

Paper presented at the Walk 21 Conference held in Zurich, Switzerland, 22-23 September 2005

Overcoming the barriers to walking for children

Roger L Mackett¹, Belinda Brown² and James Paskins³
^{1,3}Centre for Transport Studies, University College London
² Young Foundation, London

Contact author:
Professor Roger Mackett
Centre for Transport Studies
University College London
Gower Street
London
WC1E 6BT
United Kingdom
E-mail: rlm@transport.ucl.ac.uk

Abstract

This paper is an output from the project CAPABLE (Children's Activities, Perceptions and Behaviour in the Local Environment) being carried out at UCL, jointly between the Centre for Transport Studies, the Department of Psychology, the Bartlett School of Planning and the Centre for Advanced Spatial Analysis. The overall aim of the project, which runs from 1 August 2004 to 31 July 2006, is to examine the interaction between children and the local environment, including identifying how children use open space and streets, and why they go to some places but not others.

This paper draws on results from questionnaires completed by children about the extent to which they are allowed out unaccompanied by an adult. The surveys were carried out in four schools, two in Hertfordshire, the area immediately north of London, and two in the London Borough of Lewisham. The purpose is to establish the extent to which the children are allowed by their parents to go out unaccompanied by adults. The issues covered include whether the children go out walking or cycling without an adult, whether they are allowed out alone to visit friends houses, go out after dark or to cross main roads. The results are considered in terms of the children's age and gender, and in terms of the households' car ownership level and the strength of its local social networks. It is found that more of the children in Hertfordshire are allowed out alone, despite the fact that the factors that seem to correlate with being allowed out unaccompanied are stronger in Lewisham. It is concluded that this may well be due to environmental factors, real and perceived.

Biographies

Roger Mackett is Professor of Transport Studies in the Department of Civil and Environmental Engineering at University College London. His research interests include analysis of the impact of policy, the inter-relationship between transport, urban activities and the environment, public transport planning and operations, and the impact of new technology and lifestyles on locational and travel demand.

Belinda Brown is a Research Fellow at the Young Foundation. Her research interests include the role of informal networks in the provision of childcare, the relationship between the family and the state and social networks in the migration process. Within CAPABLE she is exploring the ways in which children's and parent's social networks affect children's independence and spatial mobility.

James Paskins is a Research Fellow in the Centre for Transport Studies at UCL. He is currently working on the CAPABLE project, examining children's behaviour in their local environments and studying for a part-time PhD. He has previously worked on projects investigating children's car use and transport-related social exclusion.

Overcoming the barriers to walking for children

Roger L Mackett¹, Belinda Brown² and James Paskins³

^{1,3}Centre for Transport Studies, University College London

² Young Foundation, London

Introduction

In Great Britain, children have suffered a loss of freedom in terms of being allowed to go out of the home alone in recent years. For example, in 1985/86, 21% of children aged 5-10 travelled alone to school. By 2004 this had dropped to 9% (Department of Transport, 2002, 2005). Pooley et al (2005) found similar evidence over a longer period from interviews carried out in Manchester and Lancaster. They found that about 40% of people born in 1932-41 travelled to school alone at the age of 10-11, whereas about 9% of those born in 1990-91 travelled alone at that age.

Hillman et al (1990) looked more broadly at the issue of children being allowed out unaccompanied by an adult. They found that in England, 80% of 7-8 year olds were allowed to go to school alone in 1971. By 1990 this had dropped to 9%. They also looked at various other measures of the freedom allowed to children by letting them undertake various activities unaccompanied: for example, crossing the road, using buses, cycling on roads and going out after dark. In all cases where the equivalent data were collected in 1971 and 1990, the children had less freedom to go out alone. They carried out comparable surveys in Germany in 1990, and found that German children were allowed much greater freedom to go out alone than their English counterparts.

Hillman et al (1990) attribute this trend in the loss of freedom by children to the growth in car ownership, noting the paradox that the freedom that increasing car ownership has offered parents has been offset by constraints imposed on them by the perceived need to escort children more because of the increase in traffic danger.

