Moral Reasoning in Traffic

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

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Overview

- Driving and moral reasoning
- Self-assessments for moral reasoning
- Research results
- Conclusions and implications
Driving and moral reasoning
Life tasks & driving: triggers of moral choices

- Raising kids while driving
- Driving back from a party
- Delivering goods
- Texting important contact
- Doing business on the phone
Cube of driving competence

Neglected part of driving: social-emotional competence
Moral reasoning (Gibbs)

Based on research in juvenile delinquency
What is wrong-right in a personal situation?
Concept adapted to solving situations in traffic
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
## Moral reasoning and anti-social behaviour

<table>
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<tr>
<th>Moral reasoning</th>
<th>Cognitive distortions</th>
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| • Non-delinquents justify their behaviour often with mature moral reasons: well-being of others or society (levels 3-4)  
• Delinquents justify their behaviour with level 1 and 2 reasons: concerns about the risk of punishment | • Research has shown an association between immature moral judgments and cognitive distortions.  
• Cognitive distortions:  
  • blame others  
  • protect oneself, prevent negative self-concept  
  • let anti-social behaviour occur easily |

**Positive message:** delinquents can be trained to attain more advanced levels of moral reasoning and pro-social behaviour. **Why not drivers?**
Moral reasoning: pro-social or anti-social driving behavior

Level 3/4

Empathy

Pro-social (driving) behaviour

Level 1/2

Ego-centered thinking
Cognitive distortions

Anti-social (driving) behaviour
Research context
Context: different target groups

- **Stepwise Driver Training**
- **Post license Young driver coaching**
- **Bus driver Training**
Research focus

1) Levels of moral reasoning observed amongst drivers at the start of a training program (risk profile)
2) Associations of moral reasoning with driving behaviour (self-report, offences and accidents)
3) Differences in moral reasoning between traffic roles

4) Training of moral reasoning
Three web-based assessments

- Motives for rule compliance (15 items)
- Cognitive distortions test (43 items)
- Conflict of space test (18 items)

Specific versions for each target group
- Learner drivers from cyclist perspective
- Young novice drivers
- Professional bus drivers
Motives for rule compliance test

7A. Out of 10 times that you come across this situation, how many times would 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, what are your motives to do so?

Distribute in total 100 points over the reasons below:

- I want to prevent getting fines or being stopped by the police
- I want to prevent that I end up in a troublesome situation (danger, discomfort)
- I do not want to bother other road users (nuisance, danger, discomfort)
- I want to prevent the traffic to become unsafe or disturbed because of me
Cognitive distortions test

- **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.”

<table>
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<th>Disagree strongly</th>
<th>Disagree slightly</th>
<th>Agree slightly</th>
<th>Agree</th>
<th>Agree strongly</th>
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Young driver version
Decisions in situations with a conflict of space

“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)

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

Speed on different roads

30  50  80  120

Speed under different conditions

Number of fines (12 violations)
- Not wearing seat belt
- Speeding
- Making hand-held phone calls
Results
Justification levels (young drivers)

1. Prevent fines or being stopped by the police: 26%
2. Prevent uncomfortable or unsafe situations for oneself: 18%
3. Prevent uncomfortable or unsafe situations for other road users: 27%
4. Prevent danger or blocking of traffic flow: 29%

“Mature level” motives: 73%
“Immature level” motives: 27%
Cognitive distortions by traffic role

% drivers that make cognitive distortions

- **Bus drivers**
- **Young novice drivers**
- **Learner drivers as cyclists**

- Red bar: Assuming the worst
- Blue bar: Minimizing/mislabeling
- Yellow bar: Blaming others
- Green bar: Self-centered
Prediction of driving behaviour

- Immature motives for rule compliance are predictive for:
  - higher driving speed
  - more violations
- Cognitive distortions are predictive for:
  - higher speeds
  - violations
  - space competing driving
- Mature moral motives for rule compliance inhibit:
  - driving speed
  - space competing driving
- Low levels of moral reasoning correlate with over-estimation of own driving skills and lead to a higher accident risk
Effects of training

- Risk profiles stimulate socio-moral reflection
- Better adaptation of the training to the individual

Cognitive distortions 6-12 months after licensure
Conclusions and implications
Moral reasoning is an element of competence that affects driving style and outcomes and should be given attention in training and testing.

Moral reasoning can be improved by training.
- Assessments are useful to address personality related competencies (level 4 of the GDE matrix).
- Tool supports driving teachers in their coaching role.

Have driving teachers competences to address moral reasoning?

Can moral reasoning be assessed in a reliable way in the driving test?
Thank you for your attention!
Questions????

I'm arresting you for speeding!

I wasn't speeding, but I did pass two cars who were!

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