

20. Social aspects of traffic safety

Introduction

Traffic safety is not only a technical issue, but also a profoundly social one. Risk perception, regulatory compliance, and public support for safety measures are all shaped by social norms, culture, and socioeconomic conditions. Road crashes and other negative transport outcomes affect social groups unequally: over 90% of traffic deaths occur in low- and middle-income countries, and vulnerable road users (pedestrians, cyclists, motorcyclists) account for more than half of all fatalities globally. Understanding these social dimensions is essential to designing effective, equitable interventions. This module examines how equity, vulnerability, behaviour, safety culture, and community engagement shape road safety outcomes, with attention to how social and cultural contexts influence policy implementation.

Learning outcomes

After completing this module, the students should be able to:

- Recall the key social determinants of traffic safety (socioeconomic status, education, gender, culture) and core concepts of traffic safety culture, social norms, and risk perception.
- Explain how social factors influence exposure to traffic risks, the relationship between social inequality and road safety outcomes, and the role of social institutions in shaping traffic behaviour.
- Apply concepts of risk perception and traffic safety culture to analyse road user behaviour and policy compliance, using equity-focused frameworks.
- Analyse the differential impacts of road safety measures on various population groups (children, elderly, low-income, disabled) and how societal attitudes affect safety outcomes.
- Evaluate the inclusiveness and social responsiveness of traffic safety policies and propose strategies for behavioural change, social engagement, and equitable safety outcomes.

Key messages to learners

- Traffic-related risk does not affect all populations equally. Socioeconomic status, education, age, gender, and disability all shape exposure to road danger and the capacity to avoid it.
- People from lower socioeconomic backgrounds face higher risk because they are more likely to walk, cycle, or use informal public transport on roads not designed for their safety. This is a core dimension of transport poverty.
- Gender matters—approximately 75% of global road traffic fatalities are male, driven by higher rates of speeding and impaired driving. Women face distinct vulnerabilities as pedestrians and public transport users, including safety concerns related to harassment.
- Vulnerable road users, including children, pedestrians, cyclists, and the elderly, account for over half of road traffic deaths in Africa. They lack the physical protection of vehicles and often navigate environments designed primarily for motor traffic.

- Low- and middle-income countries bear over 90% of the world's road traffic deaths despite having far fewer vehicles, due to rapid motorisation without matching infrastructure investment, weak law enforcement, and limited emergency care.
- Traffic safety culture, defined as shared norms, beliefs, and values around safety, shapes both individual behaviour and collective acceptance of safety interventions. Research shows it differs significantly between countries and is linked to crash rates.
- Fatalistic beliefs, the view that crashes are predetermined, represent the largest cultural difference between African and European road safety cultures. Studies find that 40% of African respondents view crashes as 'punishment for bad deeds', compared with 5% in Europe.
- Organisational safety culture among professional drivers directly influences driving behaviour and crash involvement. Safety management systems are mandatory in aviation, rail, and maritime but remain voluntary in road transport (ISO:39001).
- Risk perception, i.e. how people judge the likelihood and severity of harm, determines whether they engage in dangerous behaviours. Drivers using mobile phones are approximately four times more likely to be involved in a crash, however they do not perceive this activity as dangerous.
- Road safety interventions must be socially inclusive and context-sensitive. Cultural norms, enforcement capacity, urban versus rural differences, and levels of motorisation all affect whether an intervention succeeds or fails.
- 'Transport poverty' limits people's access to jobs, education, and healthcare. In African countries, over half of pedestrians avoid certain roads because traffic feels unsafe, compared with 13% in Europe, confining their mobility and life opportunities.
- Peer group norms significantly influence road behaviour, particularly among young drivers. Graduated licensing laws that restrict peer passengers and peer-led education campaigns can shift group norms toward safer behaviour.

Learning activities

Exercise 1. Case study analysis of road user behaviour and road safety culture

Objective: Explore how social and cultural factors influence traffic behaviour in specific groups.

