AN EVALUATION OF RE-DESIGNED RURAL ROADS

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ABSTRACT

In Sweden, there is a strong political desire to shift car traffic to cycling. While the number of road fatalities among motor vehicle occupants have seen a substantial decrease, the same positive trend has, not been found among cyclists. To increase safe cycling, different traffic safety measures is therefore needed. One such attempt is the Swedish Transport Administration’s re-design of five rural road segments in the southern part of Sweden. On the re-designed segments, the hard shoulders on each side of the road are broadened to give more space to cyclists. At the same time, the area for motor vehicles is narrowed to a single lane where the motor vehicle drivers are forced to adapt their driving to the flow of cyclists when meeting another motor vehicle. The aim of the present study was to evaluate these re-designed rural road segments, focusing on the beliefs underpinning the road users’ attitude, subjective norm and perceived behavioural control associated with these segments.

A focus group interview was carried out and based on the results of this interview a pre-questionnaire was designed and distributed to residents along one of the segments before it was re-designed. A post focus group interview, as well as a post-questionnaire, were then conducted after the re-design of the segment. Both focus groups, as well as the questionnaires were based on Ajzen’s (1991) Theory of Planned Behaviour (TPB). According to this theory, people’s attitude towards the behaviour, their subjective norm and their perceived behavioural control, determine their intention to perform the behaviour. Given enough actual control over the behaviour, people are expected to carry out their intention as soon as an opportunity is given. For behaviours over which people have incomplete volitional control it is also useful to consider perceived behavioural control in addition to intention.

The results show that prior to the re-design, the likelihood of cyclists cycling on a country road without a hard shoulder is affected by whether they arrive at their destination fast and if others also cycle there. After the re-design, the participants stated that it took them longer to cycle the route (on at least one of the segments) but that the roads were in better condition as well as better maintained; and that the hard shoulder was wide enough to cycle on.

At the same time, the participants felt that the re-design had reduced their sense of safety, reduced their sense of security and reduced their actual security. In addition, the participants felt that the behaviour of the car drivers had become more difficult to predict. The fact that the car driver behaviour had become harder to predict was confirmed by the participants’ responses as drivers. Without any on-coming traffic, approximately one third of them stated that they often drive with the whole car in the middle of the single lane, while about as many said that they often drive with half of the car on the single lane and half on the hard shoulder. In addition, the participants stated that, as car drivers, they overtake more cyclists, even though they are more afraid of hitting them and to a greater extent experience that they actually risk hitting them.
Furthermore, participants, as cyclists, advocated a lower speed limit than they did as car drivers; both before and after the re-design. Finally, the participants felt that the re-design did not take place in consultation with the locals and that the information, in connection with the re-design, had been inadequate. Based on the results, the authors will discuss the pros and cons with the re-design as well as making some recommendations for future implementation.

REFERENCES