Fooling ourselves: Why do we drive distracted?

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The Threat

Driving while distracted increases crash risk



4.3 times (Redelmeier & Tibshirani, 1997)

4.1 times (McEvoy, et al., 2005)

2 to 6 times (Atchley & Dressel, 2004)

More than drunk driving (Strayer et al., 2006)

Texting is a 2300% increase (VTTI, 2009)

Traffic safety requires understanding people

Our brain's
best ability
is self-deception

We *think* we see more than we do



We *think* we understand risk

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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.

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The driver
is the weak link
in traffic safety

Country	Deaths/ 100,000 Vehicles
Japan	6.8
U.K.	7
Sweden	7
U.S.	15
China	446



DISTRACTED DRIVING IS AS LEAST AS RISKY AS DRUNK DRIVING

- Crash studies with phone records
- Simulator studies
- Behavioral studies

NATIONAL SAFETY COUNCIL (2008)

- About 28% of all crashes are due to cell phone use

The digital natives are here

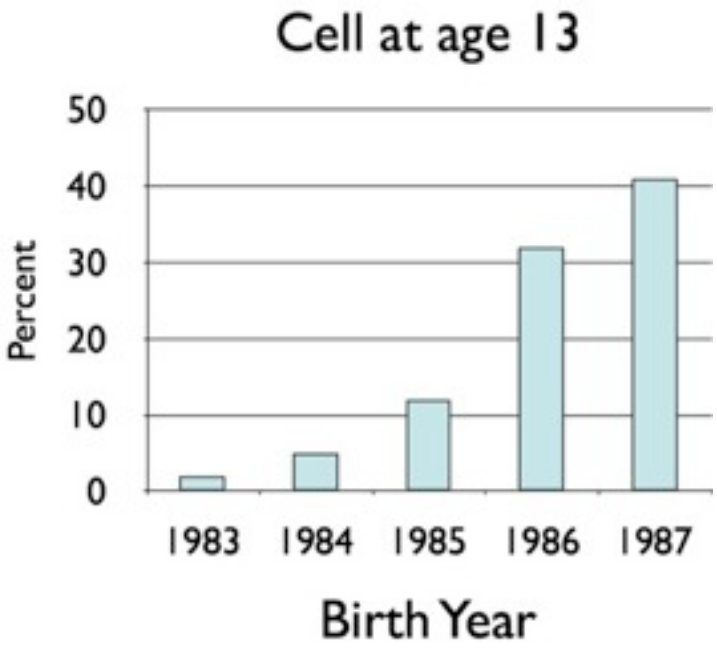
Adoption of cellular technologies

- More common
- Earlier
- Heavier use



•Almost no 28 year-olds had a phone at 13, but over 40% of 24 year-olds did.

•The average age of first cell phone is now 8.

