

Developing a Culture for Distraction-Free Driving

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Aberrant driving behaviors: A study of drivers in Beijing[☆]

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A model of Beijing drivers' scrambling behaviors

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A Survey of Taxi Drivers' Aberrant Driving Behavior in Beijing

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AND PAUL ATCHLEY²

Accident Analysis and Prevention, Vol. 42, (2010), pp. 1031-1040

Accident Analysis and Prevention, Vol. 43, (2011), pp. 1540-1546

Journal of Transportation Safety & Security, Vol. 6, (2014), pp. 34-43

Cultural foundations of safety culture: A comparison of traffic safety culture in China, Japan and the United States

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	Japan	U.S.
Current fatality rate ¹	6.15	12.77
Trends 1990-2010	Fatalities down by 67% Crashes and injury rate steady	Largest number of registered vehicles Fatality and injury rate down about 50%
Historical factors	Established driving culture Acceptance of national traffic safety programs	Established driving culture Some resistance to new traffic safety laws
Structural factors	Modern (toll-based) highway system Fewer car safety laws	Modern (publicly funded) highway system More car safety laws
Cultural factors	Low risk tolerance Emphasis on protecting others	Moderate risk tolerance Emphasis on personal freedom

US: Safety improvement

- 31% decline in deaths
- 56% decline for 19 high income peers
- Lowest % decline among peers

US: Crash deaths

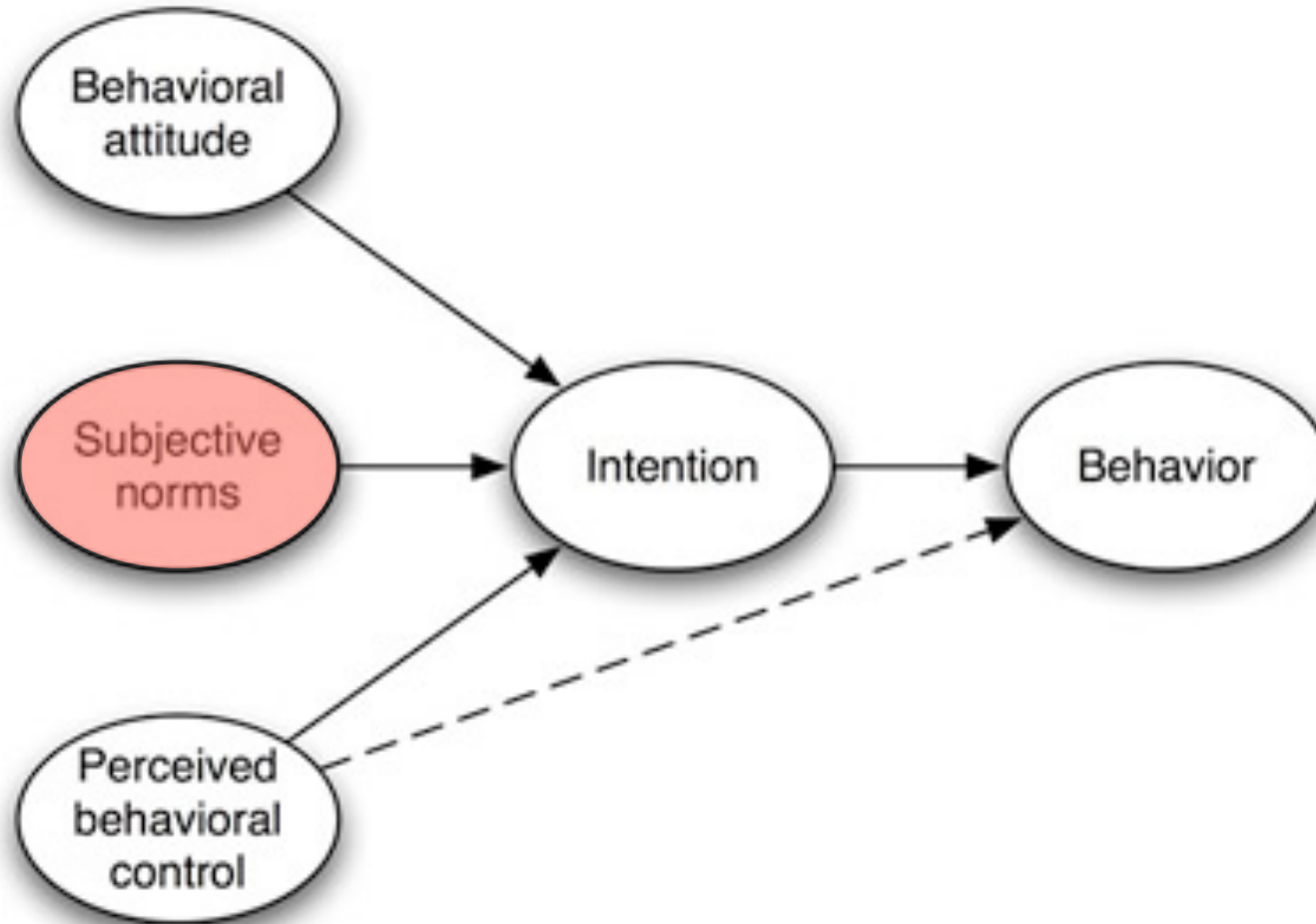
- Most crash deaths per 100,000 population and per 10,000 registered vehicles

