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Review of:
Cycling for a Few or for Everyone:
The Importance of Social Justice in Cycling Policy

by John Pucher, Ralph Buehler
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1 Cycling is not the motivation of Pucher and Buehler

It must be understood that the purpose of the authors, Pucher and Buehler, has very little to do with improving cycling, the activity of traveling by bicycle. Their motivation is the reduction of motoring, and they regard cycling as merely one of their tools, to be used at they see fit. Their discussion of the many programs used in Freiburg to reduce motoring demonstrates this point. If improvements to cycling were the object, very few of these programs would be relevant or useful. This criticism is directed at their treatment of bicyclists as tools to achieve other purposes, instead of working to improve the safety and effectiveness of bicycle transport.

Furthermore, since they explicitly compare German transportation with American transportation, they are implying that these programs, if installed in typical American cities, would achieve comparable results.

2 Effectiveness of Bikeways is Unknown

P & B admit that achieving their goal, whatever this goal may be, requires a panoply of programs, many of them involving major rebuilding of modern cities. Near the end of their article they present a long list of programs and changes that "must" (their command) be done.

Neither P & B, nor anybody else, has demonstrated the contribution that has been made by bikeways toward either this total result or to the results claimed for them in specifically cycling affairs. Furthermore, the evidence that exists from several parts of the world, and particularly from America, demonstrates that bikeways are more likely to increase cyclist accidents and decrease bicycle transportation efficiency than otherwise. Because P & B have never described the traffic engineering concepts associated with bicycle travel, their description of bikeway traffic can apply only within the societies they describe. It has no foundation in theory that would make it applicable elsewhere.

3 Facilities and Operating Methods

It is a truism that each type of facility requires its own operating method.

3.1 Roadway Operating Method

It is accepted that on roadways, the rules of the road for drivers of vehicles provide safe and effective operation. When done by cyclists, this is termed vehicular cycling.

3.2 Bikeway Operating Method

P & B, while for years advocating bikeways and claiming great safety results, have never described the method of operation to be used, except for the statement that it is done by children, women, and those with vision and hearing disabilities.

However, they have now described the bikeway cycling method, not by what it is, but by what

it is not. It does not include looking behind one:

"Most people would feel uncomfortable looking backward while cycling forward."

Neither does it include any significant amount of: "[C]yclists must constantly evaluate traffic, looking back, signalling, adjusting lateral position and speed, sometimes blocking a lane and sometimes yielding, always trying to fit into the 'dance' that is traffic. Research shows that most people feel very unsafe engaging in this kind of dance, in which a single mistake could be fatal. Children as well as many women and elders are excluded."

In short, P & B advocate a system in which cyclists do not regulate their movements with respect to motor traffic. When done by cyclists, this is termed cyclist-inferiority cycling, because it assumes that cyclists are less capable than normal adults.

4 Types of Bicyclist Education

It is a truism that training is designed to produce competence in the operating methods that are desired.

P & B claim that "Our cycling publications have always emphasized the crucial role of education and training ... for cyclists. ... our research highlights the importance of comprehensive, mandatory cycling training for all school children so that they can have the necessary cycling skills and knowledge even at a young age. ... " P & B have never supported this repeated claim with evidence of what is taught, what is learned, and its importance for cyclists. Without this information, no claim as to the efficacy of training can be valid.

However, P & B have inadvertently provided a description of European cyclist training. That is, it is training in operating in the method that P & B admire, the cyclist-inferiority method.

On the other hand, training in vehicular cycling has long been documented as to its content and its results. It trains people to operate as vehicular cyclists, and the tests show that it accomplishes that goal.

5 History of Operating Methods

P & B's inaccurate view of cycling history distorts their discussion. P & B repeatedly assert that there is no cyclist training in America except for what they describe as the widely available but unpopular vehicular cycling program. "Surely it is preferable to provide schoolchildren with at least theoretical and off-road cycling training rather than nothing at all, as in American cities."

