

Listening to music while driving has very little effect on driving performance, study shows

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Most motorists enjoy listening to the radio or their favourite CD while driving. Many of them switch on the radio without thinking. But is this safe? Experiments carried out by environment and traffic psychologist Ayça Berfu Ünal suggest that it makes very little difference. In fact the effects that were measured turned out to be positive. Music helps drivers to focus, particularly on long, monotonous roads. Ünal will be awarded a PhD by the University of Groningen on 10 June 2013.

Experienced [motorists](#) between 25 and 35 years of age are perfectly capable of focusing on the road while listening to [music](#) or the radio, even when [driving](#) in busy urban [traffic](#). Ünal makes short shrift of the commonly held idea that motorists who listen to music drive too fast or ignore the traffic regulations. Ünal: 'I found nothing to support this view in my research. On the contrary, our [test subjects](#) enjoyed listening to the music and did their utmost to be responsible drivers. They sometimes drove better while listening to music.' Ünal did not try to find out whether there was a difference between listening to music or talk shows on the radio.

Monotonous roads

Although this is not the first piece of research that examines the influence of listening to music or the radio on driving performance, Ünal is the first person to use different traffic situations for her experiments

with the simulator. 'For example, we asked participants to drive behind another vehicle for half an hour on a quiet road. As you would expect, it became very tedious. But the people who listened to music were more focused on driving and performed better than those without music. It's fairly logical: people need a certain degree of 'arousal' (a state of being alert caused by external stimulation of the brain) to stop themselves getting bored. In monotonous traffic situations, music is a good [distraction](#) that helps you keep your mind on the road."

Safety first

Motorists need to concentrate harder in busy urban traffic than on quiet roads. Ünal: 'A motorist's natural reaction is to turn the sound down or even switch the radio off. This was not allowed during the experiments. As a result, we noted that the participants focused more on the traffic and didn't remember what had been on the radio afterwards. Safety comes first at moments like this and the participants were able to block out the distraction (in this case the music or radio). This also occurs when drivers are asked to perform a special manoeuvre, such as reversing into a parking space. Our findings do not indicate that people listening to music drive less well in busy traffic. The research showed that background music can actually help motorists to concentrate, both in busy and quiet traffic.'

No difference in types of music

Ünal initially wanted to find out whether the type of music made any difference. 'This wasn't realistic. Participants forced to listen to music they didn't like just wanted to get the experiment over and done with. In reality, you only listen to music that you enjoy, so we left the choice to them.' She did not study whether there was a difference between listening to music and listening to talk shows on the radio. 'People can

listen to music in the background, while they tend to concentrate on the news and put more mental effort into it, particularly if they find an item interesting. That's why making phone calls in the car is so dangerous: talking on the phone while driving makes huge mental demands on motorists. I'd quite like to study the effect of music and making phone calls while on the bike. The Netherlands is full of cyclists so this would be a highly relevant research subject.'

Follow-up study of older and younger motorists

Ünal's main conclusion is that when people take account of the traffic situation and their own driving skills, music makes very little difference to their performance as drivers: 'It's important to know your limits. Some people are much more affected by loud music than others. I'd also be interested to see whether older motorists of seventy and above, and young people learning to drive, cope with the distraction of the [radio](#) in the same way. I could imagine that music might be too distracting while you're just learning to drive. And at the other end of the scale, people's cognitive capacities diminish as they get older so I'm curious to know how they react to the mental demands of driving at the same time as the listening to music.'

Provided by University of Groningen

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