

THOUGHT LEADERSHIP

When Half A Second Matters: Mindfulness Drives Road Safety

Sjaan Koppel, Richard Chambers and Craig Hasted

Have you ever completed your journey and can't remember the drive? And here's another question: when does half a second matter? Your answers to these questions might indicate how 'mindful' you are when driving, and how much additional risk you, or your employer or fellow road users, face when you get behind the wheel.

Unless you are an Olympic athlete or professional sportsperson, half a second probably makes little difference to your daily life. You're unlikely to miss much in the first half a second of your favourite TV show, for example, or your dinner will be just as delicious if it cooks for half a second too long.

But what if you're driving for work or commuting home and your mind wanders for half a second? If you take about 6 paces from where you are now, that's about how far you will travel in that half second before you react to an inattentive child walking in front of you in a 40kmh school zone. Walk about 14 paces and that's how far you would travel on a highway at 100kmh before you reacted to an unexpected event.

As Monash University's Dr Richard Chambers succinctly puts it: "Half a second is a life-saving amount of time when you're behind the wheel."

His colleague at Monash, Associate Professor Craig Hasted, continues. "If we're busy doing something, distracted driving or multitasking, or we're just operating on automatic pilot and something happens, there is a significant lag time in responding to that event that doesn't happen if our attention is on the road.

"If we're... just operating on automatic pilot and something happens, there is a significant lag time in responding [and that] can be the difference between not crashing or having a crash at 10kmh instead of 50kmh."

"That time lag can be the difference between not crashing or having a crash at 10kmh instead of 50kmh."

Not all distractions are created equal

Distractions can be internal and external, and drivers can learn how to manage both in a mindful way.

“Internal distraction is a person being away in their thoughts, talking to themselves, reliving something that happened in the past,” Craig Hassed explains. “Maybe they’re driving home and already anticipating an argument they’re going to have with their partner, and getting outraged at the things their partner is saying to them despite the fact their partner is not in the car with them.

“So there’s the internal distraction, and the term for that is default mode, and in that situation we’re operating on automatic pilot.

“And then there are external distractors. For example, research shows just the fact that your phone goes off while you’re performing a task increases the error rate by 28 per cent, even if you don’t pick it up, look at it or answer it.

“So there’s these distractors in the external environment – phones going off, people misusing their phone while they’re driving, having conversations with people – just the fact you’re talking to somebody in the passenger seat doubles your risk of a motor vehicle crash.

“Having a conversation on a mobile phone doubles it again, so you’re now four times more likely to have a motor vehicle crash.”

More than just paying attention

The ability to keep our attention focussed on the road and not be distracted is at the core of mindfulness. An unmindful driver, for example, can’t remember that trip home, having completed it on ‘autopilot’. They *think* they stopped at all the red lights – but how can they be sure?

By contrast, mindful driving means paying attention when you’re behind the wheel and being more aware that you are becoming distracted, so you can bring your focus back to driving.

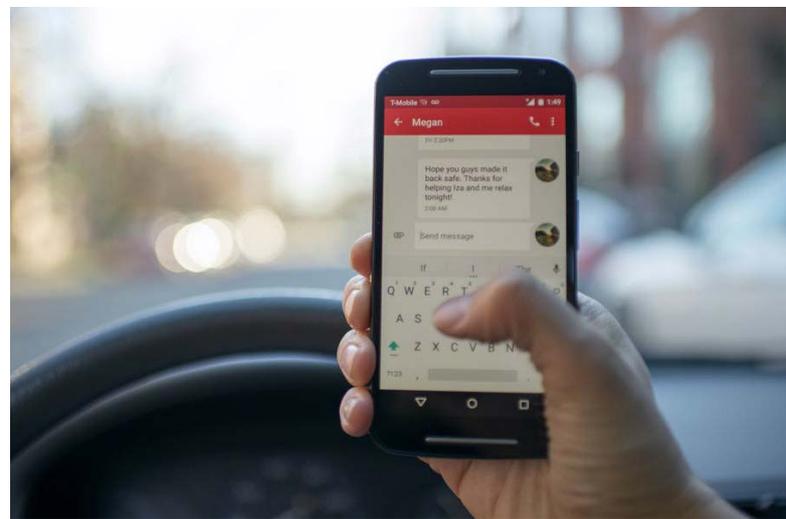
There are two main kinds of distraction while driving: internal distractions where we are ‘away with the birds’, thinking and worrying; and external distractions, where we are for example looking at our phone or a sale sign in a shopfront, or having a conversation (see breakout box).