Pooley et al (2005) identify four factors that have affected the journey to school since the 1940s: first, availability of transport technologies in the form of cars; second, an increase in parental choice in education which has led to longer journeys to school on average; third, increasing pace of life, which has led to people attempting to cram more activities into a limited amount of time; and fourth, perceptions of risk, for example the perceived risks from strangers to children out alone. When the discussion is extended from the journey to school to children going out of the house more generally without an adult, the list of factors can be expanded. For example, home entertainment technology has expanded rapidly so that children now have a range of opportunities at home to listen to music, play electronic games, and watch multichannel television that may have reduced the relative attractiveness of going out to play. The changing perceptions of risk have partly led to the move from free play to organised activities for children: in the past children would play out on the streets or walk to the local park, now they have to be taken to their football lessons, dancing classes, and so on, and usually this involves a car journey (Mackett et al, 2005). This need to escort children by car has greatly added to the complexity of life for parents, particularly mothers, many more of whom are employed, often part-time, than previously. There is almost an element of competition between parents to encourage

children to go to as many of these activities as possible, in order to be seen to be ‘a good parent’. Many children have their out-of-school lives filled by attending these various activities, leaving little time for free play or going out gaining experience from making decisions about where to go and whether it is safe to cross the road, and from social interaction with other children.

Some of the benefits from allowing children out alone have been shown by Van Vliet (1983) who found, from a weekend diary kept by children in Toronto, Canada, that children who usually travelled without adults on the bus, streetcar and metro went out on more trips from home and did so for a greater range of activities.

In Britain, there is evidence that some children are being forced indoors by intolerant adults who claim that the children cause noise or a nuisance according to a survey carried out by The Children’s Society (Children’s Play Council, 2003). There are many examples of bans on playing in many areas, including refusal to allow the erection of a netball hoop on a village green in Oxfordshire, and a skateboard park in Cumbria and signs forbidding ball games in many urban areas.

The trends of increasing car ownership, decentralisation of urban activities, more structured leisure activities for children and greater complexity of family life have interacted to reduce the opportunities for children to walk about alone and with their friends. These tend to be exacerbated by parental perceptions about the risks to children out alone .

The research

Some of the issues identified above are explored in this paper. It is part of the output from a project entitled CAPABLE (Children’s Activities Perceptions And Behaviour in the Local Environment) which is being funded by the UK Engineering and Physical Sciences Research Council (EPSRC) for 2 years from August 2004. It is being carried out at UCL as a joint project between the Centre for Transport Studies, the Centre for Advanced Spatial Analysis, the Bartlett School of Planning and the Psychology Department.

The approach is to develop research tools to investigate children’s spatial behaviour, perceptions and relationship networks, and parental attitudes, to use these to analyse how children use open spaces and to develop new models of children’s outdoor movement patterns.

The research tools being developed include

- Techniques for monitoring children’s travel and activity patterns using:
 - Motion sensors
 - GPS (global positioning satellite) monitors
 - Travel and activity diaries
- Questionnaires surveys of children and their parents, carried out through schools
- Interviews with parents and with children, including mapping exercises
- Children’s drawing exercises.

Field work is being carried out in two contrasting areas: Hertfordshire, a prosperous area to the north of London largely in the Green Belt with high car ownership, and Lewisham, an inner suburban borough of London, south-east of the centre, with low car ownership and fairly high levels of deprivation and crime, but with some very pleasant more prosperous parts.

The research reported in this paper draws on the questionnaires completed by pupils in four schools – two in Hertfordshire and two in Lewisham. The children are in Years 4, 5 and 6, which means that they are aged 8/9, 9/10 and 10/11 respectively, and so are in the upper three years of primary education. Of the schools in Hertfordshire, one, New Briars, is in Hatfield, a post war ‘New Town’, built mainly in the 1950s and 1960s, and the other, Holy Family, is on the edge of Welwyn Garden City, another post war New Town, which was also a ‘Garden City’ at the beginning of the 20th Century. The two schools in the London Borough of Lewisham, Kilmorie and Perrymount, are in Forest Hill in an area which is fairly ‘leafy’ with neat terrace houses and gardens. They are all publicly funded schools. Holy Family School in Welwyn is Roman Catholic, which means that the catchment area is larger than is usual for most schools. This probably means that more children travel to school by car than would be the case for a non-faith state school.

