

## **Abstract for Workshop 4 "Context and Safety (CAS'05)"**

### **Title**

**On the importance of context in understanding conflicts between pedestrians and drivers**

### **Authors**

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### **Abstract**

Conflicts between pedestrians and drivers may be conceived as resulting from a complex interactive system between two or more protagonists in a highly context-dependent environment.

More than 14 000 observations of pedestrians' and drivers' behaviours were systematically carried out by a team of trained observers on ten selected intersections in each of the two larger Canadian cities, Montreal and Toronto, Canada. Observations were recorded of head movement of drivers, the direction they look in, visual contact and/ or hand gestures (as a signal toward a pedestrian who is within one's visual range), vehicle speed modifications (acceleration, braking, stopping), steering wheel movements in the presence of a pedestrian, etc. Observations of pedestrians' behaviours included movements of the head, direction one looks in, visual contact with a driver, hand gestures (as a sign to a driver), modifications of movement (stopping, walking faster, turning back) as related to the presence of a car, a small truck or any kind of heavy vehicle, time needed to cross the intersection, etc. Weather conditions, the time of day and the traffic density have also been kept in consideration.

The current study maintains that multiple determinants of conflicts between pedestrians and drivers must be considered, including physical characteristics of the locations (street intersections), greater or lesser traffic flow or specific congested traffic patterns, local characteristics of populations, such as higher youth population densities and/or elderly population densities, cultural differences between populations, legal context (road safety code and regulations), etc. Most important of all is the cognitive comprehension by drivers and pedestrians of norms, standards and penalty application prevailing in each geographical context.

A preliminary general model will be presented in order to take account of the integration of these contextual variables in the understanding of conflicts between drivers and pedestrians.

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