


# An Assessment of Traffic Safety Culture Related to Driving After Cannabis Use

Traffic Safety Culture Pooled Fund Meeting

September 28, 2015

Center for Health & Safety Culture

MONTANA STATE UNIVERSITY
Western Transportation Institute

# Project Purpose

- How does culture compare between users and non-users of cannabis?
- How does culture affect the decision to drive under the influence of cannabis?
- How does culture compare between states with and without legalized recreational use laws?

# Project Schedule

| Month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Calendar Month | J | J | A | S | O | N | D | J | F | M | A | M | J | J |
| Task 0. Project Management | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Quarterly Reports | | | | X | | | X | | | X | | | X | |
| Task 1. Literature Review | X | X | X | | | | | | | | | | | |
| Report | | | X | | | | | | | | | | | |
| Task 2. Survey Design | | | X | X | X | X | | | | | | | | |
| Survey | | | | | | X | | | | | | | | |
| Task 3. Survey Implementation / Analysis | | | | | | | X | X | X | X | X | | | |
| Report | | | | | | | | | | | X | | | |
| Task 4. Final Report / Webinar | | | | | | | | | | | X | X | X | X |
| Final Report | | | | | | | | | | | | | | X |
| Project Summary Report | | | | | | | | | | | | | | X |
| Recorded Webinar | | | | | | | | | | | | | | X |

