Familiarity plays a unique role in increasing preferences for battery electric vehicle adoption

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Abstract

Battery electric vehicles (BEVs) play an important role in efforts to reduce carbon emissions but widespread adoption is hindered by people's perceptions of BEVs. Here we examine the role of familiarity in influencing preferences for BEVs. Using a US-based survey, we measured people's familiarity with BEVs, BEV beliefs, belief uncertainty, and perceived barriers and measured how these cognitive factors influence preferences. We first find that familiarity increases BEV preferences independent of its effect through other factors. Second, exploratory mediation analyses find that familiarity also indirectly increases BEV preferences by increasing positive BEV beliefs. Third, although familiarity reduces belief uncertainty, the influence of uncertainty on preferences depends on belief valence. Taken together, these results propose that familiarity plays a unique role in improving people's perceptions and attitudes towards BEVs. We situate our findings within the broader cognitive science literature and highlight a familiarity-targeted intervention aimed at improving more widespread BEV adoption.

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