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National Bicycle Transportation Policy Contradicts Itself

1 Policy Tangle

Americans believe that our nation has a policy for bicycle transportation, but nobody knows what it is. No one person can understand the policy because the policy contradicts itself in a three-way tangle.

Is the policy intended to improve and legitimize bicycle transportation? It does neither.

Is the policy intended to persuade many motorists to switch to bicycling? Such has never before been accomplished; what is called evidence clearly is irrelevant.

Is the policy intended to reduce motoring? It makes motoring more convenient.

Is the policy intended to clear the roads for motorists? This result is politically unmentionable.

2 Controversy Without Resolution

The bicycle transportation controversy has existed for years without a resolution that is accepted by the parties, although most governments have always favored one side and applied force majeure. Resolution of this controversy is difficult because the parties have different views of traffic and believe in different value systems; these combinations produce incompatible results. The most that can be achieved is some kind of mutual toleration in which each party feels protected against the worst effects of the opposing view.

The three parties need to be described.

2.1 Bikeway Cycling Party

The most frequently stated view is that America has insufficient bicycle transportation and is too dependent upon motor transportation; therefore bicycle transportation ought to be encouraged. The most frequently stated reasons for the paucity of bicycle transportation are cyclists' feelings of danger and illegitimacy when using the roadway. Since bikeways markedly reduce these feeling of danger and illegitimacy, provision of bikeways is held to be the most effective way to increase American bicycle transportation to a transportationally significant level.

Bikeway cyclists value the amount of bicycle transportation done and the amount of motoring reduced.

2.2 Vehicular Cycling Party

Vehicular cyclists believe that cyclists should operate on the roadway according to the rules of the road for drivers of vehicles.

Vehicular cyclists value the welfare of cyclists by advocating the system that best allows them to travel by bicycle with reasonable safety and convenience.

2.3 Motoring Party

Motorists believe that bikeways make cycling safe, and recognize that bikeways keep cyclists out of motorists' way. Motorists also believe that cyclists ought to obey the rules, but have little knowledge of the content of those rules, beyond the same function as bikeways, keeping cyclists out of motorists' way.

With respect to bicycle traffic, motorists value their own convenience.

2.4 Different Results

These different values produce different policies and different results.

Vehicular cyclists operate according to the rules of the road. They have a much lower car-bike collision rate than the general bicycling public, and they can travel between all points on the road system. They naturally advocate training prospective cyclists in this manner of operation. However, in the industrialized world and modern cities, with motoring the competing mode, the numbers of those who choose to cycle are few.

In a normal world, one would think that the system that best allowed for travel by bicycle would also produce the largest amount of bicycle transportation. That agrees with standard economic theory. However, the world of bicycle transportation is not normal. Most people prefer to ride in a dangerous and less convenient manner because they are afraid to ride in the safer, more convenient manner.

This paradox is produced because most people have excessive fears and guilt feelings about same-direction motor traffic. Thereby they place far greater importance on staying out of the way of same-direction motor traffic than on operating safely with respect to turning and crossing motor traffic, which is about 20 times more dangerous than same-direction motor traffic.

Bikeway cyclists believe that they can safely avoid the dangers and training of vehicular cycling. On normal roads, their car-bike collision rate is several times higher than that of vehicular cyclists, and it is uncertain whether bikeways make a significant reduction in that rate. In cities in which motoring is inconvenient and walking is the competing mode, bikeway cycling achieves as much as one-third modal share. This bikeway cycling is slow speed with many delays, but it is used because it is faster than both walking and motoring.

Motorists are happy to have bikeways that keep bicycle traffic out of their way, as well as the motor traffic that, they are told, has been converted to bicycle traffic.

The three sets of results are summarized as follows.

