

27th Meeting of the International Traffic Safety Data and Analysis Group (IRTAD)

Belgrade, Serbia

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Comparing the safety culture in Norway and Greece



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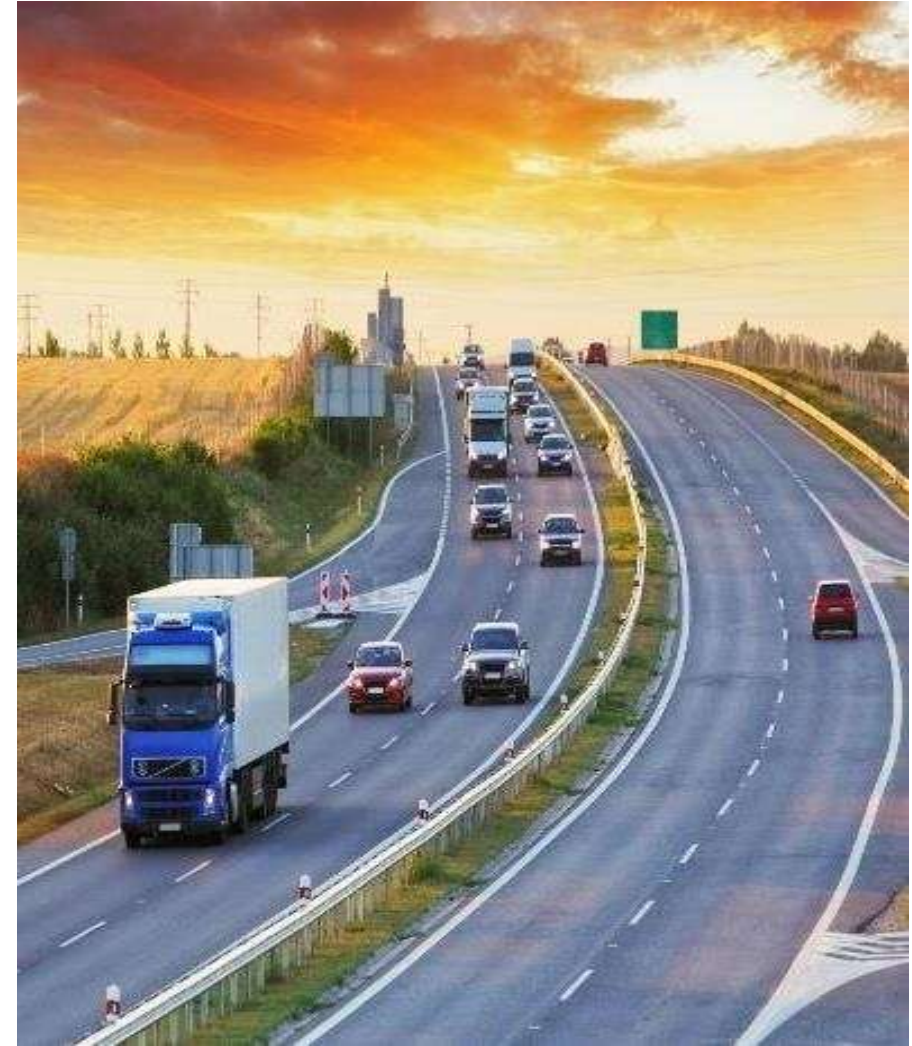
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Safety culture in transport

- The concept of safety culture is applied to an increasing range of sectors, including **professional and private transport**.
- Safety culture explains **considerable variation** in safety behaviour in various transport forms operated by private and professional drivers.
- Transport safety culture (TSC) is defined as: “**shared norms** prescribing certain transport safety behaviours, shared **expectations** regarding the behaviours of others and shared **values** signifying what’s important (e.g. safety, mobility, respect, politeness)”.



The SafeCulture project

SafeCulture - ***Safety culture in private and professional transport: examining its influence on behaviours and implications for interventions***

Aims to compare the safety culture in different transport modes and social contexts between Norway and Greece.

Land transport: Examination of car users, powered two-wheelers, HGV and bus drivers.

