

# Ecomobility and speed

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México DF. Octubre de 2012



# Summary

- There is a need to rethink the way that urban space is used, perceived and how we travel through it. Speed is one of the main variables that can be managed and acted upon to improve urban transport, where non motorised transport (bicycles and walking) have a key role. The presentation will focus on why this is so important and what projects can be developed to achieve it.

**This is the city many people want**

**Fast  
Effective  
Efficient  
Alive  
Modern  
Progress  
Technology**



**This is the city they have in reality**

**Dangerous  
Polluting  
Impersonal  
Distant  
Inefficient  
Machine  
Development?**



# Equity

- ▶ “The highest priority should go to public transport, walking and non-motorised vehicles that are accessible to almost everyone and have low impacts”
- ▶ *Enrique Peñalosa*



**For cars**



**For people**



# Lack of appropriate crossings generates risks



What do we perceive at 4 km/h (walking pace)?



What do we perceive at 200 km/h?



# La velocidad enceguece

Mientras más rápido vayas, menor es tu capacidad de atención al entorno



## Speed makes us blind:

- The field of vision shrinks depending on the speed of a vehicle

## Se trata de la capacidad de percibir

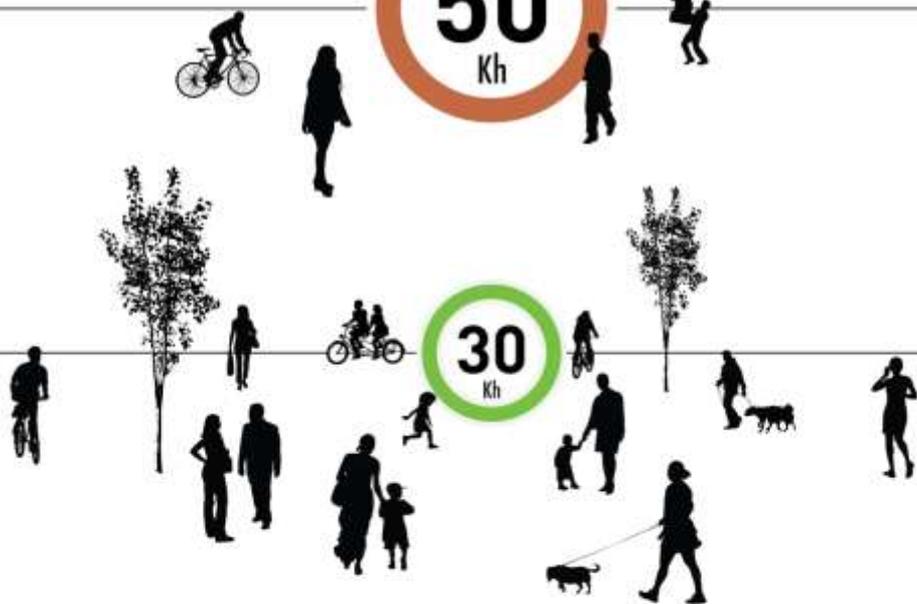
Estas cuatro figuras muestran el campo visual de un conductor de acuerdo con su velocidad de desplazamiento y la capacidad de percepción y concentración sobre su entorno. Como se ve, la velocidad es inversamente proporcional a la capacidad de percepción, lo cual reduce la seguridad del entorno.



Una persona atropellada a 65 k/h  
tiene un 5% de posibilidades  
de salir con vida



