

Moral reasoning during driving

How does it show in traffic and can it be improved by training?

“I was in a hurry, officer”
“He kept driving left, officer”

“I only parked here for 5 minutes”

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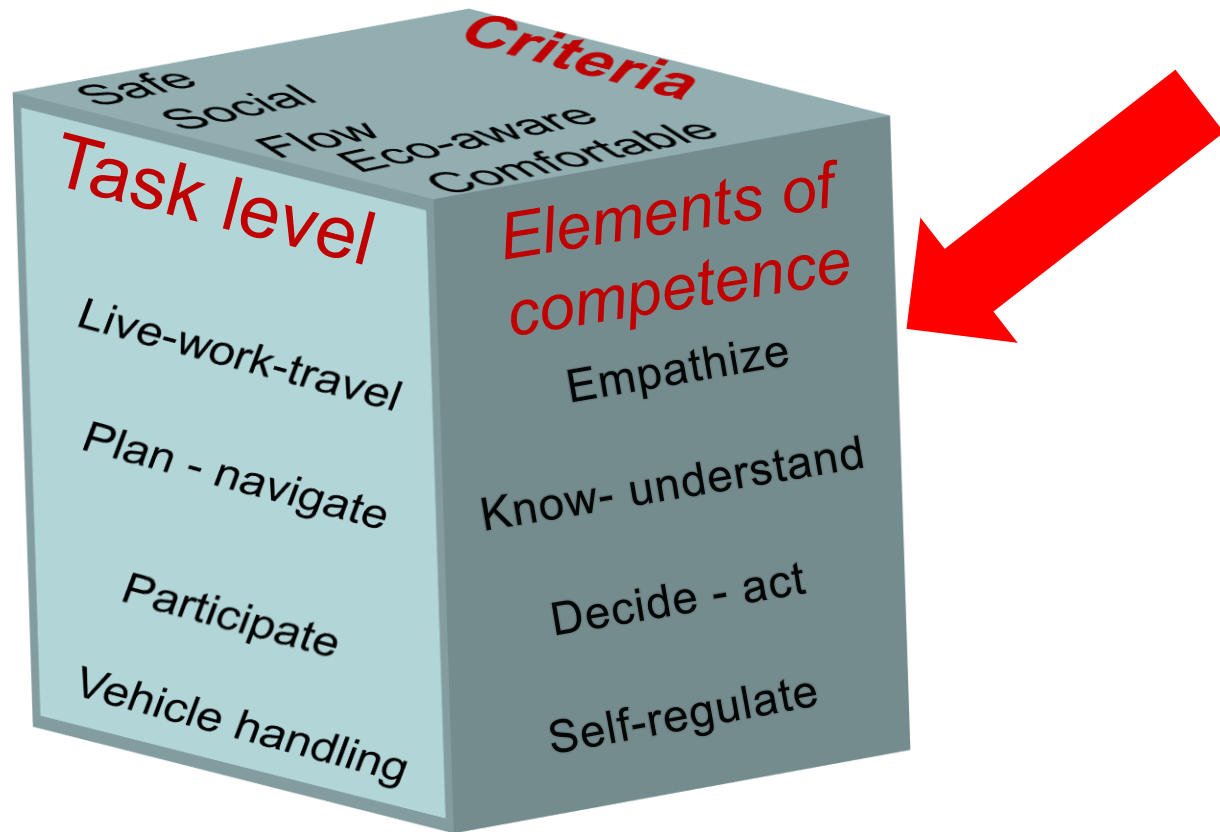
Overview

1. Driving and moral reasoning
2. Self-assessments for moral reasoning
3. What we found
4. Conclusions and implications

1 Driving and moral reasoning



1.1 The cube of driving competence



Neglected part: social-moral competence

1.2 Life tasks & driving: triggers of moral choices



1.3 Moral reasoning (Gibbs)

Moral reasoning: What is wrong-right in a personal situation?

Situations: Obey speed limit? Others go first? Lie? Be honest?

