

Comment from Ben Pearre

What are synthetic car sounds supposed to accomplish? Who benefits from customizable car sounds? How do they affect the supposed beneficiaries?

The claim is that people use sounds as a means of recognizing the threat of an approaching vehicle. I think such a proposal makes sense if (1) the audible warning is easily recognizable for what it is (informative), (2) the audible warning does not drown out other auditory safety signals (non-obscuring), (3) the signal is associated with all sources of danger (reliability), and (4) the signal does not cause harm (pollution).

(1) Informativeness is satisfied best if all vehicles make the same sound under the same conditions. Allowing branding was a stupid concession to industry, allowing the signal to be made less universal less informative because the car manufacturers are less concerned with the safety of non-customers than with marketing. Allowing drivers to further customize the sounds makes them even less effective, for no valid safety reason. Why don't we allow people to customize the colour and position of their brake lights? The same logic applies here.

(2) Non-obscuring: Why can't we hear electric vehicles already? They are not completely silent even at low speeds. We can't hear them when they are drowned out by louder sounds, and we are surprised that they are less loud than other cars, making them seem silent. If there were one source of danger in a given area, then it might be nice if it issued an audible warning. But this is America! There are potentially dozens, if not hundreds, of cars and other hazards within easy earshot of any given pedestrian, and some of them like bicycles, joggers, etc. And we have a limited capacity to process sounds. Masking some dangers by making an arbitrary number of others louder does not scale well, and thus is shortsighted.

(3) Reliability: Requiring electric cars to make noise at all is problematic in a way that seems underappreciated by non-cyclists: training pedestrians that hazards always make noise in fact trains pedestrians that they don't need to look before crossing the street. As a cyclist, I've had many near misses and a few collisions with pedestrians to whom it did not occur that LOOKING for traffic was important. Quieter cars might help us get back to a world that is safe for ALL road users by reminding us that quiet road users also matter.

(4) Pollution: The proposal claims that there is no reason to think that it might affect the health or safety of children. But study after study shows the devastating effects of noise pollution. From the recent WHO Europe-wide study:

"Excessive noise seriously harms human health and interferes with people's daily activities at school, at work, at home and during leisure time. It can disturb sleep, cause cardiovascular and psychophysiological effects, reduce performance and provoke annoyance responses and changes in social behaviour."

<http://www.euro.who.int/en/health-topics/environment-and-health/noise>

"Taken together these risks in high-income European countries account for a loss of 1-1.6 million disability adjusted life years (DALYs) a standardized measure of healthy years of life lost to illness, disability or early death."

<https://www.who.int/sustainable-development/transport/health-risks/noise/en/>

"Based on recent assessments, around 22 million adults are estimated to be severely annoyed by noise from road traffic, railways, aircrafts and industry. Moreover, it is estimated that around 6 million adults suffer severe sleep disturbance due to night-time noise levels. Environmental noise contributes to 49,000 new cases of ischemic heart disease leading to 12,000 premature deaths per year. In addition, an estimated 13,000 school children suffer learning impairment due to the effects of noise near airports."

<https://www.eea.europa.eu/themes/human/noise/noise-2>

Looks like there are benefits to trying to make cities much quieter, not louder. It is not reasonable to claim that this proposal does not pose a potential health hazard, especially to children!

Do we want to turn the is USA into an acoustic version of neon-obsessed nighttime Akihabara? Who gains from this?

At the very least: before car manufacturers are given increased license to pollute, research is urgently needed on which sounds, in the high densities that might be encountered on busy streets or in parking lots, are most effective for alerting pedestrians without causing harm, and especially while causing the least harm from ischemic heart disease, learning disabilities, etc. Moving forward without such a cost-benefit analysis could cause more harm than good, and could be hard to reverse later.