

About a safe distance ... in cycling

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Distance measurement between bicycle - car

Period: 6 weeks Autumn 2021

Method:

- 20 OBS (openBike sensors)
- 3 groups of each 20 test drivers recording their cycle trip over 2 weeks

Recorded:

- 609 trips recorded
- ~ 2.000 overtaking maneuvers recorded

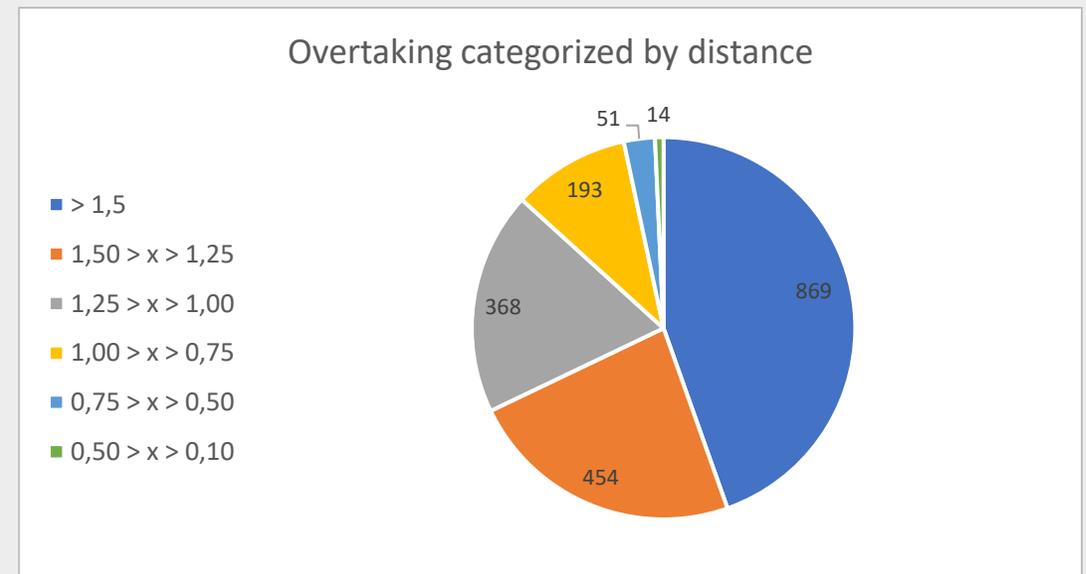


Results



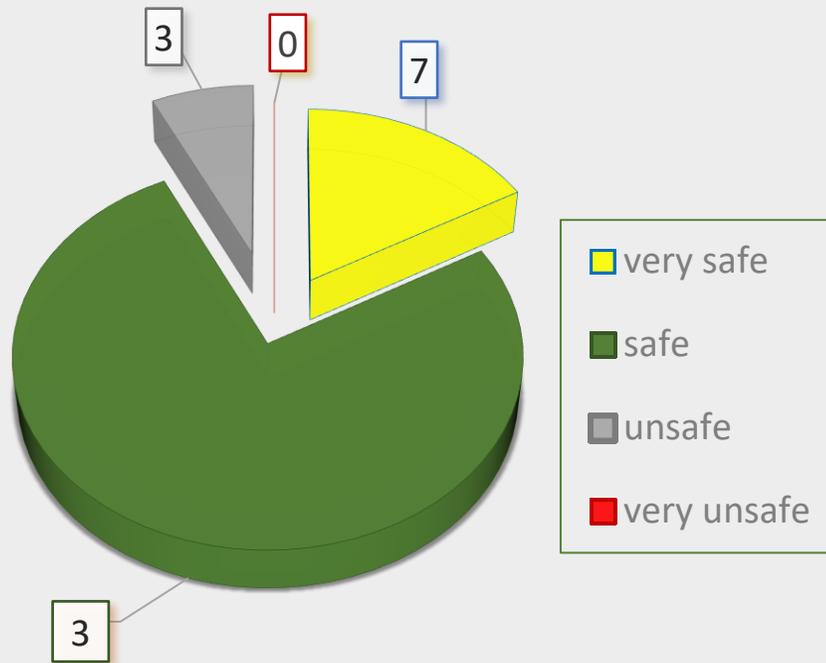
Source: <https://iamtraffic.org/wp-content/uploads/2013/05/Image-01.jpg>

