Interventions in Bicycle Infrastructure, Lessons from Dutch and Danish Cases

Today the interest in cycling is increasing worldwide and in many countries authorities are faced with the question how cycling can be promoted efficiently. In the Netherlands and Denmark, this question came up already in the 1970s when the downsides of the rapidly increasing motorisation became evident. At the time, in both countries large scale interventions in bicycle infrastructure were introduced and evaluated extensively in order to create knowledge on efficient promoting of cycling in urban areas. The interventions included the construction of new bicycle routes on urban arterials in some larger cities and an area wide comprehensive upgrade of the bicycle network one medium sized city (Delft). The evaluations were based on before and after studies where in the case of Delft also a long-term after study was performed. The evaluations produced a wealth of information about the impacts of interventions in bicycle infrastructure on travel choices, safety, design appreciation, and other factors. These clarify under which conditions certain measures are effective or not and inform about the effectiveness of improving a single route versus upgrading a whole network. The information from the studies was used in both countries for formulating guidelines for road and bicycle infrastructure design. However, at that time the study results were not shared with the international scientific audience. The paper describes briefly the classical cases and the main study results. The outcomes of the classical studies are compared with those of some more recent cases of assessed interventions in urban bicycle infrastructure in the Danish largest cities. Generally the outcomes are in line with those from the classical studies. This indicates that results of the latter are rather timeless and are likely to be still generally valid. In addition to studies that traditionally focus on dedicated bicycle infrastructure, two cases of shared space are discussed, a rather new type of intervention that assumes mixed use of infrastructure. One case is from Denmark, the other from the Netherlands. The paper will so uncover the valuable results of the possibly largest evaluations of interventions in bicycle infrastructure ever made, verify these by examining more recent studies, and contribute to the discussion of shared space.

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