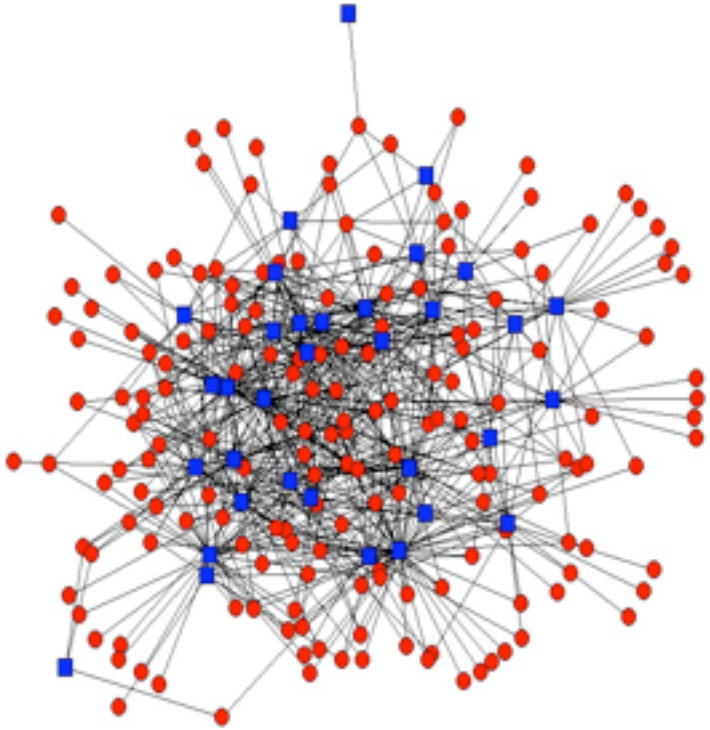


HEAVIER USE (Teen data)

- Median texts per day: 60
- Older girls median texts: 100
- 63% text every day – greater than
  - Calling (39%)
  - Face-to-face (35%)
  - Social network messaging (29%)
  - Instant messaging (22%)
  - Email (6%)

Peer-reinforced use

- Exclusion from texting lowers self-esteem
- Inclusion increases connectedness to peers



DAILY BRUIN

"RESTRICTION ON TEXTING WHILE DRIVING TARGETS THE WRONG DISTRACTIONS"



Scott Pearring, January 9, 2009

"While these aren't the craziest fines in the world, the fact that the government is so strictly regulating what we do in our cars frustrates me. I'm not going to pretend like this is the worst thing to happen to me, ***but I'm bothered that now not only do I need to interrupt my phone call when I see an officer, I also need to make sure it doesn't look like I'm punching the buttons.***"

Why do we drive distracted?

We overestimate our capacity

Our view:

A complex computer



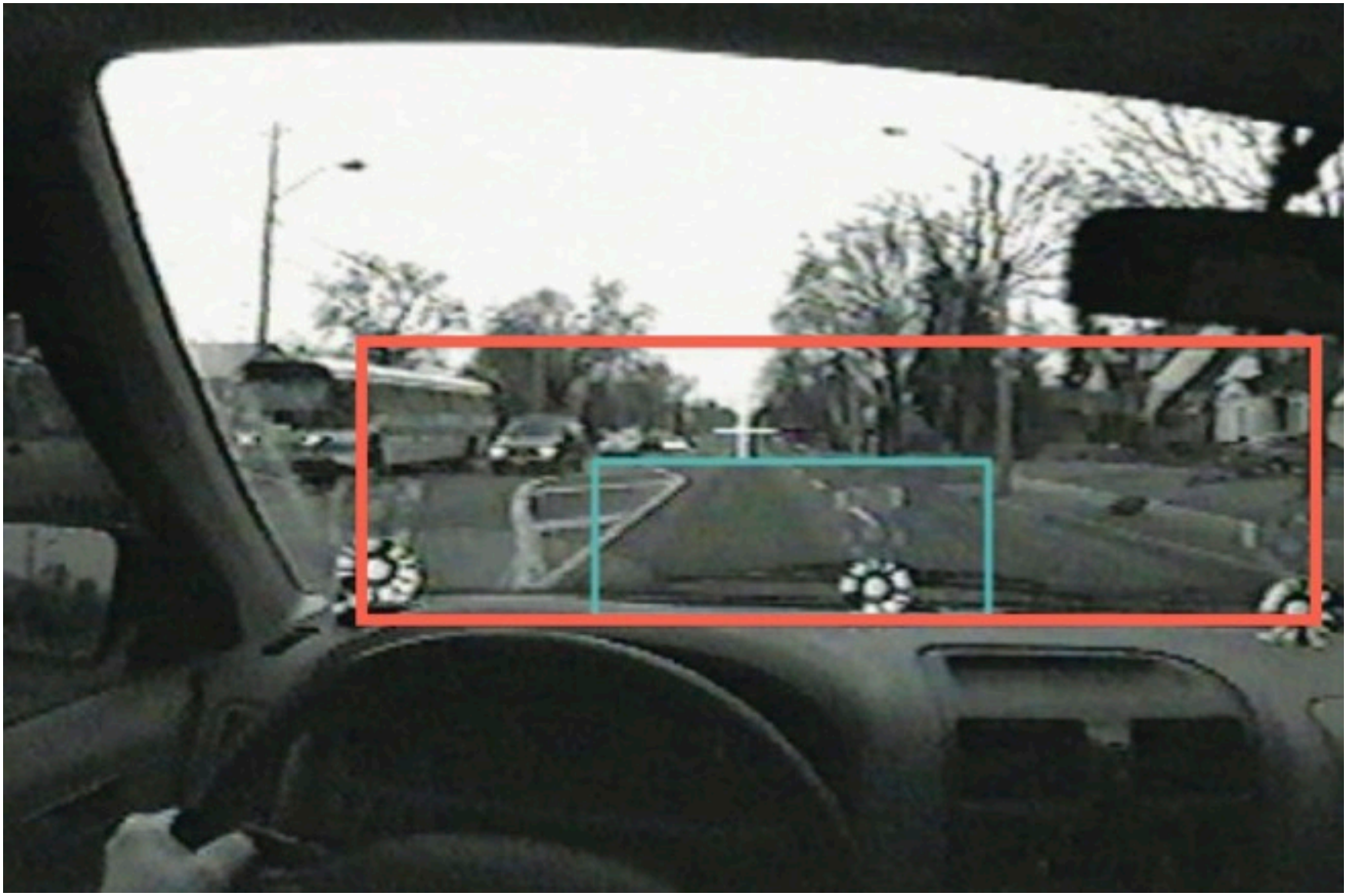
Reality:

