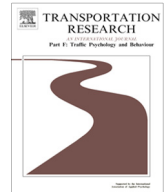




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Road safety knowledge and policy: A historical institutional analysis of the Netherlands [☆]

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ABSTRACT

This paper explores the institutional development of Dutch road safety policy over the last century and the role of knowledge therein. After a theoretical exploration of the concept of institutionalization, the article sketches an overview of the institutionalization of road safety policy in the Netherlands between 1900 and 2010. In particular, it reports on the rise of knowledge organizations and national policy departments since the 1960s. Furthermore, it indicates an increasing importance of the regional and local level of governance since 1990 in road safety, while knowledge relevant at that level is hardly produced. This recent mismatch between knowledge production and policy making results in two barriers for knowledge utilization in road safety policy: Dutch road safety knowledge is neither well tailored to regional and local governments, nor does it pay sufficient attention to the needs of regional and local governments to weigh various interests with road safety. This study presents an example of an investigation on how institutional patterns may enable and constrain knowledge utilization.

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1. Introduction

One of the major prerequisites of an effective and efficient road safety policy is that it is based upon scientifically sound knowledge. As a consequence, the availability of this knowledge is not sufficient, because policy makers also need to use it: knowledge utilization. Thus far not much research has been performed on knowledge utilization in the road safety field. Yet the issue of knowledge utilization is a classic and recurrent theme in policy and administrative sciences. [Dunn's seminal book *Public policy analysis* \(2011 for its 5th edition\)](#) typically focuses on the many methodologies available to underpin policy making with sound knowledge. Most knowledge utilization studies, however, look at the phenomenon from a process perspective. Main questions then regard the process characteristics (messenger–receiver interactions, timing, accessibility, etc.) that are said to determine the actual use of provided knowledge. This article, however, looks from a historical and institutional perspective. A historical institutional analysis interprets the changes in patterns over time with the help of two

[☆] Editor's Note: This paper was invited and peer-reviewed for a special section on History of Traffic Psychology. The special section included a wide range of manuscript styles, from those typical of this journal to other styles just as important for sharing the discipline's history. Authors contributed reasoned viewpoints from experience and literature on where the discipline has come from and where it may be heading, to an investigation of trends and topics in the discipline since the early 20th century.

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typologies for the relationship between knowledge and policy, and with a theory on long-term changes in policy making. Fits and misfits between patterns in road safety knowledge and policy might influence the use of knowledge in policy making. The study is based on the dissertation of Bax (2011) on knowledge utilization in Dutch road safety policies. Two main questions are investigated:

- How have institutional patterns in Dutch road safety policy and knowledge developed over the last century?
- Do institutional patterns or changes of these patterns indicate barriers for knowledge utilization in Dutch road safety policy?

1.1. Institutionalization

Institutionalization refers to continuous processes of stabilization and structuring – as well as de-stabilization and de-structuring – of societal interactions (Giddens, 1984; Van Tatenhove, Arts, & Leroy, 2000, p. 18). In terms of road safety policy, it refers to the patterning of discourses (what is road safety?; why is it important? and how can it be realized?), of the actors involved, of their interaction and distribution of tasks, roles and resources (Arts & Leroy, 2006; Van Tatenhove et al., 2000, p. 56). As knowledge is one of these resources, one can hypothesize an on-going interaction between knowledge production and utilization on the one hand, and actual policy making on the other. It should be clear that also definitions of what 'knowledge' exactly is, which knowledge is regarded sound and pertinent, whose knowledge is acknowledged as scientific, and how it should be dealt with, change over time and do (de-)institutionalize. Rather than starting from an a priori definition of (scientific) knowledge, our article takes changing definitions thereof into account.

1.2. Knowledge and policy

Almost all publications on sound knowledge and policy making do assume that researchers and policy makers inhabit two separate worlds. Caplan (1979; Merton, 1973) sees a substantial difference in culture and institutional arrangements in the world of policy makers and researchers respectively. Their ambitions, languages, interests and reward systems differ substantially as the so-called 'Two Communities' metaphor echoes. Leroy (2007) has summed up the differences between (scientific) knowledge and policy making with regard to their ambitions, ethical and quality standards, information needs and methods for quality control in a convenient table (see Table 1).

The remainder of this article investigates how, despite these hypothesized differences, the two worlds of knowledge producers and knowledge users, e.g. policy makers do interact. First, we briefly review the literature on knowledge use in the field of road safety, and then turn to two theoretical models that inspired us onto our historical–institutional analysis.

1.3. Previous studies on knowledge use in road safety policy

Some Dutch and international studies have examined the use of (scientific) knowledge in road safety policies. The most recent studies (Boer, Grimmer, & Schoenmakers, 2008; Department for Transport, 2008; Elvik & Veisten, 2005) reveal a wide use of applicable and practical road safety knowledge, such as guidelines, in policy. Other studies (Department for Transport, 2008; Elvik & Veisten, 2005; Havelock & Markowitz, 1971) have investigated barriers to knowledge use. Overall, these studies indicated three types of barriers. Firstly, some cases reveal the inability of road safety professionals to find the appropriate knowledge on time, or their unawareness of available knowledge. Secondly, road safety professionals displayed a lack of confidence in road safety research, found some research outcomes impractical and not easy to be implemented, or commented on road safety measures which could not be taken due to local circumstances. Thirdly, the majority of the studies indicate a lack of support for road safety measures in general and missing links between knowledge organizations and governmental bodies. Bax (2011, pp. 101–122) gives a more detailed review.

Even fewer studies have examined the influence of the institutional context on knowledge use in road safety policies. The majority of these studies merely provide an inventory of tasks of various governmental levels and knowledge organizations (for example Brouwer & Mulder, 1997; Chapelon & Lassarre, 2010; Elvik & Veisten, 2005; Schulze & Koßmann, 2010). Some

Table 1
Differences between (scientific) knowledge and policy making (based on Leroy, 2007).

	(Scientific) knowledge	Policy making
Looks for	Truth	Power
Is driven by	Non-normative conviction	Normative conviction
Wants information with	Depth, focus on causes	Speed, focus on remedies
Wants information	In detail	In outline
Looks specifically for	Causes	Solutions
Quality based on aim for	Validity	Acceptance
And on aim for	Reliability	Feasibility
Method for quality control	Peer review	Public support

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