Funded by the Norwegian Research Council.



Duration: 36 months (Jan 2016 – Dec 2018)

Partners:



Research questions

- How much does **membership in different sociocultural units** (e.g. nation, region, peer-groups, sector, organizations) influence individual transport safety behaviour in professional and private transport?
- How much does TSC influence safety behaviour and outcomes relative to **known risk factors** like gender, age, experience, technology and infrastructure?
- How can the knowledge on group membership influencing TSC and the relative importance of TSC as a **predictor** of transport safety **behaviour** and safety **outcomes** be used to increase transport safety?



Methodology

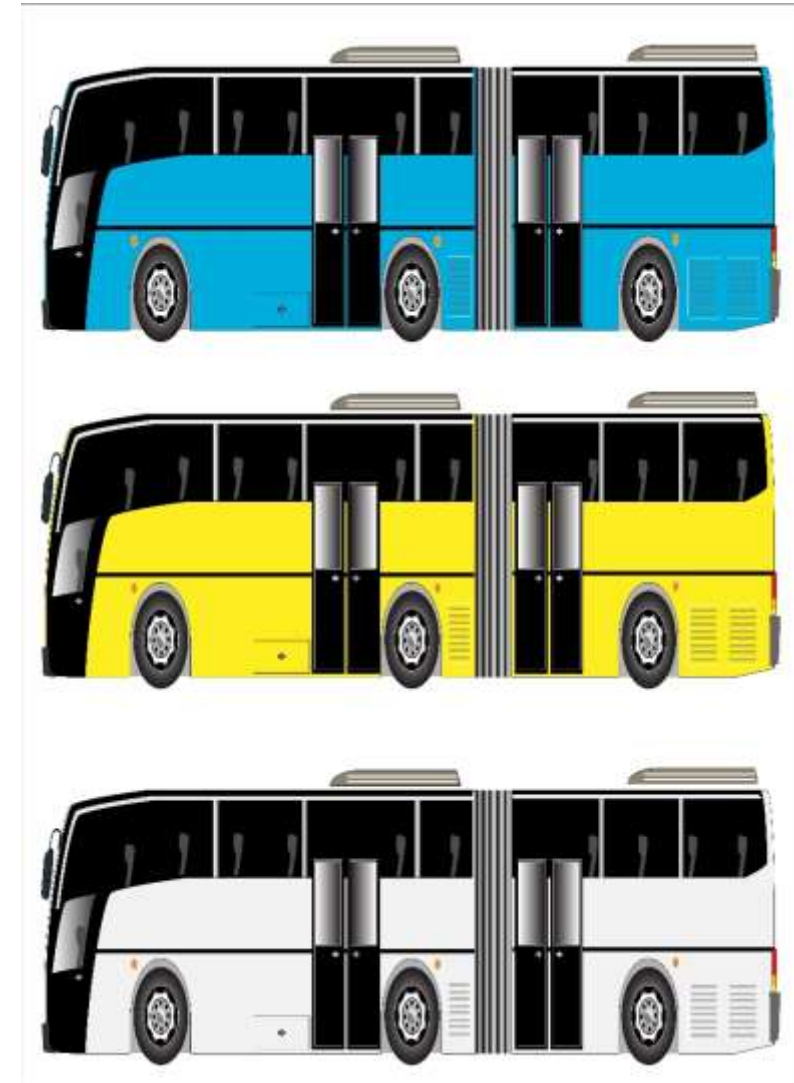
Norway and Greece were selected to be compared as countries with very different road safety performance.

The road fatality rate of Norway is one of the lowest in the EU, while Greece has one of the worst transport safety records among all EU-28 countries.



Professional drivers' sample

- Personal **interviews** with professional HGV and bus drivers (N=40) (10 per group in each country)
- Two surveys among professional **HGV** and **bus** drivers from companies in Norway (N=216) and in Greece (N=200).
- Company recruiting **criteria**:
 - Min 90% of professional drivers in each company should be of the main nationality (Norwegian or Greek),
 - Each company should have about 200 to 400 drivers,
 - Each company should have between 100-400 vehicles,
 - Recruited drivers involved in urban traffic but also drive in rural areas.