2.4.1 Vehicular cycling:

1: Done in automotive cities by those who enjoy

doing it

2: Provides reasonably safe travel over a wide area (though not nearly so large as provided by a car)

3: Provides only a small fraction of personal transportation

2.4.2 Bikeway cycling:

1: Done in walking cities by large numbers of people who would otherwise walk, would rarely motor

2: Provides reasonably safe travel in this context of slow speeds and short trip distances for all travelers

3: Serves only a small area

2.4.3 Motorists' View

Motorists are happy with bikeways that make motoring easier by keeping bicycle traffic out of their way and reducing the number of competing motorists.

3 Issues in America

Vehicular cycling is best for those who choose to cycle, but bikeway cycling is claimed to produce many more cyclists, thus reducing motoring while keeping motoring convenient. American society has long had a policy of cycling in the bikeway manner, even before bikeways were built, and American government intends to put more money behind this policy. This raises two different issues, one of effectiveness alone, the other of both effectiveness and justice.

3.1 Transferability from Europe

Bikeway cycling is associated with large modal share in some walking cities of Europe. Bikeway advocates claim that installing bikeways in American cities will produce a transportationally significant volume of bicycle transportation in these cities. They base their claim on the argument that the greatest deterrent to bicycle transportation in America is fear of same-direction motor traffic, so that removing this fear by means of bikeways will cause large numbers of Americans to switch from motoring to bicycling transportation.

This argument ignores two issues: safety and utility. Removing the fear of same-direction motor traffic does not make bicycling safe. It actually makes bicycling more dangerous, to counter which additional safety mechanisms are needed. Bicycle transportation is used where the pattern of

living makes it useful but, presumably, not where the pattern does not make it useful. Bicycle transportation competes well against walking, but it has never competed well where motoring is the dominant form.

The more thoughtful bikeway advocates, such as John Pucher, admit that bicycling cannot succeed against motoring until two changes are produced: motoring becomes inconvenient and urban living has less need of motoring. In short, bikeways will not accomplish much by themselves, and the necessary changes will not occur quickly.

3.2 Adverse Effect on Bicycle Transportation

The more effective the design of bikeways to attract and accommodate potential cyclists, the more that competent cyclists are slowed and inconvenienced. In those locations with the most intensive bikeway systems, competent vehicular cycling is not done; indeed it is prohibited. The same occurs in most states of the United States, because most states prohibit normal roadway cycling where bikeways are present. However, American bikeways are not yet as intensive as in Europe, and some legalistic exceptions exist.

Therefore, in the nation in which cycling competes against motoring and trip distances are longer, thus requiring cycling at higher speed to compete, the system proposed to increase bicycle transportation is that which will slow and delay cyclists, thus making bicycle transportation less useful.

While the bikeway system probably will attract some new short-distance travelers, it will certainly cause some current longer-distance cyclists to switch to motoring. This both reduces the supposed positive effect of the bikeway system and is an unjust imposition upon those who have been cycling properly.

4 Preserving Bicycle Transportation

Resolution is difficult because the parties have different values that produce incompatible results. Vehicular cyclists value the safety and convenience and legality of competent operation, bikeway advocates value the maximum number of cyclists without regard to their competence. However, it is possible to craft an arrangement in which both bicycling parties preserve their most

necessary powers while giving up what is only of symbolic significance. But any arrangement between vehicular cyclists and bikeway advocates will be of no effect unless the most powerful third party, government and motorists, agrees and implements the arrangement.

4.1 Relevant Characteristics

There are four relevant characteristics for bicycle transportation, the first two being the traditional pair of:

- 1: Convenience (for this discussion considered as travel time and speed) and
- 2: Safety.
- 3: Competence, which has always been attached to safety, because operating without proper competence is dangerous.
- 4: Comfort, because people will not travel in great discomfort unless they have great need and limited choices. This is particularly important for bicycle transportation because strong fears exist and other modes are easily available.

4.2 Speed Characteristic

Bikeway advocates use three arguments against cycling speed.

