

Making Transportation Work – Insoluble Modes Transcript

Hi, my name is Ryan A. Farmer, and I'm running for Portland City Commissioner. As both a driver and a bicyclist, it is important to me that Portland has been asking itself the important, existential questions about transportation. Specifically:

Is this a bike?

Is this a car?

I dunno, they both have wheels so... close enough! Put 'em both on the road!

Okay, here's the plan. First, we'll put cars and bikes together on the road. Next, we'll turn half the road into a separate road just for bikes. Then, we'll slow traffic and hit bikers. Wait, we'll slow traffic and hit bikers?

As a driver, I know how it is to be on the road with bicyclists. And as a bicyclist, I know how it is to be on the road with drivers. It's annoying.

[car rant about bikes]

[bike rant about cars]

As either a driver or a bicyclist, I don't feel safe or comfortable on the road with the other type of vehicle. When driving, I'm afraid I'll hit a bicyclist and when biking I'm afraid I'll be hit. And there's good reason for that: bikes and cars do not belong in the same category of vehicles and, on high-traffic roads, do not integrate well together. Let's look at a few basic facts:

Generally, a car can accelerate at least 3 times faster than a bicycle.

A bicycle has a normal speed of about 10-15 mph, while most cars can readily travel up to 70 mph, or 7 times as fast. And that's limited to common road speed limits.

The average weight of a person plus a bicycle is ~200 lbs.

The average weight of a "light-weight" car is ~4000 lbs. That's ~20x the weight (and that's without the weight of a person or gear in the car).

This means a car will generate about 20x the force a bicyclist does, just by its mass alone. Think about that difference in an accident.

Clearly, both bikes and cars have no practical similarity in their performance and the risks they pose to each other. This matters, both for ensuring efficient flowing traffic and what happens in the event of a collision.

However much we may want to share the road, bicycles and cars are so different that they cannot be well-integrated in the city. To make high-traffic roads safe enough for bicycles, we lose the effectiveness of cars. To those roads effective for cars, we lose bicycle safety. Both bicyclists and drivers have valid modes of transportation, but unfortunately neither can be used effectively when on the same road at the same time.

Thankfully, this doesn't mean we should ditch either cars or bikes. By dedicating local roads to small, personal vehicles like bikes, and dedicating thoroughfares to large vehicles like cars, we can increase transportation efficiency and road safety at the same time, using both modes of transportation for what they're best at.

My name is Ryan A. Farmer, and I'm running for Portland City Commissioner. Thank you, and vote

2020!

Sources:

<https://www.forbes.com/sites/samabuelsamid/2019/01/03/new-vehicles-keep-getting-heavier-or-are-they/#3edb2fdd4518>

<https://www.cdc.gov/nchs/fastats/body-measurements.htm>

<https://thexfire.com/bike-weighs>

<https://www.pdx.edu/ibpi/sites/www.pdx.edu/ibpi/files/Bicycle%20Performance%20Forthcomming%202013.pdf>

https://en.wikipedia.org/wiki/Bicycle_performance

https://www.engineeringtoolbox.com/car-acceleration-d_1309.html

<https://hypertextbook.com/facts/2001/MeredithBarricella.shtml>