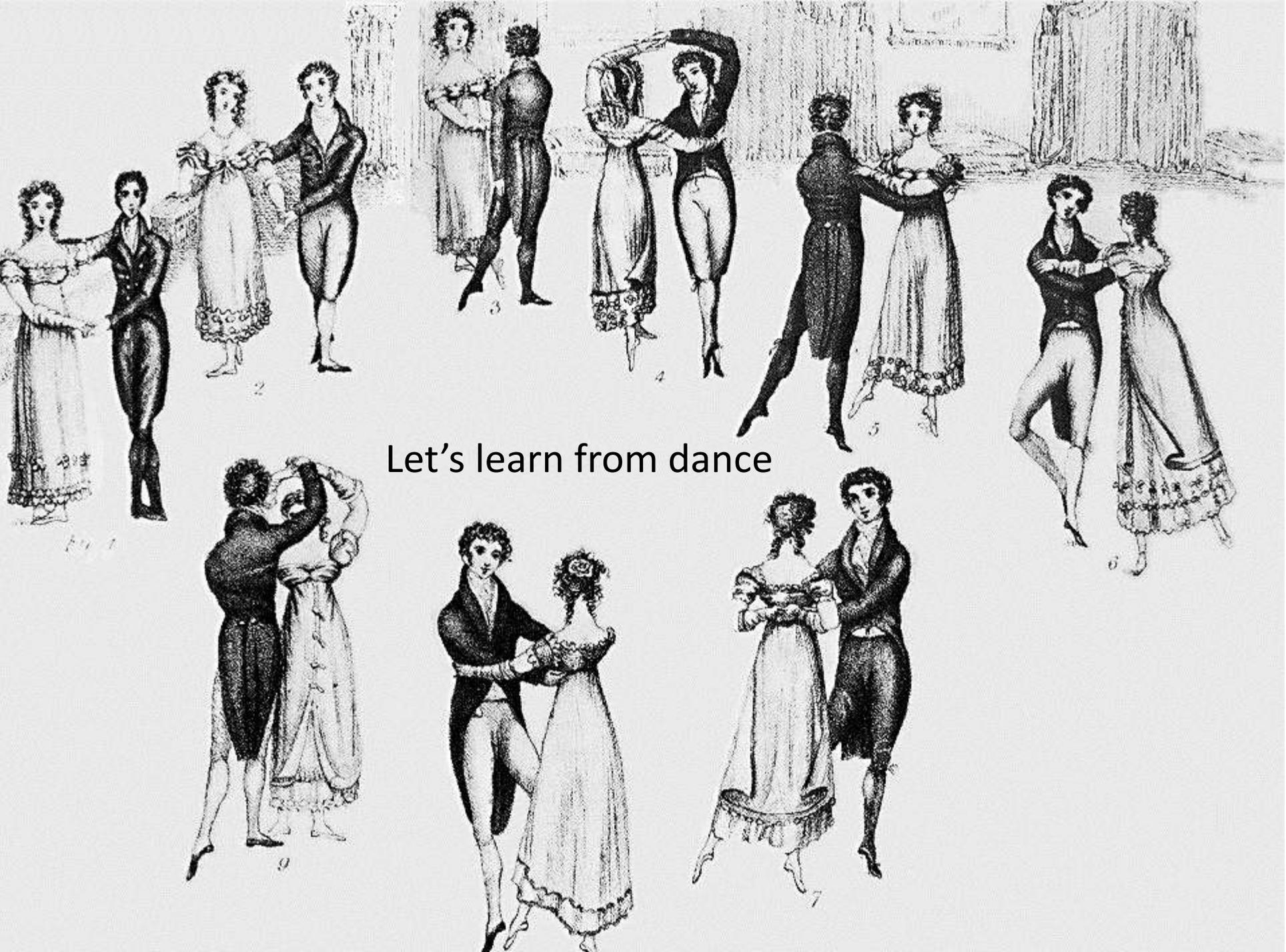
Si es atropellada a 50 k/h  
tiene un 45% de posibilidades  
de sobrevivir



**And... the other way  
around!**

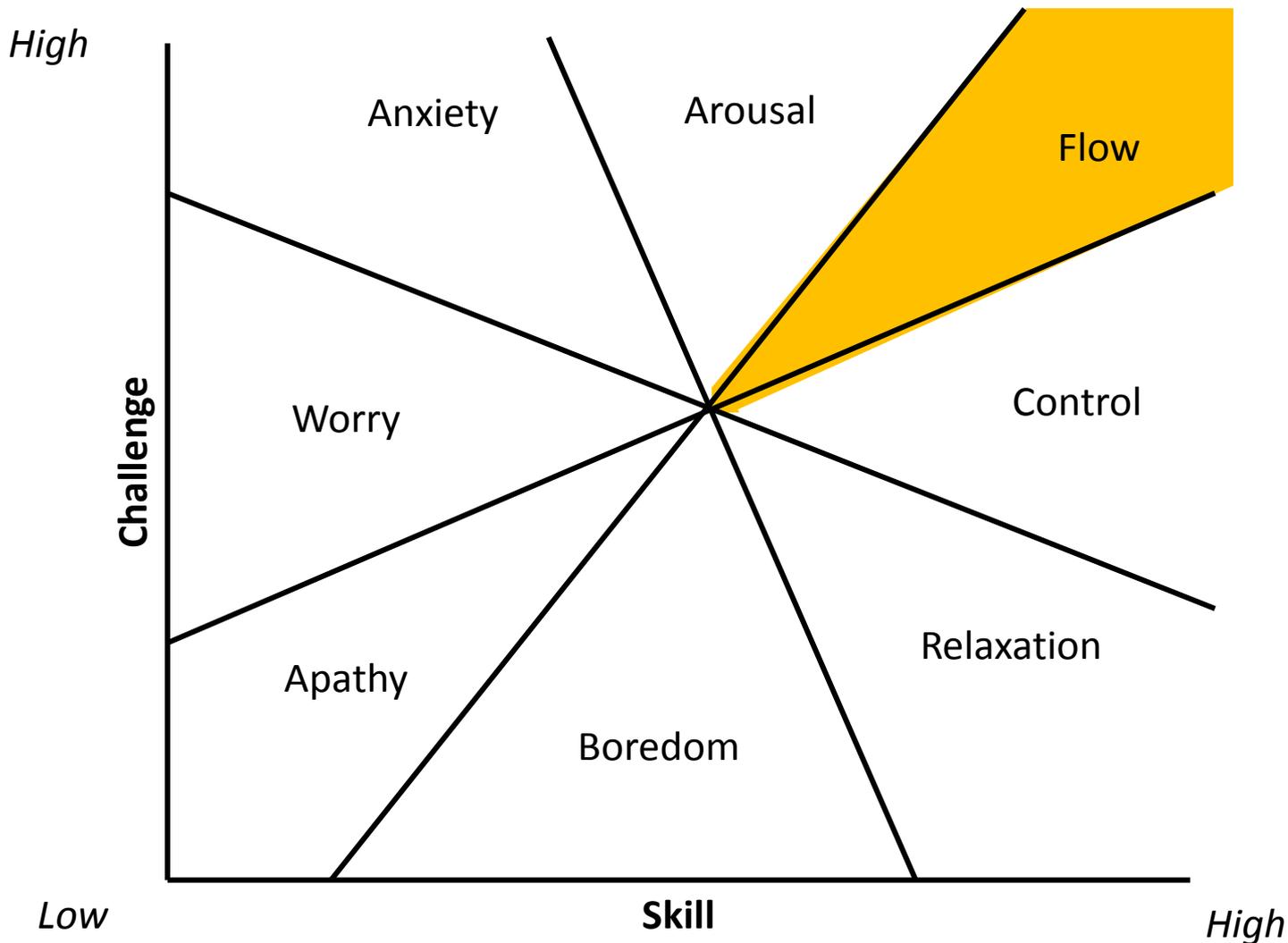
A 30 k/h, en caso de siniestro, un 95% de las personas sobrevive  
**Mientras más despacio, más personas, más vida.**