Private car – PTW drivers' samples

- Private car drivers (N=596) and PTW (N=200) recruited in three **Norwegian counties**, including Oslo, based on differences in accident risk and attitudes.
- In Greece, private car drivers (N=287) and PTW (N=200) recruited in **Athens** and **Rhodes** based on an assumption that TSC on an island could be different from the capital, as an island is a geographically enclosed area, and as Rhodes has many tourist drivers.



Survey - Main examined issues

- ✓ **Working conditions** with safety implications
e.g. work pressure, wage arrangements and management focusing on certain safety behaviours (speeding, seat belt use)
- ✓ **Organizational** safety culture
questions selected from the Global Aviation Information Network (GAIN) scale on organisational safety culture
- ✓ **Safety behaviours**
questions taken from the Driving Behaviour Questionnaire to which Scandinavian and Southern European drivers scored significantly different on, and which were related to accident involvement
- ✓ **National** transport safety culture
Paternalism, Trust in authorities, Expectations from other road users
- ✓ **Sector** transport safety culture
- ✓ Safety **outcomes** (*accidents, injuries*)



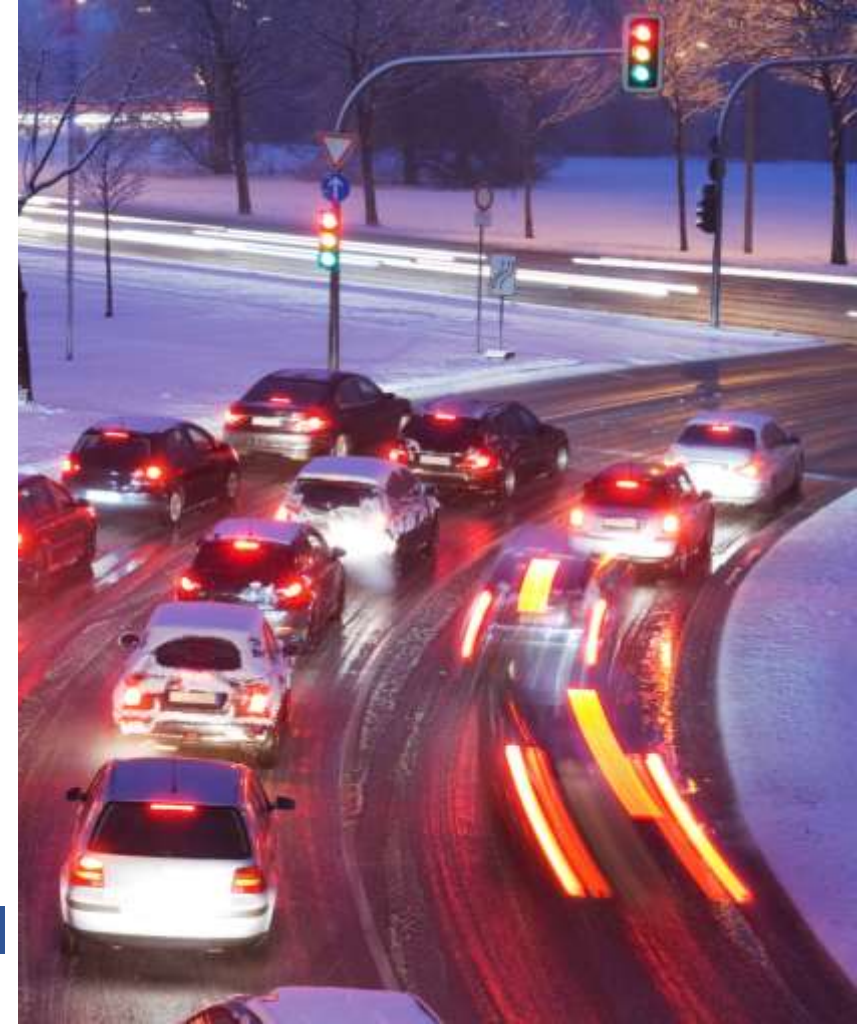
Results (1/2)

- Professional drivers in Greece report **more aggressive** violations in traffic than Norwegians.
- Aggressive violations are predicted by **national** transport safety culture.
- Respondents' aggressive violations in traffic predicted their **accident involvement**.
- Positive organizational safety culture leads to reduction of aggressive violations in traffic.



