

DTU



Mette Møller

# Risk-taking among young moped riders in Denmark

Foto: Colourbox

# Mopeds in Denmark

## Large moped/moped 45 km/h

- ✓ Age limit 18
- ✓ License required (unless B)
- ✓ Speed limit 45 km/h
- ✓ Riding on the road (not on bike-path)
- ✓ Helmet is mandatory

## Small moped/moped 30 km/h

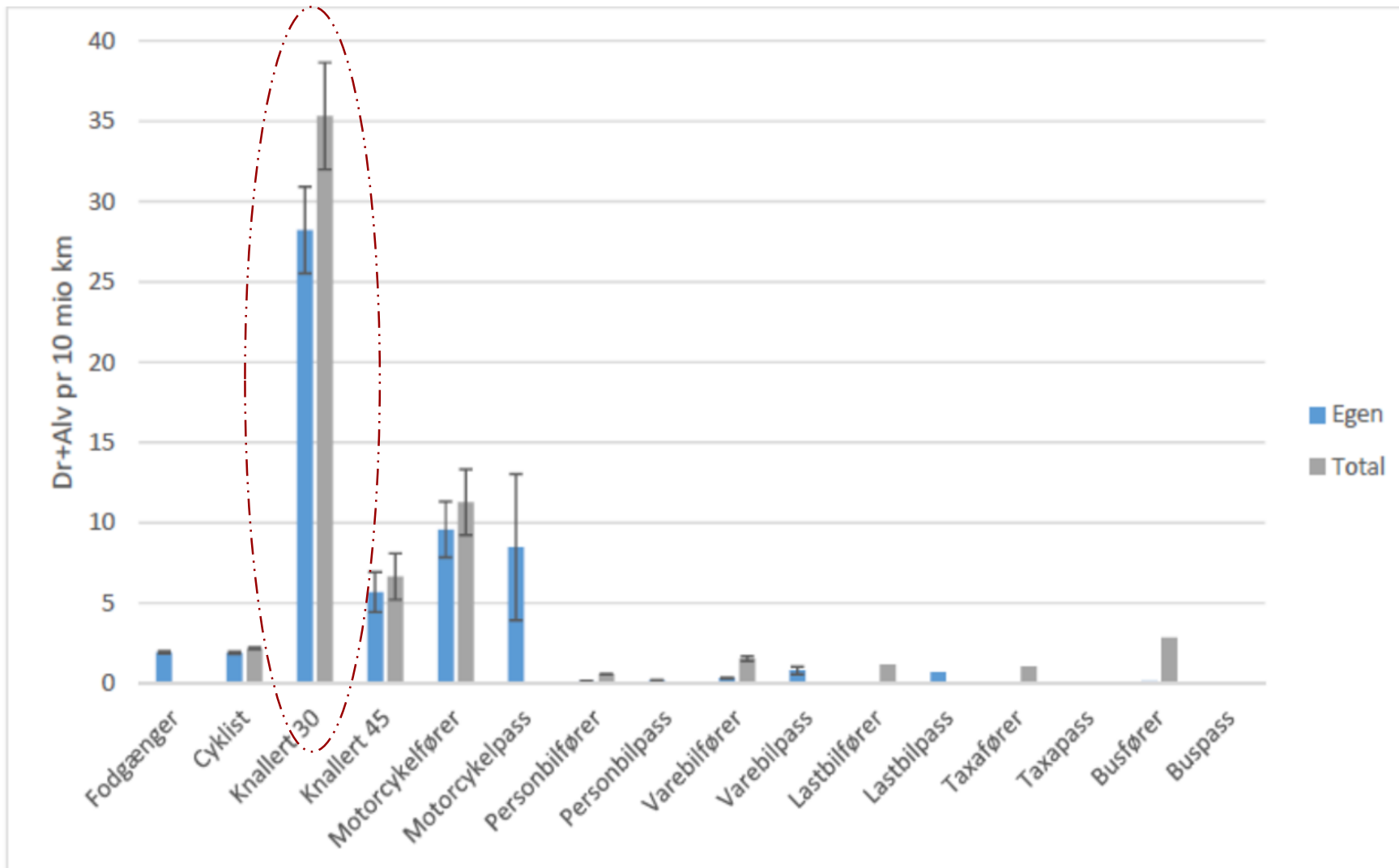
- ✓ Age limit 15 (Oct. 1st, 2016)
- ✓ License required (unless B)
- ✓ Speed limit 30 km/h
- ✓ Riding on bike-path
- ✓ Helmet is mandatory

