair way to decide things? Why/why not? Can you think of any other ways?
What if you want something but most of the class want something else - how do you feel about that?
What about when you are playing with your friends - how do you decide what game to play? What if some children want to play one game, and some want to play something else - how do you decide? Is that fair?
Tell me about your head teacher - what sort of things do they do?
Do you think they are important people? If so, why?
Do they ever make mistakes, do things you don't like?
Tell me about your class teacher - what sort of things do they do? Do they ever make mistakes, do things you don't like?
Is your head teacher more important than your class teacher - why/why not?
Tell me about all the other people who help/work in school. What about parents, dinner ladies, caretaker? Who works in the school office, what do they do?
What do children have to do in school? Why do children go to school?
Do you know what a rule is - can you tell me about some rules in your school?
Tell me of all the rules you can think of, not just in school.
Where do those rules come from, who made up those rules?
Do you think that rule, those rules can be changed? Who can get them changed?
How do you know about those rules - did someone tell you about them? Was it your class teacher, your head teacher, your friend, your mother - or....?
What happens if that/those rules are broken? Do you think that is fair?
Think about some of the times a rule has been broken, what's the very worst thing a child has done? Why was that so bad?

Why do we have rules anyway?

Do you think that/those rules are fair/good? Can you think of a rule which you think is silly? Why is that one silly/unfair?

Do you think it would be a good idea if you were asked to decide about the rules, just as you are sometimes asked to decide about other things, by putting up your hands? Why/why not?

Who do you think decided which rules are good, what is right or wrong?

Why do you think teachers/head teachers/parents know which rules to make?

Do children know which rules are good?

Do children sometimes break a rule, without the teacher finding out? Is that bad? Why/why not?

Do you have any of these rules at home/other rules?

Why are there some rules for school and some for home?
Appendix B

Interview schedule for Study 2

1. Who do you think runs the school?
   (a) the head teacher
   (b) all the teachers
   (c) the parents
   (d) your class teacher
   (e) the children
   (f) anybody else

2. Just . . . . . . . . . . or anyone else?

3. Who do you think makes up most of the school rules?
   (a) the head teacher
   (b) all the teachers
   (c) the parents
   (d) your class teacher
   (e) the children
   (f) anybody else

4. Just . . . . . . . . . . or anyone else?

5. Who do you think can get the rules changed?
   (a) the head teacher
   (b) all the teachers
   (c) the parents
   (d) your class teacher
   (e) the children
   (f) anybody else

6. Just . . . . . . . . . . or anyone else?

7. Who do you think is most important in the life of the school?
   (a) the head teacher
   (b) all the teachers
   (c) the parents
   (d) your class teacher
   (e) the children
   (f) anybody else
8. What's the most important reason for having school rules and obeying them?
   (a) so that you don't get hurt
   (b) so that other children don't get hurt or upset
   (c) so that the whole school gets along well
   (d) so that you know how to behave and don't get punished
   (e) so that school things don't get damaged in any way

10. No fighting in school - why do you think that's a rule?
    (a) because you might get hurt
    (b) because other children might get hurt
    (c) because the whole school should get along happily
    (d) because it's naughty and you will be punished

11. You mustn't say naughty words - why do you think that's a rule?
    (a) because saying them might hurt you
    (b) because other children might get upset
    (c) because it's bad for the whole school
    (d) because it's naughty and you will be punished

12. In David's school, there is a very important rule. Children are never allowed along one particular corridor. One day the teacher asks David and Sarah to go downstairs and collect some topic sheets from the school office. On their way back, Sarah suddenly trips and falls right down the stairs. As far as David can see, she is quite badly hurt and he needs to get some help. Now the quickest way to get help would be for David to go along the forbidden corridor. So what should David do?
    Should he go down the corridor, breaking the rule, or should he stick with the rule and go the long way to find help?
    (a) stick with the rule
    (b) break the rule