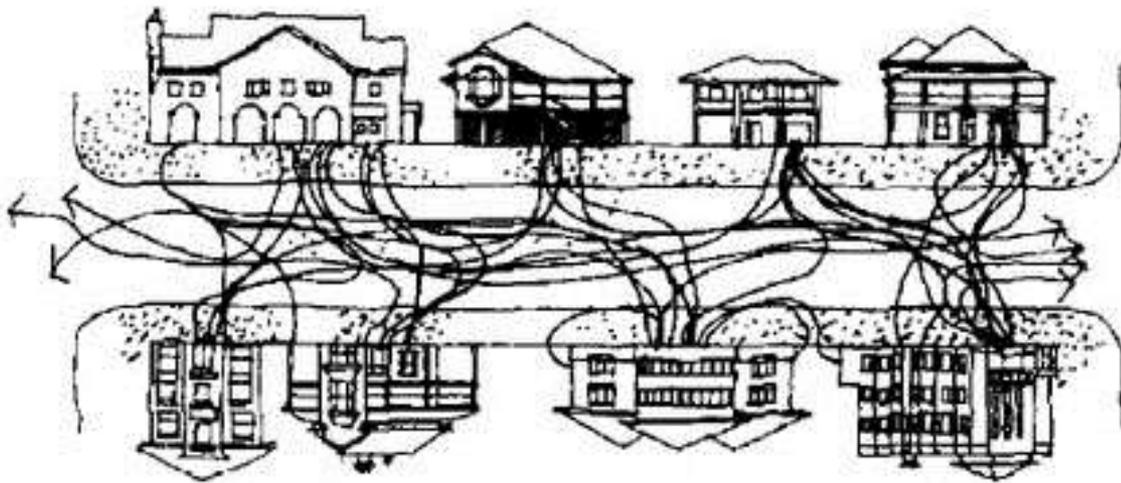




Let's learn from dance

# Flow and mindfulness





*Light Traffic*  
2000 vehicles per day  
3.0 friends per person  
6.3 acquaintances

Tráfico bajo  
2.000 vehículos por día  
3 amigos por persona  
6,3 conocidos



*Heavy Traffic*  
16,000 vehicles per day  
.9 friends per person  
3.1 acquaintances

Tráfico pesado  
16.000 vehículos por día  
0,9 amigos por persona  
3,1 conocidos