If we performed like peers

- As good as Belgium (2nd worst): 12,000 lives saved
- As good as average: 18,000 lives saved
- As good as Sweden (Best): 24,000 lives saved

How do we change culture?

Theory of Planned Behavior

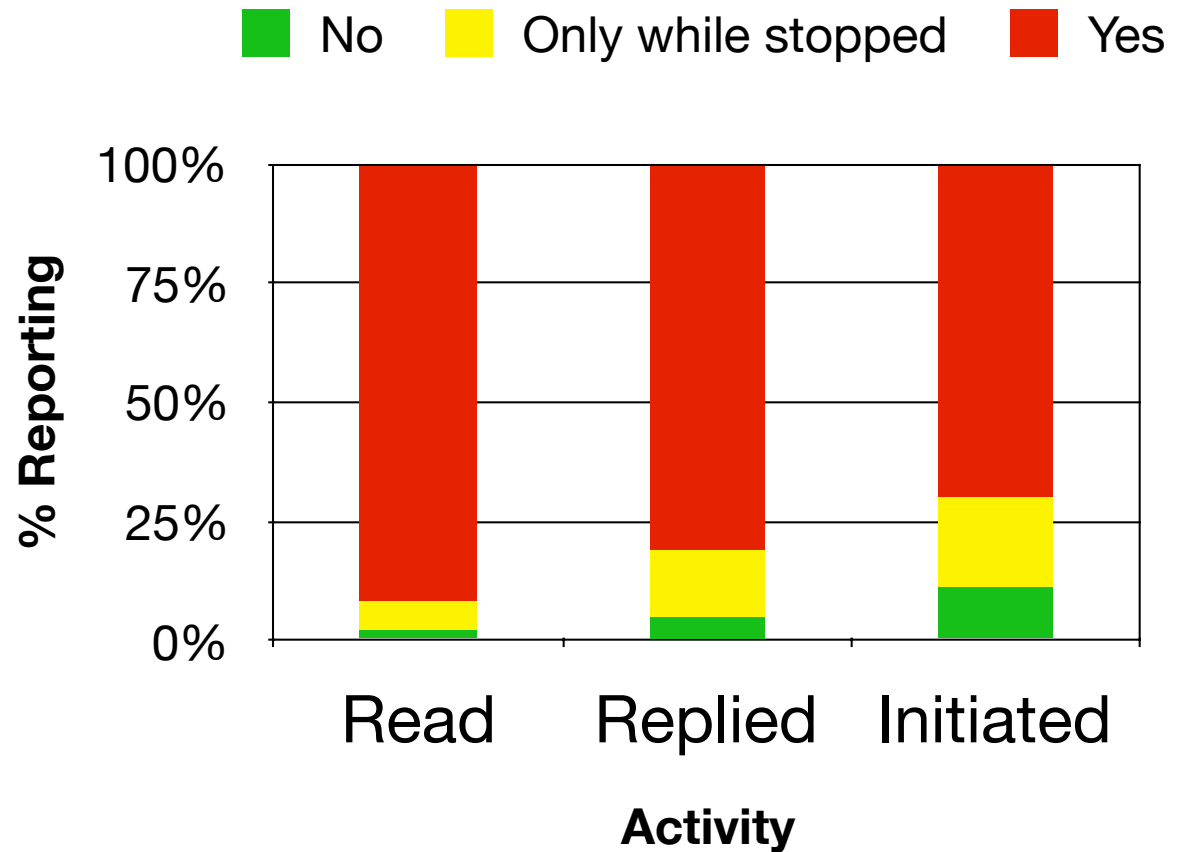


Azjen, 1991

“Everybody is doing it”



Reports about
15 texts while
driving per
week



Atchley, Atwood & Boulton, 2011

Different types of norms

Descriptive norms

What do my peers typically do?