# Today

Risk-taking behaviour among young  
Moped 30/h riders



# Relevant for road safety?



Ref: Risiko i trafikken 2007-2016, Christiansen & Warnecke (2018)

- ✓ Moped 30: Highest risk of death/serious injury
- ✓ App. 30 x higher risk compared to car riders
- ✓ Knowledge on behaviour and risk is limited – particularly regarding young moped riders
- ✓ Existing knowledge (DK + international) indicate that engagement in violations is of key importance)

# Data

Moped riders aged 15-17

Rural areas

Comparably high  
number of crashes

Comparably high  
number of kilometers



4 Focus group interviews

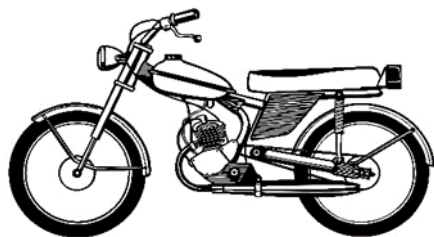
35 Adolescents  
5 women 30 men

Semi-structured  
interview guide

Audio recording

Verbatim transcription

# Analysis



Identification of  
risk-taking  
behaviour



Themes



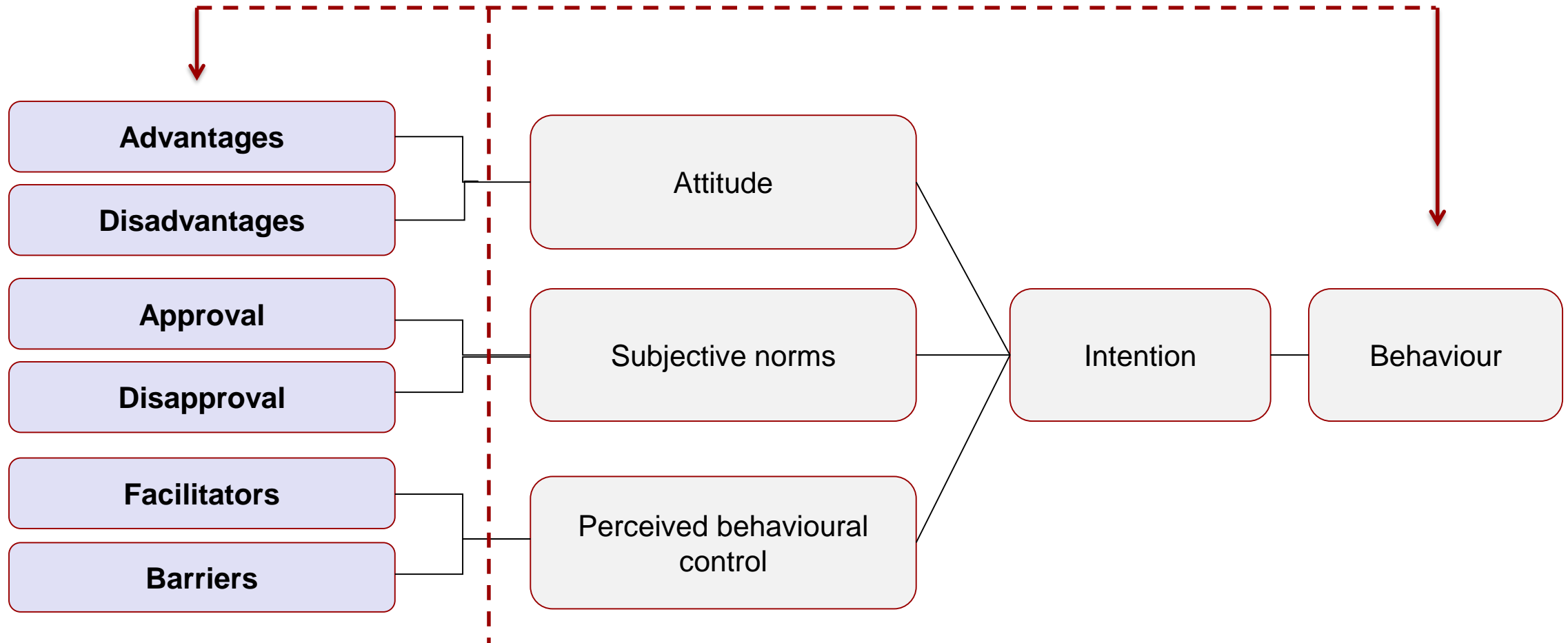
Sub-themes



# Theory of Planned Behavior (TPB)

Underlying assumptions

Violations





# Selected results

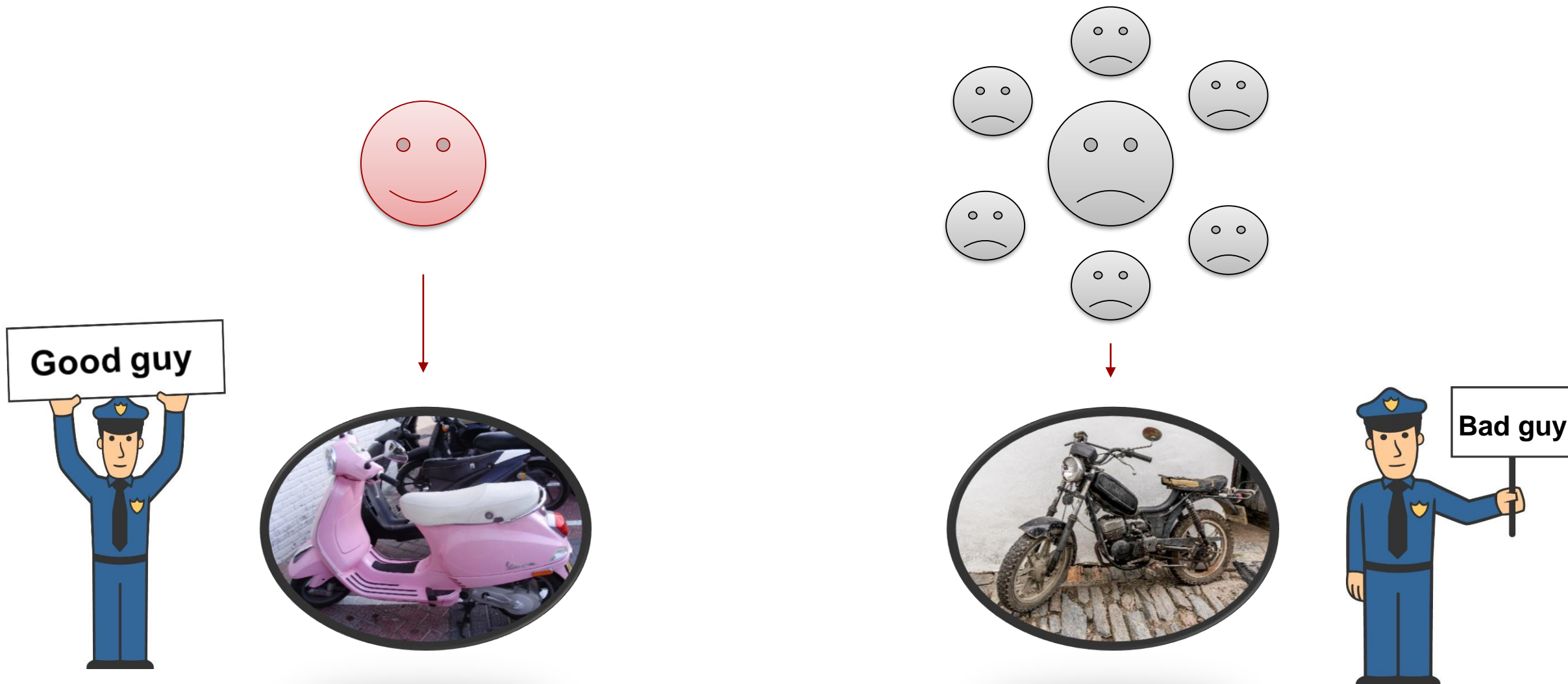
# Violations mentioned



Category	Examples
Illegal maneuver	Speeding, red light running, passengers
Impaired riding	Alcohol, drugs, fatigue
Illegal location	Riding on road/pavement
Maintenance	Front/rear lights, front/rear brakes, tuning
Non-use of mandatory safety equipment	No helmet

Method does *not* allow assessment of frequency – large variations between violations and participants.....  
But *impression*: Speeding, tuning, poor maintenance – frequent and part of everyday moped riding

# Self image, group association engagement in violations



Further analysis is needed



# Attitude

Violation	Advantages		Disadvantages	
Speeding	Direct	Saving time, fun, pleasure	Apprehension by the police	Person injury
Riding on road (not bike path)		Nice flow, avoid cyclists		
Passenger		Convenience, pleasure, help friends		
No helmet		Convenience, hairstyle, comfort		
Poor maintenance	Indirect	Avoid expenses and trouble		
Impaired riding		Avoid parental involvement, avoid walking		
Red light riding		Avoid feeling stupid		

## Quotes – direct and indirect advantages

*“The faster it rides, the more exciting it is”*



*“Somebody tried to steal my moped, and he messed something up and broke the lights. I rode the moped like that for 6 months. It would cost 55 EUR to fix it. I did not want to spend that much money”*