# Do you see a conflict? ¿Ve ud un conflicto?



**Do you see a conflict?**  
**¿Ve ud un conflicto?**



# Do you see a conflict? ¿Ve ud un conflicto?



# Do you see a conflict? ¿Ve ud un conflicto?

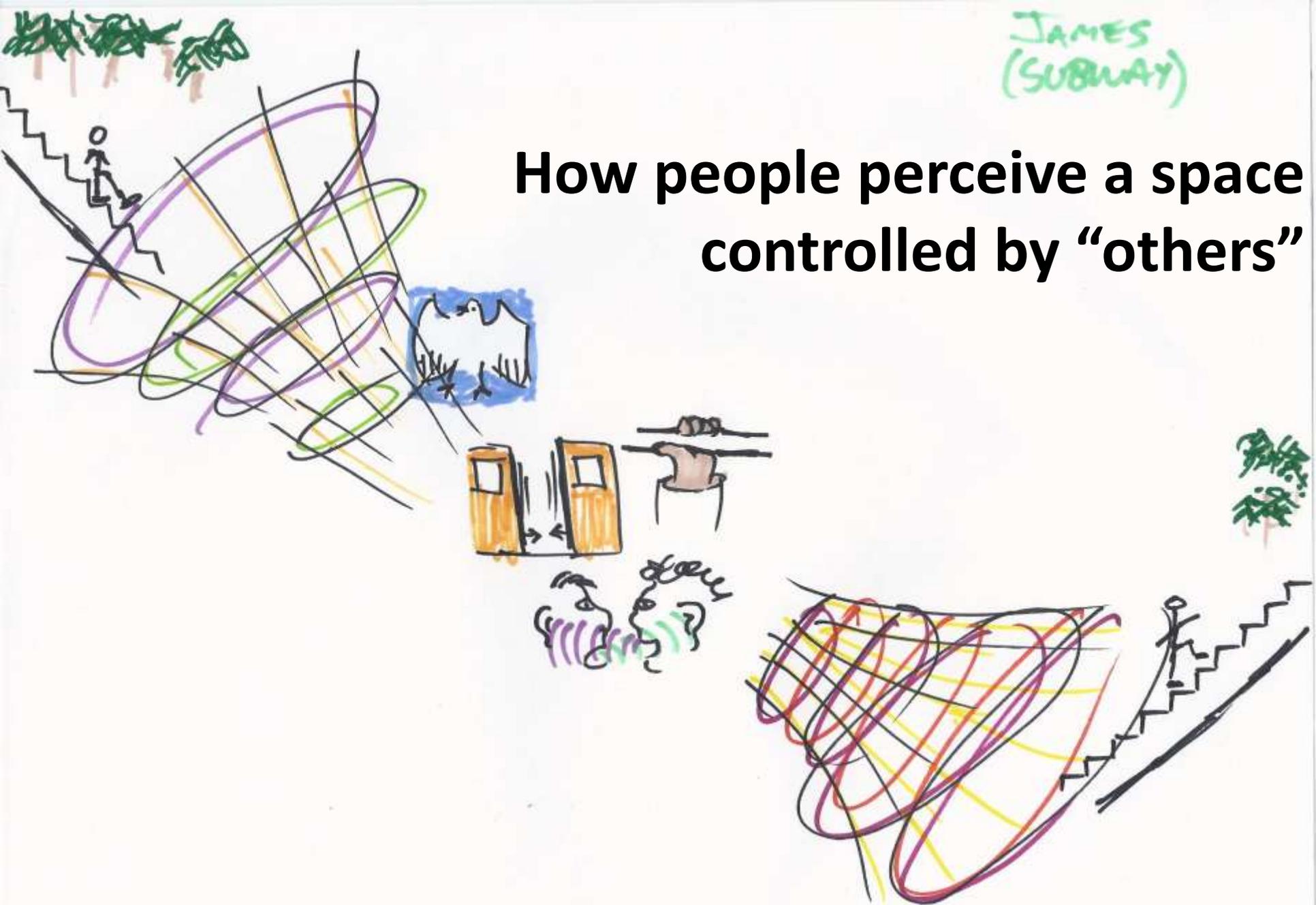


**WHY DID YOU SEE THAT CONFLICT?**

**¿POR QUÉ VIO ESE CONFLICTO?**

JAMES  
(SUBWAY)

# How people perceive a space controlled by "others"



# How people perceive a space controlled by themselves

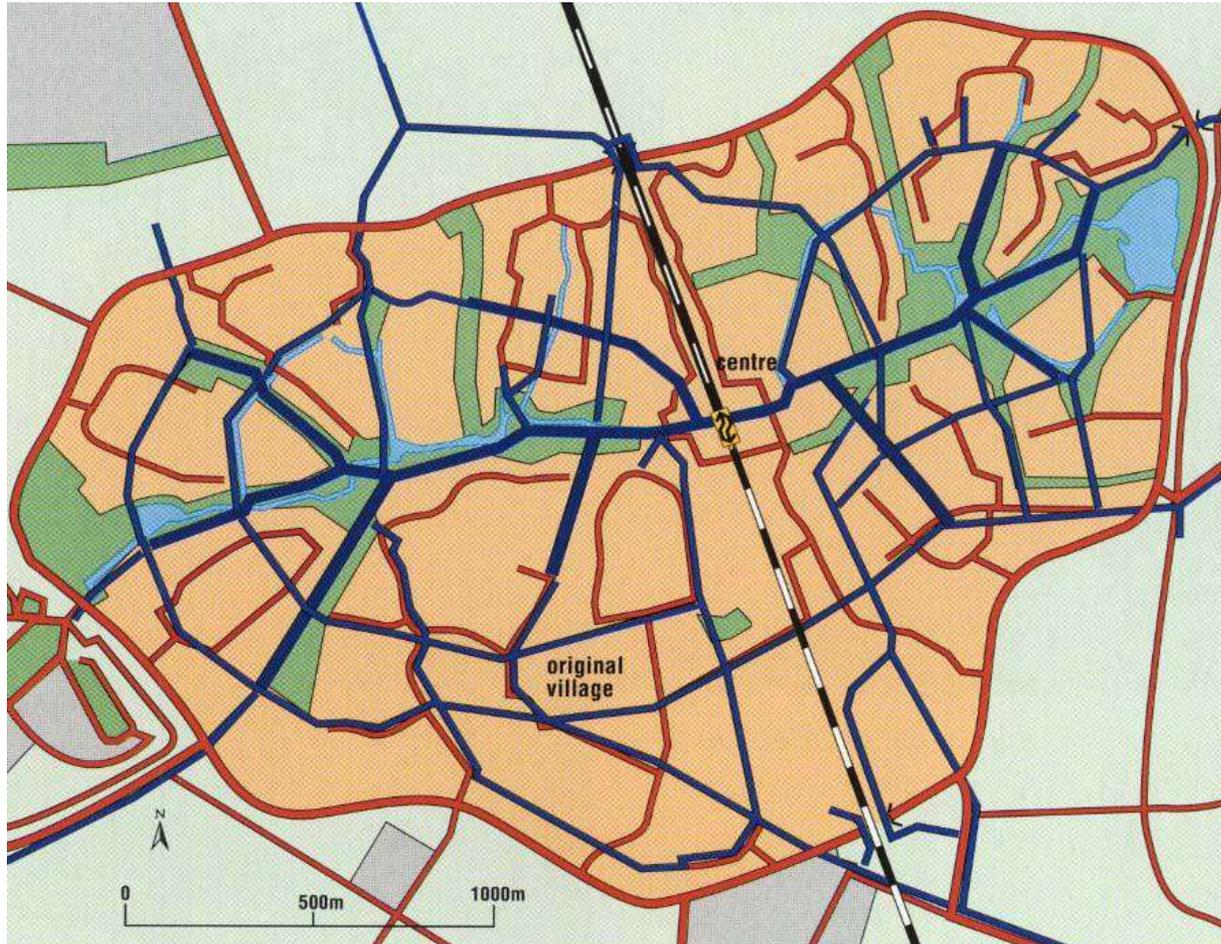


# 30km/h zones (Twenty is plenty)

- Positive effects in places where it has been implemented
- Stockholm implemented it as part of its “Vision Zero”
- UK: 41,9% reduction in deaths by traffic accidents (Grundy etal, 2011 ) – nearby areas reduced by 8%!
- UE proposed its implementation in all of Europe (oct 2011).