“Immature” reasoning

- **Level 1:** Punishment and reward; short term thinking.
- **Level 2:** Own preferences and pragmatics are central. Give a little, take a little.
- **Level 3:** Well being of others. Awareness of consequences of own behavior for others. Reciprocity: I would like others to do the same for me, so I will do it for them
- **Level 4:** Functioning of society important; Common interest is preferred above one's own interest.

“Mature” reasoning



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1.4. What do we know about moral reasoning and anti-social behavior?

Moral reasoning

- Non-delinquents justify their behavior often with mature moral reasons: well-being of others or society (Stage 3-4)
- Delinquents justify their behavior with Stage 1 and 2 reasons: Concerns about the risk of punishment

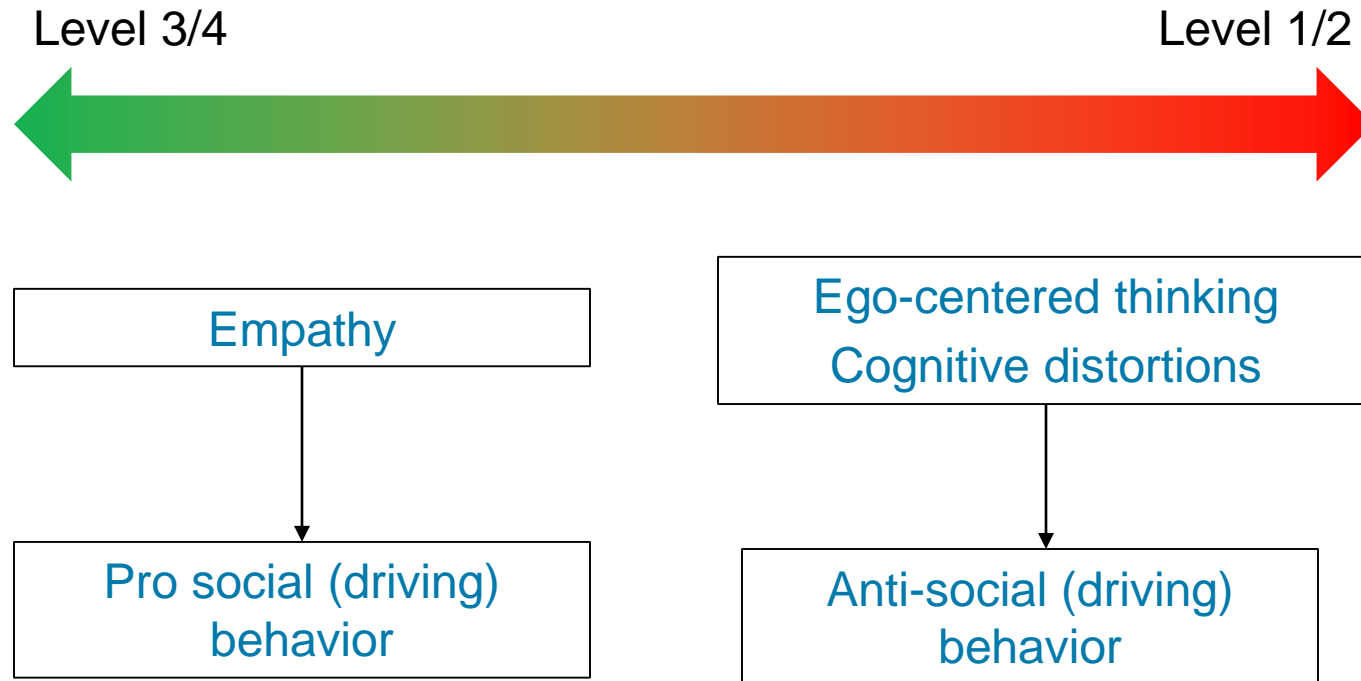
Cognitive distortions

- Research has shown an association between immature moral judgments and cognitive distortions.
- Cognitive distortions:
 - put blame outside self
 - protect self, prevent negative self-concept
 - let antisocial behavior occur easily

Positive message: delinquents can be trained to attain more advanced levels of moral reasoning and pro-social behavior.

Why not drivers?