New Briars and Holy Family were the first schools who agreed to take part in this project. New Briars was used to pilot the questionnaire, and so only one class was used. The Lewisham schools were introduced to provide a contrast in terms of the nature of the area. Further schools will be surveyed later when all the research instruments are being used together at a number of schools. The four schools included here are all the data collected so far using this questionnaire in primary schools.

The purpose of the paper is to explore the extent to which children are allowed to go out alone, to identify the factors that influence this, and to see if there are differences between the children who live in the relatively prosperous areas in Hertfordshire, with lots of open space, and those in the higher density urban areas of Lewisham.

Results

Table 1 shows the number of responses to the questionnaires. There were 294 altogether, with the largest response in Kilmorie with 117, about 75 in Holy Family and Perrymount, and 27 at New Briars, all in Year 6. This meant that there were more in Year 6 overall, but across the other three schools they were spread fairly evenly across the years. There were slightly more responses from girls than boys.

The first issue is to see how many children were allowed out without an adult, as shown in Table 2. Overall, about two-thirds of the children are allowed to go out without an adult. As would be expected, the percentages generally increase with age. The school with the highest value is New Briars in Hatfield with 82%. This is largely because only children in Year 6 were surveyed here. But more of the Year 6 children at this school are allowed to go out alone than at the other schools, and more children at Holy Family are allowed out alone than at the two Lewisham schools. The other noticeable feature is that more boys are allowed out alone than girls: 72% of boys overall compared with 62% of girls.

Table 1 The number of responses to the children's questionnaire

School	Year 4 (age 8-9)	Year 5 (age 9-10)	Year 6 (age 10-11)	Boys	Girls	Total
New Briars (Hatfield, Hertfordshire)	-	-	27	16	11	27
Holy Family (Welwyn Garden City, Hertfordshire)	23	26	29	37	41	78
Kilmorie (Forest Hill, Lewisham)	44	39	34	57	60	117
Perrymount (Forest Hill, Lewisham)	26	19	27	31	41	72
Total	93	84	117	141	153	294

Table 2 Percentage of children allowed out without an adult

School	Year 4 (age 8-9)	Year 5 (age 9-10)	Year 6 (age 10-11)	Boys	Girls	All
New Briars	-	-	82	94	64	82
Holy Family	65	65	72	70	66	68
Kilmorie	47	79	74	67	64	65
Perrymount	42	74	74	71	56	63
Total	50	74	75	72	62	67

There are various ways in which children can travel around when they go out, as shown in Table 3. Interestingly, given its inherent risks, the activity that the greatest number of children is allowed to do, is go out on a bicycle, which 68% of children are. It should be noted that only 28% are allowed to cycle on main roads, so the majority must only be allowed to cycle on back streets or on the pavement. The second highest, at 65%, is going out for a walk. Crossing main roads is next, which 58% are allowed to do. The lowest value is for going on buses, which only 22% are allowed to do, but for many children this was not a relevant activity. In all cases, except going on buses, more boys are allowed out alone to participate in these activities. Interestingly, the activity with the largest difference between the sexes is cycling on main roads which twice as many boys are allowed to do without an adult. This may partly reflect the fact that many boys tend to cycle into their teens whilst girls are more likely to give it up: in Great Britain in 1999/2001, boys aged 11-17 cycled an average of 182 km a year, while girls of this age cycled only 34 km a year on average. Younger children, aged 5-10, did not show a similar difference: 27 km for boys and 24 km for girls (Department of Transport, 2002).

Another way to look at the differences is to consider the age at which those children who are allowed out without an adult were first allowed to do so, as shown in Table 4. The critical age seems to be eight years old, with bus travel having the highest average starting age, at nearly nine years of age. This probably reflects the fact that bus travel implies travelling a greater distance from home than the other types of travel. Again, there are quite wide differences between boys and girls, for example,

almost a year difference in the ages at which girls are allowed to travel alone to their friends houses compared with boys.