A limited processor







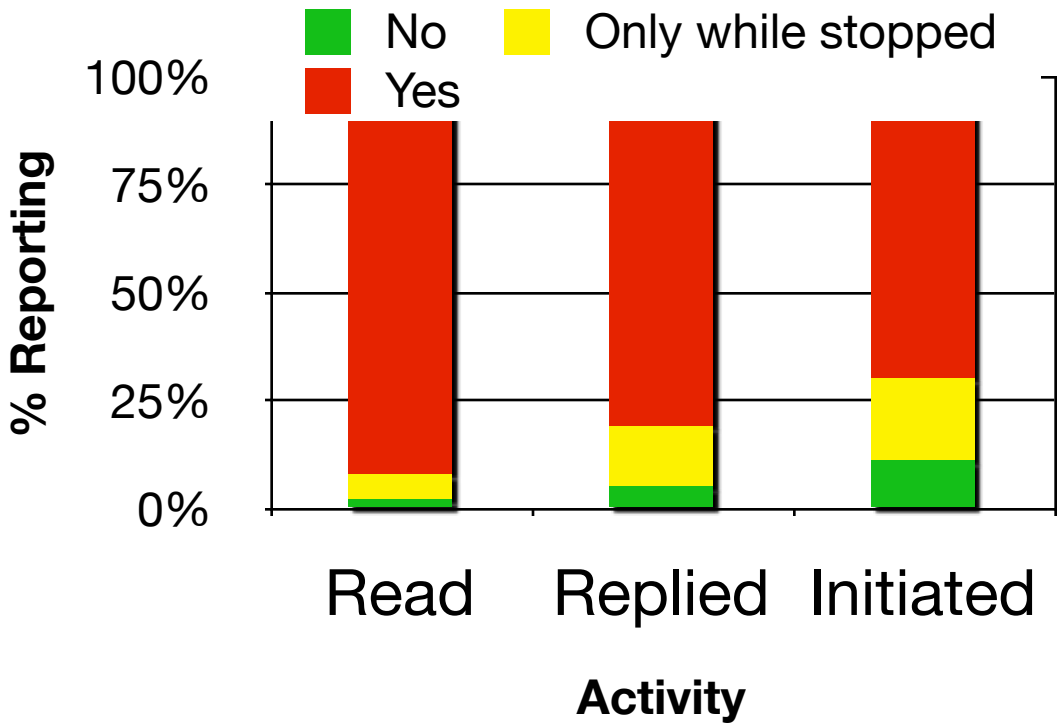


Attitudes are disconnected from actions



Reports about 15 texts while driving per week

"Everybody is doing it"