Results (2/2)

- A potential **critique** of the method is that behaviour may be influenced through the false **consensus bias** (i.e. individuals overestimate the prevalence of risky behaviour among their peers to justify their own behavior).
- The different results in Norway and Greece show that what is measured as **national TSC** reflects the safety behaviours that the different national groups ascribe to other drivers in their country and not just a false consensus bias to justify their own behaviour.
- **Aggressive violations**, found to be related to national TSC, are also related to **accident involvement**.

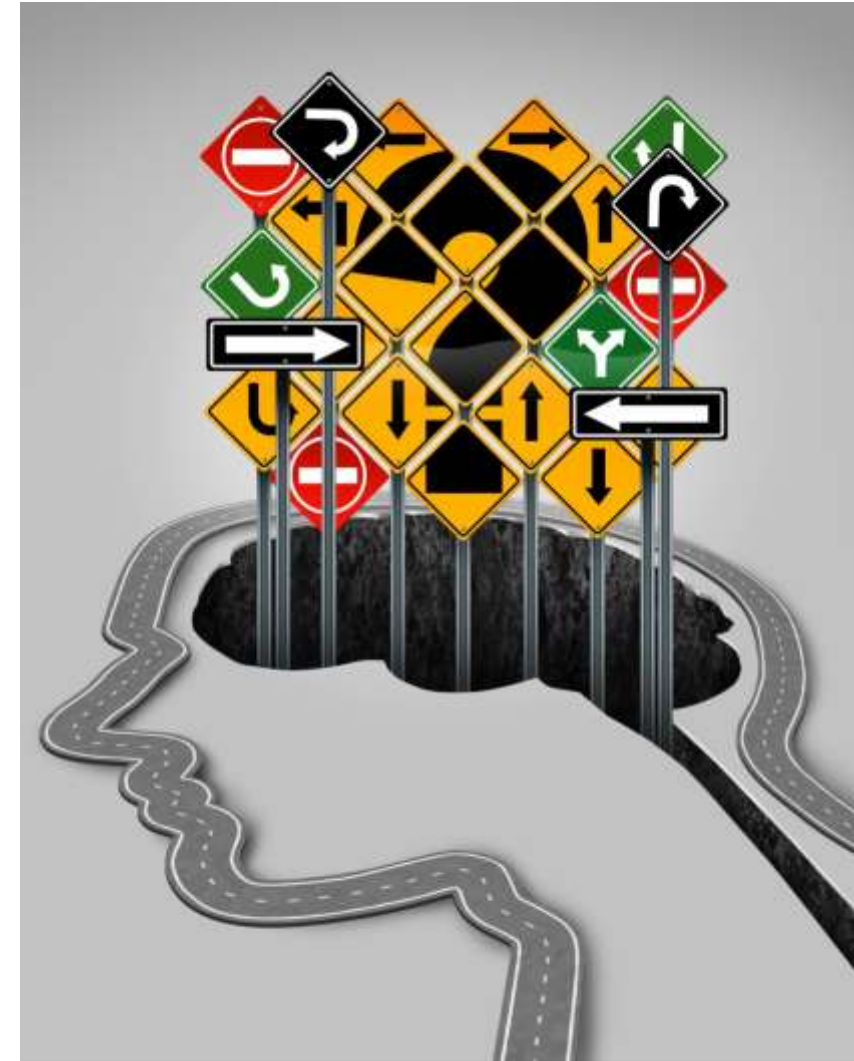


Future research

- How national TSC comes about?
Maybe through **interaction** (and sanctions) in traffic, as this seems to be a likely arena to learn about the “normal behaviour” of other drivers.