“The average KU student drinks five or fewer drinks when they party.”

Injunctive norms

What does my culture say is the *right* thing to do?

“Getting drunk is part of college.”

The unintended consequences of social norming

Research Article

The Constructive, Destructive, and Reconstructive Power of Social Norms

P. Wesley Schultz,¹ Jessica M. Nolan,² Robert B. Cialdini,³ Noah J. Goldstein,³ and Vidas Griskevicius³

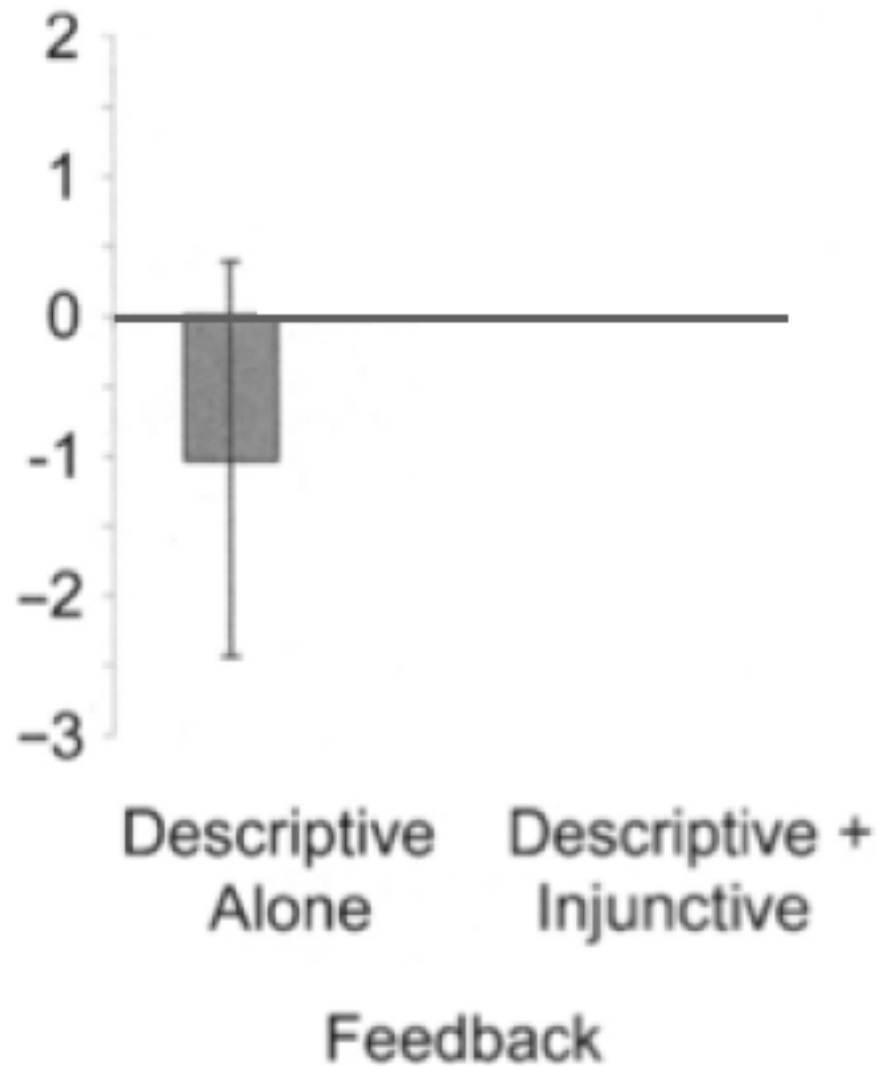
¹California State University, San Marcos; ²University of Arkansas; and ³Arizona State University

