Our Traffic Safety Paradigm: What is stopping us?

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Traffic Safety

*Please refer to the *Methodology* section in this note about making year-to-year comparisons of ranking.

[Source: DOT HS 811 620]

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Fatality Risk
(vehicles)

Occupant Fatality Rate (per 100,000 registered vehicles)

Category	2001	2010	Change
Passenger Vehicle	15.8	9.2	-41.6
Light Truck	14.9	9.5	-36.1
Motorcycle	65.2	54.8	-15.9
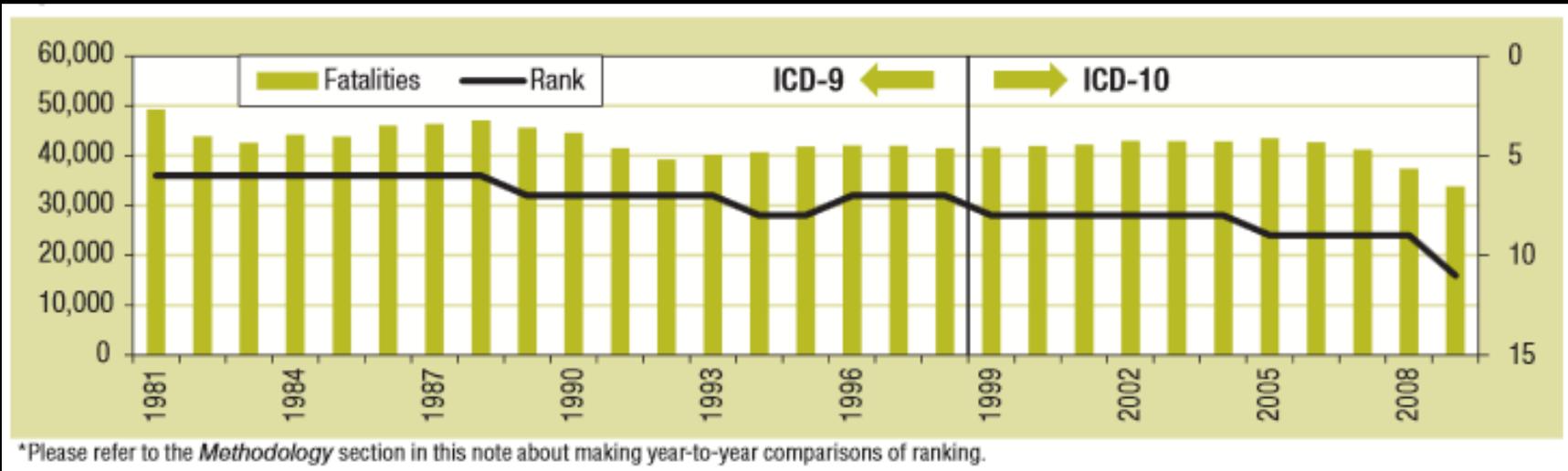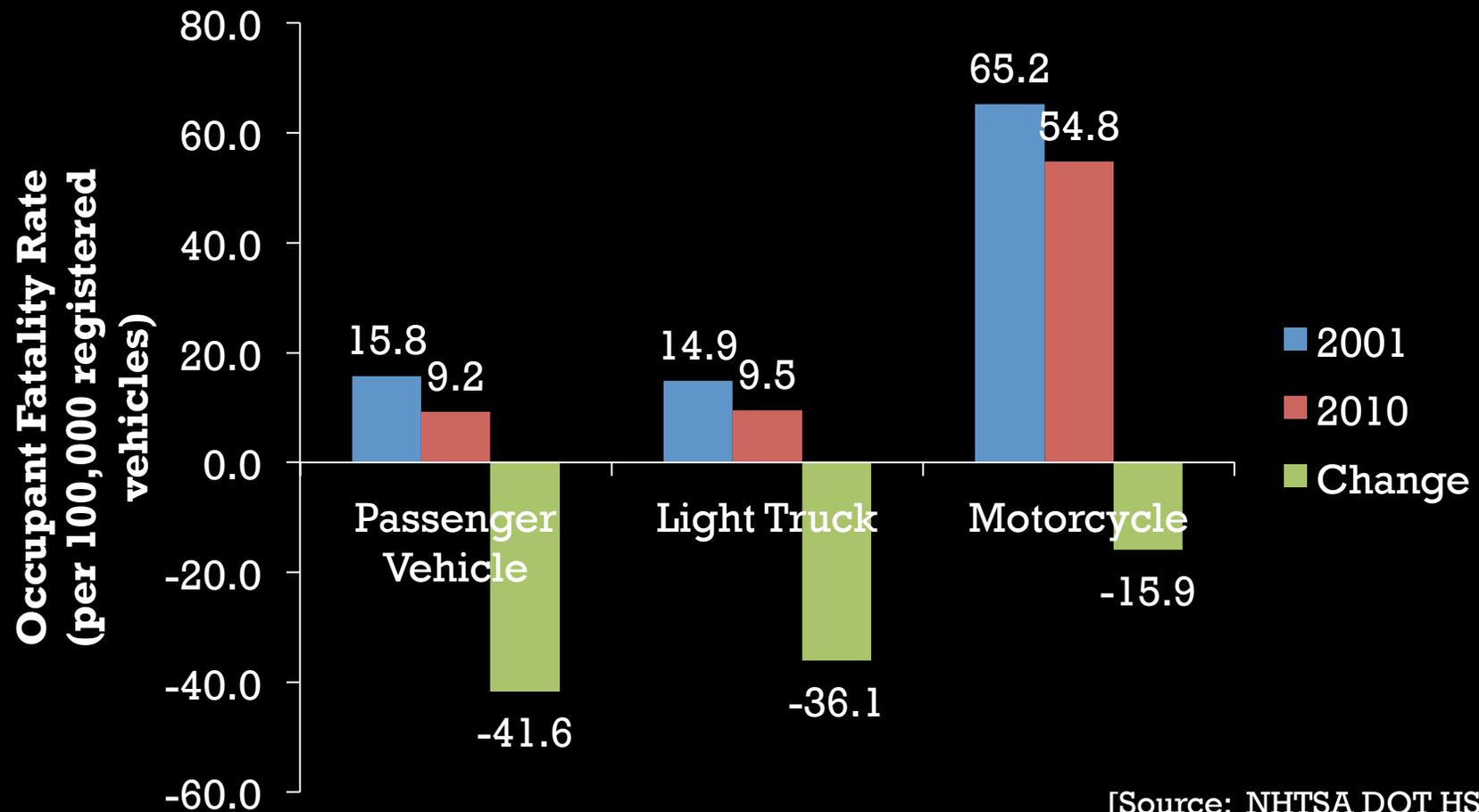
[Source: NHTSA DOT HS 811 63