# Traffic cells (Houten)



**Blue:** Routes for bicycles

**Red:** routes for cars

(bikes go first in all trips within the city)

# Ciclovías recreativas (Sunday carfree)



# Conversions: Nyhaven 1950



# Conversions: Nyhaven today



# The total trip

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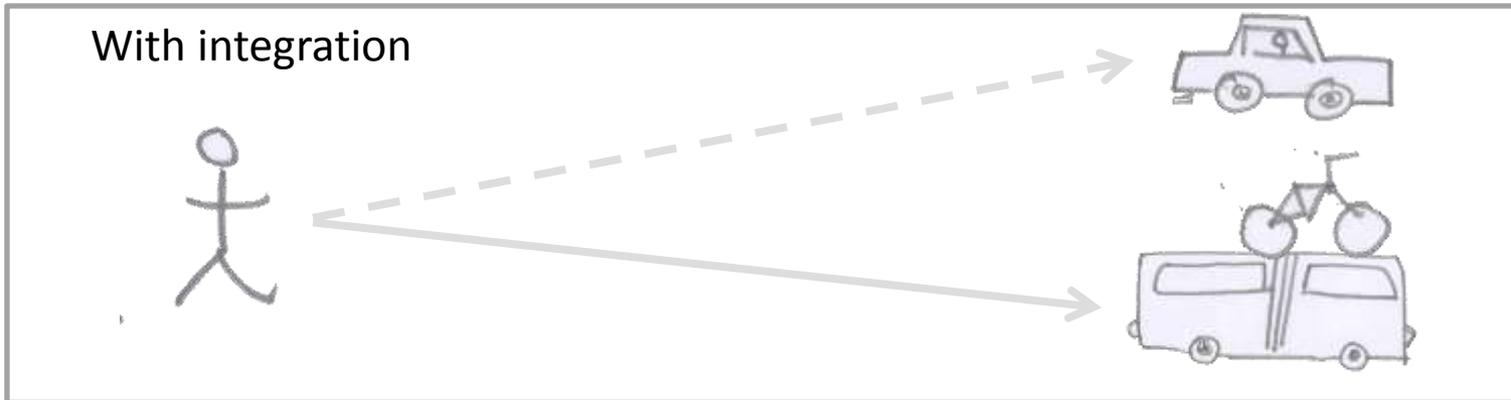
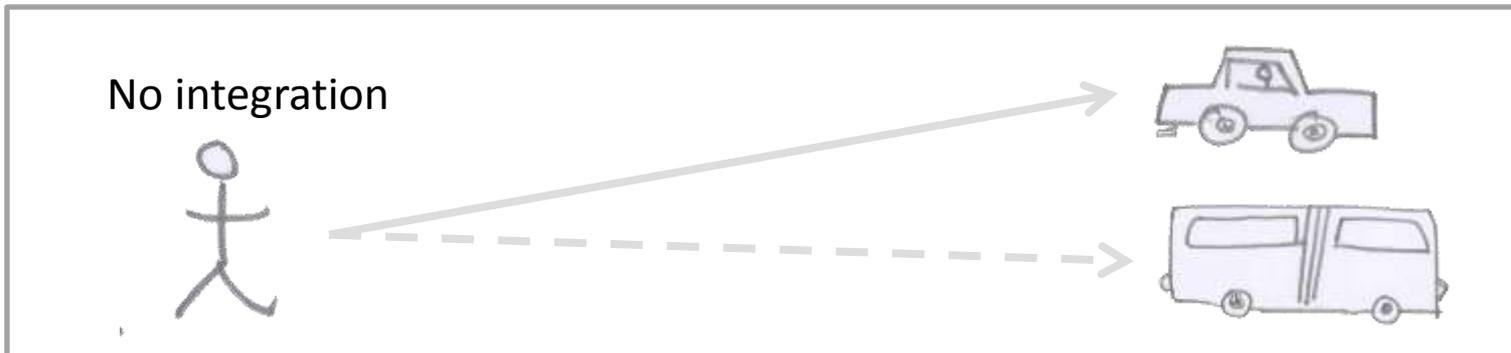
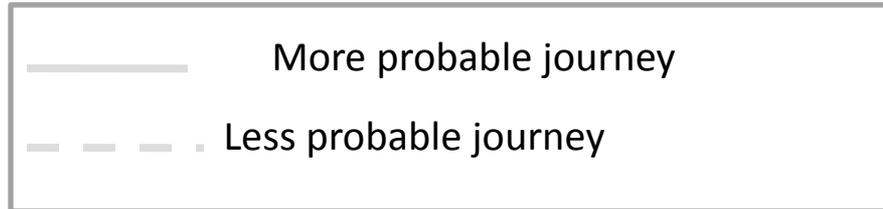
1. **Walk** from origin 
2. *(bicycle – bike taxi – taxi – minibus)* 
3. Arrive at origin station
4. *(Walk to vehicle substop)* 
5. Ride on the vehicle 
6. Arrive at destination station
7. *(walk from vehicle substop)* 
8. *(bicycle – bike taxi – taxi – minibus)* 
9. **Walk** to final destination 

