

Abstract

When planning for safe cycle facilities, Manaaki Tangata means understanding how safe people feel in different environments and making sure they are safe. In my Master's research, supported by a Transportation Group research award, I looked into any links between different types of on-road cycling infrastructure, how safe cyclists feel riding on them, and how they behave in different infrastructures. I investigated these relationships by asking local cyclists which cycling facilities they felt were the safest out of painted bike lanes, lanes with physical separation and unmarked roads; I also collected some data from an on-road experiment.

Results were mixed. Consistently, I found that people felt safe in bike lanes with physical separators. Additionally, there were several other environments in which cyclists felt safe, such as roads with low traffic and lanes with lots of room to avoid hazards. Overall, there was no relationship between feelings of safety and cyclists' speeds. However, on-street participants travelled the slowest on the road they felt the least safe on and biked the fastest on a street where they felt very safe.

This research, and research like it, is important for transport planners and engineers because understanding what makes people feel safe will be a significant factor in increasing cycling rates. Additionally, understanding any unintended consequences infrastructure or feeling safer has on cyclists' behaviour is important to ensure we design good, safe, cycling facilities.