

## OVERVIEW

Because road user behavior is a common factor in traffic crashes, we must explore ways to encourage safer behaviors.

Traffic safety culture recognizes that intentional road behavior is influenced by belief system shared among a group of people. Therefore, to change behavior within a group, it is necessary to change beliefs.

However, changing beliefs is difficult. The aims of this project were to:

- understand the processes and conditions that influence belief formation and change
- provide guidance to safety stakeholders in the design of effective strategies to change traffic safety culture.

A literature review was conducted to provide a narrative synthesis of relevant information. These results were used to create a resource for traffic safety practitioners about belief change.

## MAJOR FINDINGS

### What are beliefs?

- Beliefs are mental representations of meaningful information embedded in the environment that support our survival by enabling us to understand and predict events in our physical and social environments.
- Beliefs support higher-order cognitive functions such as planning and decision making.

### How are beliefs formed?

- Beliefs are formed through a multi-step process involving a precursor event, search for meaning of that event, evaluating possible beliefs, accepting a belief, and effect whereby future events may act as a precursor event and trigger a change in the belief.

### How do beliefs influence behavior?

- There is broad agreement that beliefs influence behaviors. Values, behavioral, normative, and control beliefs can all influence willingness and intention to engage in behaviors.

### Why do we change our beliefs?

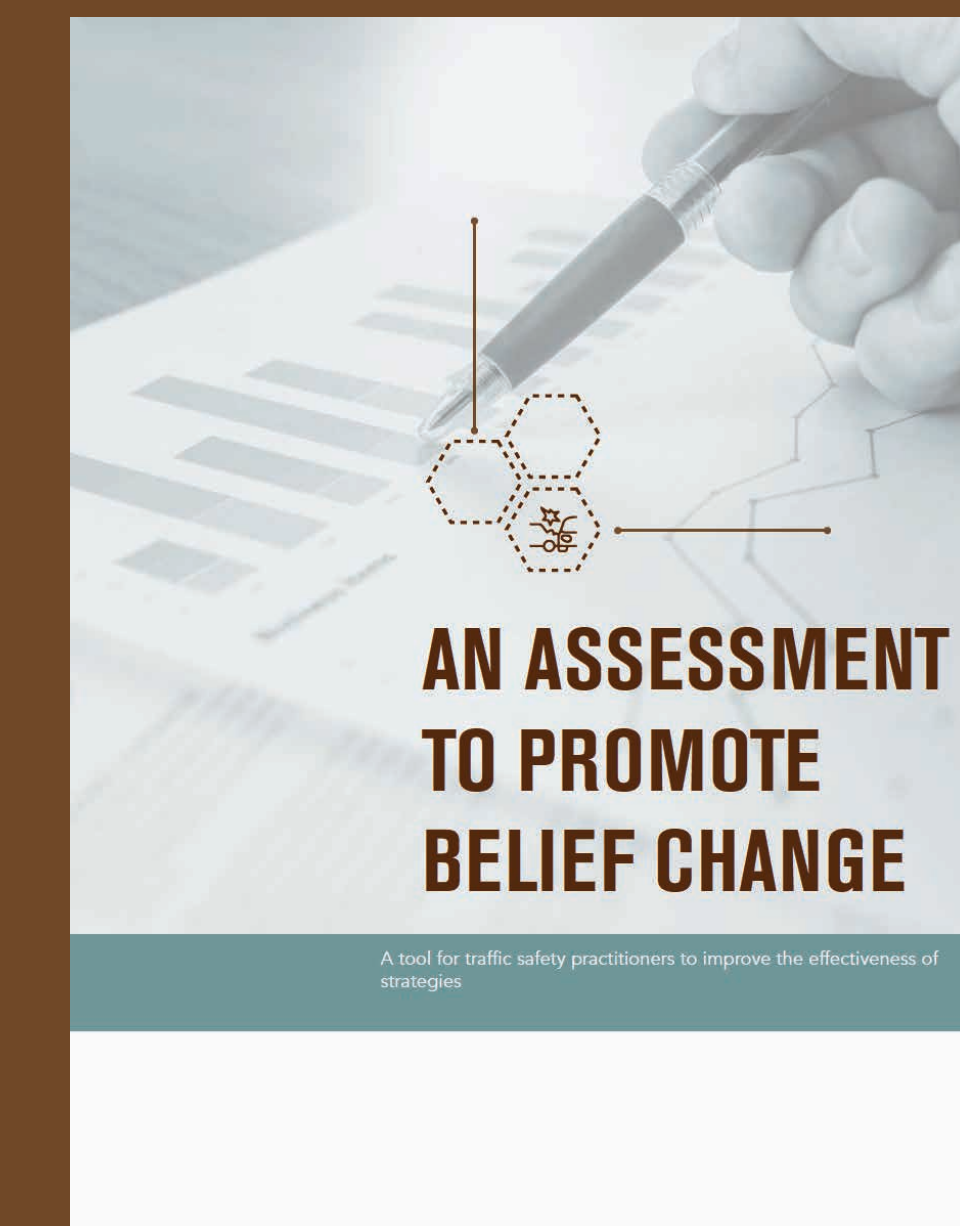
- We are most likely to change an existing belief when doing so improves the perceived accuracy of our beliefs or helps us regulate our emotions (experience positive emotions).
- Often what leads to changing our beliefs is cognitive dissonance. Cognitive dissonance is a state of emotional discomfort resulting from our awareness that we have a belief that is inconsistent with other important beliefs or the behaviors we exhibit.

