

1. Introduction

PostCar-World (PCW) is a project funded by the Swiss National Science Foundation and it is inter-disciplinary, involving social science, engineering, urban planning and urban design.

Università della Svizzera Italiana (Lugano), Lausanne Polytechnic and Zurich Polytechnic collaborate in this project.

It explores the future of mobility by asking:

- What if the world would be a PostCar-World?
- Are we ready for leaving the car and living in a PostCar-World?
- Which conditions could help this change?
- Which effects do more recent or futuristic transportation solutions have on young commuters?
- To what extent can these solutions help leaving the private car?

A basic hypothesis is that **individuals make a choice based not only on instrumental factors** like cost, travel time and comfort, **but also on affective factors** (emotions evoked by driving, like freedom, boredom, excitement) **and symbolic factors** (car is an instrument for showing your social status).

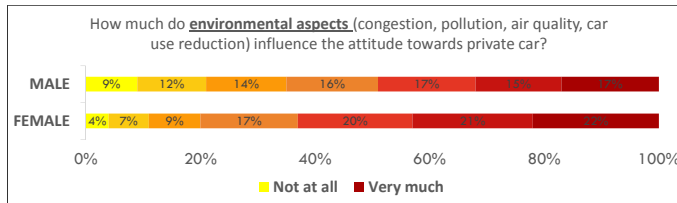
If this hypothesis is confirmed by the analysis, in order to reduce the individual use of motorized means of transport, **we need to support instrumental policies** (like increasing the efficient and sustainable modes' attractiveness) **with some ad hoc campaigns focused on affective and symbolic drivers.**

The following results are referred to Lugano:

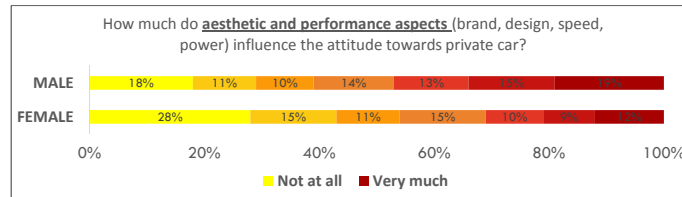
- For commuting, **young people prefer private means**, like car, motorbike and bike **to public means**, like bus, tram, train, car-sharing, car-pooling, moving walkway (cost and travel time being equal);
- If cost and/or travel time increase both for motorized and **non motorized means**, the latter **are even more unattractive**;
- Indeed, **people are willing to pay much more for motorized means** in order to reduce travel time.

These results show that either introducing further taxes on private means or fuels, or building new transportation systems (cycling lanes, tram tracks, bus lanes) does not ensure a reduction in the use of private means in favor of more ecologic and more sustainable modes (bikes, electric bikes, moving walkways).

Therefore, we analyzed to what extent the attitudes of both men and women towards private cars are influenced by *environmental* factors and *aesthetic and performance* factors.

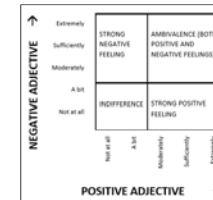


Females are much more influenced by environmental aspect than males (63% vs 49%).



Males are much more influenced by aesthetic and performance aspects than females (47% vs 31%): specifically 54% of female respondents state that these aspects do not influence at all or influence just a little their attitude towards cars.

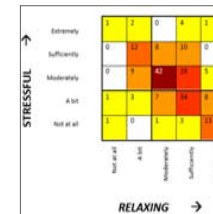
2. Evidence



Individual factors related to the driving experience, like enjoyment, stress and safety, were also evaluated through **two-dimensional grids**.

Within each grid, each respondent indicated to what extent he/she agrees with a couple of opposite adjectives. As the table on the left shows, the preference is classified within one out of four sections: for instance, the response of those who indicated that they feel the positive adjective "Extremely" and the negative adjective "A bit" fall into the "Strong positive feeling" section in the low corner on the right.

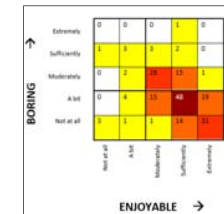
The tables that follow show the frequency of the responses obtained for each section: the darker is the colour, the higher is the frequency.



Driving is relaxing

Who is relaxed while driving?

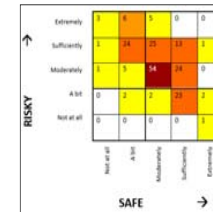
- Frequent driver
- Frequent sportman



Driving is enjoyable

Who enjoys driving?

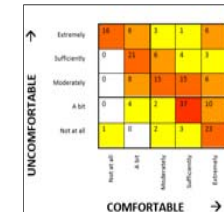
- Frequent sportman
- Car available



Driving is both safe and risky

Who feels safe while driving?

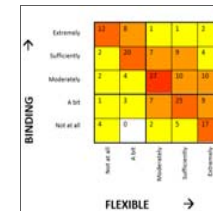
- Men
- Car not available



Commuting by car is comfortable

Who judges commuting by car comfortable?

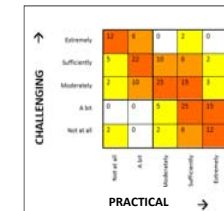
- Frequent sportman
- Car not available



Commuting by car is more flexible than binding

Who judges commuting by car flexible?

- Men
- Car not available
- Distant from workplace



Commuting by car is both practical and challenging

Who judges commuting by car practical?

- Frequent driver
- Frequent sportman

3. Implications

- In order to reduce the use of cars, acting just on factors like the cost of private transport means, (i.e. increasing fuel price or establishing an accessibility tax), **comfort and accessibility** of collective alternatives **is not sufficient**.
- It is necessary to take into account individual and psychological factors too (i.e. enjoyment, stress, safety, etc.), since they play a crucial role in the choice of the transportation mode.
- As general result, we can deduce that:
 - Males have a greater probability of judging driving enjoyable and safe than females;
 - The availability of a car increases the probability of evaluating driving as stressful, risky, binding, uncomfortable and challenging;
 - The more frequently a person uses the car, the higher is the probability he/she will judge driving as relaxing, enjoyable, comfortable and handy;
 - Living far from the workplace increases the probability of evaluating driving as relaxing and flexible.
- Therefore, **we need to support "instrumental" policies with some ad hoc campaigns focused on specific characteristics of the individuals** (gender, car availability, frequency, distance, aesthetic/performance and environmental aspects importance).
- It would be more profitable if these policies were addressed to people that have negative sensations or are indifferent to the car, since they are the most inclined to permanently leave the car.

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