

Autobahn People: Distance estimations between German cities biased by social factors and the Autobahn

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Abstract. Re-analyses of a study on distance estimations between German cities [1] revealed that conclusions drawn from aggregated data sets can also be found on the individuals' data level. It could be shown that mental barriers, here the former iron curtain which has been physically absent for 15 years, while still assuming a significant role in social interactions, are powerful predictors for psychological distance estimations. Moreover, by integrating new demographical information about the participants, evidence can be found that social attitudes are often much stronger predictions for distance estimations than implicit or explicit geographical knowledge. For instance, it was revealed that the attitude towards German reunification plays a crucial role in estimating distances between cities crossing the former iron curtain: the more negative the attitude the more pronounced was the overestimation of distances. This trend was impenetrable by higher route knowledge measured implicitly by the extent of traveling experience and measured explicitly by ratings of geographical knowledge about Germany. Furthermore, participants tended to base their estimations of direct (air) distances between German cities on distances resulting from their experience with the German Autobahn system.

Keywords: mental map, cognitive map, distance estimation, distortion, social factors, representation, road, route, highway