Psychological Science, Vol. 18, No. 5 (May, 2007), pp. 429-434

Used more energy



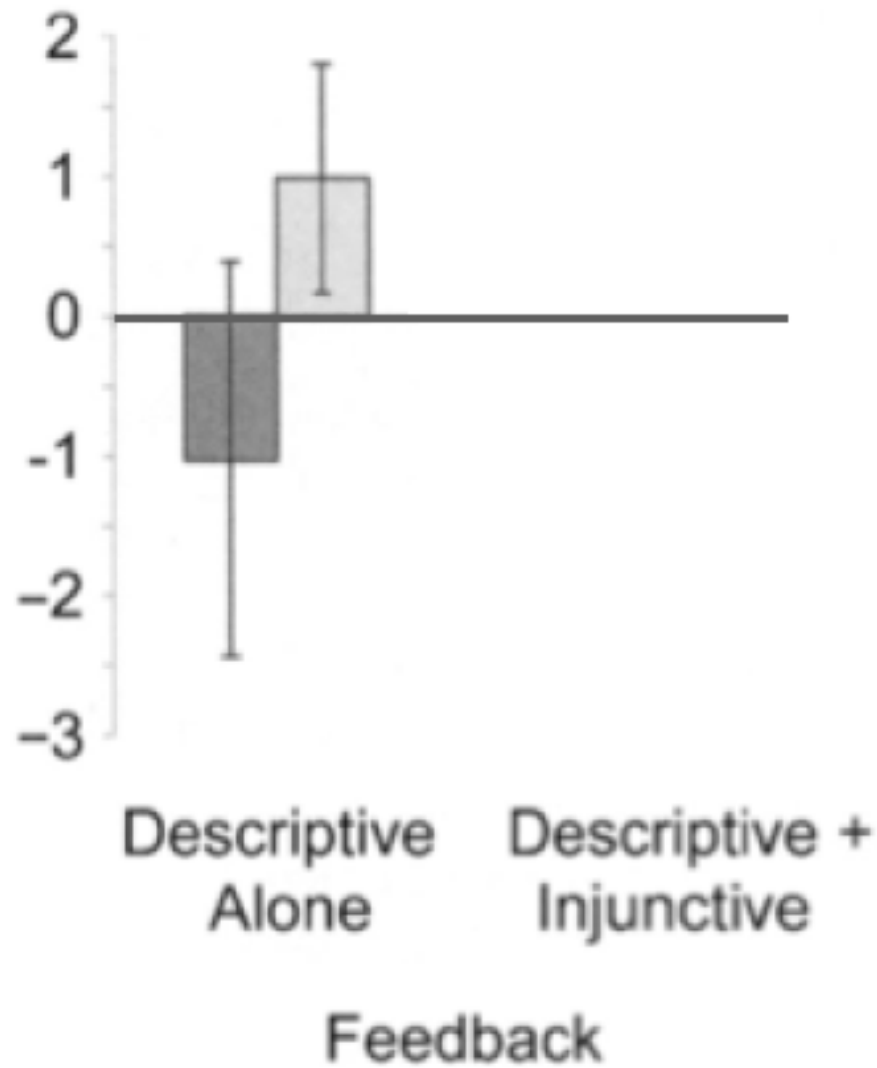
Used less energy



Used more energy



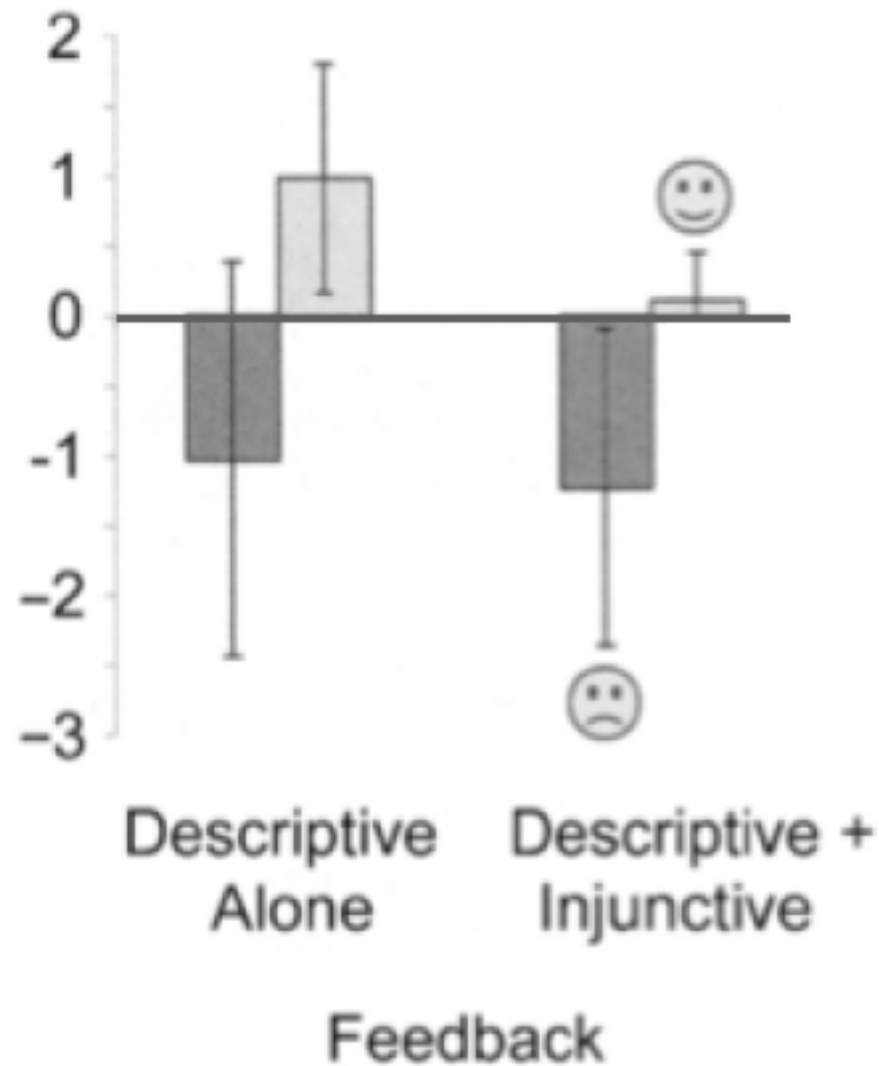
Used less energy



Used more energy



Used less energy



Strategy: Change norms



Helmet: Injunctive norm



Texting: Descriptive norms

Culture eats strategy for breakfast

Country	Deaths/ 100,000 Vehicles
Japan	6
U.K.	7
Sweden	7



Country	Deaths/ 100,000 Vehicles
Japan	6
U.K.	7
Sweden	7
U.S.	13



