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## The ebb and flow of curvy cars

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In the 1940s and 1950s, cars had curves. From the 1960s through the 1980s, they tended to have sharp angles. But since then, they've tended more toward the curvy again...although I'm seeing signs of angularity one more.

Have you ever wondered why?

A German researcher at the University of Bamberg with the unlikely-yet-oddly-appropriate name of Claus-Christian Carbon did, and the results of his study were recently published in the journal *Acta Psychologica* under the title "[The cycle of preference: Long-term dynamics of aesthetic appreciation.](#)"

Carbon suggests that two basic but somewhat conflicting human tendencies influence our reaction to automobile designs: a natural inclination to prefer curved objects, and a fascination with the new.

Normally, humans avoid sharp objects, because sharp objects—fangs, claws, knives, thorns—can hurt us. Rhinoceroses are more alarming than hippos, for example.

Indeed, MRI studies have found that the amygdala, a brain structure activated by fear-inducing stimuli, "lights up" more when sharp-edged objects are in view than when rounded ones are.

But we have another natural inclination, which is to take notice of the new and unexpected. Place a black obelisk like the one in *2001: A Space Odyssey* in a field full of tulips, and our attention will be drawn to the sharp-edged obelisk rather than the flowers.

The ebb and flow of curviness and sharpness in car design vocabulary ("Formensprache" is the wonderful German word) is a result of these conflicting impulses, Carbon suggests.

For his research, he had four different groups of participants rate car models from 1950 to 1999, but he primed each group a little differently. In the first study, participants, who were asked to rate curvature, complexity, quality, innovation and security, were given no historical context: they didn't know when the cars were built.

In the second study, historical context *was* provided, so the viewers knew what era the cars originated from, the goal being to identify what Carbon calls "Zeitgeist-dependent" effects. In a third study, before being shown the cars from 1950 to 1999, participants were first shown futuristic concept cars; in the fourth, participants were first shown highly angular historical cars.

In the third study, where the participants were first shown futuristic cars before being shown models from the past 50 years, the "shock of the new" influenced their opinion: they rated cars from the past 15 years as being lower in innovation and also didn't like them as much as participants who weren't first shown concept cars. "We experience similar cognitive processes when coming back from influential international motor shows in Frankfurt, Tokyo or Detroit," Carbon says: suddenly everyday cars look old-fashioned...no matter what their curvature.

So: our natural preference for curvy cars can be overcome by the novelty factor of sharp-edged cars. But after a few years of boxy cars, curvy ones, which we naturally prefer anyway, begin to look fresh again...and so car designers and buyers move back toward them. As Carbon puts it, "The evolutionary program (favouring curves) is always running, but on top of it can be running a cultural program," which favors innovation.

Interestingly, that cultural program seems to be running faster: Carbon says the cycle in car design between curvy to sharp and back again is speeding up. He says that while it used to take 50 years for car designs to swing between rounded and boxy, now it's more like 20 years: in fact, he predicts an increase in sharply angled cars in the coming decade.

Oddly enough, sharp-edged designs' association with things that can hurt us may be part of their appeal. The amygdala lights up, warning us, but we know there's not really anything to fear from a car's sharp edges: it becomes a safe thrill, like the thrill we get on a rollercoaster.

Ultimately, this explains more about human nature than just how we like

our cars to look, of course. As Carbon puts it, "although humans might generally be pre-shaped by evolution to prefer specific properties preventing them from danger, they are specifically shaped to explore innovative and challenging properties."

And, he adds, the push-and-pull between those conflicting impulses may ultimately explain why humans are both so successful in designing objects, and in adapting to them.