1.5 Moral reasoning: pro social or anti social driving behavior



2 Research Context



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1. Context: different target groups



2.2 Research focus

- 1) *Levels of moral reasoning observed amongst drivers at the start of a training program*
- 2) *Associations MR with driving behavior*
- 3) *Differences in MR between traffic roles*



- 4) *Can moral reasoning be trained?*

3 Assessments used

3.1: Justification of rule compliance test

*7A. Out of 10 times that you come across this situation, how many times do you run the red light?

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

7B. In those cases that you do NOT run the red light, how do you justify not running the red light? Distribute in total 100 points over the following reasons:

I want to prevent getting fines or being stopped by the police

00
☐

I want to prevent that I end up in a troublesome situation (danger, discomfort)

00 10 20 30 40 50 60 70 80 90 100
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

I do not want to bother other road users (nuisance, danger, discomfort)

00 10 20 30 40 50 60 70 80 90 100
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

I want to prevent the traffic to become unsafe or disturbed because of me

00 10 20 30 40 50 60 70 80 90 100
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐



3.2 Self-serving cognitive distortions test



Young driver
Version (19-34 items)

Self-Centered: “If I want someone to hurry up, I allow myself to drive within a shorter distance behind him.”

Blaming Others: “I tailgate on the highway because drivers are not moving quickly enough.”

Minimizing/Mislabeling: “If I am only staying a short time, it is okay for me to park my car in a restricted zone.”

Assuming the Worst: : “When I want to merge into traffic, other road users won’t voluntarily let me in.”

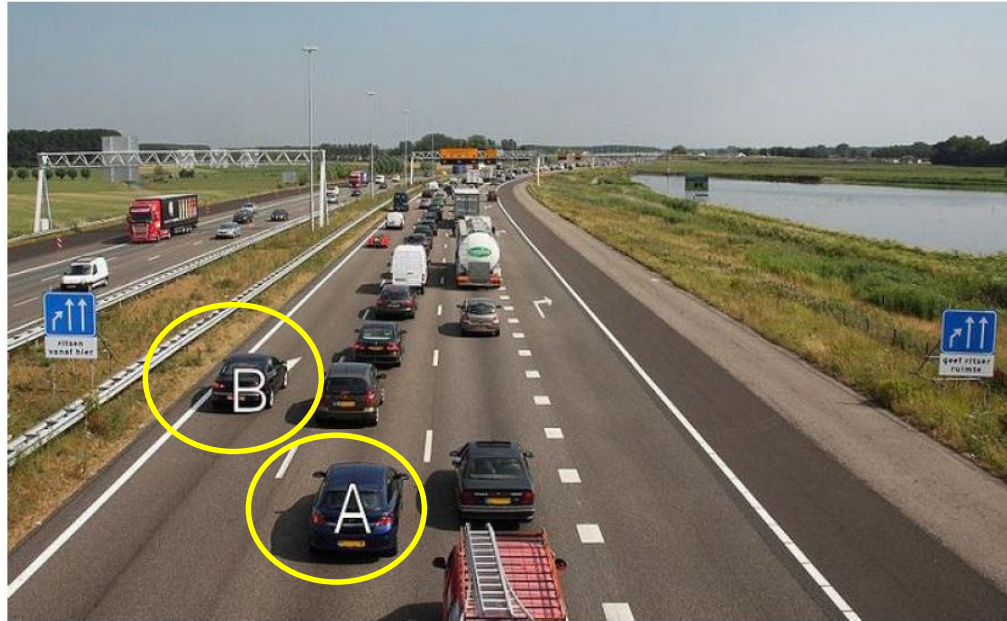
Disagree strongly Disagree slightly Agree slightly Agree strongly

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Additional versions:



3.3: Decisions in situations with a conflict of space



18 traffic situations

***“What would you do?”
Distribute 100 points over the
options below.***

I accelerate to prevent car B from moving into the middle lane (space competition)

00	10	20	30	40	50	60	70	80	90	100
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I reduce speed in order to let car B in (pro-social driving)

00	10	20	30	40	50	60	70	80	90	100
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3.4 Instruments for behavior