Country	Deaths/ 100,000 Vehicles
Japan	6
U.K.	7
Sweden	7
U.S.	13
China	84



Country	Deaths/ 100,000 Vehicles
Japan	6
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China	84



Norms can change, and so can
behavior

Drunk driving narrative

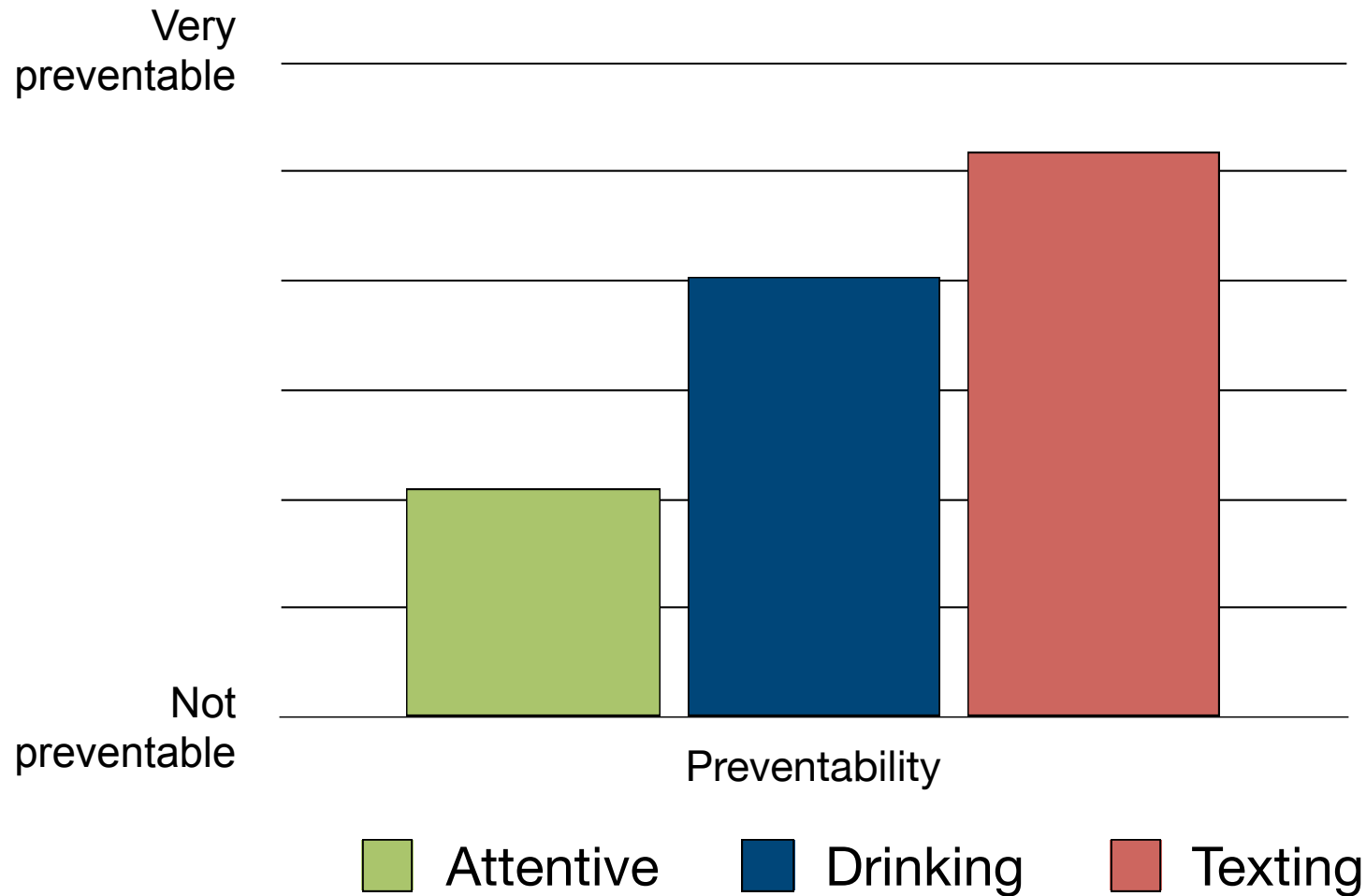
“By this time David had had quite a lot of alcohol to drink, and he drank the remaining contents of his drink and said good-bye to the other party guests. He drove for a few blocks. He came to a stoplight controlling traffic at a broad intersection.”