### How can we facilitate belief change in others?

- Efforts to change beliefs in others often involve presenting information to substantiate the change (e.g., facilitating cognitive dissonance).
- Factors such as emotions, perceived self-efficacy, locus of control, framing, narratives, vividness, and credibility impact belief change.

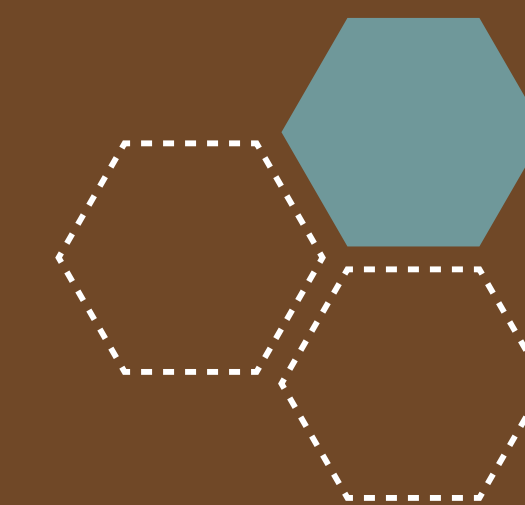
## GUIDANCE FOR TRAFFIC SAFETY PRACTITIONERS

These results were used to create a resource for traffic safety practitioners about belief change. The resource distills the results into an assessment that practitioners can use with an existing or potential strategy or countermeasure. The guidance includes introductory information about what the guidance is, how it can be helpful, how to use the guidance, 11 assessment questions, and supportive materials



## Assessment Questions

1. How well does the strategy seek to change specific beliefs that are linked to specific behaviors?
2. How well does the strategy foster slow thinking?
3. How well does the strategy create cognitive dissonance (without shame)?
4. How well does the strategy grow perceived self-efficacy?
5. How is emotion used in the strategy?
6. How does the strategy use a narrative?
7. How vivid is the strategy?
8. How credible is the source?
9. To what degree might the strategy evoke psychological reactance?
10. To what degree does the strategy grow misperceptions of normative beliefs or behaviors?
11. To what degree does the strategy stigmatize certain people?



## CONTACT INFORMATION

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Project URL: <https://www.mdt.mt.gov/research/projects/trafficsafety.shtml>