All these have:

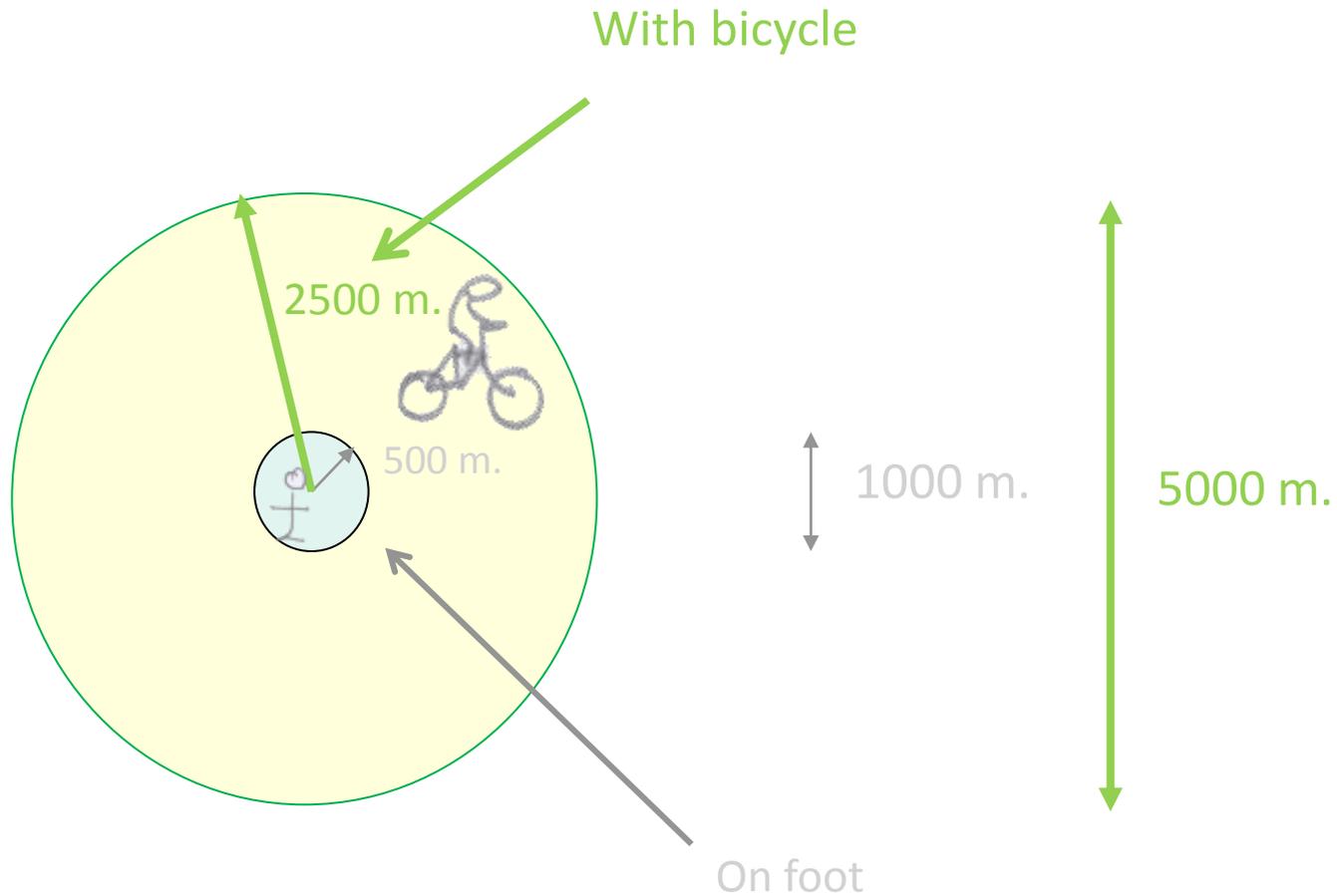
- Distance
- Duration
- Infrastructure
- Safety
- ...