Atchley, Hadlock & Lane, 2012

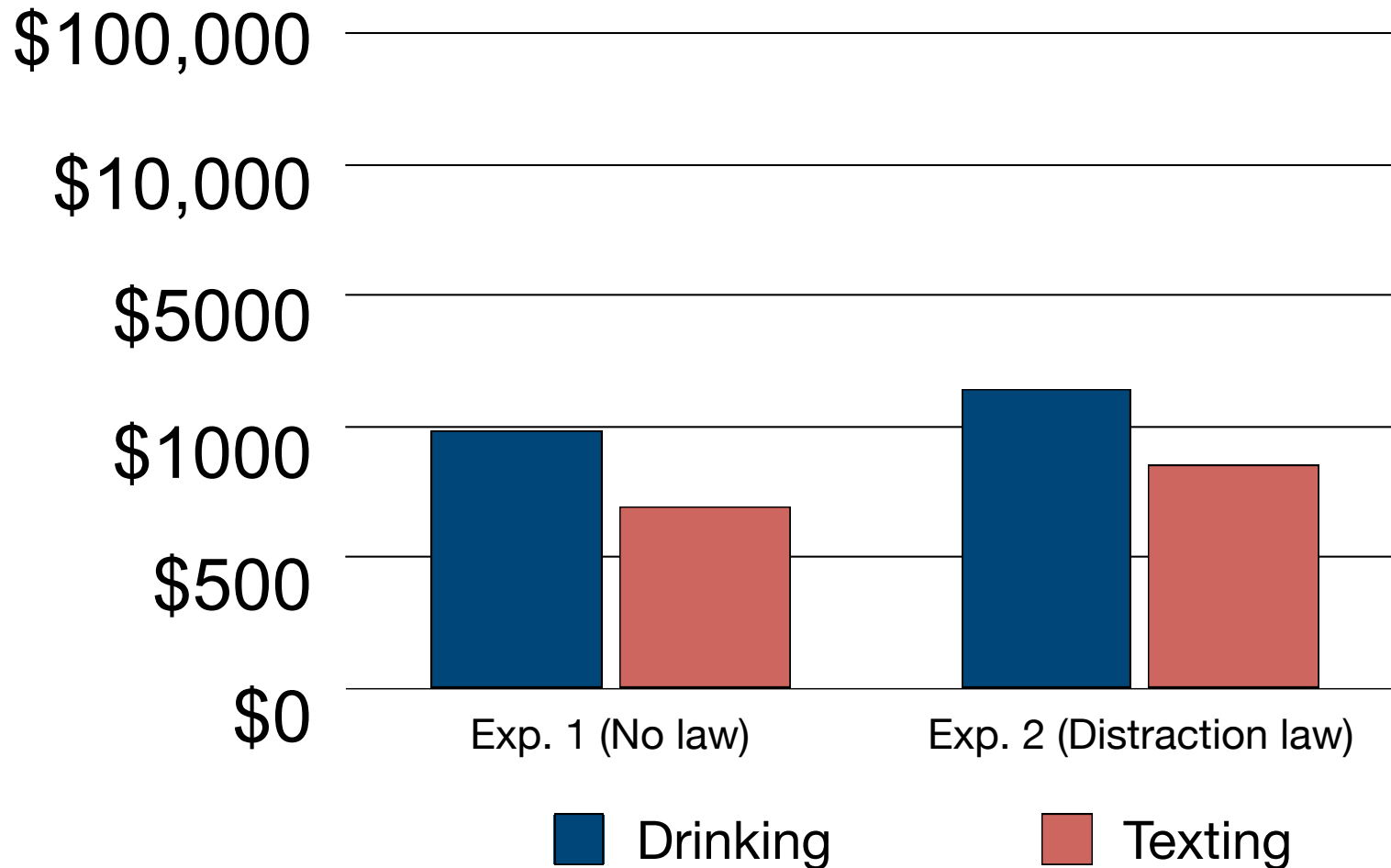
Texting and driving narrative

