

The tumultuous history of public transport-bicycle relations in France

Scientists for cycling
Velo-city – Nantes – June 2nd 2015

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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

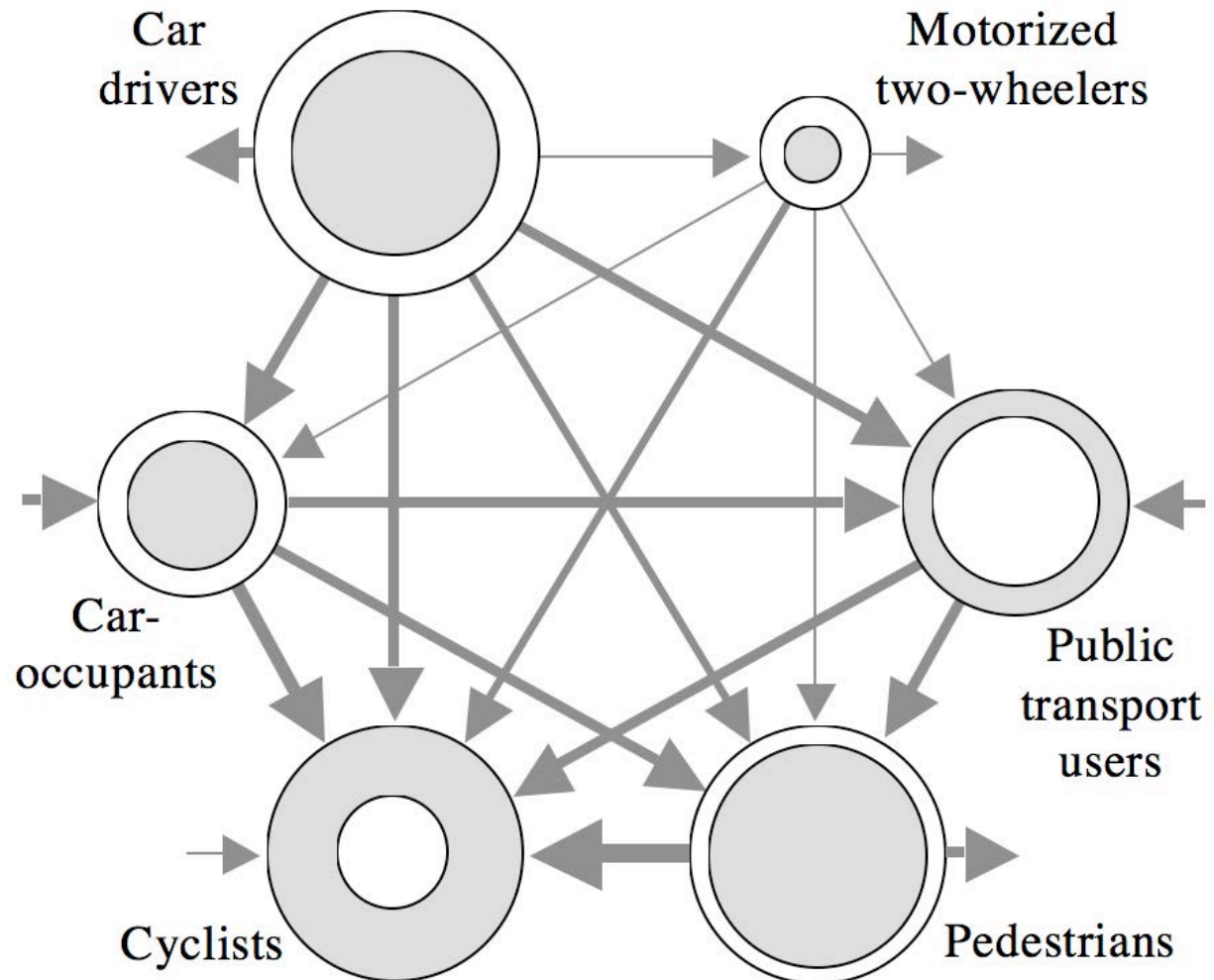
The bicycle is easily competed by all the other modes of transport

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

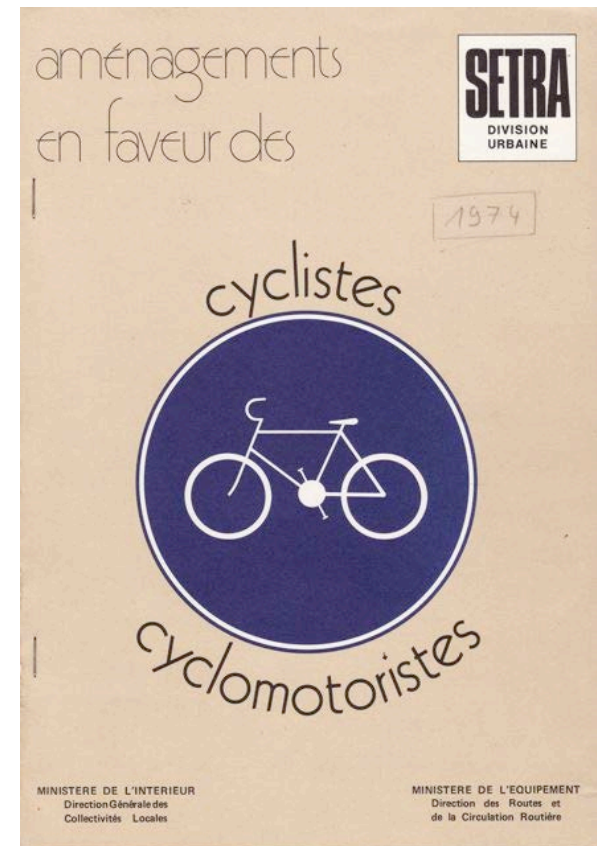
- Critics of the omnipresent automobile and of the consumer society
- Energy crisis
- Cyclo-environmental protests
- In 70's: more mopeds than cyclists, only in France, not in other countries

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

Origin

Works of a RATP engineer (Marchand, 1977)

But he uses hypothesis in favour of the bus

- confusion between motorized two-wheelers (MTW) and bicycle
- high occupancy rate for buses...

And he trained a generation of transport specialists in his course at ENPC

Repeated by many researchers

– C. Lefèvre et J.-M. Offner, 1990, p. 12 et 44

– ADEME, 1995, p. 12

– Dron and Cohen de Lara, 1995, p. 129

– 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

No bike park near the stations

- Two-wheelers are scarce
- The construction of these parks are not the responsibility of transport managers...

Or no follow-up in the implementation of these parks

- Cf. the case of RATP (Paris)
- 1994-2001 : building of bike parks —>
 - abrupt stop in 2002
 - revival in 2012...

And very expensive equipment

Creation of a special equipment (nonstandard)

Consequences

- **Chaotic diffusion**
- **Little communication...**



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