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Progress

Model

Physical environment → System-risk → Road traffic accident risk

Socio economic environment
Socio-cultural environment

Risk taking culture
Norms
Values
Beliefs
Frames

Attitudes → Behavior → Road traffic accident risk
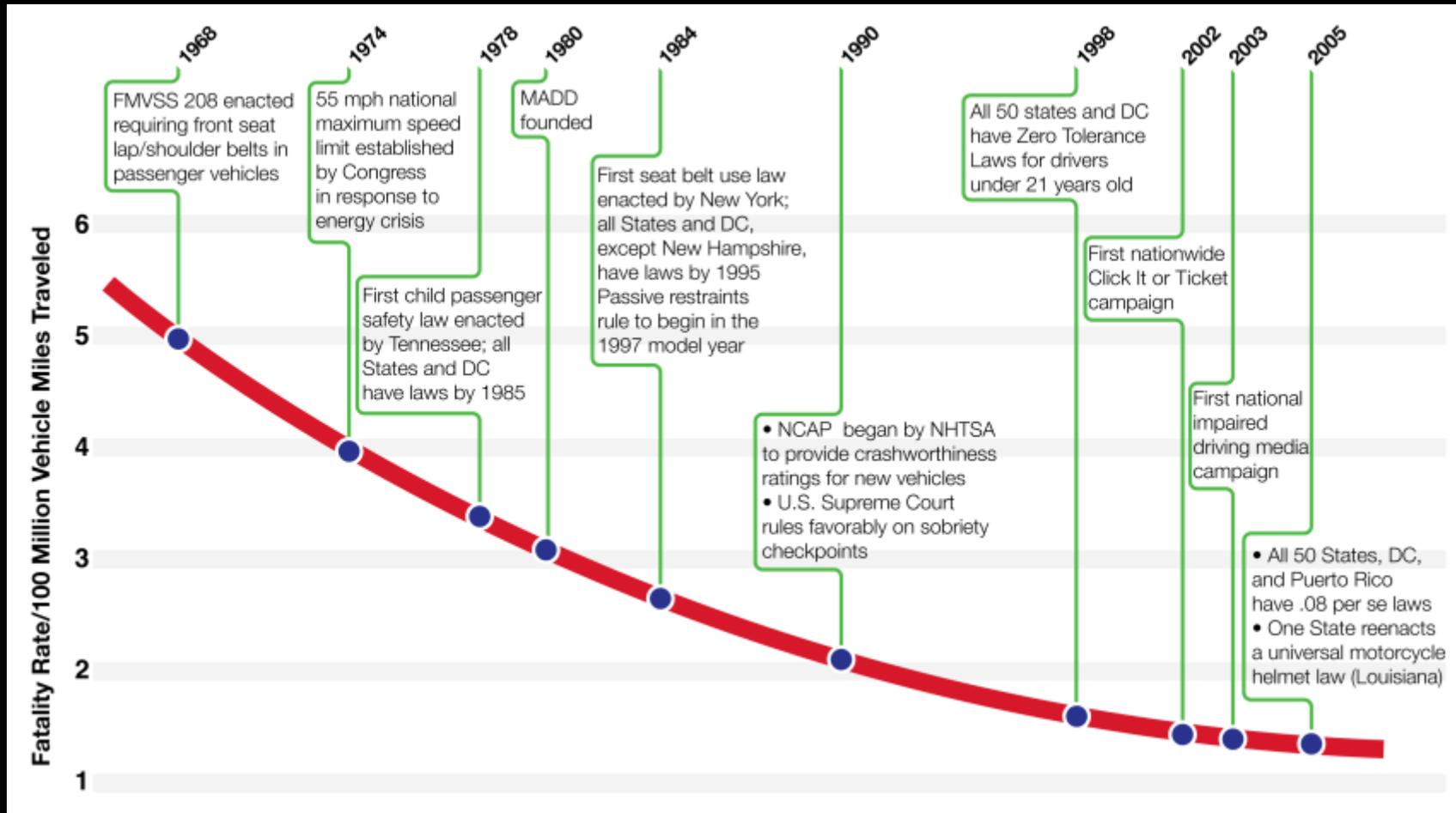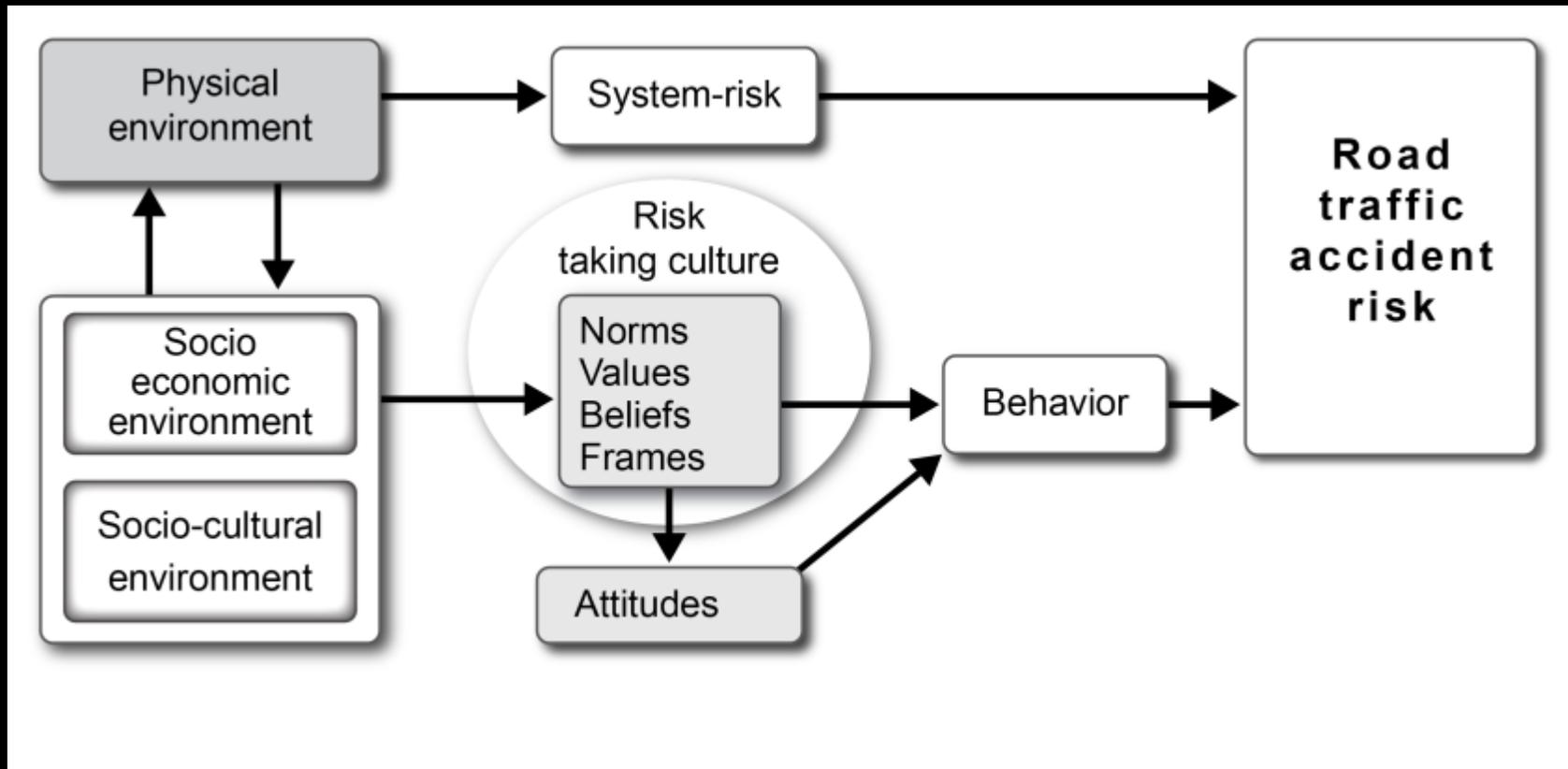
[Source: Eiksund, 2009]