13. If there weren't any rules in school, what do you think would happen?
    (a) people would be a lot naughtier
    (b) people would be a little naughtier
    (c) things would be more or less the same
    (d) people would be a little better-behaved
    (e) people would be a lot better-behaved
14. What do you think of the rules in your school? Are they good and sensible?
   (a) All
   (b) Most
   (c) Some
   (d) None

15. How do you get to know about school rules?
   (a) mostly because the head teacher tells you
   (b) mostly because your class teacher tells you
   (c) mostly because your mum or dad tell you
   (d) mostly because your friends tell you
   (e) mostly because you work them out for yourself
   (f) anybody else

16. Who do you think knows about good and sensible rules?
   (a) the head teacher
   (b) all the teachers
   (c) the parents
   (d) your class teacher
   (e) the children
   (f) anybody else

17. Just ................ or anyone else?

18. Here is a list of things to be done in school. Which ones do you think are done by the head teacher? Just say 'yes' or 'no'.
   (a) write letters to parents
   (b) organise school trips
   (c) take assembly
   (d) teach children
   (e) show people around the school
   (f) make up the rules
   (g) punish naughty children
   (h) pay the bills
   (i) clean the school
   (j) decide what you learn in your class
   (k) buy the food for school dinners
   (l) choose a new teacher
19. Which is the most important one? And the second most important? And the third? And the fourth?

20. Here is a list of things to be done in school. Which ones do you think are done by your class teacher? Just say 'yes' or 'no'.
   (a) write letters to parents
   (b) organise school trips
   (c) take assembly
   (d) teach children
   (e) show people around the school
   (f) make up the rules
   (g) punish naughty children
   (h) pay the bills
   (i) clean the school
   (j) decide what you learn in your class
   (k) buy the food for school dinners
   (l) choose a new teacher

21. Which is the most important one? And the second most important? And the third? And the fourth?

22. Suppose someone has given the school some tickets for a very special show for children, just enough for one child to go from each class. How do you think that child should be chosen?
   (a) by the class teacher
   (b) names pulled out of a hat
   (c) children vote by putting their hands up for the child they think should go
   (d) by the children playing a game, like ip, dip, sky blue
   (e) any other way

23. Why that way?
   (a) quickest
   (b) fairest
   (c) so there's no arguing
   (d) any other reason
24. Suppose your class teacher says your class can have an afternoon’s outing, let’s say, canoeing or ice-skating. How do you think your class should choose what you will all do?

(a) the teacher shouldn't ask the children at all, she should just say - we're going.................
(b) by tossing a coin, heads canoeing and tails ice-skating
(c) by asking everyone to put their hands up for the outing they want and counting up to see what most children want to do.
(d) any other way

25. Why that way?

(a) quickest?
(b) fairest?
(c) so there's no arguing
(d) any other reason
Appendix C

Study 3: Children's interview schedule

Moral 1
In David's school, there is a rule that you must never push anyone off the climbing frame. One day at school, when David is playing on the climbing frame, he pushes Stephen so hard that he falls to the ground.

(1) Now, supposing that was a rule here in your school, and a teacher caught David pushing Stephen off, what do you think the teacher would do?..........................

(2) Would it be all right to push someone off the school climbing frame if his mother or father told David he could do that?  YES..........NO..........

(3) Would it be OK for David to push someone off the school climbing frame if a teacher told him he could do that?  YES........NO........

(4) Supposing the Head told David he could push someone off the school climbing frame, would it be all right then?  YES..........NO........

(5) Supposing the teacher didn't see what happened by another child did, do you think that child should tell a teacher?  YES........NO........

(6) Do you think what David did was bad or not bad?  BAD........NOT BAD........
If BAD, then - VERY BAD..........QUITE BAD..........JUST A LITTLE BAD.......... 

(7) Do you think this rule could be changed?  YES........NO........

(8) Supposing there wasn't a school rule about pushing people off the climbing frame, then do you think David would be right or wrong?  RIGHT..........WRONG.......... 

(9) Supposing David pushed someone off another climbing frame, not at school this time, do you think that would be right or wrong?  RIGHT..........WRONG..........
Moral 2
In Lucy's school there is a rule that you must not take other children's things. One day, Lucy takes Andrew's book when he's not looking and puts it in her bag.

