The Effect of Distraction on Perception Reaction Time

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Recognizing and reacting to a hazard in sufficient time to avoid the hazard is essential to safe driving. Anything that detracts from the vehicle operator’s ability to focus on the driving task hinders perception reaction time. At least one thousand one hundred and fifty-three people are injured and nine people are killed in crashes involving a distracted driver per day in the United States. Multitasking such as cell phone use, particularly texting, while driving has been cited as leading cause of distraction. A National Highway Traffic Safety Administration (2013) survey of drivers, ages eighteen to sixty-four, in the United States found sixty-nine percent reported using a cell phone while driving within thirty days before the survey. This study examines the effect of distraction through a series of trials consisting of subjects catching a free falling ruler with and without distraction. The hypothesis of the experiment is if more time is required to catch a free falling measuring stick when focusing on more than one task, then perception reaction time is increased by distraction, because the brain is most efficient when focused on one task at a time. The findings conclusively prove that multitasking, such as cell phone use, increases perception reaction time.

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