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In-situ observation of the perceptive process linked to dashboard tapping sounds

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It is well-known that in show-rooms some people might tap on the dashboard of vehicles. The aim of this study was to determine the importance of this phenomenon and to identify which properties of the vehicle are perceived through the sound thus produced.

An ethomethodological observation was conducted to collect data about the action/perception process of a subject exploring a static vehicle. The work was based on the methodology developed by Nosulenko and Saymolenko to evaluate perceived quality using free verbalisations in a comparison task. 52 naive subjects were placed in ecologically valid conditions. Their task consisted in freely exploring two vehicles and selecting their preferred one. From a qualitative analysis of audiovisual recordings, a data base was built. It linked verbalisations, operations and perceived objects, and allowed the quantification of indicators related to activity and perception.

The analysis of operations validated that the tapping operation was not anecdotal. Moreover, dashboard was one of the main perceived objects linked to the auditory dimension. Finally, a significative effect of the tapping operation on the evaluation of dashboard material quality was observed, suggesting an implicate influence of sound on this perceived property.