- 1: They say that cyclists do not consider speed to be important, pointing to the millions of slow-speed cyclists in Europe. The Europeans deny this claim, saying that they cycle because it is faster than walking, often faster than motoring. Speed that is useful depends on urban pattern and the competing mode.
- 2: Bikeway advocates claim that roadway cycling requires the speed of super athletes.
- 3: However, bikeway advocates really oppose cycling speed because bikeways are unsuited to cycling at normal road speed. Attempting to use bikeways at normal road cycling speed is very dangerous. This fact has long been argued by vehicular cyclists and has become part of the quarrel.

Vehicular cyclists make four claims about cycling speed.

- 1: Speed is necessary to make cycling more competitive with motoring.
- 2: Speed is desirable because no cyclist likes being limited to a slower speed than he wants.
- 3: Vehicular cycling on roadways can be done at either slow or fast speeds.
- 4: The more popularly attractive the type of bike-

way, the more dangerous it is at normal road speed.

4.3 Safety and Competence

The safety and competence arguments are necessarily attached to each other. It has been well demonstrated that competent roadway operation has a far lower car-bike collision rate than does incompetent roadway operation. It has not been properly demonstrated that incompetent operation on bikeways has a lower, or a higher, car-bike collision rate than incompetent operation on roadways, other things being equal. (The European evidence is when other things are greatly different.) Bikeways of the more attractive types require slow speed for safety. Roadway use requires vehicular cycling competence for safety, but can be done at the full range of cycling speeds.

The most reasonable statement of the case is that vehicular and bikeway operation are each reasonably safe when conducted in the manner appropriate for each.

4.4 Comfort

The comfort argument is absolutely subjective. The vehicular cyclist feels uncomfortable under the restrictions imposed by bikeways, the bikeway cyclist feels uncomfortable, even endangered, when on the roadway.

Attempts have been made to justify the discomfort felt by bikeway advocates as being the normal reaction to a real danger. If the danger is real, then bikeways are justified as safety measures. However, the discomfort felt by bikeway advocates when on the roadway is not in accordance with the accident facts, which is why bikeway advocates have ceased using the words danger and safety in this context and have retreated to mere comfort.

4.5 The Possible Resolution

The resolution requires that each bicycling party give up its rather symbolic claim to be universally the best method of bicycle transportation. Mutual toleration is required. Vehicular cyclists should limit their claim to normal roadway cycling and tolerate others cycling in bikeways. Bikeway cyclists should give up their claim that bikeways serve all cyclists and tolerate those who prefer competent roadway cycling. This arrangement allows both parties to maintain their core require-

ments without giving up anything of significance.

Moreover, such an arrangement allows the best practical use of bicycle transportation, because all of those who might use it are allowed to use it according to their own preferences. If the purpose of the policy is to encourage the safety and convenience of bicycle transportation, and hence encourage the volume of it, this policy of mutual toleration is clearly the best practical way to accomplish its objectives.

5 Countering the Motoring Establishment

However, nothing positive can be accomplished to further bicycle transportation until the opposition of the motoring establishment is beaten. All parties must recognize that the motoring establishment invented and established bikeways to restrict cycling for the convenience of motorists. Bikeway advocates find it hard to accept this historical truth. The bikeways that they love in the belief that bikeways make cycling safe and popular actually were intended to do just the opposite, to restrict and discriminate against cyclists for the convenience of motorists! As demonstrated above, bikeways don't make cycling safe, but they do make cycling more comfortable for many people. Indeed, if bicycle transportation is to be encouraged, it needs to be comfortable.

Because of the widespread superstition about this, a history lesson is necessary.