- 1949 valid measurements
- 1080 overtakings < 1,5 meter
- Ø 1,42 meter



Subjective sense of safety from logbook

Subjective sense of safety



∅ safety feeling



Survey: feeling of safety during cycling



Source: <https://www.mdr.de/wissen/ab-wann-ist-angst-ungesund-100.html>

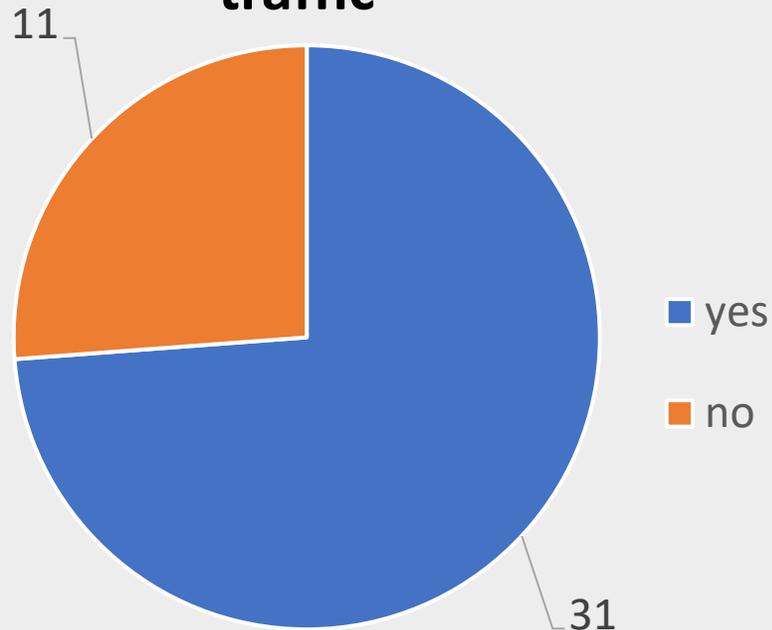
Accidents



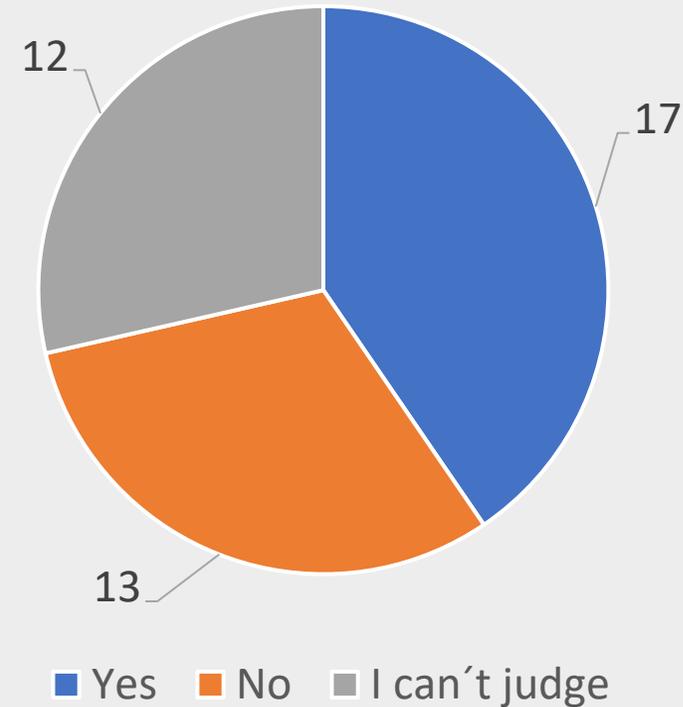
45,24 %
of the test drivers
have had a cycle accident
in their life,
which was caused
by car traffic