This claim is false, because American cyclists are well trained in the kind of cycling that P & B advocate, the cyclist-inferiority method, in which the prime object of cyclists is to stay out of the way of motorists. The most difficult part of American vehicular cycling training is to get the students to overcome their previous cyclist-inferiority training.

For seventy years American society, American "bike-safety" programs, and American governments have promoted and enforced cyclist-inferiority cycling. (Legislators restricting cyclists to the side of the road; AAA, National Safety Council, Bicycling Committee of the Transportation Research Board, FHWA, etc., etc.) They succeeded so well that not only did nearly all Americans conform, but they believed that cyclist-inferiority cycling was necessary for safety. Therefore, when American governments, starting with California, decided to enforce cyclist-inferiority cycling on all cyclists through the production of bikeways, this was cheered not only by the motorists who had devised the system for their own convenience, but by the environmentalists, who really believed that bikeways made cycling safe. This is documented historical fact, and there are rumors that the same sequence occurred in Europe.

Throughout this same seventy years of American history, the few well-informed cyclists operated in the vehicular manner. They had discovered, either through experience or through European cultural diffusion, that vehicular cycling was safer and better than cyclist-inferiority cycling. Government did not consider the very few vehicular cyclists a significant problem until the "bike boom" around 1970, which led California to decide to enforce cyclist-inferiority cycling on all cyclists through the production of bikeways.

6 Vehicular Cycling Popularity

P & B never consider the value of vehicular-cycling training but instead evaluate it only as unpopular and contrary to their preferred method of cycling. "Although such vehicular cycling training courses are offered in many cities in North America, only a tiny percentage of cyclists take such courses on a voluntary basis. Thus, limiting cycling training to the sorts of courses that Haake teaches would reach only a minute percentage of the population." That's not a fair evaluation.

Previous to the bikeway era, vehicular cyclists had no need to formalize their method, because it was just what all the other drivers of vehicles did. However, once government started to enforce cyclist-inferiority cycling on all cyclists through bikeways, vehicular cyclists rose up in rebellion at this oppression. The rebellion produced the first formal descriptions of cycling in accordance with the rules of the road and in accordance with standard traffic-engineering principles and practices, and the first vehicular-cycling training courses.

The fact that bikeway and cyclist-inferiority advocates have never been able to produce intellectual criticism of vehicular cycling, or to demonstrate that it contradicts standard traffic-engineering principles, but can only complain that it is unpopular, demonstrates the intellectual integrity of vehicular cycling. The fact that the vehicular-cycling movement exists in opposition to the full political, legal, and social forces of society demonstrates the popularity and value of vehicular cycling among those who learn about it. Such a system is not to be dismissed as lightly and shallowly as P & B do.

7 The Social Question

We therefore have two different methods of performing bicycle transportation: cyclist-inferiority cycling on bikeways and vehicular cycling on roadways. Vehicular cycling requires paying attention to motor traffic, cyclist-inferiority cycling does not require paying attention to motor traffic. There are two different training systems, each of which teaches what is required for the cycling method to which it is attached. The characteristics of the two systems are so different, as are the values of the possible evaluators, that it is impossible to state which system is “best”.

Because vehicular cyclists pay attention to traffic around them and use their judgment to operate in the same way that other traffic does, they require no special facilities and do what everybody else does. Cyclist-inferiority cyclists are relieved of the need for using judgment with respect to motor traffic, and therefore from the need to pay attention to it. That is what the writings of P & B claim (as do others of their ilk), but this claim is false. The only traffic from which bikeways provide protection is same-direction motor traffic. However, motor traffic approaches from four directions: same-direction, right, front, and left.

When the cyclist trained in cyclist-inferiority cycling is confronted with traffic from the right, front, or left, the situation exceeds that for which he is trained; he is not competent to handle the situation. Either he makes dangerous moves, or he must be prevented from making them. (Before the era of American bikeways, 30% of car-bike collisions were caused by the cyclist operating according to his cyclist-inferiority training.)

