

How a test drive may lead to an electric vehicle purchase

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There's something about test driving an electric vehicle that boosts some potential buyers' personal identity as being early adopters of the latest technologies, a new study has found.

And that strengthened sense of being a timely user of new gadgetry was

linked to a higher likelihood that the test-driver would show interest in buying the car, the study suggested.

Though the [test drive](#) also increased study participants' impression that an electric vehicle could function as a [status symbol](#), that expectation did not translate into interest in making a purchase.

The findings help increase understanding of what fuels [consumer behavior](#) behind purchases related to sustainability and offers insights that could guide electric vehicle (EV) marketing efforts, said senior author Nicole Sintov, associate professor of behavior, decision making and sustainability at The Ohio State University.

"An electric vehicle can symbolize different things to different people—it's not going to be the same across the board. That's why it's important to consider the variety of different qualities an EV can reflect," she said. "What we found is that EV test drives have a lot of potential to change how people think of themselves—and that was linked to increased intention to buy."

Sintov completed the study with first author Atar Herziger, a former postdoctoral researcher at Ohio State who is now on the faculty of Technion-Israel Institute of Technology.

The research was published recently in the *Journal of Environmental Psychology*.

Sintov and Herziger set out to determine whether and how a test drive of an electric vehicle affects two kinds of symbolic [meaning](#): private meaning, which supports an individual's self-perception, or public meaning—influencing how others would view the EV owner. And if those meanings change, does that affect the prospective buyer's plan to make a purchase?

Two studies were conducted, one a randomized experiment using a virtual test drive and the other a partnership with Smart Columbus to survey people who opted to participate in an EV test-driving experience.

A total of 729 participants over the two studies were asked before and after the test drive to rate how owning an EV would influence their self-perception and how having the car would affect the way others view them. After the test drive, they were asked how likely they were to buy or lease the car or recommend it to a friend.

The research focused on three types of private symbolic meaning linked to owning an electric car: being pro-environment, an early adopter of new technologies, or a car authority. To gauge public meaning, the survey asked participants to report the extent to which they perceived that driving the EV says something about the kind of person they are.

In the case of the virtual test drive, the researchers used an identical video—eliminating all visible branding and sound—of an EV model that wasn't yet available in the United States. The virtual test drive included examples of how interior features worked and took participants on a short ride from the driver's point of view—the only difference was that some were told the car was a conventional gas-powered vehicle, and others were told it was an EV.

Statistical analysis showed that from pre- to post-test drive, the virtual experience in the EV strengthened participants' perception of the EV as an expressive object and increased their self-identity as early adopters of technology.

"We didn't see that for those who were told they were test-driving a conventional vehicle," said Sintov, a faculty member in Ohio State's School of Environment and Natural Resources. "They had the same stimuli, but telling them it was one thing or another obviously changed

the perceptions not only of the vehicle, but of themselves."

But only the reinforced personal identity—the private symbolic meaning—was associated with intention to make a purchase.

The real-life test drive results had similar effects on enhancing public and private symbolic meanings of an EV, this time increasing both early-technology-adopter and car-authority identities—and again, only the reinforced personal identities led to stronger intentions to lease or buy the car.

From a theoretical and practical point of view, the distinctions between public and private meanings and their influence on purchasing intentions is important, Sintov said. Considering the test drive's influence on those meanings also takes into account the fact that lots of thought usually goes into buying a car—it's not a decision made at a single point in time, she said.

"We really wanted to parse these things out more concretely than previous studies on EV symbolic meanings have—all in the context of whether a test drive moves things," she said.

Because the results showed test drives can move consumers toward a purchase, the marketing around such experiences could be particularly important.

"If EV marketing efforts focus on saying, 'Look at you—you have cool person status,' that is not the route we identified," Sintov said. "'How do I think about myself differently after this [test](#) drive, and in particular, how do I see myself differently in terms of being an early adopter of technology?'" That is what makes people want to buy the car."

More information: Atar Herziger et al, Give it a Try! How electric

vehicle test drives influence symbolism perceptions and adoption intent,
Journal of Environmental Psychology (2022). [DOI:
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