S/Con 1
In William's school there is a rule that you must never run anywhere inside school. One day, when morning lessons are over, William runs very fast along the corridor because he wants to be first in the playground.

S/Con 2
In Rachel's school there is a rule that you must always put books back tidily on the library shelves when you have finished them. One day, after Rachel has been looking at several books, she simply leaves them all on the library floor when she goes off to lunch.

S/Con 3
In Richard's school there is a rule that you must never cross the double yellow line at one end of the playground. One day during morning break, Richard kicks his ball over the yellow line. He then crosses the line to pick up his ball.

S/Con 4
In Sarah's school there is a rule that you must always call the teacher by their full name. Sarah's class teacher is Mrs. Brown and the children call her by that name when they need her help. Sarah hears another teacher call Mrs Brown. by her first name, Helen. She thinks it would be fun to use the teacher's first name and in the next lesson she calls out 'Helen' when she needs some help.

Analogous questions were asked about each scenario to those that were asked about Moral 1.
Study 3: Children's attitude statements

Scoring: 5=Agree a lot; 4=Agree; 3=Uncertain/don't know; 2=Disagree; 1=Disagree a lot.

(1) I like this school/ don't like this school/ neither or in between.
   Like/dislike - a little or a lot.

(2) It's important in this school that people get along well/ not important/ neither.
   Important - very/quite. Not important - not very/ not at all.

(3) This school is run well/ badly/ neither.
   Well - very or quite. Badly - very or quite.

(4) This is a good school for learning things in/ a bad school for learning etc./ neither.
   Good place/ bad place - very or quite.

(5) It's easy to get things changed here if you don't like them/ not easy/ neither.
   Easy - very or quite. Not easy - not very or not at all.

(6) Most people here care about this school/ don't care/ neither.
   Care - a lot/little. Don't care - not very much/ not at all.

(7) Most things are done fairly in this school/ most things are not done fairly/ neither.
   Fairly - very or quite. Not fairly - not very or not at all.

(8) I think I would be sad to leave this school/ happy to leave/ neither.
   Sad/ happy - very or quite.

(9) Most people work well in this school/ badly/ neither.
   Well/ badly - very or quite.

(10) This is a friendly school/ unfriendly school/ neither.
    Friendly/ unfriendly - very or quite.
(11) People here are interested in what I think about school/ not interested/ neither. Interested - very or quite. Not interested - not very or not at all.

(12) People try hard to get things done here/ don't try hard/ neither. Try hard - very hard or quite. Don't try hard - not very or don't try at all.

(13) This is a good school to go to/ a bad school/ neither. Good/bad - very or quite.

(14) Most people here are keen for this school to do well/ not keen/ neither. Keen - very/quite. Not keen - not very or not at all.

(15) I think people in this school usually make good decisions about what happens here/ bad decisions/ neither. Good - very or quite. Bad - very or quite.

(16) In this school, people try hard to make everyone understand what's going on/ don't try hard/ neither. Try hard - very or quite. Don't try hard - not very or not at all.

(17) I'm happy in this school/ unhappy in this school/ neither. Happy/ unhappy - very or quite.

(18) In this school, it is important to be hard-working/ not important/ neither. Important - very or quite. Not important - not very or not at all.
Appendix D

Study 3: Teacher's questionnaire

Moral 1
In David's school, there is a rule that you must never push anyone off the climbing frame. One day at school, when David is playing on the climbing frame, he pushes Stephen so hard that he falls to the ground.

What action would you take if David was:

a) In Year 1 or 2?

b) In Year 3 or 4?

c) In Year 5 or 6?

Using the scale below, how seriously would you view his rule-breaking:

Very seriously = 1
Quite seriously = 2
Not very seriously = 3
Not at all seriously = 4

a) If David was in Year 1 or 2?

b) If David was in Year 3 or 4?

c) If David was in Year 5 or 6?

Moral 2
In Lucy's school there is a rule that you must not take other children's things. One day, Lucy takes Andrew's book when he's not looking and puts it in her bag.

