CHILDREN - TRAFFIC - ENVIRONMENT

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Résumé

Le but principal de nos études est d'examiner comment enfants et adultes (enseignants, parents, éducateurs) vivent et jugent le trafic et la sécurité dans le trafic. Les résultats montrent clairement l'anxiété et la peur liés à l'éducation de l'enfant qui résultent du trafic automobile toujours croissant. La peur et l'anxiété ne concernent pas seulement le risque d'accidents physiques, mais aussi la pollution de l'air, le bruit, les restrictions de l'environnement extérieur pour les enfants, la diminution de leur liberté de mouvement, leur isolement d'autres enfants et adultes, et une plus grande nécessité de supervision et contrôle parental. Le concept de risque devrait être élargi. Ces craintes peuvent être résumés par le concept de "stress environnemental lié au trafic".

Summary

Our studies investigate how children and adults (teachers, parents, those in authority) experience and interpret children's traffic environment and traffic safety.
The results clearly show the anxiety and fear related to children's upbringing which arise from ever-growing car traffic. The fear and anxiety concern not only the risk of physical accidents, but as well air emissions, noise, curtailment of children's outdoor environments, restrictions on their freedom of mobility, isolation from other children and adults, and greater necessity for parental supervision and control. The concept of risk ought to be expanded. The fears and anxieties can be summarized in the concept of "traffic environmental stress".

Theoretical framework

The theoretical framework for our studies - the ecology of human development (Bronfenbrenner, 1979, 1989), environmental and developmental psychology - emphasizes the importance of a global view of the child's development and formative environment. It builds on a view of children's development in which the role of the

individual in society is regarded as interactive; that is, the individual seeks knowledge and develops through a relationship of active interplay with the environment - the social as well as the physical - influencing and being influenced by it. The individual is not only shaped but also shapes the environment, and has an inner need to do so. Moreover, it is not only the children's immediate environments that are significant for their development but also more peripheral environments with which they have no direct contact, as for example different municipal conditions, the parents' employment situations, as well as different ideological, political and economic values and relationships existing in a given culture or subculture. This model is used as an instrument for analyzing the children's opportunities for learning and development in different physical environments (cf. Björklid, 1982).

Ecological approaches in psychology treat the environment both as an objective phenomenon and as subjective constructions. In the study of environments, then, it is not only objective factors or relationships that are relevant but also how these are interpreted by the individual. Children and adults experience traffic from quite different viewpoints. To understand a person's behaviour requires a capacity for insight or empathic understanding and the ability to place oneself in the other's position so as to appreciate the thoughts, motives and feelings lying behind, for example, an individual's behaviour in the traffic environment.

The principal aim of our study on *School Children's Traffic Environment* was to investigate how children and adults (teachers, parents, those in authority) experience and interpret children's traffic environment and traffic safety.

Interviews were carried out with 90 children aged 8, 11 and 14, of which one third lived in a residential area, one third in an inner city area and one third in a suburban traffic separated area. The children's parents answered a questionnaire, and the children's schoolteachers were interviewed for their views on the children's traffic environment and road safety education. In addition, interviews were conducted with national and regional officials, whose areas of responsibility encompass school and traffic.

Teachers' views on traffic safety

Teachers from schools in areas with integrated traffic (residential and inner-city areas) felt the immediate environment to be more dangerous for the pupils than teachers from traffic-separated areas; they worried more - as did even the pupils - and had a more negative experience of their traffic environment.

These teachers also had more varied desires and suggestions as to environmental measures. In general, the teachers' opinion was that one cannot rely on children behaving safely in traffic. In the areas where traffic was separated from the immediate environment, however, the teachers were worried that the pupils were not sufficiently exposed to environments with traffic. In the areas with integrated traffic, the teachers had no understanding at all for such fears with regard to traffic separation. They could directly observe these on a daily basis and described several

examples of how the traffic was creating anxiety and stress among the children as well as their parents. This influenced school work both directly and indirectly.

The teachers used traffic diagnostic tests in their road safety education classes, but were very uncertain about their effects. They saw it as their task to protect the pupils in traffic situations by imposing the use of helmets when pupils cycled and by pointing out specific dangers in the traffic environment during study trips and outings. The teachers did not, however, call this traffic education.

Attempting to adapt children to their traffic environment by means of training and theoretical instruction is based upon a philosophy that is completely out of date. Children are not finished products, equipped to cope with a complex traffic environment (Sandels, 1975). Nevertheless, traffic safety efforts in Sweden and in other countries are still dominated by theoretical material.

Parents and traffic safety

How did the *parents* perceive their children's immediate environments from the point of view of traffic safety, and how did this affect their work on traffic safety with the children?

Parents have the knowledge and commitment necessary to be able to suggest measures related to the environment. When parents experience worry over their children's traffic environment from negative experiences of it, they attempt to protect the children in a variety of ways: by engaging in activities to improve the environments, pointing out traffic dangers, limiting the children's freedom of movement, etc.

Study results show substantial differences between parents living in the different areas. Considerably fewer children from the traffic-separated area had experienced a traffic accident or incident compared with those in the traffic-integrated areas. As well, fewer parents from the traffic-separated areas had heard about traffic accidents in their neighbourhoods. More parents in the traffic-integrated neighbourhoods had worried about their children's traffic safety compared to those in the traffic-separated areas.

Parents in traffic-integrated neighbourhoods are torn between protecting their children and giving them the freedom they need to be able to explore their local environment on their own, to undergo stimulating environmental experiences, and to participate in various activities which facilitate their development. Parents are forced to accept some traffic risks in their children's local environment. This creates a tension they have to live with and which becomes part of their everyday life.

