The tumultuous history of public transport-bicycle relations in France

Scientists for cycling
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The return of the bicycle
A history of urban transport in Europe, from 1817 to 2050
Introduction
For an omnimodal approach

The bicycle is easily competed by all the other modes of transport in terms of:
- space
- speed
- comfort
- security
- funding...

We must understand the journeys redistribution from all modes to all modes

And especially between cyclists and public transport users
From the end of 19th century to 60’s, two means of transport that ignore one another
Bicycle cheaper and faster than urban public transport (UPT)

From 1895, bicycle cheaper than UPT (Orselli, 2009; Emanuel, 2012)

- Bicycle industrialisation
- Prices must reflect UPT costs

Since its development (1890’s), bicycle faster than UPT from door to door

- Tramways and buses are very slow at the beginning and after stuck in traffic
- Underground less fast than cycling, if there is connection
Context of 50’s-60’s

**Collapse of cycling**
- Challenged by the motorized two-wheelers
- Threatened by the automobile

**UPT abandoned**
- Dismantling of tramways from 1931 to 1964
- No investment in Parisian underground
- Investments only in buses to replace tramways and to renewal fleets of vehicles
From the 70’s, the successful revival of UPT

| Finding | – Impossible to achieve all journeys by car on account of congestion  
|         | – No access to the car to 30% of the population (poor and disabled) |
| Creation of lobbies | – Research Group  
|                     | – Transit operating authorities  
|                     | – Public transport union  
|                     | – Manufacturers  
|                     | – Users |
| Construction of new UPT | – From the 70’s: RER A and B… underground of Marseille, Lyon, Lille…  
|                     | – From the 80’s: tramway of Nantes, Grenoble, Strasbourg… |
| New funding for UPT | Transport levy for firms and administrations in urban areas  
|                     | => Multiplication of social fees, notably for schoolchildren and students |
From 1974, the aborted revival of cycling

**Context**
- Critics of the omnipresent automobile and of the consumer society
- Energy crisis
- Cyclo-environmental protests
- In 70’s: more mopeds than cyclists, only in France, not in other countries

**Answers**
- 1974: cycle facilities design manual for the LTW (mopeds + cyclists = light two-wheelers)
- 1977: grants for bike paths device, but abandoned two years after

**But failure**
- LTW considered very dangerous
  - true for mopeds, but false for bicycles
- Cycle paths unsuitable in urban areas
- Bicycle image already very degraded
- Cycle lobbies still weak
In the 80’s-90’s, the bicycle, “competitor to shoot”

A lot of remarks actually very virulent because cyclists become scapegoats of UPT defenders whereas car is of course the main competitor  (Horton, 2007)
1/ Cyclist would consume 5 more space than bus user

<table>
<thead>
<tr>
<th>Origin</th>
<th>Works of a RATP engineer (Marchand, 1977)</th>
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<tbody>
<tr>
<td></td>
<td>But he uses hypothesis in favour of the bus</td>
</tr>
<tr>
<td></td>
<td>– confusion between motorized two-wheelers (MTW) and bicycle</td>
</tr>
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<td></td>
<td>– high occupancy rate for buses…</td>
</tr>
<tr>
<td></td>
<td>And he trained a generation of transport specialists</td>
</tr>
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<td></td>
<td>in his course at ENPC</td>
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| Repeated by many researchers | – C. Lefèvre et J.-M. Offner, 1990, p. 12 et 44 |
|                             | – ADEME, 1995, p. 12 |
|                             | – P. Merlin 1997, p. 158 : the bicycle |
|                             | “consumes much more space than its supporters acknowledge” |

| In fact an equivalent space | In m².h per person, by adding traffic and parking |
|                            | from home to work and back |
2/ Cyclists would harm the commercial speed of buses

No bicycle in bus lanes
- Bikes would slow buses
- Bikes would be a safety hazard for buses
- No way to promote a direct competitor

The reasons
- Bus lanes hard-won against the car
- Cyclists: marginal users
- Some common clients like students

However impact highly exaggerated
Cf. an experimentation of bus-bike lanes at Annecy in 1988

Today still some tensions
In Lyon, Marseille…
3/ The transport of bicycles in UPT would be harmful

Three reasons

- The loading / unloading of bikes slow UPT
- It would be dangerous for other travellers
- Bikes are bulky, so unprofitable

But true only at rush hour

CycloTan: loan of folding bikes to PT users in Nantes
4/ Bike and ride solution would be negligible

<table>
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<tr>
<th>No bike park near the stations</th>
<th>Two-wheelers are scarce</th>
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<td>The construction of these parks are not the responsibility of transport managers…</td>
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<tr>
<th>Or no follow-up in the implementation of these parks</th>
<th>Cf. the case of RATP (Paris)</th>
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<tr>
<td></td>
<td>1994-2001 : building of bike parks —&gt;</td>
</tr>
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<td></td>
<td>abrupt stop in 2002</td>
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<td></td>
<td>revival in 2012…</td>
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</tbody>
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<th>And very expensive equipment</th>
<th>Creation of a special equipment (nonstandard)</th>
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<th>Consequences</th>
<th>Chaotic diffusion</th>
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<td></td>
<td>Little communication…</td>
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</table>
But the park-and-ride would be indispensable

The benefits of P+R
- Less cars in city centre
- More clients in UPT

The adverse impacts of P+R
- Very expansive solution
- Very low additional customer
- Spaces well served by UPT sterilised by car parks
- Urban sprawl favoured
  because it is more easy to access to the outskirts
  (Asséo, 1992; Rigby & Parkhurst, 1997; Bonanomi, 1997; Monheim, 2001; Holz-Rau, 2001; Frenay, 2001…)

An unopened debate in France today…

P+R in Strasbourg
Today,
relations between bicycle and UPT
more appeased
A change of context

Return of the bicycle in the city centres
– Cf. the results of inquiries about households’ journeys
– Cf. the success of the bike share systems (but only a complement, not the starter)

Cyclist lobby more powerful
– FUB (French federation of urban cyclists)
  200 associations, 30 000 members
– CVTC (Cycling cities and territories club)
  1 400 local authorities
– CNPC (National council of cycling professionals)…

A more difficult funding for UPT
– Drop in funding
– Increase of deficit
⇒ Necessary rationalisation of bus lines
⇒ Increasing of fees
## The articulation between cycle and UPT

| **Welcome competition in the city centre** | Because it allows desaturate UPT with two consequences:  
– Improved comfort  
– Possible redeployment of supply on the outskirts |
| **Strong complementarity on the outskirts** | Thanks to the increase of the catchment area of transit stations with two consequences:  
– drop in the number of transit stations  
– simplification of bus lines plan with an increasing of commercial speed |
| **Bicycle as alternative to expensive UTC** | – For schoolchildren and students  
– For low income… |
| **A common interest, the traffic calming** | = Generalisation of appeased zones  
(20 mph zone, home zone, pedestrian zone…) |
Conclusion

The bicycle allows the profitability of UPT

The bicycle - public transport alliance is an alternative to the (second) car

The P+R solution must be reconsidered in favour of the B+R solution

Thank you for your attention