Table 3 Percentage of children allowed to travel without an adult

Type of travel	Boys	Girls	All
Go out on a bicycle	71	65	68
Go out for a walk	66	64	65
Cross main roads	63	53	58
Travel to friends' houses	63	46	54
Travel to organised activities	41	26	33
Cycle on main roads	38	19	28
Go on buses	20	23	22

Table 4 Age at which children were first allowed to travel alone

Type of travel	Boys	Girls	All
Travel to friends' houses	7.5	8.6	8.0
Cycle on main roads	7.9	8.1	8.0
Cross main roads	7.9	8.7	8.3
Go on buses	8.6	9.2	8.9

One factor than may influence whether or not children are allowed out alone is whether there are members of the extended family living locally. This could work in several ways: visiting relatives locally offers the child a chance to gain familiarity with the area, it gives a local destination for the child, from which it would be possible to inform the parent by telephone if the child did not arrive, and it implies strong family ties with the area, whereas a child without such ties might be less confident of travelling alone. Table 5 shows that this does seem to be a significant factor. The more ties with the local area, the greater the probability a child will be allowed to go out alone.

Table 5 Effects of local family ties on being allowed out alone

How many of mother's and father's parents and siblings live locally	% of children allowed out alone
0	63
1	67
2	68
3	70
4	83
Overall	66

Note: the children were allocated one point for having each of a mother's parent, a father's parent, a mother's sibling and a father's sibling living locally.

Differences between the children in the two areas are shown in Table 6. More children living in Hertfordshire are allowed out alone than Lewisham children: 71% compared with 64%. This is partly explained by the fact that smaller proportions of younger children were surveyed in Hertfordshire, but as was shown in Table 2, this is

not the full explanation: more Year 6 children at New Briars were allowed out alone than at any other school, and more were allowed out at Holy Family than either of the Lewisham schools.

Table 6 Differences between the children living in Hertfordshire and Lewisham

	Hertfordshire	Lewisham
% allowed out alone	71	64
% who walk to school	28	63
% who cycle to school	1	0
% who go by car to school	61	27
% who travel less than 5 minutes to school	25	40
% who live in households with 2+ cars	64	37
% who never or hardly ever go out by car	11	16
% who go out by car on most days (excluding trips to school)	58	39
% allowed to cycle unaccompanied by an adult	75	64
% who own a bicycle	96	82
% able to ride a bicycle	97	91
% who have relatives living locally	39	61

If other factors are considered there are some interesting differences. For example, the children in Hertfordshire are more likely to travel to school by car whereas the majority of the Lewisham children walk to school. This difference is partly because the children in Lewisham tend to live nearer the school and are members of household with lower car ownership than those in Hertfordshire. Many more of the Lewisham children have one or more member of the extended family living close by than the Hertfordshire children.

Very few children in either area cycle to school, but more in Hertfordshire are allowed to cycle unaccompanied by an adult than in Lewisham. This is partly because more children in Hertfordshire own a bicycle and are able to ride it, but this may be due to perception of the opportunities for cycle journeys and the perceived safety of cycling in the two areas.

The children in Lewisham are more likely to walk to school, and probably elsewhere, given the lower levels of car ownership, they live closer to school, they cycle more, and they have more relatives living close by. All these factors suggest that more children living in Lewisham would be expected to be allowed out alone, because they have more local opportunities and reasons to walk which they can do alone. However, this is not the case. This suggests that other factors influence parental decisions about allowing children to go out alone. These may well include parental perceptions about the risks to their children and the nature of the local environment. The Hertfordshire schools are set in much lower density areas with much of the housing set in grassy areas where children can play, whereas the Lewisham schools are in higher density urban areas, which may be perceived to be associated with crime and other anti-social activities that parents may wish to protect their children from.