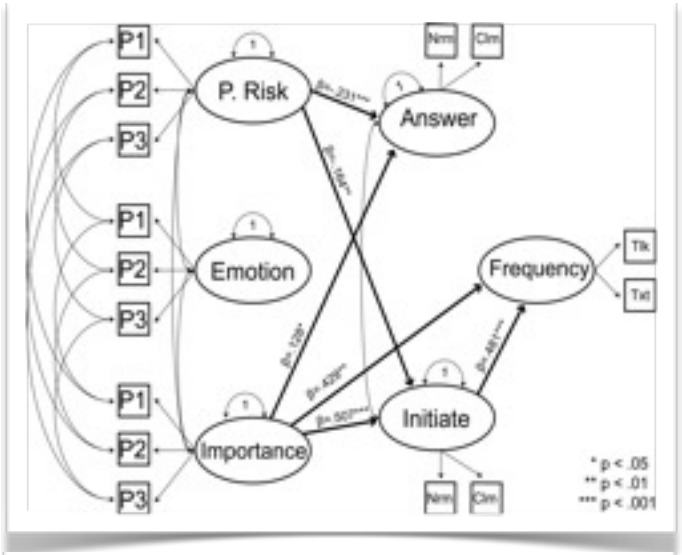


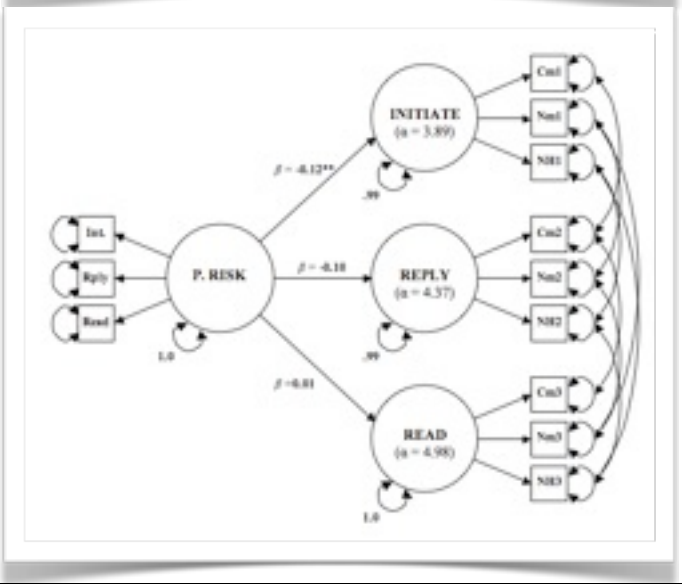
Atchley, Atwood & Boulton, 2011

KNOWING RISK DOES NOT CHANGE BEHAVIOR

Distracted drivers rate it as risky

Importance of the call/ text outweighs risk





BEHAVIOR CHANGES RISK PERCEPTION

When drivers were asked to think about

reading a text

highway driving = intense conditions

replying to a text

highway = intense and calm conditions