Speed on different roads



Speed under different conditions

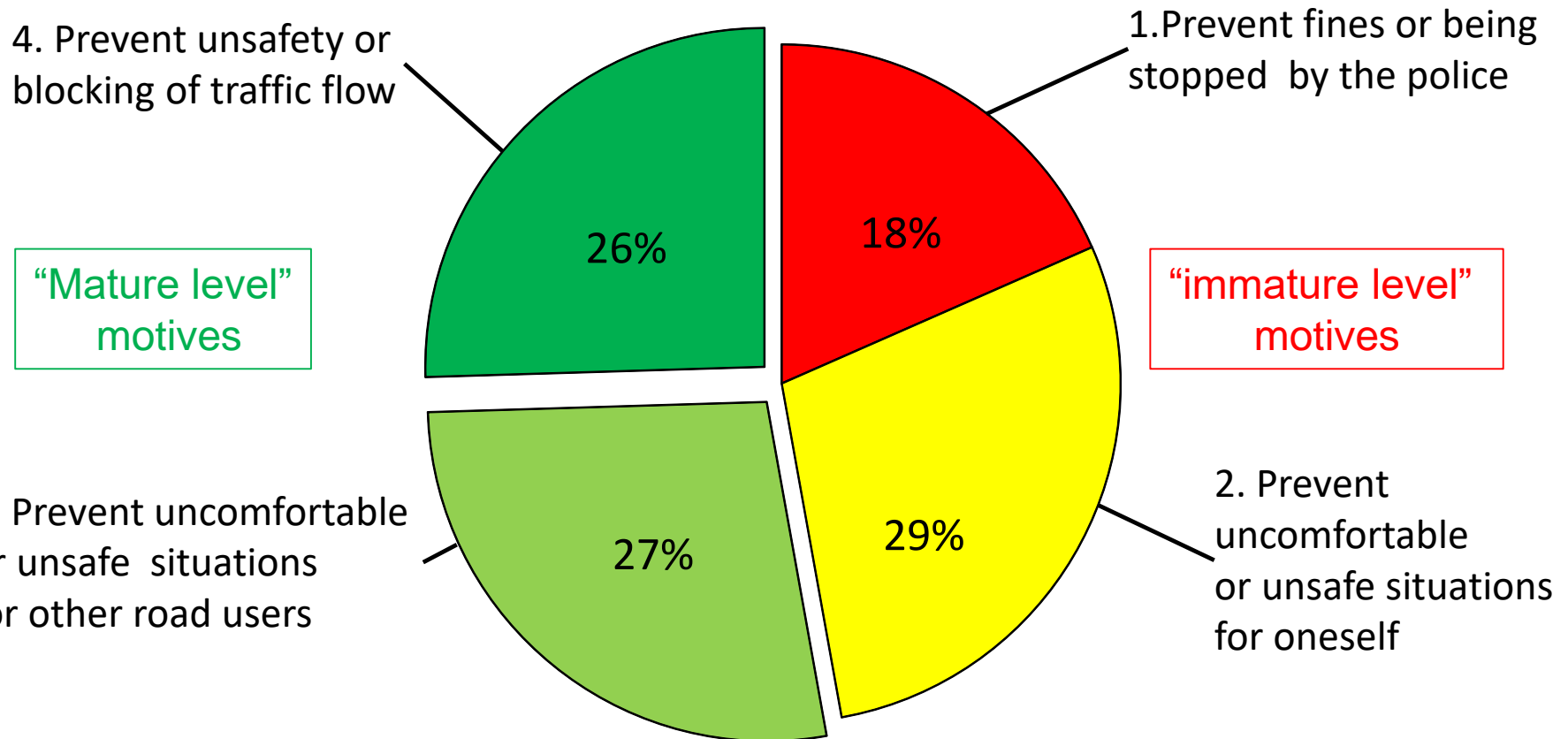


Number of fines (12 violations)