“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.”

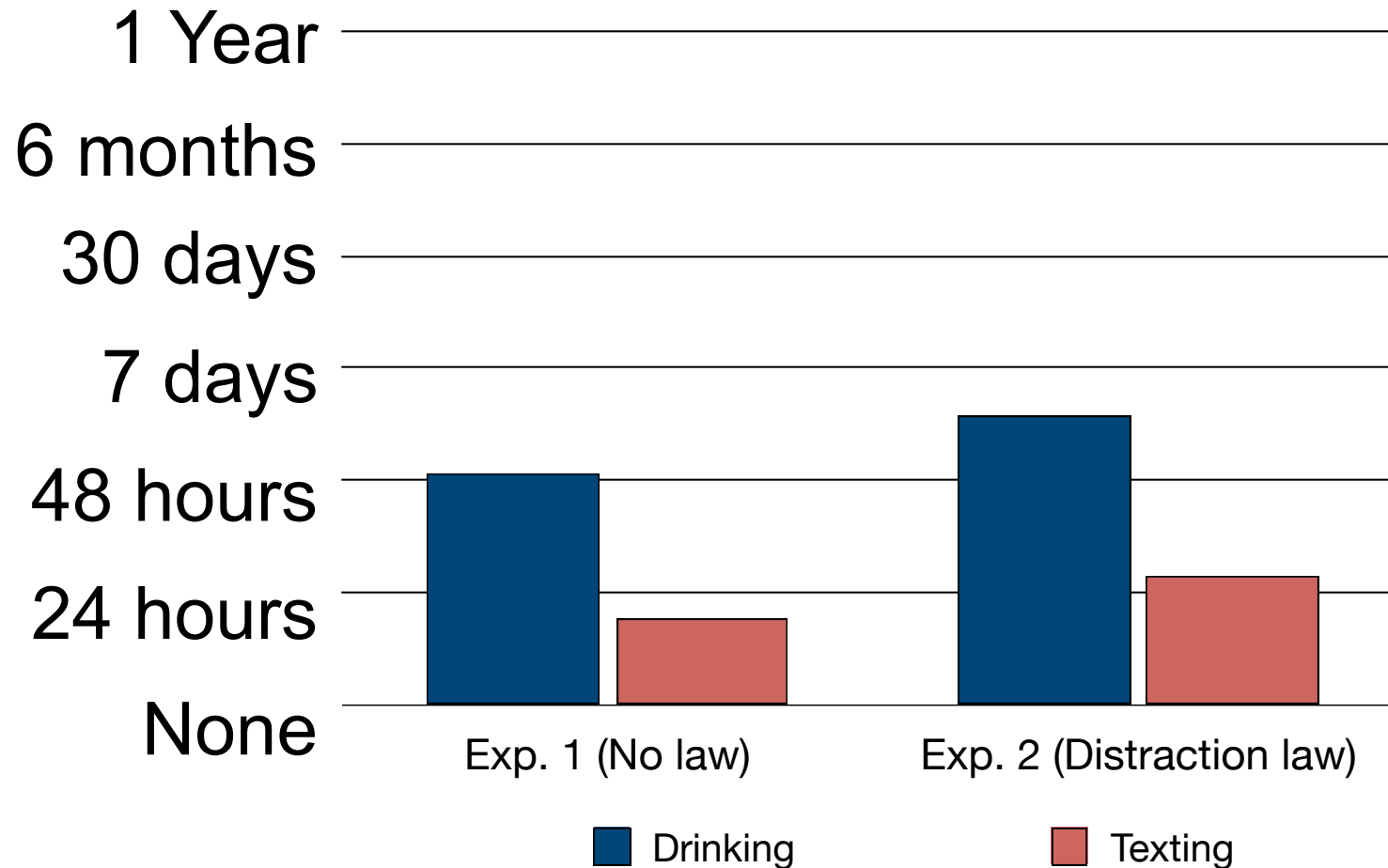
How preventable was the crash?



