

Pedestrians road-crossing behaviour and the influence of culture on social information usage*

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Walking in the street is a daily activity for the majority of humans. Although walking can be considered a safe behaviour in the light of the number of times people cross the road without getting struck by a vehicle, the circumstances, environment and types of road-use behaviours (both pedestrians and drivers) can make it a high-risk behaviour. Pedestrian behaviour has become an important research area as the size of human population living in big cities increases, and their safety is considered to be a priority in infrastructure improvements projects.

The faster a pedestrian decides to cross, the riskier the decision will be, as the pedestrian takes less time to obtain information before stepping off the kerb. However, this decision might be influenced by different social and non-social factors. The use of social information and the probability of rule breaking are strongly correlated with the culture and the country of pedestrians, with each country having its own principles of conformism and social norms. Previous studies have shown that the number of illegal crossings is largely dependent on the country where pedestrians live, and its culture. **Our culture influences the way we live and how we behave**, therefore our culture might influence us in our way of crossing the road to the same extent as our gender or our age. Whilst many studies have tried to understand which factors influence the incidence of rule breaking at road crossings, very few focused on the decision-making process of pedestrians facing the different conditions of these variables, that is to say how their perception and interpretation of the information they receive.

This presentation will look at the result of a study assessing how pedestrians use social information to cross the road in cities of two countries with different social norms. The results reveal that road-crossing behaviour is influenced not only by our country of residence, but **also by many other environmental, personal or social factors. This confirms previous studies** and provides new perspectives for pedestrian safety applications.

Although better road design or urban planning may help to globally decrease the risk of injury on the road, a decrease in the number of accidents could be attained through a better understanding of how **human beings behave and the identification of mechanisms underlying** behavioural differences between individuals of different genders, ages and cultures, thus providing a better basis for prevention and education.

*Reference Study:

Marie Pelé, Caroline Bellut, Elise Debergue, Charlotte Gauvin, Anne Jeanneret, et al..
Cultural influence of social information use in pedestrian road-crossing behaviours. Royal Society Open Science, The Royal Society, 2017, 4, pp.160739. ff10.1098/rsos.160739ff. fahal-01487812f