



How Big is your Bicycle?

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I think electric bicycles have a great future.

Take a typical push-bike and modify it with an electric motor and a small battery pack and you have a vehicle which could get millions of people through their daily commute for an order of magnitude (or two) less than they currently need.

Suddenly you have a vehicle that's pretty frugal in the use of resources required to manufacture it, doesn't require any particular level of fitness and is ready to plug into the electricity grid. I can also imagine manufacturer's adding little 'bubble' cages around them soon, to provide weather protection so that the list of reasons not to 'cycle to work' reduces even further.

However, thinking about this future raises some other concerns. While total freight traffic must decline, it's likely that big trucks will still be common because of their efficiency per unit transported. Buses are also going to be a big part of our public transport future. But these trucks and buses will be sharing the roadspace with an increasing number of small and ultra-small vehicles. We could see a bi-modal size distribution of vehicles develop on our roads, which has hefty implications for road safety and infrastructure planning.

Another result of this is that line between 'cars' and 'bikes' will become increasingly fuzzy. Consider the 'vehicles' in the picture below, all of which are powered by human muscle (calories) or batteries, except the Harley Davidson motorbike and the Smart Car (which could easily be converted).

Now try to answer the following questions:

- Which of these vehicle types do you think we should have more of?
- Which ones should be allowed on main roads?
- Which ones could use an on-road bicycle lane amongst traffic?
- Which ones could use an off-road bicycle path in your local park?
- Which ones should get free entry into congestion charging zones?
- Which ones require dedicated parking spaces?
- Which ones would you feel safe in?
- Which ones should you be able to carry on a train?

- Which ones should be taxed, and which ones subsidised?
- Which ones should 'bicycle' advocacy groups support?

Can you agree on the answers to those questions? What would your local transport planner say?



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