

# International Conference and Exhibition on **Automobile Engineering**

September 01-02, 2015 Valencia, Spain

## **Israeli and American traffic signs: Similarities, differences and compliance with ergonomic principles of signs design**

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Previous studies showed high and statistically significant correlations between traffic signs comprehension and the signs' compliance with ergonomic guidelines for good design-sign-content compatibility, familiarity and standardization. It was found that the sign's familiarity had the most substantial effect on comprehension. These findings raised the question as to whether a tourist who drives in a foreign country understands the local signage. This preliminary study was designed to map the differences between Israeli road signs design based on the Vienna Convention and American road signs design based on the Manual on Uniform Traffic Control Devices (MUTCD). The signs were distributed into five categories: Similar signs (Israeli and American) in all aspects (shape, color and sign-content); similar in shape and color but different in sign-content; similar in sign-content but different in shape and color; different in all aspects and signs that exist in one country (Israel or USA) but do not exist in the other. The next stage of this study was to rate all signs (Israeli and American) according to two ergonomic principles: Sign-content compatibility and standardization. Results of this analysis showed great variability in road signs design. Among Israeli signs that were different from the equivalent American sign, there were signs that were poorly designed in terms of ergonomic principles and therefore it is assumed that non local drivers will find it difficult to understand their meaning. Future study will examine comprehension level of signs from the 5 categories mentioned among American tourist drivers.

### **Biography**

Tamar Ben-Bassat has a PhD in Industrial Engineering & Management from Ben-Gurion University of the Negev in Israel. For the last 5 years, she is a college Professor at SCE-Shamoon College of Engineering and since 2014 also served as a Senior Researcher at Israel National Road Safety Authority. Her expertise is in human factors in road safety.

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