initiating a text

highway = calm conditions

Beliefs and actions are often different

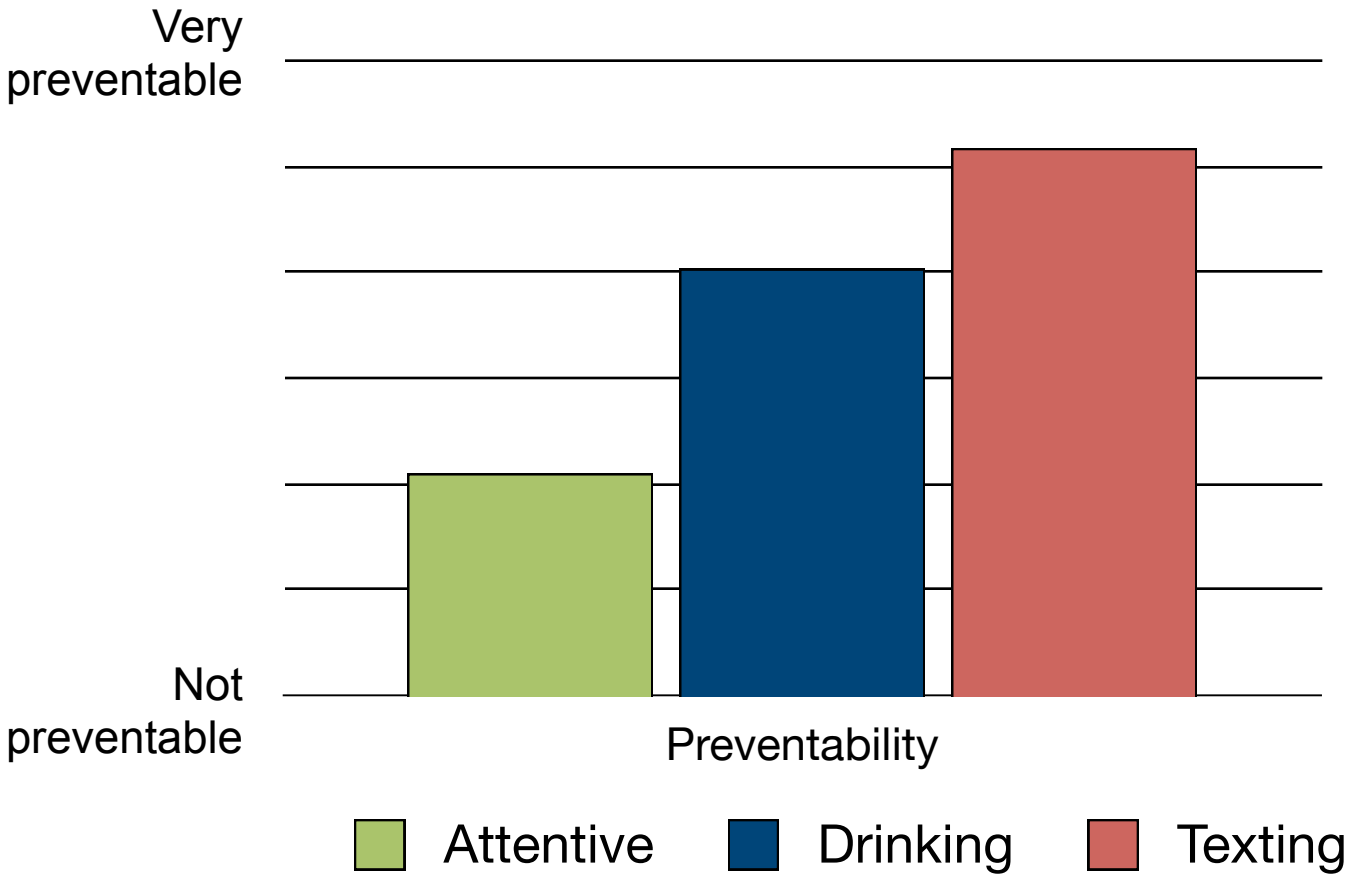
Drunk driving narrative

"By this time David had had quite a lot of alcohol to drink, and he drank the remaining contents of his drink and said good-bye to the other party guests. He drove for a few blocks. He came to a stoplight controlling traffic at a broad intersection."