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# Task 1. Literature Review

- Comments

# Task 2. Survey Development

Phase 1

- Interviews to inform survey development

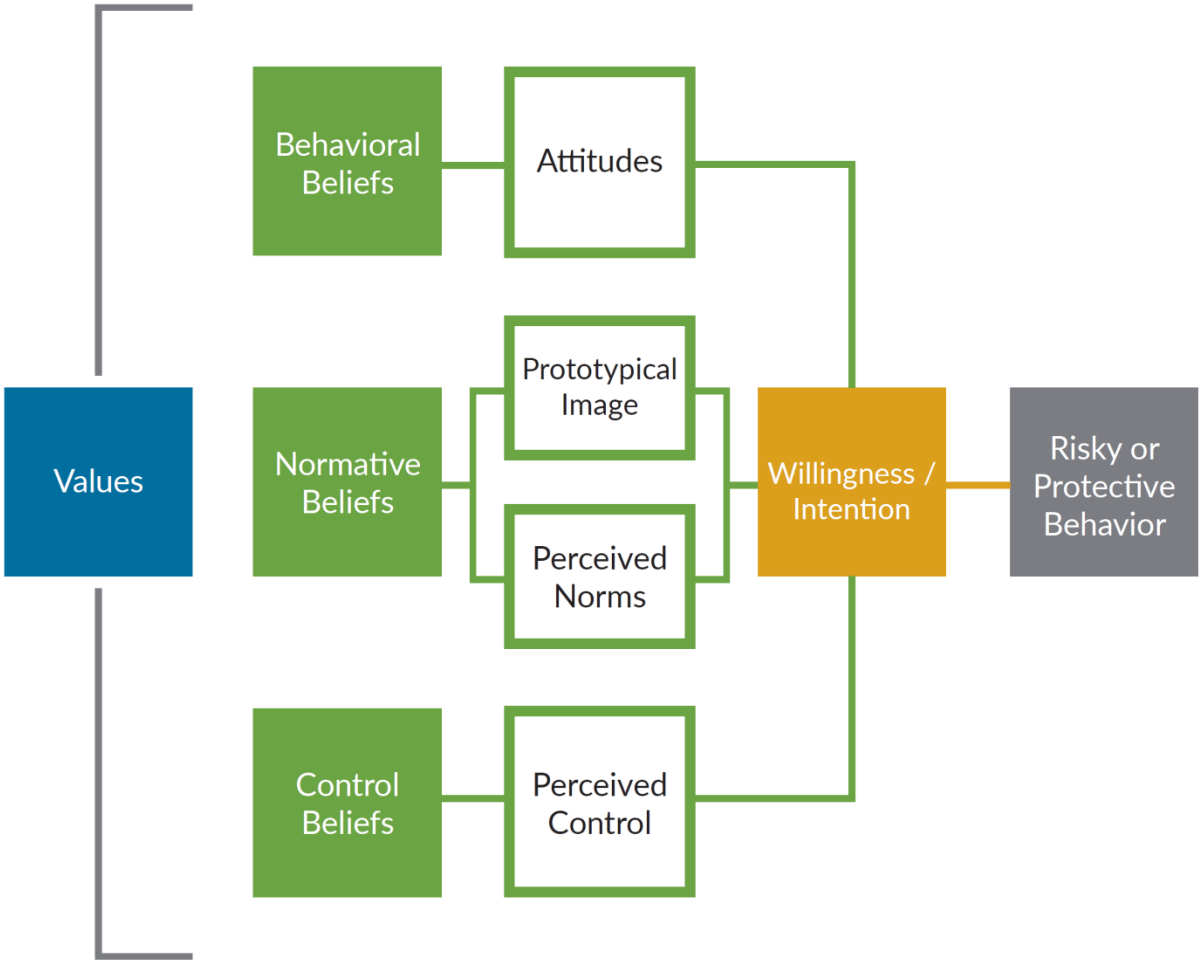
Phase 2

- Collect initial survey responses among those likely to DUIC

Phase 3

- Pilot test full draft of survey

# Behavior Model



# Phase 1 - Interviews

- Please list the advantages / disadvantages of driving under the influence of cannabis.
- Please list how you might (or do) feel when driving under the influence of cannabis.
- Please list who would approve / disapprove of you driving under the influence of cannabis.
- What would make it easier or more likely (harder or less likely) for you to drive under the influence of cannabis?
- What three adjectives best describe your image of the “Typical” person who often drives under the influence of cannabis?
- What three adjectives best describe your image of the “Typical” person who never drives under the influence of cannabis?
- Describe a situation in which you would be more likely to drive under the influence of cannabis.

**Completed 11 interviews – informed initial survey development**

# Phase 2 – Partial Survey

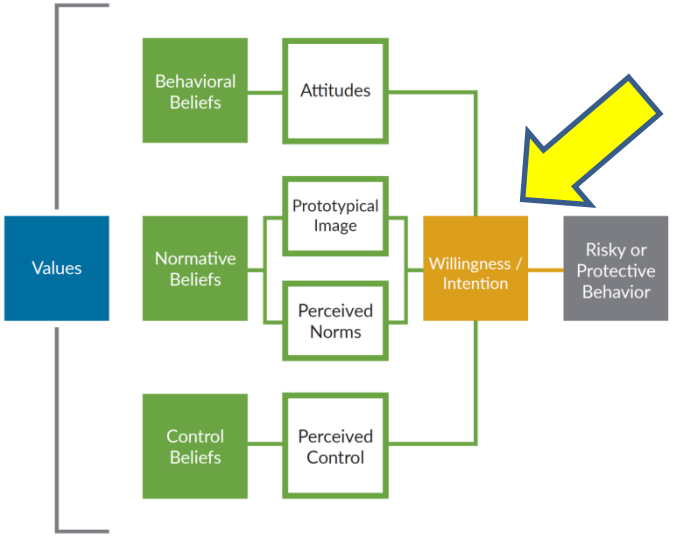
Recruited a national, online sample (n=89)

- Are you 18 or older?
- Have you driven a vehicle in the past 30 days?
- Have you used marijuana in the past 30 days?

Thinking back over the past year, how often did you drive within four hours of using marijuana?

| | Frequency | Percent |
|---|---|---|
| **never** | 21 | 23.6 |
| **once or twice** | 14 | 15.7 |
| **3 to 6 times** | 12 | 13.5 |
| **7 to 11 times** | 7 | 7.9 |
| **monthly** | 8 | 9.0 |
| **weekly** | 15 | 16.9 |
| **daily** | 12 | 13.5 |
| **Total** | 89 | 100.0 |

# Willingness




The predisposition to commit a behavior if an unexpected situation arises.

Suppose you have used marijuana within the past 4 hours. How willing would you be to drive in the following situations:

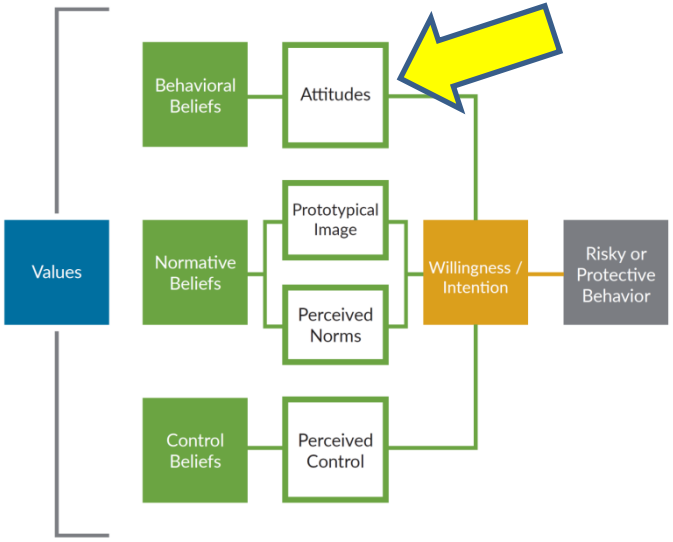
- Drive in an emergency
- Drive home on side streets
- Drive home on the highway
- Drive if you don't feel high
- Drive even though you still feel high
- Drive when you had also been drinking

**Chronbach's Alpha: 0.872**

**Pearson correlation with behavior: 0.650 ($p<0.001$)**

# Attitude

Subjective evaluation in terms of emotional reaction (e.g., “speeding is exciting”) and perceived utility (e.g., “seat belts are useless”).




