



RSS 2022

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The role of values in road safety culture:
Are motorcycle riders' higher accident
risk a result of their appreciation of
freedom to take risk?

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Background

- The balance between **individual freedom** and state intervention ("**paternalism**") is largely a political and cultural issue. Increased road safety is often a result of increased paternalism and less individual freedom for road users.
- **Road Safety Culture** (RSC) is defined as:
 - shared values and attitudes signifying what is important (e.g. safety, mobility, respect, politeness),
 - shared norms prescribing certain road safety behaviours,
 - shared expectations regarding the behaviours of others



Framework

- The present study examines **the role of individual freedom values in RSC** based on survey data from car drivers and motorcycle riders in Norway and Greece.
- **Lower focus** on individual freedom to take risk among the Norwegian riders and drivers (Hypothesis 1).
- **Higher focus** on individual freedom to take risk among motorcycle riders across countries (Hypothesis 2).
- **Relationship** between motorcycle riders' valuation of freedom to take risk, risk taking and accident risk (Hypothesis 3).



Objectives

1. Compare the **values/attitudes** related to **individual freedom to take risk among** car drivers and motorcycle riders in Norway and Greece.
2. Examine the **factors** influencing values/attitudes related to individual freedom to take risk in these groups.
3. Examine the relationship between **values/attitudes, risky driving** and **accident involvement**.
4. Discuss whether values/attitudes can be **influenced** in an attempt to increase road safety.



Methodology

- **Research Project** "Safety culture in private and professional transport: examining its influence on behaviours and implications for interventions".
- Study based on **questionnaire survey** among drivers and motorcycle riders in Norway and Greece.
- **Expected differences** in national samples (purpose of trips, driver age-gender, vehicle type) as PTWs are common in Greece while motorcycle riding is a seasonal leisure related activity in Norway.
- To make the motorcycle rider samples as comparable as possible, **only motorcycle** (not moped) riders from both countries are examined.



Survey Themes (1/3)

- **Background variables:** (driver age, experience, gender, education, kms driven in the last 2 years, driving/riding frequency, car/motorcycle type).
- **Values/attitudes:** 3 questions on individual freedom to take risk in traffic.
 - Road users should be able to choose risky activities in traffic, as long as they do not expose other to risk,
 - A skilled person can take more risks than others,
 - Road users know best themselves how they should behave in traffic.
- **Accidents:** Question on respondents' crash involvement while driving in the last 2 years.



Survey Themes (2/3)

- **Descriptive norms:** "When driving in my country, I expect the following behaviour from other drivers:"
- "That they sound their horn to indicate their annoyance to another road user",
 - "That they become angered by a certain type of driver and indicate their hostility by whatever means they can",
 - "That they overtake a slow driver on the inside",
 - "That they drive when they suspect they might be over the legal blood alcohol limit",
 - "That they drive without using a seatbelt",
 - "That they disregard the speed limit on a motorway road",
 - "That they disregard the speed limit on a residential road".



Survey Themes (3/3)

➤ Road safety behaviours:

- "Disregard the speed limit on a residential road"
- "Disregard the speed limit on a motorway road"
- "Pull out of a junction so far that the driver with right of way has to stop and let you out"
- "Drive when you suspect you might be over the legal blood alcohol limit"
- "Drive without using a seat belt/helmet?"
- "Race away from traffic lights with the intention of beating the driver next to you"
- "Sound your horn to indicate your annoyance to another road user"
- "Become angered by a certain type of driver and indicate your hostility by whatever means you can"
- "Become angered by another driver and give chase with the intention of giving him/her a piece of your mind"
- "Overtake a slow driver on the inside".



Survey sample and analysis

Country	N	%	Males (%)	Mode	N	%	Males (%)
Norway	733	61%	66%	Car	596	49%	59%
				MC	137	11%	94%
Greece	479	39%	72%	Car	286	24%	64%
				MC	193	16%	85%
Total	1212	100	68%		1212	100%	68%

- One-way Anova tests (to compare the mean scores of different groups).
- Linear regression analyses (factors predicting respondents' scores on the freedom to take risk, factors predicting respondents' risky driving).
- Logistic regression analysis (factors predicting respondents' answers on a dependent variable measuring accident involvement).



Results

➤ Values/attitudes among motorcycle riders and car drivers across countries:

- Significantly lower scores on the freedom to take risk among Norwegian respondents.
- Shared valuation of freedom to take risk among motorcycle riders across countries, which was higher than that of car drivers.
- The difference between riders and drivers were nearly twice as big as the difference between countries. Thus, data indicate the importance of transport mode over country when it comes to freedom to take risk in traffic.



Results

- Factors influencing values/attitudes related to individual freedom:
 - Women and older driver focus less on drivers' freedom to take risk in traffic.
 - Greek drivers focus more on drivers' freedom to take risk in traffic.
 - Motorcycle drivers focus more on freedom to take risk in traffic.
 - These results also apply when controlling for several variables related to the individual (e.g. age, gender) and national level (e.g. authorities' focus on road safety).



Results

- Relationships between values/attitudes, risky driving and accident involvement:
 - The more respondents value freedom to take risk, the riskier behaviours they are involved in themselves.
 - The level of driver violations that respondents expected from other drivers in their countries, was related to their own reported levels of road violations.



Conclusions

- Riders value freedom to take risk in traffic significantly higher than drivers in their countries. This indicates **shared RSC values** among motorcycle **riders** across countries, focusing on freedom to take risk in traffic.
- There is a **pattern** involving higher valuation of freedom to take risk and higher levels of risk taking, which is related to higher risk of accidents.
- Values focusing on freedom to take risk have an important role in RSC, presumably **legitimizing** and **motivating** risky driving.





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