Risk Behaviors

Figure 3

**Speeding, Alcohol Involvement, and Unrestrained Drivers Involved in Fatal Crashes by Location, 2006**
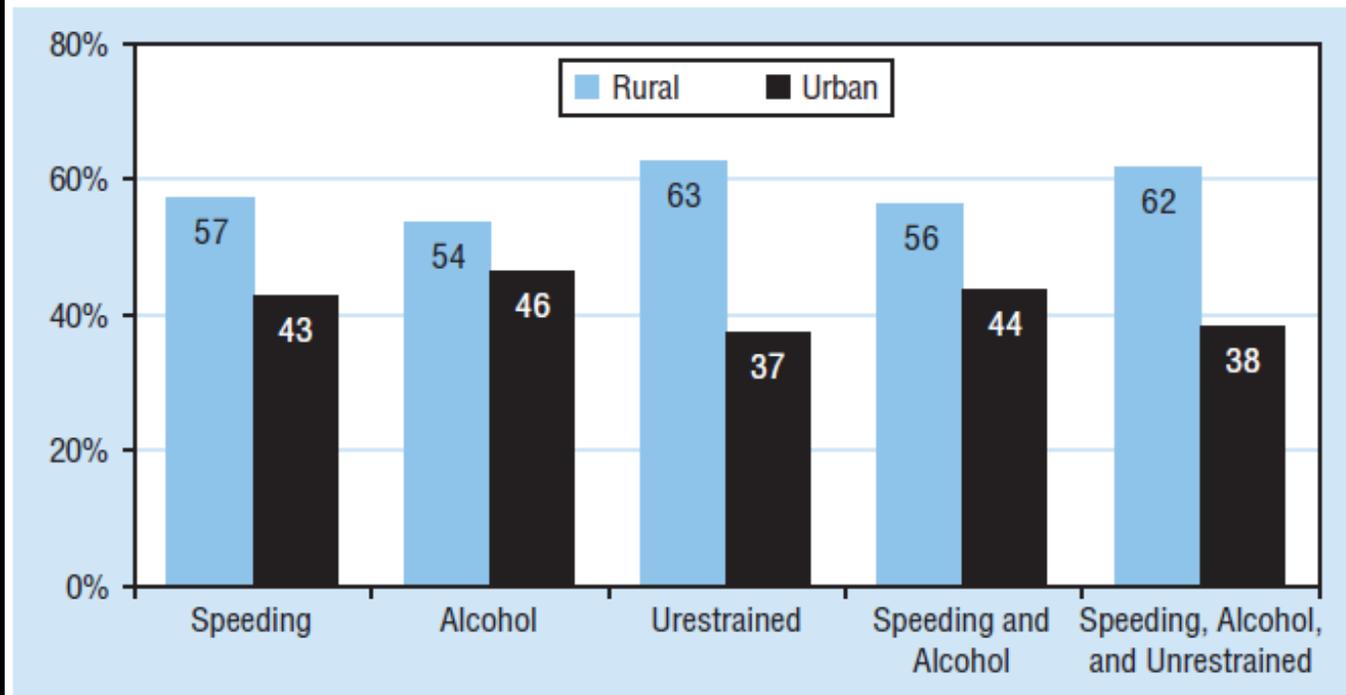
Note: Percent known land use.