I feel driving after using marijuana is:

uncool….cool

dangerous…safe

stupid…sensible

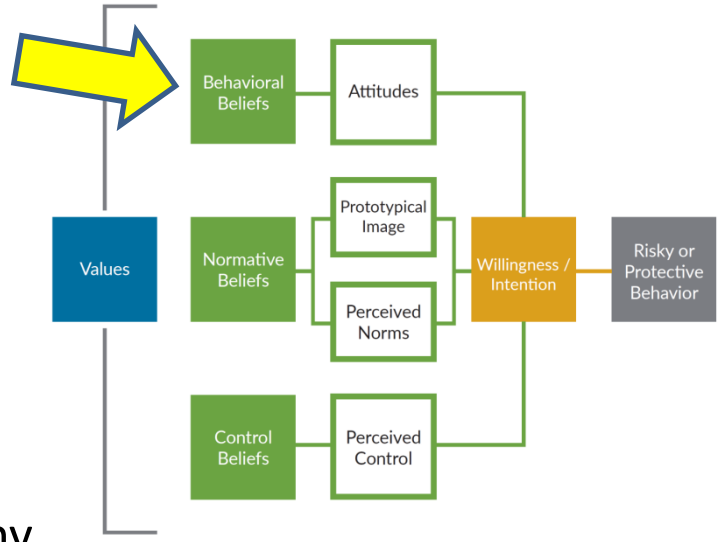
pleasant…unpleasant

stressful…calming

acceptable…unacceptable

**Chronbach’s Alpha: 0.920  Pearson correlation with behavior: 0.509 (p<0.001)**
**Pearson correlation with Willingness: 0.720 (p<0.001)**

# Behavioral Belief




Expectations about the physical and social consequences of a behavior (e.g., “If I speed, I will likely get an expensive fine,” “If I drink and drive, my friends will exclude me”).

## Example

If I drive after using marijuana, I will feel calmer.

Feeling calmer when I drive is important to me.

# Behavioral Beliefs

"If I drive after using marijuana, I will feel calmer."

"If I drive after using marijuana, I will be more alert."

"If I drive after using marijuana, I will be more cautious."

"If I drive after using marijuana, I will be more likely to get arrested."

"If I drive after using marijuana, my reaction time will be slower."

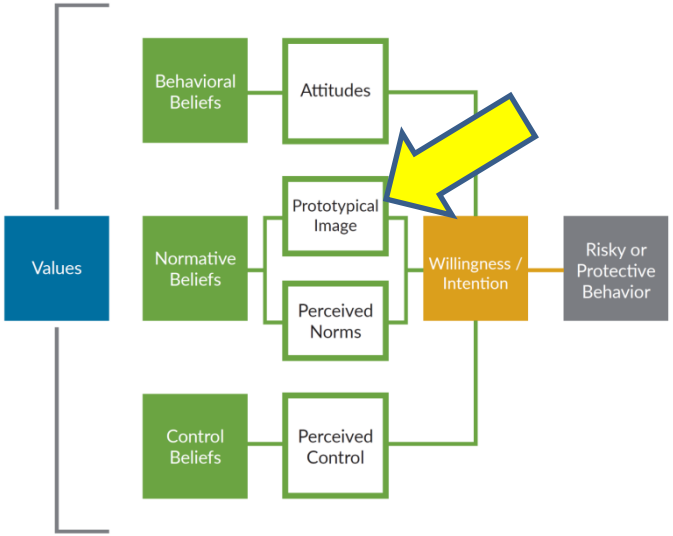
"If I drive after using marijuana, I will more likely to be in an accident."

# Behavioral Beliefs

| | Correlation Behavior (p<0.001) | Correlation Willingness (p<0.001) |
|---|---|---|
| "If I drive after using marijuana, I will feel calmer." | 0.483 | 0.617 |
| "If I drive after using marijuana, I will be more alert." | 0.482 | 0.572 |
| "If I drive after using marijuana, I will be more cautious." | 0.269 | 0.456 |
| "If I drive after using marijuana, I will be more likely to get arrested." | -0.227 | -0.356 |
| "If I drive after using marijuana, my reaction time will be slower." | -0.412 | -0.486 |
| "If I drive after using marijuana, I will more likely to be in an accident." | -0.408 | -0.558 |

# Prototype Image

The stereotype of people perceived to typically engage in the behavior (e.g., “People who speed are cool”).




The “typical” person who drives after using marijuana is…

relaxed…anxious
calm…manic
distracted…focused
self-involved…concerned about others
cautious…reckless
dumb…smart
paranoid…confident
cool…uncool
risk-taker…cautious
irresponsible…responsible
lawful…unlawful

**Chronbach’s Alpha: 0.932**

**Pearson correlation with behavior: 0.433 (p<0.001)**

**Pearson correlation with willingness: 0.657 (p<0.001)**

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# Next Steps

- Complete full draft of survey
  - Add values
  - Perceived norms / Normative beliefs
  - Control beliefs / Perceived control
  - Demographics

- Pilot test with MSU students and general population
  - Review scales, predictive model
  - Assess time, floor/ceiling effects, skipped questions

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