Still Fooling Ourselves: Why do we drive distracted?

Paul Atchley, Ph.D.
Associate Dean,
Academic Innovation & Student Success
Professor,
Department of Psychology
University of Kansas
Distraction is killing us
This is not a new research problem

Crashes with phone records show increased in risk
Drivers on cell phones drive worse than drunk drivers

A Comparison of the Cell Phone Driver and the Drunk Driver

David L. Strayer, Frank A. Drews, and Dennis J. Crouch, University of Utah, Salt Lake City, Utah

Strayer, et al., 2006
Conversation restricts visual processing - attention

SPECIAL SECTION

Conversation Limits the Functional Field of View

Paul Atchley and Jeff Dressel, University of Kansas, Lawrence, Kansas
Conversation restricts visual processing - eye movements

Eye movements attending on cell

Transport Canada
Conversation impairs visual processing - fMRI

Just et al., 2008
The case against

Since 1969, there have been

342* studies examining

1608 measures

with 19370 subjects

on the effects of distraction on driving performance
Talking (hand held)  5 22
Talking (hands free)  7 44
Texting  9
Performance improved
No effect
Performance degraded
120
219
115
The bottom-line

The National Safety Council estimates that one-quarter of crashes in the U.S. are attributable to cell phones.
It will get worse
It will get worse
Worse is here. Now.
Crashes and fatalities are up

NHTSA Reports Uptick in Traffic Accident Deaths

SEPTEMBER 12, 2016  By: Whitney Taylor  |  CAR ACCIDENTS

Traffic fatalities in 2015 were at the highest level since 2008, according to new data from the National Highway Traffic Safety Administration. The increase can be attributed at least in part to more miles on the road during that year, which could be due to a combination of an improved economy, higher employment rates and lower gas prices. However, statistics also show that failure to wear a seatbelt, driving under the influence and distracted driving also played a role.
Going in the wrong direction

2016 Motor Vehicle Deaths Estimated to be Highest in Nine Years
We fool ourselves
How do we fool ourselves?

We think we understand risk
October 18th, 2016

Crashes Claim Teen Lives

Eight dead and 960 taken to emergency room

USA - In another day of tragedy, eight young Americans between the ages of 16 and 19 were killed in motor vehicles. Another 960 were taken to emergency rooms with injuries ranging from life-threatening to less severe. The Center for Disease Control reported that though this demographic only accounts for 14% of the U.S. population, they account for about 30% of the cost of crashes.
USA - In another day of tragedy, eight young Americans between the ages of 16 and 19 were killed in motor vehicles. Another 960 were taken to emergency rooms with injuries ranging from life-threatening to less severe. The Center for Disease Control reported that though this demographic only accounts for 14% of the U.S. population, they account for about 30% of the cost of crashes.
USA - In another day of tragedy, eight young Americans between the ages of 16 and 19 were killed in motor vehicles. Another 960 were taken to emergency rooms with injuries ranging from life-threatening to less severe. The Center for Disease Control reported that though this demographic only accounts for 14% of the U.S. population, they account for about 30% of the cost of crashes.
USA - In another day of tragedy, eight young Americans between the ages of 16 and 19 were killed in motor vehicles. Another 960 were taken to emergency rooms with injuries ranging from life-threatening to less severe. The Center for Disease Control reported that though this demographic only accounts for 14% of the U.S. population, they account for about 30% of the cost of crashes.
Knowing risk does not change behavior

- Drivers rate distracted driving as very risky
- They do it anyway
- Importance of the call/text outweighs risk

Nelson, Atchley & Little, 2009
Atchley, Atwood & Boulton, 2011
How preventable was the crash?

Atchley, Hadlock & Lane, 2012

Preventability

- Very preventable
  - Attentive
  - Drinking
  - Texting

- Not preventable

Rock Chalk, JAYHAWK!
Reports about 15 texts while driving per week

"Everybody is doing it"

Atchley, Atwood & Boulton, 2011
How do we fool ourselves?

We think we see more than we do
Our view:

A complex computer
Reality:

A limited processor
Lack of driver attention is the most common crash cause
Multitasking is a myth
Summary

- People are dying from inattention
- The problem will get worse
- Our brain fools us
- Safety requires education, rules, enforcement and leadership
Thank you for your attention!

Paul Atchley, Ph.D.
Department of Psychology
University of Kansas
patchley@ku.edu