5.1 Bikeway History

In the 1880s, bicycles were recognized as vehicles in America and carriages in England, and their riders entitled to the use of the roadways as normal drivers. In America this situation existed when the first Uniform Vehicle Code was issued in 1926, and continued until 1944. There was no definition of bicycle, because everyone knew what they were and they and their drivers were treated just as other vehicles and drivers. However, by 1944 the motoring establishment had decided to discriminate against cyclists. One could not discriminate against cyclists and bicycles without a definition, and bicycles were therefore defined as "devices" rather than "vehicles". Cyclists were prohibited from using the full width of the roadway, only the practicable edge, and from using any roadway near which was a path usable by bicycles. (UVC 1944)

This was the invention of the bikeway style of

cycling, taught to generations of American children as a safety requirement with death the result of disobedience. "The bicyclist who gets in the way of traffic will either delay it, which is Sin, or, if the traffic refuses to slow down, will be crushed, which is Death; and the Wages of Sin is Death."

The only people in America who recognized the error of this superstition were the few experienced cyclists who had learned that obeying the rules of the road for drivers of vehicles was much better than using the bikeway-style, cyclist-inferiority style, of cycling. Some of these vehicular cyclists learned the hard way from experience, others had learned in European nations where vehicular cycling was the norm.

Right through the 1950s, cycling declined in America. Indeed, any adult who cycled was considered either an untrustworthy failure or a cultural freak. Bikeway style, cyclist-inferiority style, instruction had had the desired effect. However, the 1960s brought cultural turmoil, and one of the results was a great increase in adult cycling, particularly of young adults. The motoring establishment decided to establish a real bikeway program to physically enforce bikeway cycling on all cyclists, starting in California in 1971.

Not only had there never been any evidence for the bikeway safety argument, but during the formulation of the bikeway laws the first substantial investigation into car-bike collisions disproved the bikeway claim altogether; later research, even more substantial, confirmed this. Despite knowing this, and having this knowledge forcefully presented by vehicular cyclists, the motorists pushed ahead with their bikeway laws and bikeway designs, with the result of confining cyclists to bikeways wherever motorists chose to build them. The most reasonable, indeed almost the only possible, conclusion is that the whole bikeway program has been intended to clear bicycle traffic from the roadways for the convenience of motorists. (I was the most prominent cyclist opposing these governmental actions; I participated in, and observed, the actions of which I write.)

Because of the widespread superstition that bikeways made cycling safe, when the anti-motorists realized that the government had a bikeway program, they fervently demanded bikeways to make bicycle transportation safe. Thus we have the paradoxical situation that those who advocate switching motor transport to bicycle transport have chosen as their means the facilities that are successfully designed to restrict cyclists for the convenience of motorists.

5.2 Reforming the Traffic Laws

It is undeniable fact that the governmental program for bicycle transportation is largely based on the motorists' system for restricting bicycling for the convenience of motorists.

It is also undeniable fact that the bicycle advocates have misled themselves into supporting the motorists' anti-cyclist program by demanding more and more of the facilities that implement it.

It is not the facilities themselves that produce the anti-cyclist effects. As argued above, it is quite possible, and eminently desirable, to accommodate both cyclists who like bikeway cycling and cyclists who prefer vehicular cycling. The villainy resides in the three prohibitory laws by which bikeway-style, cyclist-inferiority style, cycling is legally enforced:

- 1: The law prohibiting cyclists from riding away from the edge of the roadway
- 2: The law prohibiting cyclists from riding outside a bike lane
- 3: The law prohibiting cyclists from using the roadway when a path is nearby

Just so long as any of those three laws remain in effect, the governmental program for bicycle transportation is an anti-cyclist program designed to make motoring more convenient.

5.2.1 Vehicular Cyclists

Vehicular cyclists understand this well enough, but they need to transfer their efforts from opposition to bikeways to really significant opposition to the three oppressive laws.

5.2.2 Bicycle Advocates

Bicycle advocates must come to understand that they can unify the cycling community only by producing strong opposition to the three discriminatory laws that both make bikeway operation more difficult and dangerous, and require vehicular cyclists to oppose bikeways.

5.2.3 Politicians

Politicians who support the bicycle program must be made to realize that, unless they tie this support to effective opposition to the three discriminatory laws, they will be exposed as toadying to the motoring interests.