S/Con 1
In William's school there is a rule that you must never run anywhere inside school. One day, when morning lessons are over, William runs very fast along the corridor because he wants to be first in the playground.

S/Con 2
In Rachel's school there is a rule that you must always put books back tidily on the library shelves when you have finished them. One day, after Rachel has been
looking at several books, she simply leaves them all on the library floor when she goes off to lunch.

S/Con 3
In Richard's school there is a rule that you must never cross the double yellow line at one end of the playground. One day during morning break, Richard kicks his ball over the yellow line. He then crosses the line to pick up his ball.

S/Con 4
In Sarah's school there is a rule that you must always call the teacher by their full name. Sarah's class teacher is Mrs. Brown and the children call her by that name when they need her help. Sarah hears another teacher call Mrs Brown by her first name, Helen. She thinks it would be fun to use the teacher's first name and in the next lesson she calls out 'Helen' when she needs some help.

Analogous questions were asked about each scenario to those that were asked about Moral 1.
Please respond to these statements by encircling the appropriate number which represents your feelings about School most accurately. For example, if you strongly agree with a statement, circle number 5. If you neither agree or disagree, circle number 3, and so on.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) This school has an excellent learning environment.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(2) I find working in this school very unsatisfactory.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(3) Most people here, children and staff, are very keen for this school to do well.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(4) I think I would be very sorry to move to another school.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(5) There is a strong emphasis on hard work in this school.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(6) Overall, there isn't a very friendly atmosphere in this school.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(7) Some people here just don't put enough effort into working in this school.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(8) I don't feel particularly attached to this school.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(9) Overall, both children and staff work really well in this school.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(10) There's not much sense of pride in this school.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(11) There isn't any friction amongst the staff here.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(12) I feel very fortunate to be teaching in such a good school.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

For scoring purposes items 2, 6, 7, 8 and 10 were reversed.
Appendix E

Study 4: Children's interview schedule

1. Who do you think runs the school?
   (a) the head teacher
   (b) all the teachers
   (c) the parents
   (d) your class teacher
   (e) the children
   (f) anybody else

2. Just ............... or anyone else?

3. Who do you think makes up most of the school rules?
   (a) the head teacher
   (b) all the teachers
   (c) the parents
   (d) your class teacher
   (e) the children
   (f) anybody else

4. Just ............... or anyone else?

5. Who do you think can get the rules changed?
   (a) the head teacher
   (b) all the teachers
   (c) the parents
   (d) your class teacher
   (e) the children
   (f) anybody else

6. Just ............... or anyone else?

7. Who do you think is most important in the life of the school?
   (a) the head teacher
   (b) all the teachers
   (c) the parents
   (d) your class teacher
   (e) the children
8. What's the most important reason for having school rules and obeying them?
   (a) so that you don't get hurt
   (b) so that other children don't get hurt or upset
   (c) so that the whole school gets along well
   (d) so that you know how to behave and don't get punished
   (e) so that school things don't get damaged in any way

9. In David's school, there is a very important rule. Children are never allowed along one particular corridor. One day the teacher asks David and Sarah to go downstairs and collect some topic sheets from the school office. On their way back, Sarah suddenly trips and falls right down the stairs. As far as David can see, she is quite badly hurt and he needs to get some help. Now the quickest way to get help would be for David to go along the forbidden corridor. So what should David do?
   Should he go down the corridor, breaking the rule, or should he stick with the rule and go the long way to find help?
   (a) stick with the rule
   (b) break the rule

10. Here is a list of things to be done in school. Which ones do you think are done by the head teacher? Just say 'yes' or 'no'.
    (a) write letters to parents
    (b) organise school trips
    (c) take assembly
    (d) teach children
    (e) show people around the school
    (f) make up the rules
    (g) punish naughty children
    (h) pay the bills
    (i) clean the school
    (j) decide what you learn in your class
    (k) buy the food for school dinners
    (l) choose a new teacher