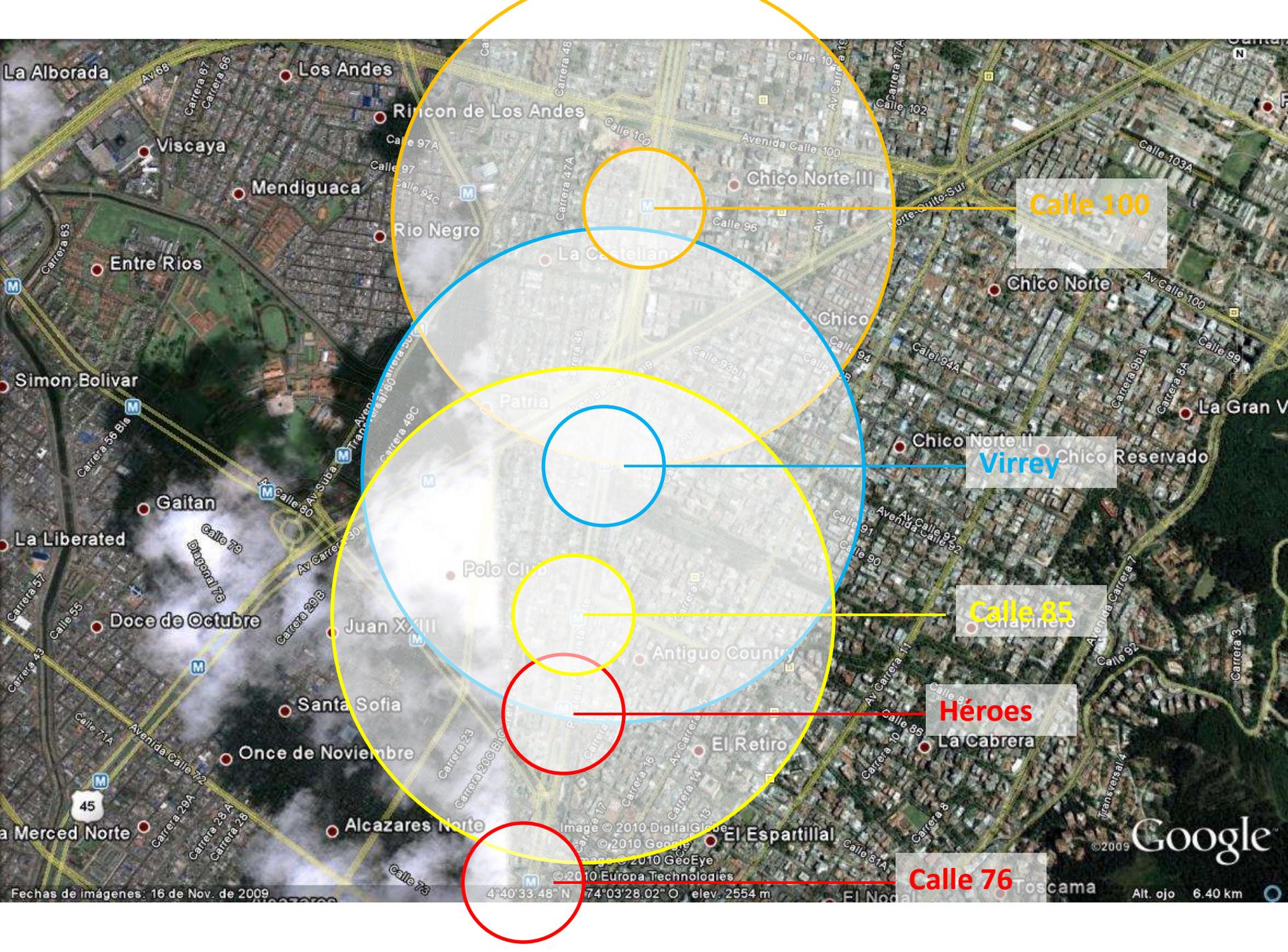


# Decision of a traveler



# Greater area of coverage





Calle 100

Virrey

Calle 85

Héroes

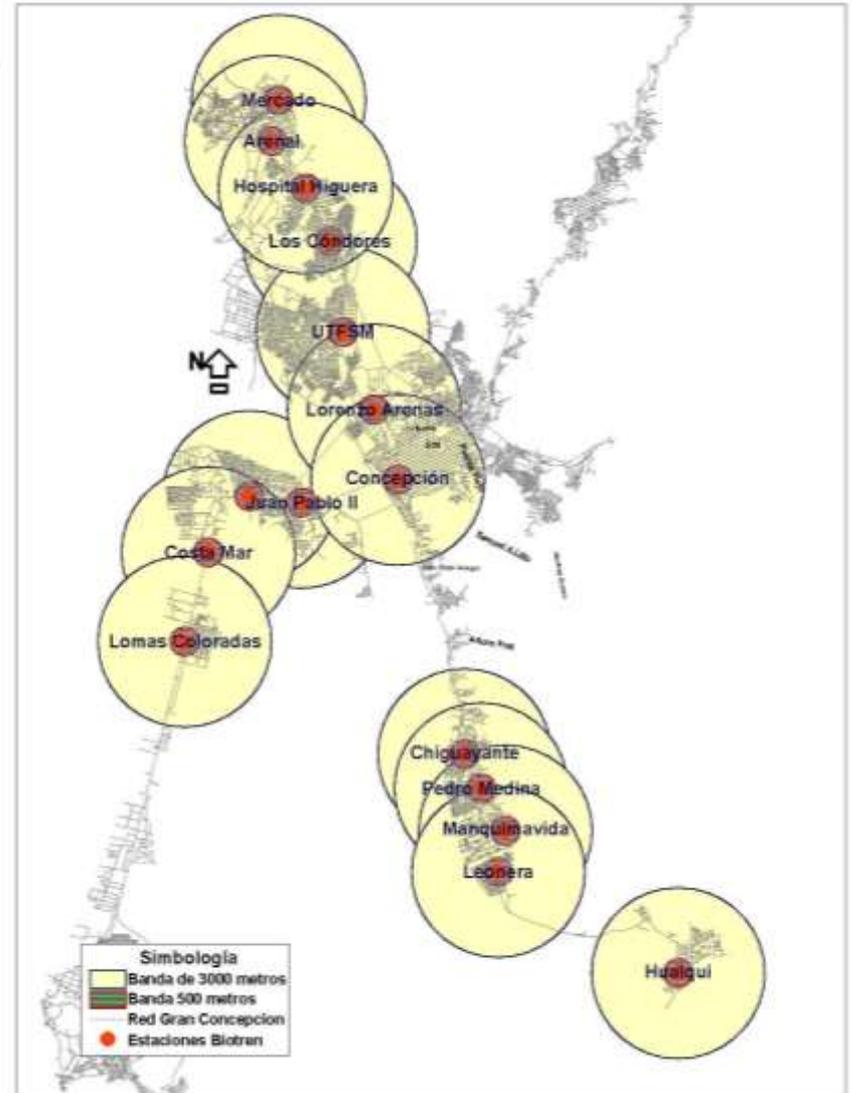
Calle 76

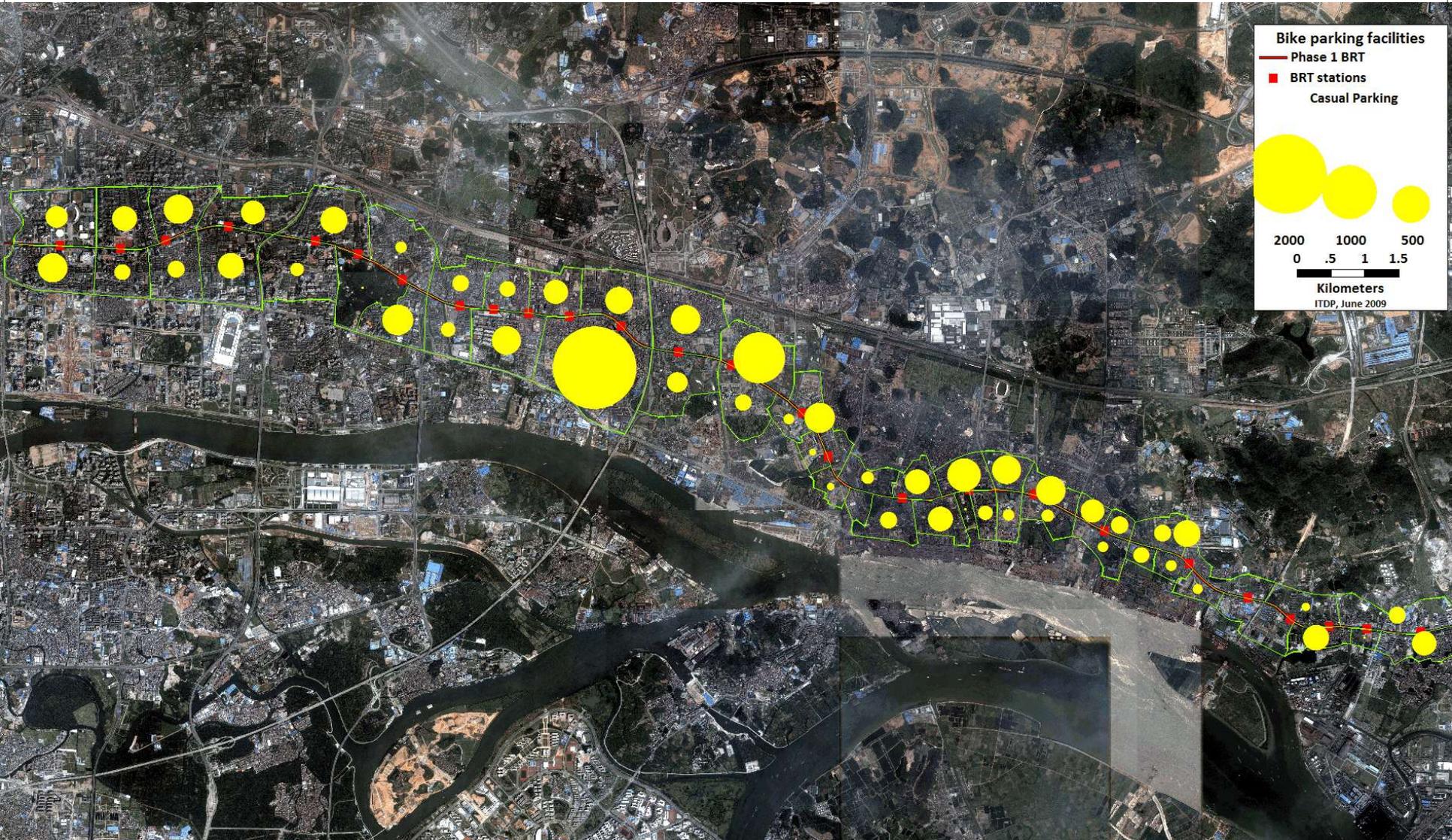
# TM today – bike parking integrated to stations ( + Ricaurte)



# Concepción (Chile) – bicycle integration

- Train was not integrated to bicycles
- This was the proposed integration scheme and buffer areas (red is walking, yellow is on bicycle)





**Guangzhou demand study of bicycles for BRT**

(“Vaya **despacio** y vea nuestra hermosa ciudad, vaya rápido y vea nuestra **cárcel**”)

New York Times

**GO SLOW**  
AND SEE OUR BEAUTIFUL  
**CITY**  
GO FAST AND SEE OUR  
**JAIL**  
STATE LAW ENFORCED.



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