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Paradigms
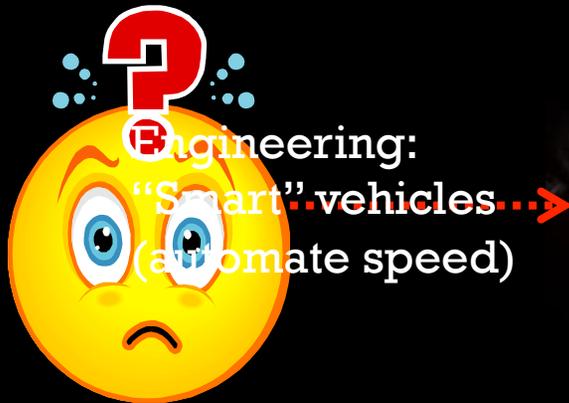
Enforcement:
Punish Behavior
(change proposition)

Engineering: EMS:
Accommodate Behavior   Treat Injury
(reduce injury)

Engineering:
"Smart" vehicles
(automate speed)

Engineering:
Constrain Behavior
(change affordance)

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Premise

"It is difficult to expect that people will change there behavior easily when many forces in the social, cultural, and physical environment conspire against such change."

[Source: Syme & Belfour, 1998]

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Social Ecology

National

Regional

State

Community

Workplace / School

Family
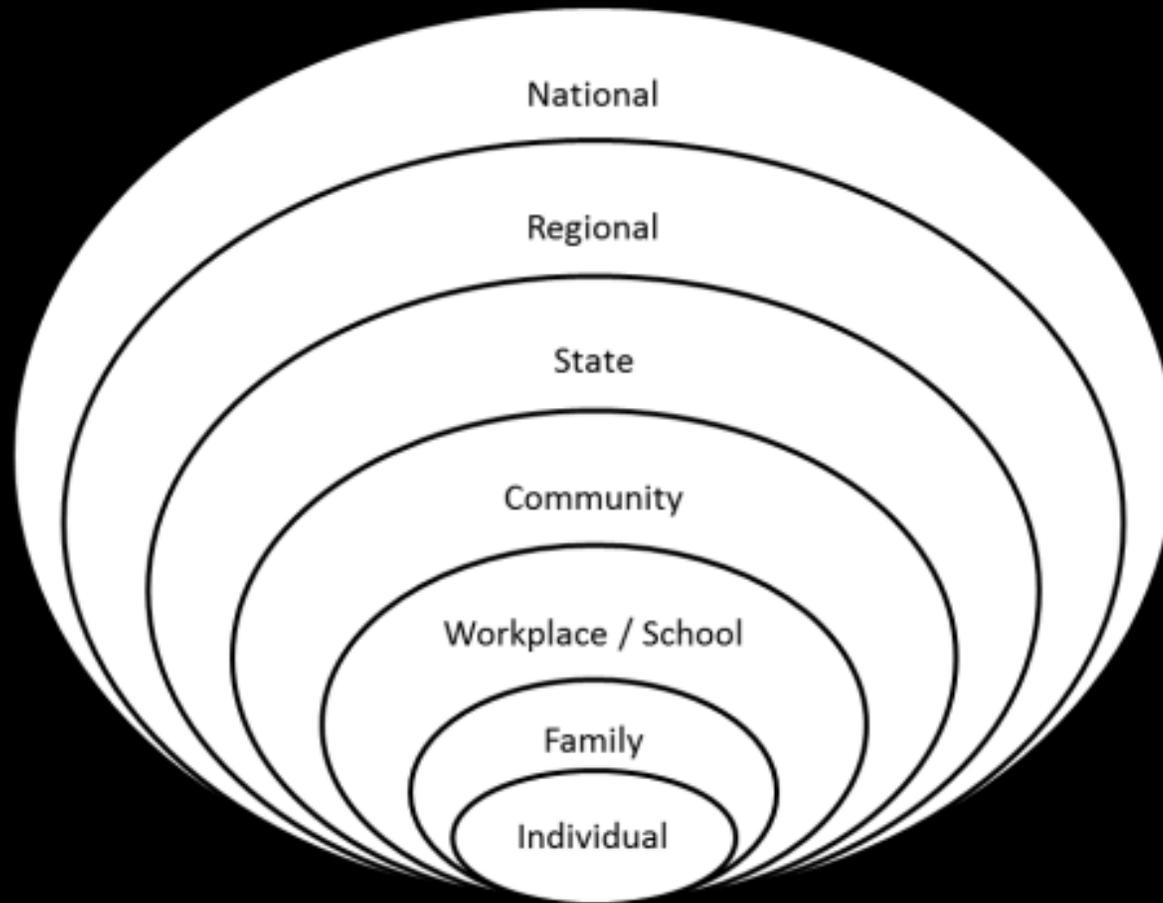
Individual

[Source: Based on CDC Model; Andrews, 1985]

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Traffic Safety Culture

The shared cognitions generated by a group of people that motivate their individual willingness and intentions related to traffic safety.

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"Cognitions"
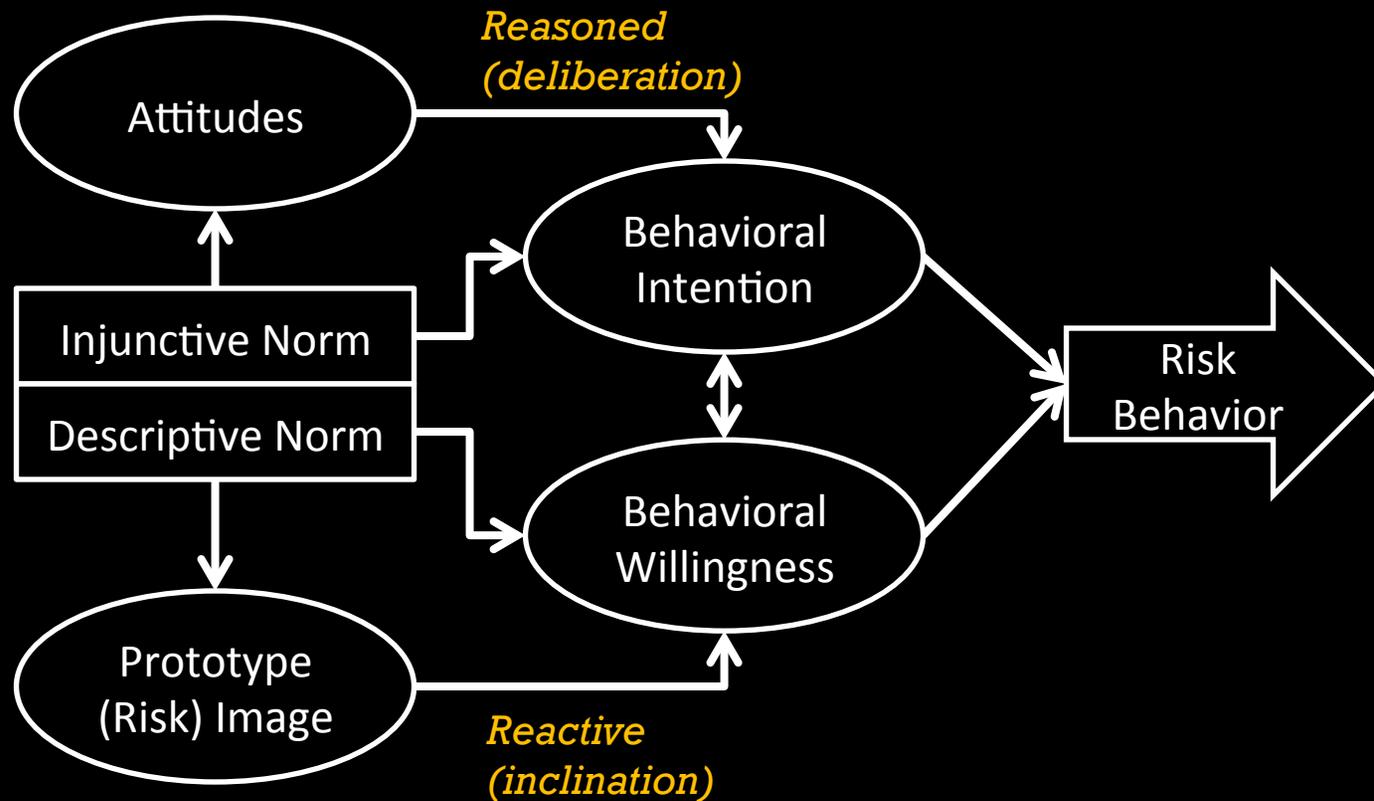
[Source: Gibson et al., 2008; Ohtomo & Hirose, 2007; hukkelberg & Dykstra, 2009]