11. Which is the most important one? And the second most important? And the
12. Here is a list of things to be done in school. Which ones do you think are done by your class teacher? Just say 'yes' or 'no'.
(a) write letters to parents
(b) organise school trips
(c) take assembly
(d) teach children
(e) show people around the school
(f) make up the rules
(g) punish naughty children
(h) pay the bills
(i) clean the school
(j) decide what you learn in your class
(k) buy the food for school dinners
(l) choose a new teacher

13. Which is the most important one? And the second most important? And the third? And the fourth?

   (1) because they need to learn things like reading and sums
   (2) because they need to learn how to behave
   (3) because they need to be with other children
   (4) because they just have to
   (5) any other reason

15 I'm going to tell you about some schoolchildren I know. Each child is the best in their school at something or other. Which child is the very best in the school?
   (1) This child is the most hard-working child and always tries the hardest.
   (2) This child is the best behaved child and never, ever breaks a rule.
   (3) This child is the kindest and most helpful child, always helping everyone.
   (4) This child is the cleverest child and comes top in reading and sums.
Study 4: Children's attitude statements

Scoring: 5=Agree a lot; 4=Agree; 3=Uncertain/don't know; 2=Disagree; 1=Disagree a lot.

(1) I like this school/ don't like this school/ neither or in between.
   Like/dislike - a little or a lot.

(2) This school is run well/ badly/ neither.
   Well - very or quite. Badly - very or quite.

(3) This is a good school for learning things in/ a bad school for learning etc./
    neither.
   Good place/ bad place - very or quite.

(4) Most people here care about this school/ don't care/ neither.
   Care - a lot/little. Don't care - not very much/ not at all.

(5) Most things are done fairly in this school/ most things are not done fairly/
    neither.
   Fairly - very or quite. Not fairly - not very or not at all.

(6) Most people work well in this school/ badly/ neither.
   Well/ badly - very or quite.

(7) This is a friendly school/ unfriendly school/ neither.
   Friendly/ unfriendly - very or quite.

(8) People here are interested in what I think about school/ not interested/ neither.
   Interested - very or quite. Not interested - not very or not at all.

(9) People try hard to get things done here/ don't try hard/ neither.
   Try hard - very hard or quite. Don't try hard - not very or don't try at all.

(10) This is a good school to go to/ a bad school/ neither.
Good/bad - very or quite.

(11) Most people here are keen for this school to do well/ not keen/ neither.
    Keen - very/quite. Not keen - not very or not at all.

(12) I think people in this school usually make good decisions about what happens here/ bad decisions/ neither.
    Good - very or quite. Bad - very or quite.

(13) In this school, people try hard to make everyone understand what's going on/ don't try hard/ neither.
    Try hard - very or quite. Don't try hard - not very or not at all.

(14) I'm happy in this school/ unhappy in this school/ neither.
    Happy/ unhappy - very or quite.
Appendix F

Parents' questionnaire

Name of child.......................................................................................... Date of birth...............

Sex (please tick): Female.............. Male......................... Class year..................

Position in family (eg 1st-born, 2nd child, 3rd child etc)..........................

Do you or your partner hold any school position such as Parent Governor or PTA officer?
YES............. NO............ If yes, please detail..................................................

Are you or your partner regularly involved in helping in school in other ways?
YES............. NO............ If yes, please give brief details such as activity, nos. of hours per week etc..........................................................
Please respond to these statements by ringing the number which best represents your feelings about School. For example, if you strongly agree with a statement, then circle number 5. If you neither agree or disagree, then circle number 3, and so on.

Please don't spend too long puzzling over any one question. It is generally best to complete these sorts of questionnaires quickly.

<table>
<thead>
<tr>
<th>Statement</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) This school has an excellent learning environment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Parents are not always made to feel welcome at School.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Everyone seems to get on very well here.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) I wish there were more opportunities for parents to become more involved.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) On the whole, I believe parents should leave education to the teachers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) There isn't a very friendly atmosphere at School.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Overall, both children and staff work really well in this school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For scoring purposes items 2, 4 and 6 were reversed.
Appendix G

Study 4: Teachers' questionnaire

Please respond to these statements by encircling the appropriate number which represents your feelings about ..............School most accurately. For example, if you strongly agree with a statement, circle number 5. If you neither agree or disagree, circle number 3, and so on.