The attempt, not always successful, to prevent incompetent cyclists from operating dangerously is the reason for the complicated intersection design and complicated traffic-signal phasing that are used in Europe and are starting to be introduced in America. These complications produce additional delay for both cycle traffic and motor traffic. Cyclists are delayed more than motorists, for the system adds slow bikeway travel speeds to the delays at intersections.

In summary, we have two systems. Vehicular cyclists operate in reasonable safety over all the road system as fast as they care to travel. Cyclist-inferiority cyclists are limited by their lack of competence to slow travel on bikeway streets or slow travel on slow-speed streets.

Which is the better system, fast travel with freedom of the roads or slow travel over a limited range of roads, is a question that cannot have just one answer.

8 Transferability from Freiburg to Omaha

Freiburg is a medieval walking city. P & B praise it for retaining its old pattern. Subsequent growth has been greatly restricted, and has occurred largely on radial lines. Such an urban pattern has two characteristics relevant to this discussion. Having very large parts of its economic, governmental, and social lives within walking distance also means that somewhat more than that is within easy slow cycling distance. This urban pattern also is unsuitable for more than a small amount of motor transportation, as experience has shown in many such places. With these two characteristics, slow cycling is evaluated as useful because it is faster than walking, as is commonly reported of such systems, and even faster than motoring.

The typical American city has largely developed in the automotive era, with low density and a decentralized pattern. It could not have developed without motoring, its roads are good, it is unsuited to mass transit, and typical trip distances, individ-

ual and chained, are too long for walking. In this urban pattern, cycling is evaluated not against walking, which is only rarely used, but against motoring, the dominant means of transport. For transportational trips which might be done either by car or by bicycle, the traveler chooses, and the major factor in that decision is travel time. For most trips, motoring takes less time while cycling incurs the cost of requiring more travel time. To overcome this greater cost, the cyclist may apply the enjoyment of cycling, and therefore choose to cycle. Cycling that is impeded by the societal delays caused by a policy of incompetent cycling both provides much less enjoyment and increases the time penalty. Therefore, the speed and freedom of vehicular cycling is particularly important in choosing bicycle transportation in the typical modern American city.

P & B emphasize that bicycle transportation is only one of many parts of making a city more environmentally sustainable, and, indeed, might be more a result than a cause. The modern American city would require vastly greater changes than Freiburg. I think it most unlikely that an American program of cyclist-inferiority cycling on bikeways will produce any political force that would significantly assist those changes.

Indeed, it has been easy for American cyclists who have lived through this period to understand the major force opposing bicycle transportation in America. That has been the seventy-year policy and practice of legally and socially treating cyclists as inferior persons, without normal mental power and with lower status than motorists, persons who should be swept aside out of motorists' way onto bikeways. In short, the greatest deterrent to cycling in America has been the policy and practice that P & B praise and desire so much, that of inferior cyclists on bikeways.

The most likely way to increase bicycle transportation in the typical modern American cities is to raise cyclists to the legal and social standing of drivers of vehicles, with expected skills to match.

9 Potential Compromise

Bike lanes, seemingly the least effective of bikeways, are also the least harmful. The incompetent cyclist can choose to remain in them always, while the competent cyclist can choose to leave them when that is the safer course. That is, if the government will permit cyclists to operate as drivers of vehicles when they choose.

Cycle tracks, sidepaths and such are more harmful, because once inside the cyclist can't get out. However, the government might be persuaded to let cyclists operate as drivers of vehicles even though cycle tracks or sidepaths are present.

So far, despite many appeals, American bikeway ideologues have never exerted their political power in favor of the freedom of cyclists. Motorists, of course, won't do that either. The American bikeway program uses bikeways designed for the convenience of motorists, and American society refuses, so far, to make its bikeway program favorable to cyclists by freeing them to use bikeways or to operate as drivers of vehicles, whichever is best at that place, time, and trip purpose. That's a compromise that ought to be made.