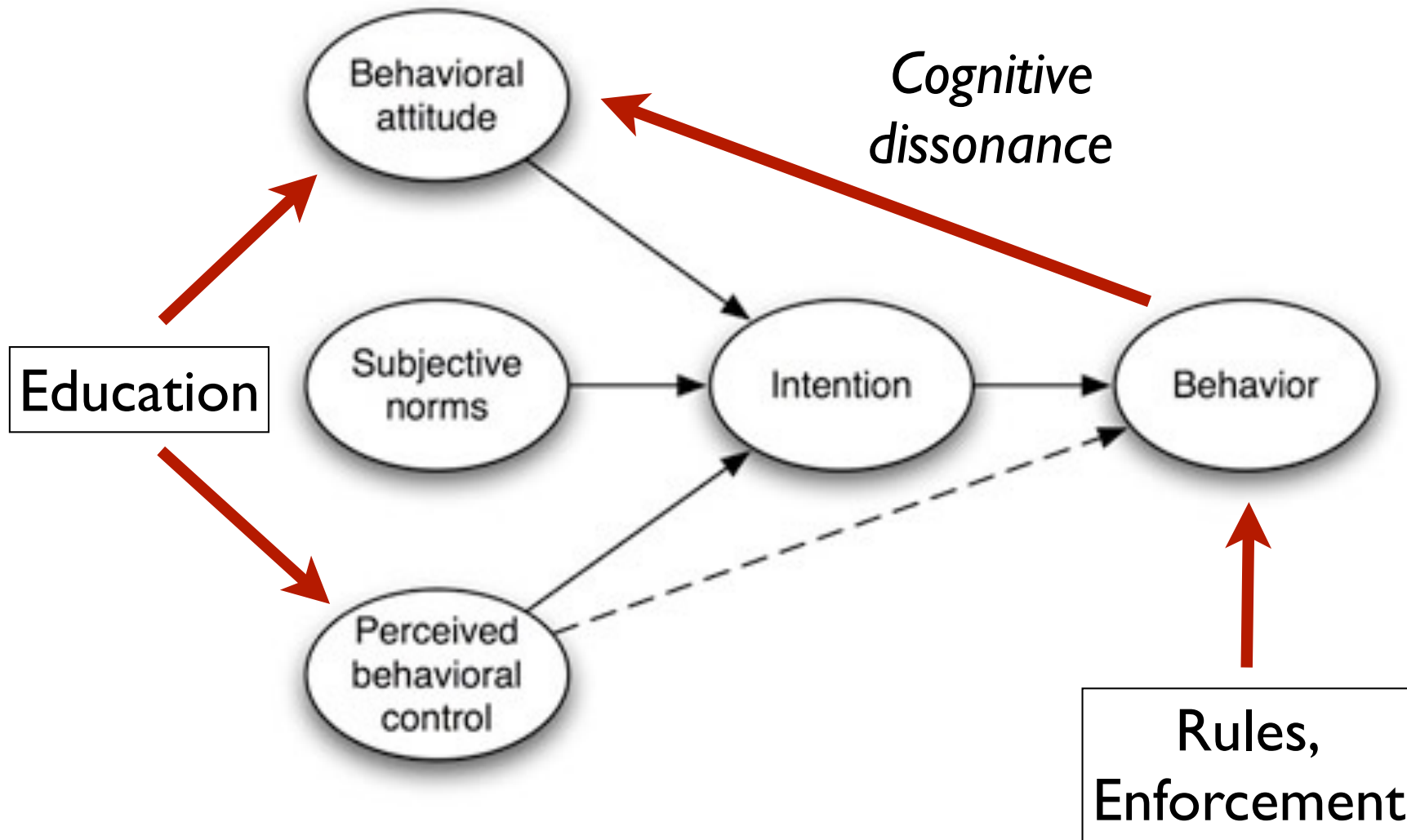
What fine should be assigned?



What jail time should be assigned?



Behavior changes attitudes



Thank you for your work and
your attention