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(1)This school has an excellent learning environment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(2)I find working in this school very unsatisfactory.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(3)I think I would be very sorry to move to another school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(4)Overall, there isn't a very friendly atmosphere in this school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(5)I don't feel particularly attached to this school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(6)Overall, both children and staff work really well in this school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(7)There isn't any friction amongst the staff here.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>(8)I feel very fortunate to be teaching in such a good school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For scoring purposes items 2, 4 and 5 were reversed.
Table 1. Function of school rules analysed by age

<table>
<thead>
<tr>
<th>Age</th>
<th>Safety of self</th>
<th>Safety of others</th>
<th>Community</th>
<th>Informative</th>
<th>Protection of school things</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>6</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Middle</td>
<td>7</td>
<td>13</td>
<td>7</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Young</td>
<td>6</td>
<td>14</td>
<td>13</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>33</td>
<td>28</td>
<td>22</td>
<td>10</td>
</tr>
</tbody>
</table>

Log linear sig effect of age: \( \chi^2 (8) = 15.4, p<.05 \)

Post hoc Fisher exact prob. tests:
- Protection of school things    Young vs Old significant: Fisher \( z = 2.2, p<.05 \)

No other paired comparisons significant.

Table 2. Function of school rules analysed by sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Safety of self</th>
<th>Safety of others</th>
<th>Community</th>
<th>Informative</th>
<th>Protection of school things</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls</td>
<td>14</td>
<td>15</td>
<td>12</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Boys</td>
<td>5</td>
<td>18</td>
<td>16</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>33</td>
<td>28</td>
<td>22</td>
<td>10</td>
</tr>
</tbody>
</table>

Log linear sig effect of age: \( \chi^2 (4) = 10.6, p<.05 \)

Post hoc \( \chi^2 \) tests: Informative function: \( \chi^2 (1) = 3.9, p<.05 \)
Table 3. Children's reasons for attending school analysed by age

<table>
<thead>
<tr>
<th>Age</th>
<th>Formal learning</th>
<th>Behaviour</th>
<th>Social</th>
<th>Legal requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>23</td>
<td>10</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Middle</td>
<td>32</td>
<td>4</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Old</td>
<td>34</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>89</td>
<td>14</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

Log linear sig effect of age: $\chi^2 (6) = 22.2, p<.005$

Post hoc $\chi^2$ tests and Fisher exact prob:

1. Formal learning
   - Young vs Middle significant: $\chi^2 (1) = 3.9, p<.05$
   - Young vs Old significant: $\chi^2 (1) = 4.4, p<.05$
2. Behaviour
   - Young vs Old significant: Fisher $z = 3.2, p<.005$

No other paired comparisons significant.

Table 4. Children's responses to the rule scenario analysed by age

<table>
<thead>
<tr>
<th>Age</th>
<th>Obey the rule</th>
<th>Break the rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young</td>
<td>28</td>
<td>8</td>
</tr>
<tr>
<td>Middle</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Old</td>
<td>13</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>51</td>
</tr>
</tbody>
</table>

Log linear sig effect of age: $\chi^2 (2) = 14.0, p<.005$

Post hoc $\chi^2$ tests:

- Young vs Middle: $\chi^2 (1) = 4.5, p<.05$
- Young vs Old: $\chi^2 (1) = 12.5, p<.0005$

No other paired comparisons significant.
Table 5. Children's responses to rule scenario analysed by birth

<table>
<thead>
<tr>
<th>Birth</th>
<th>Obey the rule</th>
<th>Break the rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only/first</td>
<td>40</td>
<td>22</td>
</tr>
<tr>
<td>Second/later</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>51</td>
</tr>
</tbody>
</table>

Log linear sig effect of birth: $\chi^2 (1) = 5.4$, $p<.05$