Driving to distraction

By Alexis Artwohl, Ph.D.

Several recent high-profile public transportation accidents have been attributed to a driver texting or talking on a cell phone while operating a vehicle. The fact that texting while driving is dangerous is pretty much a no-brainer since you can’t read or type and look at the road at the same time. Recent research at the Virginia Tech Transportation Institute (VTTI) confirmed that research subjects who were required to text while driving in a simulator were 23 times more likely than a non-distracted driver to get into a crash or near crash event.

Driving while taking on a cell phone, hands-free or not, has also been shown in multiple studies to result in driver impairment. Even in experiments that were set up so the drivers did not have to take their eyes off the road or their hands off the wheel, the drivers still showed more driving errors than non-distracted drivers.

None of this is surprising given that research has confirmed that multi-tasking, the notion that we can simultaneously do more than one task, is a myth. When people try to do this, their brain is actually rapidly switching back and forth from one task to another and their performance on both will suffer. How much it will suffer will depend on a variety of factors such as the complexity of the competing tasks, how well-rehearsed the tasks are, how fatigued the individual is, etc. The consequences of the impairment will range from insignificant to catastrophic, depending on the competing tasks.

Complicating matters even further is the tendency of humans to not believe that these limitations apply to them. Research has shown that people often think they are performing better than they really are, including being in denial of driver impairment while talking on a cell phone.

One hopeful note in the research is the finding by Drews et al. that having a competent adult passenger in the car is not likely to result in driver impairment because the passenger is experiencing real-time driving conditions with the driver and will tend to point out traffic hazards, help with navigation, etc.

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Cops and communication equipment

Cops are loaded down with all kinds of communication equipment in their patrol cars: radios, cell phones, MDTs, etc. Discussion of this topic invariably brings up many unanswered questions: How many pieces and what types of communication equipment can officers operate and safely drive at the same time? How many patrol car accidents have been caused by cops attempting to do this kind of multi-tasking? Are many cops now able to do this successfully from sheer practice? If so, how long did it take them to become competent? How dangerous were they in the meantime? Is this a skill that can be learned? If so, how much and what kind of training, coaching, and practice is necessary to achieve competence? Are there certain ways cops can simultaneously drive and use communication equipment that are safer than others? Are there restrictions that should be placed on this type multi-tasking while driving? What kind of testing should be done to measure competence in this ability?

Hopefully future research will give us some answers but one fact is clear: Anything that requires the officers to take their eyes off the road increases the risk of a crash. Strayer et al. express some pessimism in their 2006 article about the ability of drivers to master driving while talking on a cell phone. They examined the relationship between the self-reported estimates of time spent operating a vehicle while using a cell phone and the drivers’ performance on a simulator. They found no evidence that more experience behind the wheel mitigated the negative impact of cell phone use on driving performance. They point out that naturalistic conversations and real-world driving have task components that are “variably mapped,” and that the research literature shows that these types of tasks are not amenable to much improve-
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**Recommendations**

- Texting while driving has been shown to be very unsafe, so this to be avoided as much as possible. One can assume that typing on an MDT while driving is probably not safe either. It is advisable to leave working the MDT to your non-driving partner or limit its use to when the vehicle is completely stopped.

- Talking on a cell phone, hands-free or not, is not as dangerous as texting but can still result in driver impairment. Try to avoid it or limit it as much as possible when the vehicle is moving.

- The jury is still out on how much impairment might result from a driver talking on the radio. It probably depends on many things that are yet to be illuminated by research. For instance, some research indicates that listening to recorded conversations or music does not result in impairment, so a communication during which the officer is primarily receiving information may be less deleterious than a back-and-forth conversation. However, we simply don’t know, so it might be prudent to use the radio judiciously and avoid idle chatter while the vehicle is moving.

- Invite your passenger, on or off work, to be your back seat driver and help you be aware of traffic hazards and navigation tasks. I know this can be annoying at times, but if you’re honest with yourself you will admit that you’ve probably been saved from at least one fender bender or worse by an alert passenger who told you to watch out.

- If you’re a passenger, be alert to driving conditions and ask the driver’s permission to be their extra set of eyes and ears. This might help avoid conflict if you do need to give them important information.

- Enthusiastically participate in any chance to improve your driving skills. Anything that is well-rehearsed and for which we have achieved high levels of competence is likely to be less vulnerable to disruption.

- Try to be humble about your abilities. You may think you can multitask with no impairment in your performance but chances are good that you are wrong!

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**References**


