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Road safety in France: The hard path toward science-based policy

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ABSTRACT

Very considerable advances have been made in road safety over the long term and especially in the recent years. This improvement was achieved in part due to the effectiveness of French decision-making system, even if it remained very perfectible. An analysis of the road safety management system is carried out in order to understand the strengths and weaknesses of the organisation of road safety in France.

The organisation of road safety in France is extremely centralised. The basis of road safety policy at the national level rests on an extensive information system (covering accidents, risk exposure, speed, utilisation of mobile phones) and on analyses of road risk (the risks attributable to alcohol, speed and the use of mobile phones).

This statistical information and these risk models are integrated in risk management tools such as monitoring, ranking and policing. Monitoring makes it possible to track the development of road safety, bench-marking to compare the performance of the country's different departments with each other, and policy making to refine the details of a policy.

The development of the governance of road risk is leading managers and decision-makers to perfect data-gathering procedures, standardise and simplify the analytical tools used, and broaden the range of risks covered.

1. Introduction

Very considerable advances have been made in road safety over the past 30 years. In France, these advances have resulted in a fall in the numbers killed on the roads by about 2% a year, whereas the volume of traffic grew by around 2.5% annually, signifying an improvement of about 4.5% in the effectiveness of road safety policies. This is in line with the long-term model of fatality risk developed on an annual basis, over 50 years, which shows a decreasing trend over time accompanied by sharp falls in risk due to national road safety measures such as speed cameras (a 48% drop between 2002 and 2008) (Chapelon, 2006; Lassarre and Hoyau, 2008).

This improvement was achieved despite the fact that the French decision-making system remained very perfectible.

This article aims to demonstrate the strengths and weaknesses of the organisation of road safety in France and to show how decision-makers are made aware of the findings of research reports and surveys and the extent to which decisions are taken and followed up on a scientific basis.

After outlining in Section 2 the organisation of road safety in France and the role played by the National Inter-Ministerial Road Safety Observatory (Observatoire National Interministériel de Sécurité Routière), we will start, in Section 3.1, by discussing the basis of a policy founded on scientific findings, including the role of essential information systems such as accident records, risk exposure data, speed measurements and measurements of other behavioural phenomena, including the use of mobile phones. The evaluation of "objective" risk through the calculation of attributable risk will be taken in Section 3.2 as an example for three factors: alcohol, speeding and mobile phones. The risk models adopted are based on epidemiological methods and time series analysis, as recommended by the experts of the OECD (2008).

Secondly, the article will show in Section 3.3 how this information and these models are integrated in three basic risk management tools:

- monitoring, which makes it possible to track the development of road safety,
- bench-marking, which enables different departments to be compared with each other, and
- policy making, which makes it possible to refine the details of a policy.

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We will end in Section 4 by highlighting the inadequacies of the present structure, despite the progress made, and pointing to the avenues for improvement in the future as part of a discussion on the governance of road risk.

2. French organisation of road safety and the role played by the Road Safety Observatory

The Inter-Ministerial Road Safety delegate is in charge of road safety in France. He prepares the Inter-Ministerial Road Safety Committee (Comité Interministériel de Sécurité Routière – CISR) which takes decision, and implements these decisions. The inter-ministerial character of the delegation is more paraded than real. Of course, there are five or six advisors detached from different ministries, such as Interior, Justice, Education and Health, but their ties with their ministries of origin are loose and they have very little influence over their ministry's actions in the area of road safety, which remains in the hands of the new Ministry of Sustainable Development, assisted by a Secretariat of Transport.

On the other hand, the strong point in the French organisation is its hierarchical nature, with the important role played by the Prefect of each department (Fig. 1) who, together with the head of road safety projects, one of his close collaborators, coordinates the local actions of the different ministries and encourages the activities of local community groups.

At the same time, the majority of road safety decisions are taken at meetings of officials on the basis of administrative and legal rather than technical and scientific factors. Scientific arguments hardly penetrate the decision-making body (CISR) or the adviser body (National Road Safety Council: Conseil National de Sécurité Routière – CNSR). The cost and effectiveness of measures are only two criteria among others. Comprehensive studies of the cost-effectiveness or cost–benefit outcomes are rare, whereas this was a common practice in the 1970s.