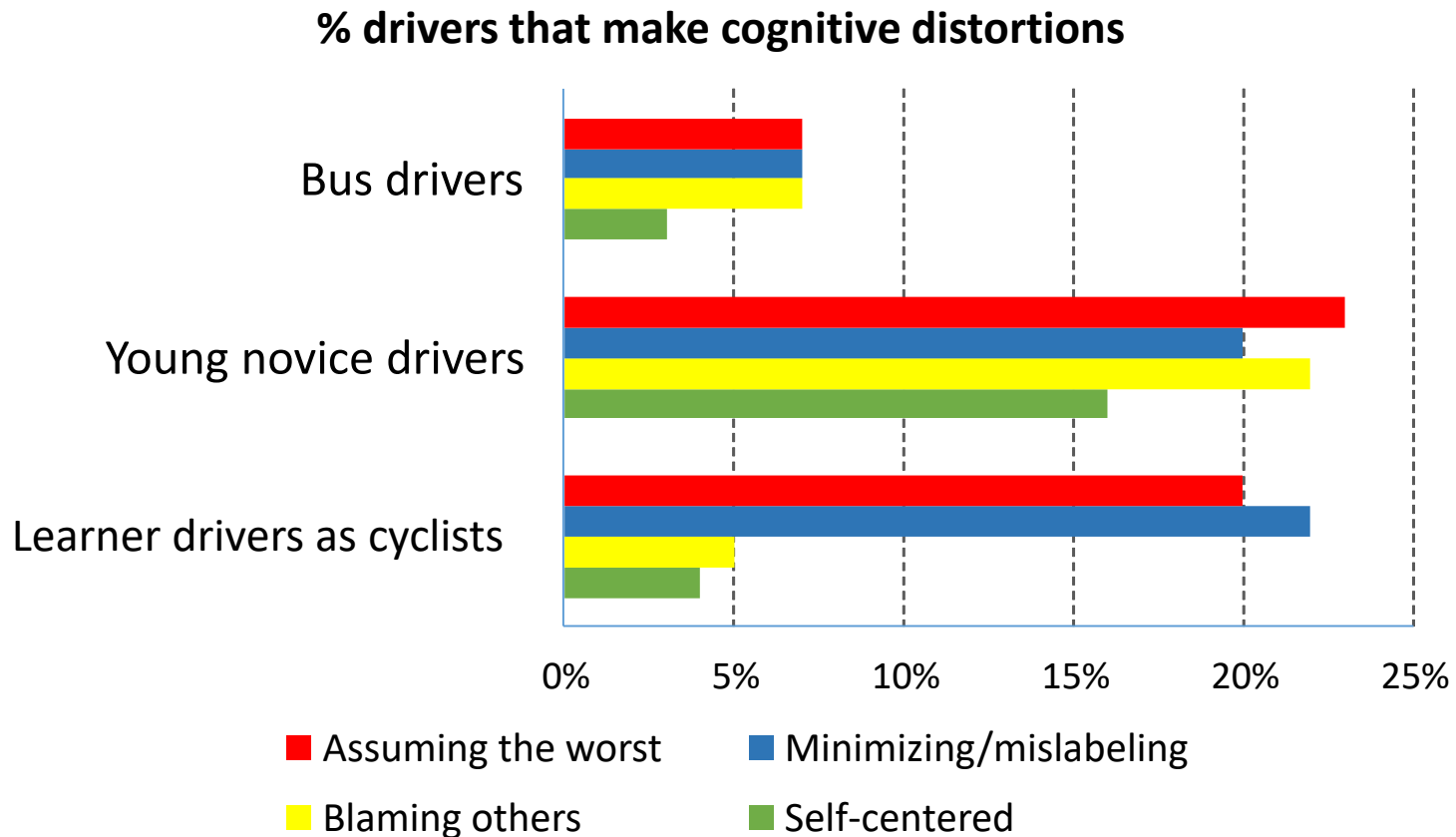
- Not wearing seat belt
- Speeding
- Making hand-held phone calls
- Illegal parking