Instructions: Identify the social groups you belong to (family, friends, nation, gender, age). Discuss whether risky behaviours (e.g. speeding) are normalised in these groups, and whether acceptance of safety measures (e.g. lower speed limits, alcolocks) differs. Compare across groups and road user types (cyclists, car drivers, moped users) and consider how norms affect crash involvement.

Outcome: Create an understanding of the importance of social groups and road safety culture for road safety outcomes.

Exercise 2. Community campaign simulation

Objective: Design a local road safety campaign targeting a specific behavioural issue (e.g. youth risk-taking on e-scooters, speeding by professional drivers such as homecare workers or delivery staff).

Instructions: Students define the target audience, message, methods, and evaluation metrics. How should you adapt the campaigns to different audiences?

Outcome: Understand how to reach different audiences, focusing on social and cultural group membership.

Exercise 3. Equity impact assessment

Objective: Evaluate the social justice implications of a road safety policy (e.g., bicycle helmet laws, pedestrian infrastructure, lower speed limits in rural roads, where people commute to cities).

Instructions: Identify winners/losers, barriers to access, and unintended consequences, and conflicts/synergies between different types of sustainability goals.

Outcome: Learn to apply equity lenses in policy analysis.

Exercise 4. Roleplay: public hearing on road safety

Objective: Practise stakeholder analysis through a simulated public consultation on a defined road safety problem (e.g. speeding near a school or shopping area).

Instructions: Simulate a public consultation with diverse actors: traffic police, citizens, NGOs, urban planners.

Outcome: Experience how social dialogue can support or hinder policy implementation.

Exercise 5. Transport poverty

Objective: Evaluate the existence of transport poverty in Northern European cities.

Instructions: Choose one group: (1) wheelchair users accessing jobs, education, and shops via public buses, or (2) older people with reduced walking mobility navigating slippery winter conditions without a car. Map the practical difficulties, consequences for well-being, and relevant policy measures to mitigate.

Outcome: Develop an understanding of what transport poverty means in practice, its consequences for life and well-being and potential mitigating measures.

Assessment quiz

Question 1

How does risk perception influence road safety behaviour?

- a. It does not, because drivers are smart enough to always behave rationally. (incorrect)
- b. It ensures that only older drivers are cautious. (incorrect)
- c. Misjudging risk can lead to dangerous behaviours like speeding or phone use while driving. (correct)
- d. It is only relevant in countries with weak enforcement (incorrect)

Comment (shown after the answer has been given):

Individuals who underestimate risks are more likely to engage in unsafe behaviours. Educational campaigns aim to adjust these perceptions for improved safety.

Question 2

Why is traffic safety culture important?

- a. Because it replaces the need for traffic laws. (incorrect)
- b. Because it determines which roads get government funding. (incorrect)
- c. Because shared norms and values influence behaviour and acceptance of safety measures. (correct)
- d. Because it focuses only on professional drivers. (incorrect)

Comment (shown after the answer has been given):

A strong traffic safety culture helps promote safe behaviours by shaping how individuals perceive risks and respond to rules. It also increases public support for safety interventions, making policies more effective across different groups and settings.

Question 3

How can traffic safety culture be influenced effectively?

- a. by focusing only on punishing traffic violations (**incorrect**)
- b. by replacing traffic rules with voluntary guidelines (**incorrect**)
- c. by using education, community engagement, and promoting shared safety values (**correct**)
- d. by avoiding discussions about risk and responsibility (**incorrect**)

Comment (shown after the answer has been given):

Traffic safety culture can be shaped through education, awareness campaigns, peer influence, leadership in organizations, and community involvement. Promoting shared values around safety encourages responsible behaviour and wider acceptance of road safety measures.

Question 4

How can traffic safety culture be measured?