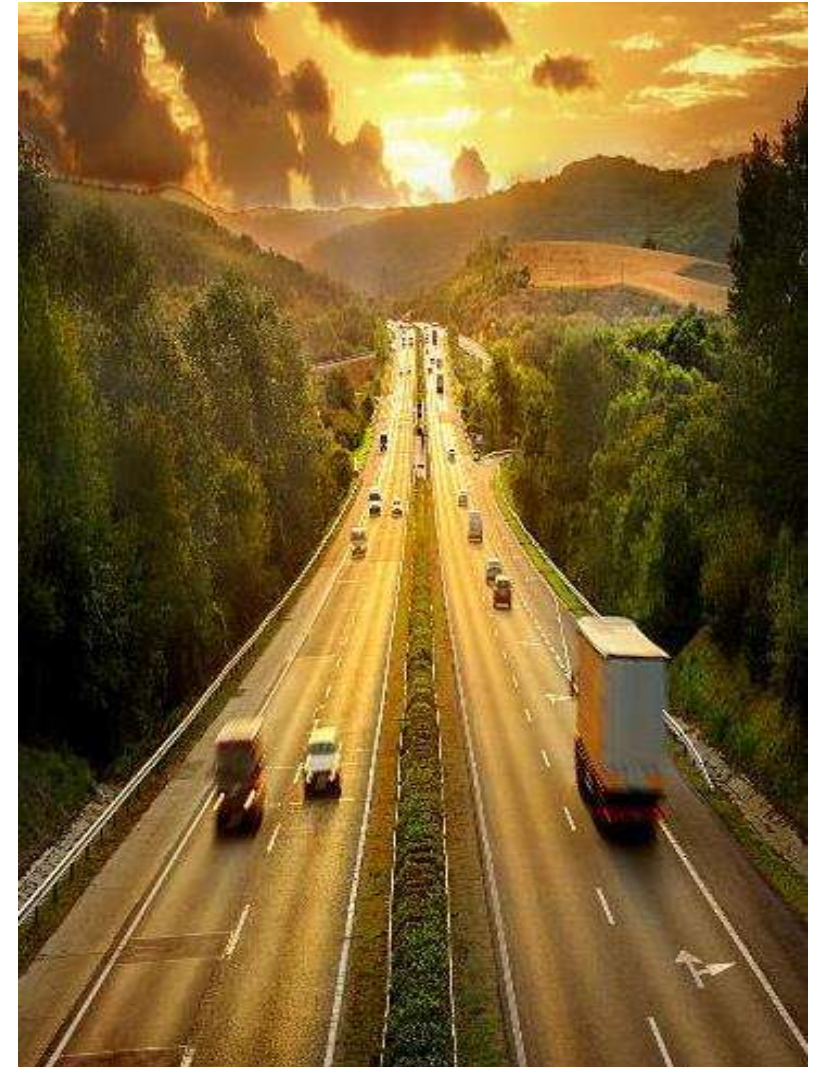
Example: drivers in Rhodes differed significantly from the other groups with respect to their safety behaviours and their reported national TSC.
This indicates a unique **regional TSC** in Rhodes.

- Is the higher incidence of aggressive violations and accidents among **Greek professional** drivers due to work related variables like time pressure, commission pay, framework conditions etc?



Future challenges

- The **importance** of transport safety culture (TSC) in understanding and influencing transport safety behaviour and safety outcomes is very high (as also in hazardous industries) and more quantitative research is needed.
- **Linking quantified metrics of TSC with road safety metrics** (performance indicators and outcomes) is a great challenge, which might reveal important hidden parameters influencing road safety.
- There is need to study large driver samples and different nationalities in order to identify links between road safety and **organizational and tourist safety culture** across Europe.



Conclusion

- The TSC perspective may facilitate new **types** of **interventions**, which could target the identified descriptive norms mechanism.
- There are already **successful** examples of such interventions.
- Several studies conclude in favour of focusing on **descriptive norms** in traffic safety interventions.



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