Children's views on road-safety education

Children from traffic-integrated areas (residential and inner-city areas) experience their local environment as more dangerous than do children in the traffic-separated areas; they experience greater anxiety and have more negative experiences of their traffic environment. The former are more anxious and experience more distress in

terms of higher risks, limited freedom of mobility and discomfort from car emissions.

While the children seem to be aware of the dangers of traffic and what in principle traffic safety is, it is difficult and sometimes impossible for children living in the trafficked areas to apply their knowledge. The children submitted proposals for improving the environment. The children receive neither information about, nor training in the ways in which it is possible to contribute to implementing measures for the improvement of the environment. Proposals were dependent on their local environment and these were consequently fewer and less varied in the traffic-separated area than in the others.

Challenge versus danger

Children develop through play and their need for outdoor play is well documented.. In their play, they can influence the surrounding world according to their own desires and needs. Play is pleasure-seeking and a *challenge* - to master one's own environment, both physically and mentally.

But a *challenge* is not the same thing as *realistic danger*. Traffic in children's local environment implies uncalculated risks.

We know that children play everywhere, regardless of whether an area is designed for play or not. Often children and other unprotected road-users begin a collision course due to ill-advised planning.

> *There's lots of old ladies who just yell at you when you cycle on the foot-paths. We are forbidden to ride on them. All old ladies just complain. There are some great hills for sledding, and then they claim that we are not supposed to ride there, that we could run into some old lady. But it's really rare... It has not happened - not because I think so. There's another hill, but it's dangerous 'cos you run ride out onto the street. So they have closed that one.*
>
> *(Boy, 11)*

More than half of the children I interviewed were afraid of cars or traffic.

The factors mentioned were:

- Drivers don't obey traffic rules
- Blocked vision
- Noise and exhaust emissions
- Experience of an accident or near-accident

Rules not followed

Several of the children said they became afraid when cars "unexpectedly" broke the applicable rules. They gave examples of cars that drove through red lights, of bicycles and mopeds on the foot-paths, and of cars that drove into the courtyards where they played.

Blocked vision

Other factors were, poor snow-removal and bushes and hedges that were not properly trimmed.

> *I get afraid on my way home. There's so much snow piled up. I have to climb over the snow banks to be able to see something when I cross the street.*
>
> *(Girl, 8)*

Noise and exhaust emissions

Exhaust emissions and noise in traffic were unpleasant and were the cause of worry and anxiety:

> *Yes, I am afraid of getting asthma.*
>
> *(Boy, 8)*

Experience of traffic accident or near-accident

Fear of traffic was affected by whether the children had themselves been involved in an accident or near-accident, or whether they knew about such an incident. Fewer children in the traffic-separated area than in the other areas had been involved in accidents or near-accidents themselves. The figures are, however, high. More than half of the children in the traffic-integrated areas had been involved in an accident or near-accident. The corresponding figure in the traffic-separated area was less than 40%.

Children blame themselves

When the children talked about accidents or near-accidents that had happened to them or to others, they repeatedly said that it was their own fault and that they "could only blame themselves".

Children view adults as authorities. This means that they expect adults to follow existing rules. Children also blame themselves, something that's related to their natural attitudes toward authorities

> *Johan was bicycling with his mother to his day-care center when a car hit him from behind, so that he landed on his head on the street. Johan said it was his own fault for not having looked around. He had just ridden right onto the street. "I only have myself to blame", he said.*
>
> *(Boy, 8)*

Concluding remarks

Traffic environments create numerous difficulties relating to the conditions in which children and young people grow up. A central result emerging in our projects is the *anxiety and fear* related to children's upbringing which arise from the ever-increasing car traffic. The anxieties and fears concern the risk of physical accidents, air emissions, noise, curtailment of children's outdoor environments, restrictions on their

freedom of mobility, isolation from other children and adults, greater necessity for parental supervision and control, and so on. The anxiety concerns the environment's conduciveness to promote a good social and physical development of children. One frightening scenario is that we are adapting to environments that are injurious to our children, both in the short- and long-term. The concept of "risk" ought, accordingly, to be expanded.

The anxieties and fears can be summarized in the concept: *traffic environmental stress*. This is stress that is triggered by factors in the traffic environment (cf. Levi 1985; Ekblad, 1991). Numerous problems and research approaches which emerged during the earlier projects become more manageable if they are brought together in one model so that we can see the connection between the various types of problems. Development of a traffic environmental stress model is useful and it will be taken up in our future research project: *"Traffic environmental stress. A study of stress reactions related to the traffic environment of children and young people"*.

The new project examines how parents and children experience and manage traffic environmental stress in various traffic environments.

The project is based on Fisher, Bell, and Baum (1984) as well as Holahan and Wandersman (1987). The *objective* of the project is to describe how parents and children experience and manage traffic environmental stress in various traffic environments.

By means of a model we will study :

-   Which traffic safety and traffic environmental problems in a child's local environment evoke traffic environmental stress? How can such stress be identified and observed?
-   Which specific reactions create these problems in children and parents?
-   What actions do children and parents take to reduce traffic environmental stress?

It will be possible to use the results from the project for traffic and environmental planning within traffic-safety programs aimed at decreasing or eliminating environmental stress. Further, against the background of the theoretical frameworks of developmental and environmental psychology, the findings may produce hypotheses concerning the short- and long-term effects of stressors and various reaction patterns on children's psychological, social and physical development. This would represent a useful contribution to the theoretical development of the concept of environmental stress.

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