



How do blind pedestrians perceive cyclists in Germany?

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Introduction

The modal share of cycling has increased in Germany in the last decades, especially in cities cycling is relatively popular but the modal share of cycling varies vastly between regions, cities and city districts. Estimates are that about 72,000 persons in Germany are "blind" according to the legal definition, two thirds of them 60 years and older. More cycling infrastructure has been built but there are still many situations in which blind pedestrians might meet a cyclist on a footpath.

Cycling on the footpath is allowed under some conditions in Germany. Cycling children under 10 years and an accompanying adult may always use the footpath. A traffic sign can allow cycling on the footpath for all cyclists, in theory at walking speed. In all other conditions, cycling on the footpath is forbidden. Illegal cycling on the footpath is more common if there is more and faster motor traffic, if there are cobblestones or tram rails on the road or if the remaining. Cyclists do also use the footpath when there is a bike path if the bike path is narrow or if there are pedestrians on the bike path or if the cyclist wants to cycle against the traffic flow. Blind pedestrians might also walk on a shared path or step on a bike path without knowing. We wanted to explore how blind pedestrians perceive the behaviour of those cyclists whom they meet. What do they perceive as problems, what as pleasant? What consequences do blind pedestrians draw? What protective measures do blind pedestrians want?

Research methods

We conducted semi-structured in-depth interviews with 7 blind women and 3 blind men. The participants were between 30 and 67 years old (mean 47.6, standard deviation 12.9 years). Two persons were blind since birth, one since infancy, five since young adult age, and two since middle adult age. Four participants reported that they could not see any other person, the others said that they might see something under optimal conditions but that they could no rely on their visual perception in traffic. Seven participants were employed, one was a student, one did voluntary work and one person was retired. Eight persons lived in a major city in Germany, two lived near a major city and visited it frequently.

Deductive qualitative content analysis was used to analyse the interviews.

Results



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Blind pedestrians are often startled by cyclists. Most try to keep to the inner edge of the footpath, some listen carefully whether a cyclist approaches them; some keep on walking, other stop when they hear a cyclist approaching. As cyclists are silent they are very difficult to perceive, and their behaviour cannot be predicted. Some participants know that cyclists cannot always see that a pedestrian is blind though they have a white cane or a guide dog which marks them as blind and as road users who need special protection. Cyclists' speed and close passing pose a problem. It might also be helpful if cyclists tell the blind pedestrians what they intend to do. Dense traffic was seen as a problem, and some participants expressed worries that the political aim is to increase cycling traffic even more which would lead to more conflicts.

Some participants said that they consider cyclists in general as considerate and have positive encounters with them, others see all encounters as a problem. Some participants restrict their own mobility in order to feel safer: they avoid certain areas where they expect many cyclists or walk in time periods when they expect fewer cyclists.

Frequently pedestrian infrastructure is a challenge for blind pedestrians because they often cannot distinguish between footpath and bike path when these are separated by a white line only. Blind pedestrians do not always know whether there is a bike path at all and might step on it without intending to do so. When a traffic sign is in their way they even sometimes have to walk on the bike path.

The emotional reactions of the participants to encounters with cyclists varied very much between situations and between participants.

The legal situation was seen as sufficient for the protection of blind pedestrians but the blind pedestrians think that cyclists do not sufficiently follow the rules, and there is too little enforcement.

Most blind pedestrians see several measures as necessary: Cyclists should be better informed about the needs of blind pedestrians, traffic controls against cycling on the footpath, a speed limit for cyclists on the footpath and on shared paths, separation of pedestrians and cyclists (no shared paths), separation of bike path and footpath by tactile strips, some proposed different surfaces of bike path and footpath.

The experiences of blind pedestrians differed very much, depending on how many cyclists they encounter where they walk; this was also perceived by one participant who moved to another place in the same city.

Discussion and conclusions

Blind pedestrians share many views and wishes with sighted older pedestrians: Many cyclists pass too fast, too close and are difficult to perceive. Blind pedestrians perceive cyclists as a risk to their personal safety and would very much like to be separated from them. Their special wish is separation by a tactile strip and surfaces which allow them to determine whether they are on the bike path or on the footpath. This means that a street layout and enforcement of the traffic rules which would help blind pedestrians to feel safer would also help many other sighted pedestrians. Closing a gap in the cycling network and/or improving cyclists' subjective safety by allowing them to cycle on the footpath or even tolerating it contradicts the needs of blind pedestrians. The more cyclists blind pedestrians encounter the greater the problem.