

<b>UTC Project Information</b>	
Project Title	MPC-407 – The Effect of Multi-tasking on Self-Assessments of Driving Performance Center for the Prevention of Distracted Driving
University	University of Utah
Principal Investigator	David Strayer David Sanbonmatsu
PI Contact Information	<p>David Strayer, Professor University of Utah Department of Psychology 380 S. 1530 E., Rm.502 Salt Lake City, Utah 84112-0251 Phone: (801) 581-5037 Email: <a href="mailto:david.strayer@utah.edu">david.strayer@utah.edu</a></p> <p>David Sanbonmatsu, Professor University of Utah Department of Psychology 380 S. 1530 E., Rm.502 Salt Lake City, Utah 84112-0251 Phone: (801) 581-8505 Email: <a href="mailto:sanbonmatsu@psych.utah.edu">sanbonmatsu@psych.utah.edu</a></p>
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Start and End Dates	September 1, 2012 – December 31, 2013
Project Duration	2 Years
Brief Description of Research Project	<p>Research from the Center for the Prevention of Distracted Driving at the University of Utah has demonstrated that cell phone use contributes to accidents, slower reactions, and more dangerous driving patterns (e.g., Strayer, Drews, &amp; Johnston, 2003). Further studies have shown that cell phone conversation disrupts visual scanning and change detection (McCarley et al., 2004), and causes a form of inattention blindness whereby observers fail to see information that falls directly in their line of gaze (Strayer &amp; Drews, 2007). Although a great deal is known about the detrimental effects of cellular communication on driving, little is known about why people engage in this dangerous behavior. Drivers persist despite overwhelming evidence documenting the hazards associated with such use. Ironically, there is often wide spread support for regulating the use of wireless devices while driving, in many cases by individuals who regularly engage in these activities. People appear to be sensitive to the risks of others' cell phone use, but blind to the risks associated with their own use (Sanbonmatsu, Strayer, Medeiros-Ward, &amp; Watson, 2012). We hypothesize that the cognitive</p>

	<p>distraction caused by the use of a cell phone impairs drivers’ ability to notice their own impaired driving. That is, cell phone use may induce a form of inattention blindness that not only diminishes drivers’ ability to detect important information in the driving environment but that also impairs their ability to self-regulate (e.g., Carver &amp; Scheier, 1998) their driving performance. Drivers generally monitor their performance to ensure that they are driving safely. However, when they are distracted by the mechanics of using their phones and conversation, they may be less cognizant of the errors and mistakes they make on the road. Consequently, they may maintain the illusion they can drive safely while talking on the cell phone and continue to engage in this risky multi-tasking activity. Because their ability to monitor their driving is impaired, their performance assessments are likely to be guided by their beliefs and expectations rather than actual observations.</p> <p><b>Research Objectives</b>  The purpose of the proposed research is to further understanding of the effects of cell phone use on driving safety. Our study directly tests the hypothesis that cell phone use impairs drivers’ self assessments of their driving performance. Additionally, the research explores why people persist in using cell phones while operating vehicles. Recent evidence from our laboratory (Sanbonmatsu et al., 2012) suggests that overconfidence (e.g., Dunning, Heath, &amp; Suls, 2004) rather than actual ability drives the proliferation of multitasking on the roadway. Specifically, our research has shown that drivers are overconfident about their personal abilities to drive safely while multi-tasking and that this confidence is positively correlated with their usage of cell phones while operating a motor vehicle. The proposed study will provide evidence that one of the important sources of this overconfidence is drivers’ lack of awareness of how badly they drive when they are using a cell phone.</p> <p><b>Related Research</b>  With the support of the MPC grant, we were able to analyze and write up data from a related study on cell phone usage while driving. This study investigated the beliefs and attitudes that lead people to use cell phones while driving and that contribute to support for legislation restricting the use of cell phones.</p>
<p>Describe Implementation of Research Outcomes (or why not implemented)</p> <p>Place Any Photos Here</p>	<p>Distracted driving contributed to greater driving errors and a reduced awareness of driving errors. Thus, talking on a cell phone not only diminished the safeness of participants’ driving, it diminished their awareness of the safeness of their driving. Driver confidence was unrelated to driving performance when participants talked on a cell phone.</p>

<p>Impacts/Benefits of Implementation (actual, not anticipated)</p>	<p>Cell phone use not only impaired the safeness of participants' driving in our study, it impaired their awareness of the safeness of their driving. The driving safety assessments and memory of driving errors of participants who talked on a cell phone were almost wholly uncorrelated (or correlated in the wrong direction) with the actual errors they made. When drivers are talking on a cell phone, they are often unaware of the inconsistencies in their speed, their weaving across lanes, and their near misses with other vehicles. As a consequence, they may persist in believing that they can safely talk or text on a cell phone behind the wheel. These findings should contribute to a better understanding of the costs of distracted driving and the contributors to driver overconfidence and lead to possible strategies and technologies to reduce the incidence of distracted driving.</p>
<p>Web Links</p> <ul style="list-style-type: none"><li>• Reports</li><li>• Project Website</li></ul>	<p><a href="http://www.ugpti.org/resources/reports/details.php?id=868">http://www.ugpti.org/resources/reports/details.php?id=868</a></p>