Road Safety Attitudes and Perceptions of Pedestrians in Europe

E. Papadimitriou\textsuperscript{a}, A. Theofilatos\textsuperscript{a}, G. Yannis\textsuperscript{a}, G.M. Sardi\textsuperscript{b}, R. Freeman\textsuperscript{c}

\textsuperscript{a}National Technical University of Athens, Greece
\textsuperscript{b}SIPSiVi, Italy
\textsuperscript{c}University of London, UK
Background (1)

- Pedestrians are very vulnerable road users due to different speed and mass, and lack of protection.

- Understanding pedestrian attitudes, perceptions and behavior could guide policy makers to the planning and implementation of measures to improve pedestrian safety.

- There are several studies analyzing road users’ attitudes and behavior and some of them are based on the SARTRE 1, 2 & 3 (Social Attitudes to Road Traffic Risk in Europe) projects.
Background (2)

- There are not many studies that concern pedestrians’ attitudes and behavior at the international level.

- Existing studies mainly focus on particular aspects and on particular populations, the samples examined are small and there is no comparison among different countries.

- More research on pedestrians’ attitudes and behavior is needed.
Objectives

- The objective of the present study is to analyze pedestrian road safety attitudes, perception and behavior in a number of selected European countries, using the SARTRE 4 European survey data.

- For that purpose, pedestrians’ responses to selected questions of the SARTRE 4 questionnaire are analyzed, highlighting the differences between countries.
Methods and data (1)

- The SARTRE4 project is a EU co-funded project (a sequel to the previous three SARTRE projects) focuses on road users’ attitudes and perception towards road traffic risk in Europe.

- It is based upon a common survey carried out in each participating country and upon a shared analysis of the data.

- The survey involved a personal interview for the completion of an extensive questionnaire.
21,280 questionnaires were collected (at least 1,000 for each country), between November 2010 and February 2011, from 19 European countries.

Road users interviewed included Car Drivers (CD), Motorcyclists (MC) and Others (ORU) - pedestrians, cyclists, public transport users.

In each country, a minimum of 200 ORU were interviewed, based on simple random sampling at national level.

Pedestrians were selected as those respondents from the ORU group who reported:

- their most frequent transport mode in the last 12 months was neither passenger car nor motorcycle
- non-zero daily walking distance travelled.
Results
Perceived level of pedestrian safety

- The percentage of pedestrians who consider the roads to be very or fairly safe has a great variation among the countries, ranging from 22% in Poland to 92% in Finland.
Results

Acceptance of measures and penalties

- The majority of pedestrian respondents are “very” or “fairly” in favor of using speed limit devices in cars (78%), black boxes (80%), fatigue detection devices (84%), and alcolocks in cars (87%).

- The acceptance of alcolocks for recidivist drink-driving car drivers is greater compared to all car drivers.

- The vast majority of pedestrians are “very” or “fairly” in favor of using cameras for red light surveillance (83%), surveillance of speeding at a single point (83%), or between two distant points (76%).

- Most pedestrians “strongly agree” or “agree” with more severe penalties for speeding offences (~70%), for drink-driving offences (~90%), for not wearing helmets on motorcycles (~90%) and for using handheld phones while driving (76%).
Results
Acceptance of dedicated pedestrian safety measures

- The percentage of pedestrians who strongly support more ‘30 km/h’ zones is much lower (37%) compared to the other measures.
Results
Pedestrian crossing behaviour (1)

- 7% of pedestrians in Cyprus “always” cross at places other than pedestrian crossings (it is lower than 4% in all other countries).
- Greece, Cyprus, Sweden and Belgium present increased share of “more than often” crossing outside pedestrian crossings.
Results
Pedestrian crossing behaviour (2)

- The lowest incidence of pedestrians that “never” or “rarely” cross the road when a red light for pedestrians is displayed can be found in Sweden (45%) and Cyprus (49%).
- The highest incidences can be found in Poland (88%), Slovenia (87%), Hungary (85%) and the Czech Republic (77%). The European average is 71%
Results
Risk avoidance

- The lowest incidence of pedestrians that “never” avoid too dangerous streets or intersections can be found in Greece (5%), Cyprus and Estonia (7%). The highest incidence can be found in Finland (45%).
Results
Pedestrians’ distraction

- The lowest incidence of pedestrians that “never” or “rarely” make or answer a call with a handheld phone can be found in Sweden (18%).

- There is great variation in the pedestrians who “never” make or answer a call with a handheld phone ranging from 3% (Estonia) to above 45% (Hungary and Slovenia).

- Most pedestrians reported that they “never” use MP3/iPod/music devices.
Results
Perceived level of service

- The highest share of pedestrians “not at all” satisfied with street lighting can be found in Greece (79%) and Cyprus (55%) - overall mean is 37%.
- The majority of pedestrians are “very” or “fairly” satisfied with the number of crossing points - highest in France, Finland (76%) and Netherlands (74%).
- The highest share of pedestrians “not much” or “not at all” satisfied with the number of crossing points is in Greece (79%) and Cyprus (78%).
Conclusions (1)

- Aside from walking, pedestrians travel frequently as car passengers and as public transport passengers.

- Pedestrians support safety measures for speeding, drink-driving and fatigue, especially for recidivist drivers.

- It is interesting though, that they seem to support somewhat less the establishment of more ‘30km/h’ zones, even though it is a dedicated pedestrian safety measure.

- Generally, pedestrians are not that supportive of measures that aim to decrease traffic speed (unwilling to accept more time spent in cars or public transport as passengers?)
Conclusions (2)

- An important share of pedestrians (10-30%) often cross roads despite a red light showing.

- Crossing at non-designated locations, but tending to avoid roads or intersections that appear to be dangerous, are more widespread behavourrr.

- The lowest satisfaction with the road environment (sidewalks, lighting and pavements) is consistently observed in Greece, Cyprus, Hungary, and also Italy, Poland and Estonia.

- Finally, pedestrians are more annoyed with car drivers and less annoyed with motorcyclists.
**Discussion**

- Overall responses are clearly affected by the situation in each country (e.g. pedestrian mobility, infrastructure, road safety level etc.)
- A regional pattern is also identified: Northern & Western countries, Eastern countries, Southern countries.

- The results of the SARTRE 4 survey provide useful insight on pedestrians' needs, motivations, opinions and behaviours at international level for the first time.
- They may be useful to researchers and policy makers, for better understanding of pedestrians’ needs and behaviour, and identification of appropriate measures to respond to these needs and behaviours.
Road Safety Attitudes and Perceptions of Pedestrians in Europe

E. Papadimitriou\textsuperscript{a}, A. Theofilatos\textsuperscript{a}, G. Yannis\textsuperscript{a}, G.M. Sardi\textsuperscript{b}, R. Freeman\textsuperscript{c}

\textsuperscript{a}National Technical University of Athens, Greece
\textsuperscript{b}SIPSiVi, Italy
\textsuperscript{c}University of London, UK