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Spirit

Negative

Positive

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Attitude Origins

Perceptual Frame

Beliefs (Ideology)

Value System

Lens
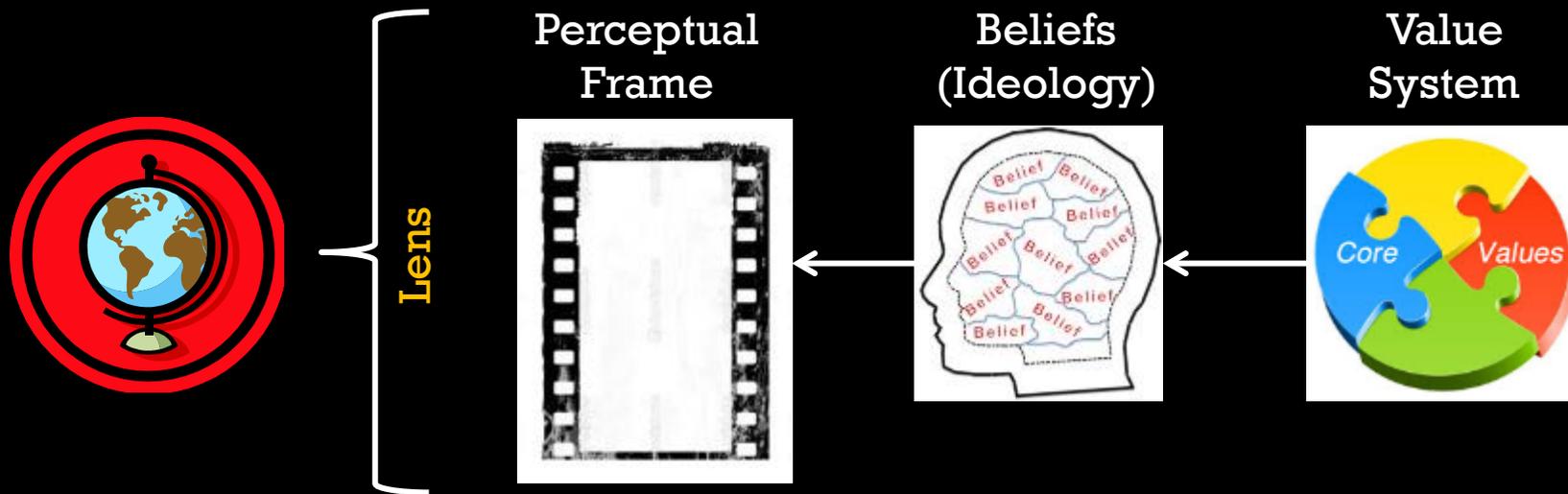
Leverage Values
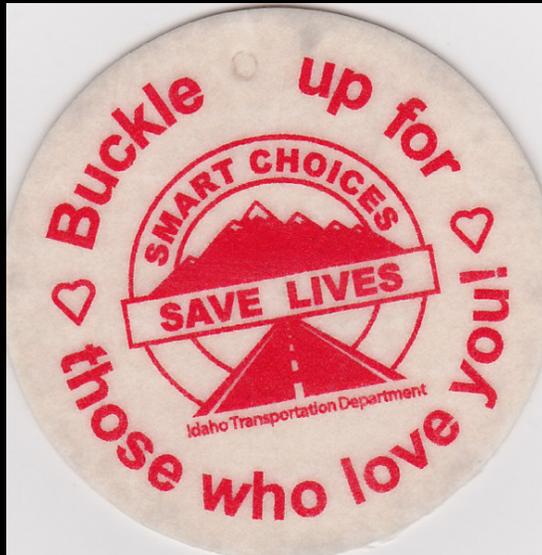
Take Care of Family

Still be around

Survive Crash

Buckle Up

Challenge Beliefs

Shift Frame

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