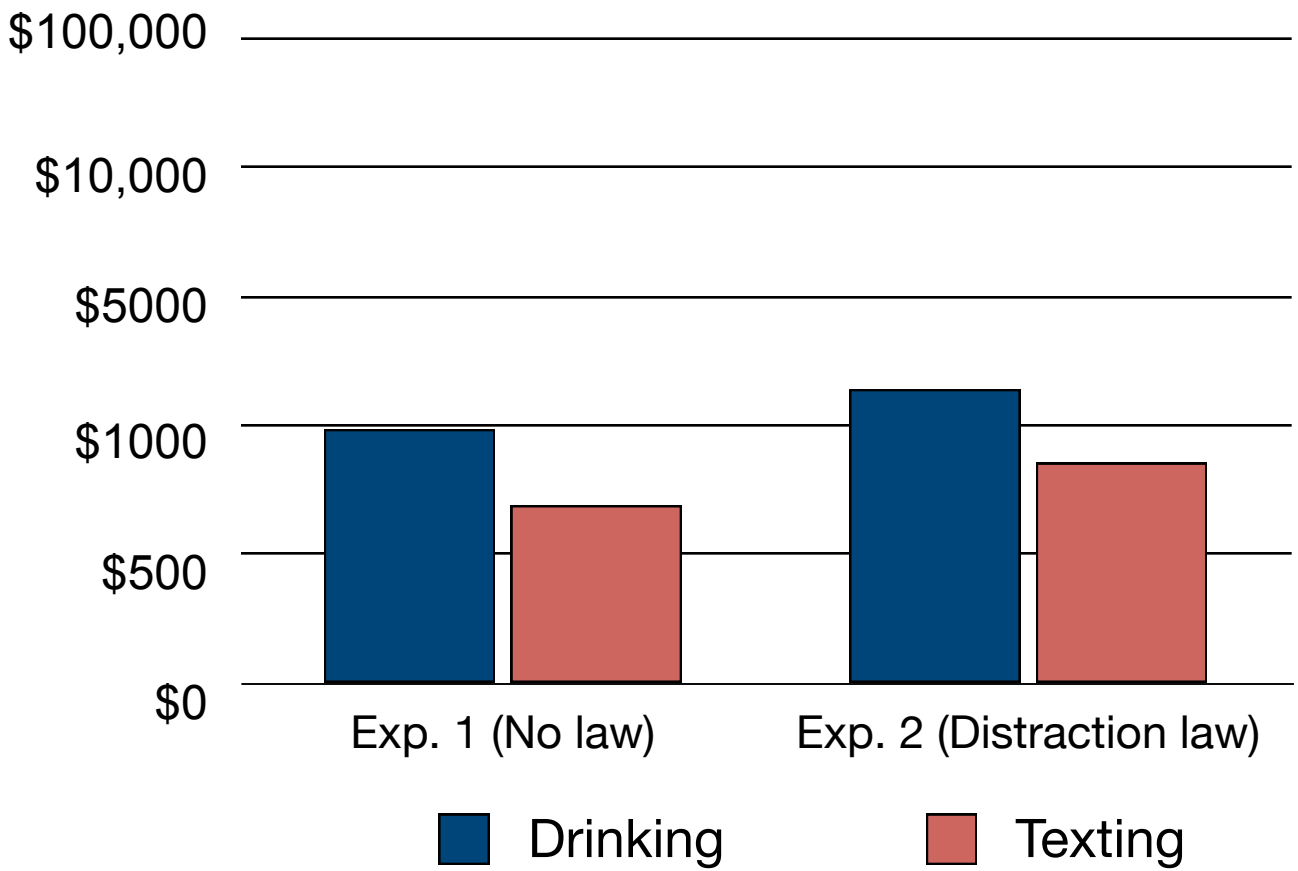
Texting and driving narrative

"As he was driving he picked up his cell phone and started to compose a text message to girlfriend telling her he was on his way home from the party. Still text messaging, he came to a stoplight controlling traffic at a broad intersection."