Respect of car drivers for cyclists

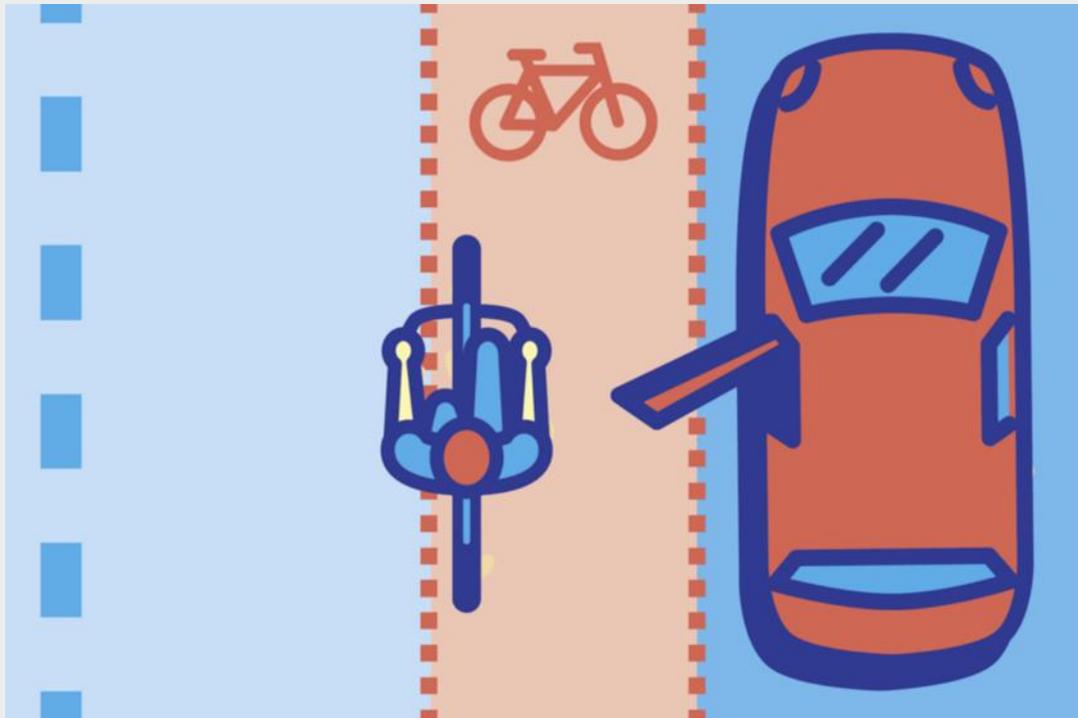
Consideration of motorized traffic



Increased overtaking speed?

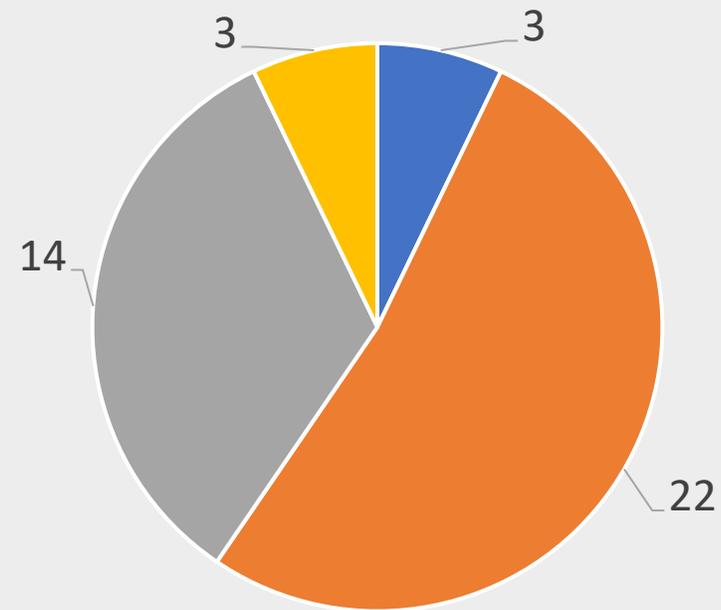


Fear for Dooring



Source: <https://www.drahtesel.or.at/abstand-ma46/>

Fear for Dooring



■ very little ■ a bit ■ high ■ very high

Conclusion

Street design:

- Of all the investigated street profiles where the overtaking distance was less than 1.5 meters, in 72% of these situations, overtaking with a distance > 1.5 meters was possible!

Feeling of safety:

- There are fundamental relationships between the subjective feeling of safety (logbook and survey) and the overtaking manoeuvres by motor vehicles (Measurements), but these are not straightforward, since not all the components examined are conclusively correlated with one another.



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