Conclusions

This paper has explored the extent to which British children are being allowed out unaccompanied by adults. Various factors might influence the propensity of parents to allow children to go out unaccompanied by an adult. For example, walking to school may give children the opportunity to gain familiarity with the local environment. Conversely, children who are driven to school must, by definition, be accompanied by an adult. This decision about the choice of mode to school is partly influenced by the distance between the school and the home. It will also be influenced by the level of car ownership. Owning several cars may be associated with taking children to many activities, and may partly reflect living in a fairly low density area. A low density area could influence the propensity of parents to allow children to go out alone in different ways: for example, there will be fewer attractions to travel to close by. On the other hand, there may be lower levels of crime and other factors which make the local environment unpleasant to be out in, and so parents feel more confident about allowing children out alone in lower density areas.

Questionnaire surveys have been carried out at four schools in Hertfordshire and Lewisham. From these it was found that about two-thirds of the children between eight and eleven were allowed out without an adult. The mean age at which they were first allowed out alone was between eight and nine, with signs that they are given licence to go further from home with increasing age. The method of going out alone that the greatest number of children were permitted to do, was cycling away from main roads, with going on buses the activity fewest were allowed to do alone, which was partly because some had no need to travel by bus. More boys are allowed out alone than girls, starting about a year younger for some activities on average. One factor that seems to be related to being allowed to go out alone is having members of the extended family living locally.

Even though the children in Lewisham use the car less than those in Hertfordshire, and so have more need to walk, as well as more opportunity because of the higher density, and have more extended family members living near by, fewer are allowed to go out without an adult. This may have something to do with the nature of the environment: relatively green with much open space in Hertfordshire, more dense, perhaps with greater perceived risk to the child, in Lewisham.

At this early stage in the project it is difficult to identify clearly the barriers that need to be overcome to allow children to walk more. Tentatively, it can be stated that increasing the child's familiarity with the environment, and reducing parental negative perceptions about the local area might help. On the other hand, using the car a lot, does not, from this evidence, seem to have a very negative effect. Or, putting it another way, walking a lot accompanied by an adult does not seem to increase the propensity for the child to be allowed to walk about unaccompanied. Perhaps the walking about by parents in these situations increases their perceptions of the risks. If this is true it raises an interesting paradox: the more adults walk, the less that they want their children to walk about alone.

It is still early in the analysis and dissemination part of the CAPABLE project, so these are very preliminary findings, but it is clear that there are many issues to explore, and the potential to bring about much more understanding of how children interact

with the environment, which should lead to a better quality of life for children and a better environment for everyone.

Acknowledgements

This paper has been written as part of a project entitled 'Children's Activities Perceptions And Behaviour in the Local Environment (CAPABLE)' which is being funded by the UK Engineering and Physical Sciences Research Council (EPSRC) under grant GR/T09378/01 for 2 years from August 2004. It is being carried out at UCL as a joint project between the Centre for Transport Studies, the Centre for Advanced Spatial Analysis, the Bartlett School of Planning and the Psychology Department. The co-operation of the children who took part in this exercise and their teachers is greatly appreciated, as is assistance from Hertfordshire County Council and the London Borough of Lewisham.

References

Children's Play Council (2003) Grumpy grown-ups stop children play, reveals Playday research, News story, 7 August 2003, available on the world wide web at http://www.ncb.org.uk/cpc/news_story.asp?id=116.

Department for Transport (2002) **National Travel Survey: 1999-2001 Update**, Transport Statistics Bulletin.

Department for Transport (2005) **National Travel Survey: 2004**, Transport Statistics Bulletin.

Hillman M., Adams, J. and Whitelegg, J (1990) **One False Move...: A Study of Children's Independent Mobility**, PSI Publishing, London.

Mackett, R. L., Lucas, L., Paskins, J., and Turbin, J. (2005) The therapeutic value of children's everyday travel, **Transportation Research A**, **39**, 205-219.

Pooley, C., Turnbull, J. and Adams, M. (2005) The journey to school in Britain since the 1940s: continuity and change, **Area**, **37**, 43-53.

Van Vliet, W. (1983) Children's travel behavior, **Ergonomics**, **50**, 61-65.