As these measures form part of the government's action programme, the way they are presented to the press and the public is extremely important. Since this tends to be determined by the political agenda, the attempt to create an effect of surprise takes precedence over in-depth studies and discussions with all the parties involved.

Our knowledge of the risks and the effectiveness of measures is evolving. The effectiveness of vehicle testing, which was introduced in France in 1985 and is now in use throughout Europe, has been brought into question (Christensen and Elvik, 2007).

Decision-making is not a regular and linear process and may be subject to comings and goings. The principle of regular medical checks decided in March 2003 was dropped a few years later, when its systematic nature raised questions about its cost and the ensuing debate highlighted the fact that the risk of error (a false negative) represented a major shortcoming of the measure, since it prevented perfectly fit drivers from driving, including some elderly people, with disastrous consequences for their daily lives (Leproust et al., 2008a,b).

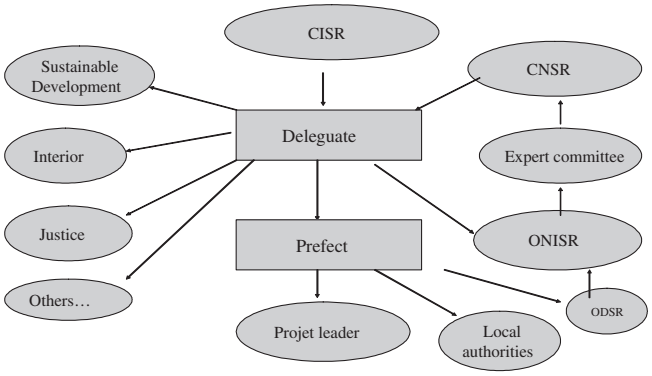

Fig. 1. Organisation of road safety in France.

The mission assigned to the National Inter-Ministerial Road Safety Observatory, which is under the authority of the road safety delegate, is to gather scientific information for the benefit of decision-maker in order to improve the quality of decisions, as well as to guide the activities of departmental road safety observatories (Observatoires Départementaux de Sécurité Routière – ODSR).

To do that, it relies in particular on a committee of experts (Fig. 1) composed of a small number of specialists, who are not necessarily the most qualified experts themselves but are able to call on the most competent specialists in every area they have to deal with.

Matters may be referred to this committee of experts by the Chairman of the National Road Safety Council or the minister responsible for road safety, or the committee may act on its own initiative.

Among the most recent reports produced by the committee experts, one can cite two examples:

- An in-depth study on drinking and driving, which required more than 6 months' work and for which the committee heard evidence from a score of outside personalities (Chapelon et al., 2007). Produced on the committee's own initiative, the report contained some 10 recommendations, a good number of which have since been acted on (see Section 3.2.1.4).
- A more immediate study on the advisability of introducing a specific regulation limiting young people's access to powerful vehicles, which was carried out at the request of the minister. It gave rise to a recommendation (no prohibition) that was approved by the National Road Safety Council and was adopted by the government.

The last element in the organisation of road safety in France is the National Road Safety Council (Fig. 1), which is a sort of Road Safety Parliament. It enables all the parties involved in road safety (Members of Parliament, highway administrators, insurance companies, motor manufacturers, accident victim defence associations, associations representing particular categories of road user) to meet and debate all road safety issues. As far as our area of interest is concerned, it has the enormous advantage of disseminating the culture of road safety in such a way that all the parties involved have the same level of information.

3. What is a science-based policy?

Road safety policy is founded above all on the input of a system of reliable information composed of, on the one hand, quick indicators, accident records, safety performance indicators (SPI: risk exposure data, and measurements of speed and of the use of mobile phones obtained from roadside surveys) and on the other hand, estimates of the risks attributable to major factors, such as alcohol consumption, speeding, and the use of mobile phones. Lastly, it is based on the management of road risk using three preferred instruments: monitoring, bench-marking, and policy making.

The following section presents the information system (Section 3.1), the attributable risk (Section 3.2), and the risk management (Section 3.3). All these analysis and tools are enforced in routine by the ONISR. The results are presented on the web-site of ONISR and CNSR.[2]

[2] www.securiteroutiere.gouv.fr/observatoire and www.securiteroutiere.gouv.fr/cnsr.