4 What did we find?

4.1 Justification levels (young drivers)



4.2 Cognitive distortions by traffic role

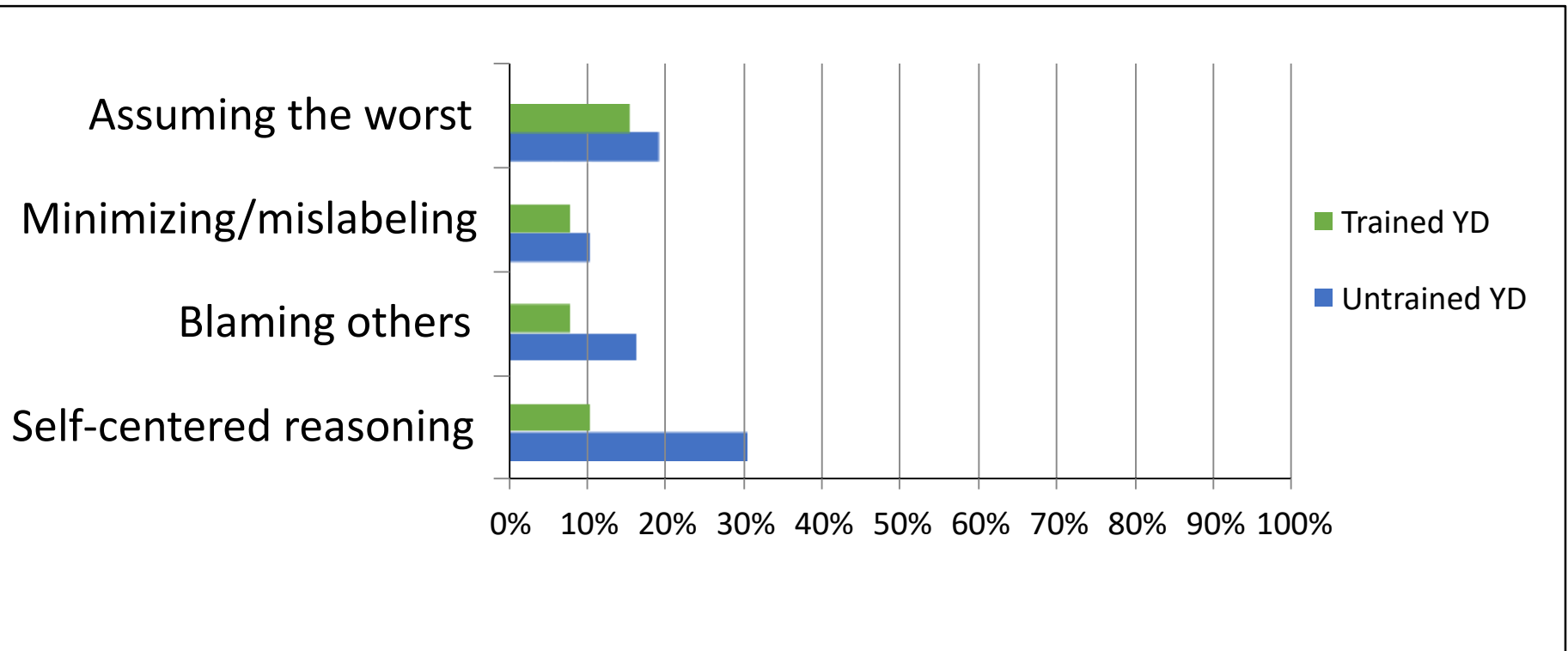


4.3 Prediction of driving behavior

- **Immature motive of preventing fines** for rule compliance is predictive for:
 - higher driving speed
 - more violations
- **Self-serving cognitive distortions** are predictive for:
 - higher speeds
 - violations
 - space competing driving
- **Mature moral motive for rule compliance** inhibits:
 - driving speed
 - space competing driving

4.4 Effects of training

Cognitive distortions 6-12 months after licensure



5 Conclusions and implications

5.1 Implications for driver training and beyond

- Moral reasoning is an element of competence that affects driving style and outcomes
- Increased attention for socio-moral self-reflection in driver training
 - What is my role in traffic?
 - How do my self-interests relate to those of others and to the traffic system?
- Moral reasoning can be improved by training

Thank you for your attention!