But mindfulness isn’t just about paying attention. It also helps drivers manage difficult emotions, like anger and frustration, and be less reactive to mistakes made by other road users.

“There are more benefits to mindfulness rather than just increased attention,” according to Sjaan Koppel, Associate Professor at the Monash University Accident Research Centre (MUARC).

“There’s acceptance, non-reactivity, increased awareness, and that awareness can even happen before you get in the car. Part of that is planning your trip so you don’t have your phone near you or you have a plan about how you’re not going to engage in those activities.

“You’ve planned your route so you’ve got sufficient time to get there and can be accepting of congestion or someone



doing the wrong thing. Often that time pressure, that stress, is what triggers a reaction.

“In terms of our biggest road safety concerns, distraction is a massive problem, and we have shown that mindfulness is absolutely related to someone’s ability or willingness to engage in distracting activities, whether it be technology or non-technology based, while driving.

“A mindful workplace is a safe, resilient and productive workplace.”

“In terms of being aware and present, mindfulness can reduce unintentional activities, like speeding or unintentionally swerving into different lanes. And being accepting and not reacting can positively affect a driver’s ability to react in different circumstances, because what we don’t want is them to result in instances of aggression or road rage.”



Mindfulness and road safety

While some people are more mindful naturally, mindfulness can be developed through training. Mindfulness can significantly improve sustained attention, working memory, distractibility, emotional reactivity, behavioural regulation and empathy.

Mindfulness can also promote greater awareness of the driving environment, concentration and sustained attention to driving as well as improving emotion regulation, reducing rumination on external matters while driving as well as accepting other drivers' mistakes.

MUARC research shows there are significant links between improved driver safety and mindfulness, which translates to fewer crashes, injuries, infringements and road rage. For example, drivers who are more mindful have been shown to reduce unsafe driving behaviours, both intentional violations and unintentional lapses, by reducing internal and external distraction.

"If we're mindful we might find that we have less anger less often," Craig Hassed says. "We're all human, so anger can arise but the more mindful driver rather than trying to control or suppress the anger, is actually able to stand back from it and not be controlled by the anger.

"So it might be an angry impulse that arises because someone has pressed their buttons but the more mindful driver is aware of the reaction and able to take a more caring or discerning response and not necessarily get into an escalating road rage situation."

MUARC and Monash University researchers are keen to extend their research and test a tailored mindfulness intervention in the road context.

"What we want to do is develop a driver specific mindfulness program that we think would not only have benefits on the road but, if it was implemented in a workplace, there would be lots of other benefits that employers would realise from practising mindfulness every day too," Sjaan Koppel said.

"Your inherent mindfulness is associated with greater safety outcomes or safe driving behaviours, but there aren't any interventions that have looked at mindfulness training and road safety or mindfulness training that is specific to the road context."

Benefits across the workplace

Evaluations have shown workplace mindfulness training can provide as much as a 200 per cent **return on investment**, particularly in worker wellbeing, mental health and productivity. It also makes people more compassionate and prosocial, which is as relevant on the road as it is in the workplace and at home.

So, in addition to the benefits to workplace road safety, extending mindfulness into the workplace reduces workers reacting negatively to colleagues and helps them pay more attention to their work, making them more productive. Driving mindfully to work means we arrive 'ready to work' and, at the end of the day, driving home mindfully means we are ready to 'be present' when we arrive.

At an organisation level, mindfulness can for example result in telematics systems being used to check driver locations, rather than distracting drivers with a phone call.

"A mindful workplace is a safe, resilient and productive workplace," Richard Chambers says. "So, improved performance and wellbeing at work, and a safer commute to and from the workplace. What's not to like about that?"



Associate Professor Sjaan Koppel holds a PhD in Psychophysiology and works at the Monash University Accident Research Centre (MUARC). Dr Richard Chambers is a Clinical Psychologist and Mindfulness Consultant. Associate Professor Craig Hassed OAM has worked in the Faculty of Medicine at Monash University since 1989 and is coordinator of mindfulness programs across Monash.

Sjaan, Richard and Craig will present the NRSPP 'Road safety and other workplace benefits of mindfulness' webinar on November 17.