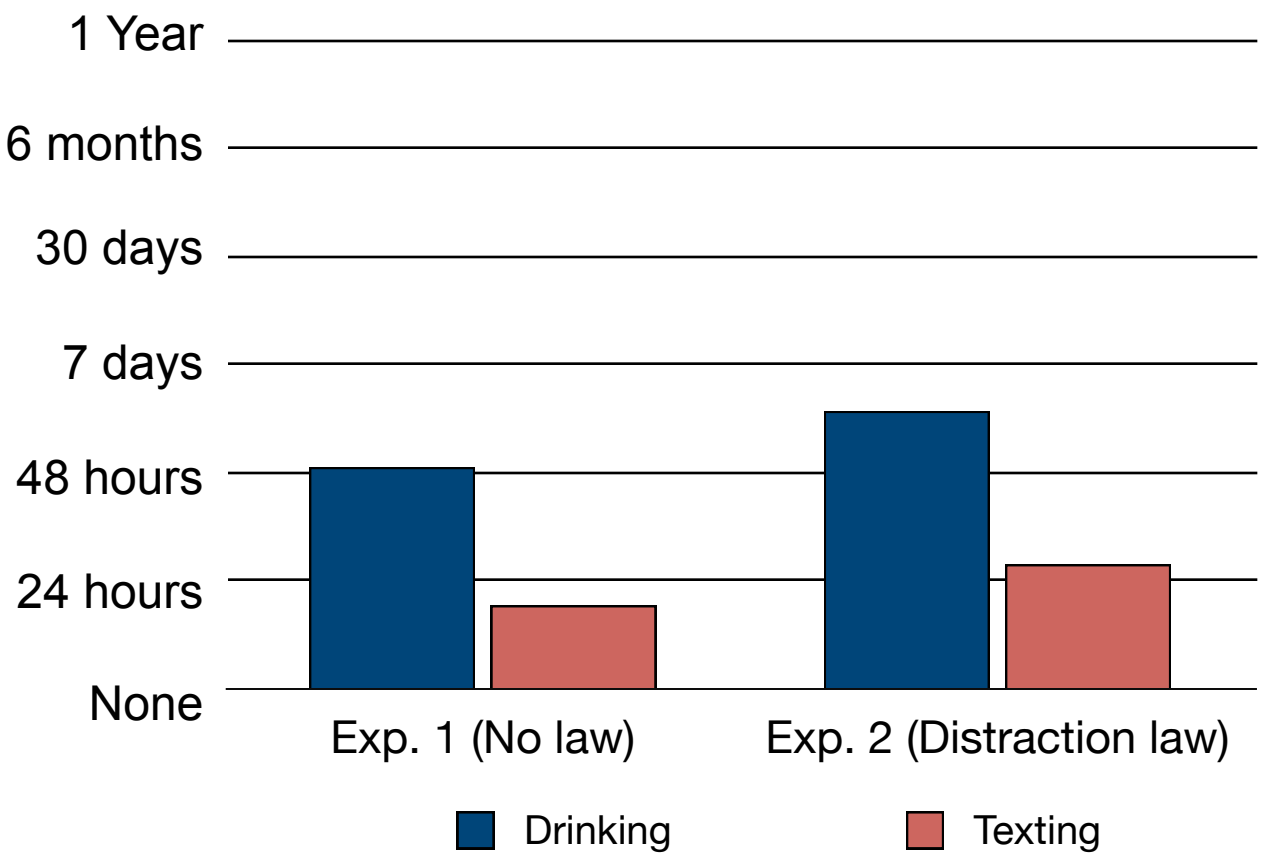
HOW PREVENTABLE WAS THE CRASH?



WHAT FINE SHOULD BE ASSIGNED?



WHAT JAIL TIME SHOULD BE ASSIGNED?



Our brain's best ability is self-deception

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The digital natives are here

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Attitudes are disconnected from actions

There are reasons for hope and for caution