10 Correspondence with Editor

I submitted this report to the Editor of World Transport Policy and Practice.

He replied with the following email letter.

Dear Mr Forester,

I have read your submission commenting on the Pucher/Buehler article and I have decided not to publish it. This is because you have cast your submission in a personal attack on the authors and this is not acceptable. It is simply not possible to say what is in the minds of P&B when they write about cycling and their true "purpose". It is also irrelevant.

If you want to send me a scientific contribution where you marshal your arguments in a systematic and evidence based way with references and identify with data and logic in what ways you have arrived at different conclusion to P&B then that is fine and I hope you will.

Also you need to pay attention to the norms of scientific writing e.g. you say "Neither P&B nor anybody else has demonstrated..". It is not possible to say that no one on the planet at any time in any place has not done something. You should demonstrate with references who has demonstrated what and not assert that something has not been demonstrated. You say something has

no foundation in "theory". What theory are you referring to with what references?

I hope you feel able to re-submit a scientific article.

very best wishes

John Whitelegg
Editor

To which I replied:

Dear Mr. Whitelegg:

You appear to question my statement that P & B's motive, with respect to cycling, is the use of bicycle transportation to reduce motoring. Considering the explicit content of their article which you published, to say nothing of theirs, and Pucher's, previous articles in other journals, I can only regard your dubiety with great suspicion. Furthermore, it is relevant the discussion that I brought, for I evaluate actions regarding cycling on the basis of their benefit to cyclists, which is an entirely different criterion and is very relevant to how cyclists are treated.

You wish evidence, data, and logic for my conclusions. That would take books, and it has been published, much of it, for thirty years. That is material that you should know if you choose to publish articles on bicycle transportation. Try my *Bicycle Transportation*, first published by MIT Press in 1976, latest edition 1994. I think that I took care to make no statement that has not already been in wide circulation for several decades; practically nothing is new in the field.

You claim that it is not possible to say that, in the vehicular-cycling v cyclist-inferiority cycling controversy, "Neither P & B nor anybody else has demonstrated ... ; ... you should demonstrate with references who has demonstrated what and not assert that something has not been demonstrated." If you stuck to that criterion you would not have published the P & B papers, because they make many claims that have no scientific support. Since they made such claims, and you published them, it is only reasonable to criticize those claims for having no support. How else can that be done, except to say so? Furthermore, people writing in a particular technical field are expected to know the literature, and I added "nor anybody else" because no such demonstration has appeared in the literature with which I am familiar. Clearly, I have more familiarity with the literature than you have, based on the paragraph above.

You refer to my statement that bikeways have no theory of operation that demonstrates why they provide better transportation, according to the standard criteria for transportation of safety and convenience of the traveling public, than using the roadway. Bikeway advocates tried for decades to demonstrate that bikeways of one form or another reduced car-bike collisions while providing equally fast transportation. They have given up this effort, because they always failed. They have never provided a theory for why bikeways produce the claimed effect, and therefore go back to relying on causeless correlations, as do P & B.

So I attack the statements made by P & B? If their statements are erroneous, they should be criticized. There's nothing personal about this, I know nothing about their personal lives and stated nothing of that sort. I criticized only their statements made in a journal on the subject.

10.1 Comments on the Correspondence

The reply by this editor is typical of the comments made by other editors of professional journals that consider transportation. These people are no better informed about bicycle transportation than are the general public; they believe the same superstitions. Therefore, they accept for publication papers that are based on these superstitions; they don’t question these papers because they don’t recognize that their own beliefs lack scientific support. For the same reason, they question statements that have been well established for thirty years, because they have not read the basic literature in bicycle transportation engineering.

I have observed this situation for thirty years over which I have observed no significant change.