## Quote - disadvantage

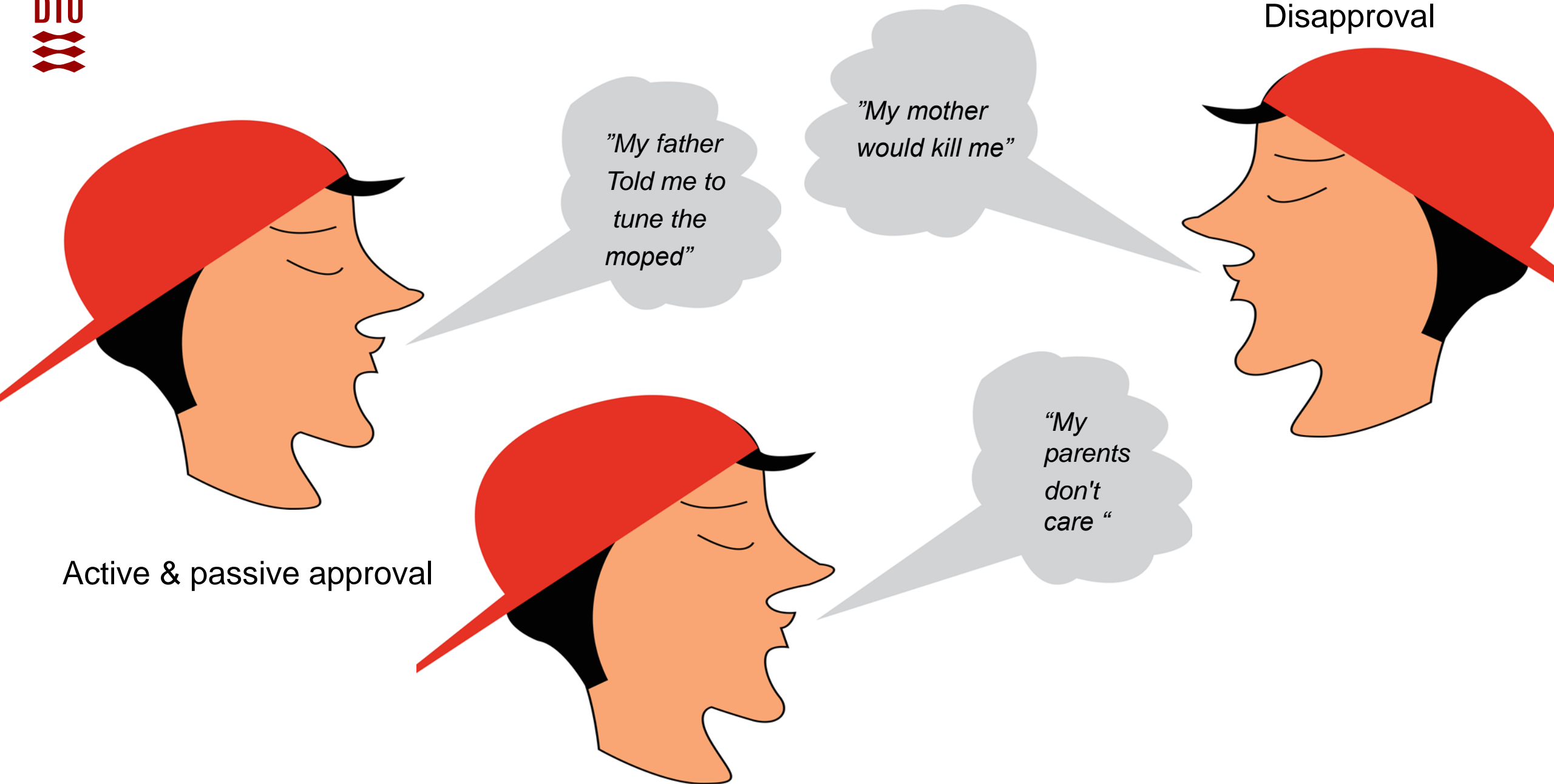
*"I no longer engage in violations,  
honestly, - I was apprehended  
by the police....next time,  
I loose it all".*



# Subjective norms

Violation	Approval				Disapproval	
	Active		Passive		Parents	Young
	Parents	Young	Parents	Young		
Speeding	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Passenger	-	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Ride on road	-	-	-	X	X	X
No helmet	-	-	-	X	X	X
No maintenance	-	-	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Impaired riding	-	-	-	X	X	X
Red light running	-	-	-	X	X	X

- Further studies needed – large differences – attempt to illustrate – don't over-interpret
- Examples of approval and disapproval for all violations and among parents and youth
- However – in some cases parental influence relevant to address



Active & passive approval



# Perceived behavioral control

## Barriers

Police

Parents

Perceived risk of injury



- Police – if perceived risk of apprehension is high
- Presence of parents / police
- Friends not mentioned as a barrier
- Perceived risk of injury

## Facilitators

Own riding skills

Ability to compensate

Moped design/capacity



- Belief that violations are possible with no major consequences
- Trust in own competences
- Trust in ability to compensate (alternative routes, only a few drinks....)

## Quotes - barriers and facilitators

*"If my parents are home I always wear a helmet"*



*"I have perfect control of the moped"*





# Conclusion

## Engagement in violations is supported by

- Perceived advantages (practical, social, direct, indirect....)
- Apparently extensive approval (active and passive)
- Strong belief in own skills and capacity to compensate

## Key barriers

- Presence of police/parents (with "appropriate" attitude)
- Perceived risk of losing license
- Perceived risk of injury

## Next steps

- Prevalence, predictive power, subgroups of moped riders, association to other aspects



# Thank you



Mette Møller, [mette@dtu.dk](mailto:mette@dtu.dk)  
Technical University of Denmark  
Division of Transport  
Transport Psychology Group



Stay updated on our research and activities here:  
**<https://www.linkedin.com/showcase/transport-psychology>**