- a. by counting the number of road signs in a city (**incorrect**)
- b. by observing how often people use their cars (**incorrect**)
- c. by surveying beliefs, norms, and behaviours related to traffic safety (**correct**)
- d. by calculating average vehicle speed. (**incorrect**)

Comment (shown after the answer has been given):

Traffic safety culture is typically measured through surveys and interviews that assess people's perceptions, attitudes, social norms, and self-reported behaviours related to road safety. These insights help identify cultural patterns influencing traffic outcomes.

Question 5

What do fatalistic beliefs imply in road safety culture?

- a. that road crashes are caused by poor infrastructure (**incorrect**)
- b. that crashes can be prevented by using helmets (**incorrect**)
- c. that traffic outcomes are controlled by fate, not behaviour (**correct**)
- d. that only young people take risks. (**incorrect**)

Comment (shown after the answer has been given):

Fatalistic beliefs reduce personal responsibility for safety, leading to less compliance with safety measures and higher crash risks.

Question 6

Why can fatalistic beliefs be harmful for road safety?

- a. because they improve compliance with traffic laws (**incorrect**)
- b. because they make people overconfident in their driving skills (**incorrect**)
- c. because they reduce people's sense of personal responsibility for preventing accidents (**correct**)
- d. because they encourage the use of safety technology. (**incorrect**)

Comment (shown after the answer has been given):

Fatalistic beliefs—such as thinking crashes are predetermined or due to fate—can discourage people from taking proactive safety measures. This undermines risk awareness, safe behaviour, and compliance with road safety rules, increasing the likelihood of accidents.

Question 7

How can peer groups influence traffic behaviour among young drivers?

- a. Peer groups have no influence on traffic behaviour. (incorrect)
- b. Peer norms can either encourage risky or safe behaviours. (correct)
- c. Only parents influence young drivers' behaviours. (incorrect)
- d. Laws eliminate peer influence. (incorrect)

Comment (shown after the answer has been given):

Peer group norms significantly influence young drivers. If risk-taking is admired, unsafe behaviours increase; if safety is valued, behaviours improve.

Question 8

Why is safety culture important in organizations with professional drivers?

- a. because it is a legal requirement in all countries (incorrect)
- b. because organizational culture does not influence driving behaviour (incorrect)
- c. because a positive safety culture reduces risky driving and accidents (correct)
- d. because drivers prefer rigid rules over shared values (incorrect)

Comment (shown after the answer has been given):

A strong organizational safety culture—emphasizing learning, reporting, and fairness—can significantly reduce unsafe behaviours and accident rates among professional drivers.

Question 9

What is a 'just culture' in traffic safety terms?

- a. a system where everyone is equally punished (incorrect)
- b. an environment that blames drivers for all accidents (incorrect)
- c. a culture where mistakes are reported without fear of unfair punishment (correct)
- d. a system where a traffic rulebook used in court systems. (incorrect)

Comment (shown after the answer has been given):

A just culture encourages openness and learning from mistakes, making employees more likely to report issues that can improve safety.

Question 10

Why is a just culture important in organizations with drivers or other safety-critical roles?

- a. because it ensures strict punishment for all safety violations (incorrect)
- b. because it encourages employees to report errors and near misses without fear of unfair consequences (correct)
- c. because it allows managers to ignore minor safety issues (incorrect)
- d. because it replaces the need for formal safety procedures. (incorrect)

Comment (shown after the answer has been given):

A just culture promotes trust and fairness, encouraging employees to report incidents, which is essential for learning and improving safety. This openness helps organizations identify risks and take preventive action.

Question 11

Why do traffic-related risks not affect all populations equally?

- a. because traffic laws are only enforced in certain areas (**incorrect**)
- b. because some people ignore safety campaigns (**incorrect**)
- c. because factors like socioeconomic status, age, gender, and mobility influence exposure and vulnerability (**correct**)
- d. because urban populations drive more than rural populations. (**incorrect**)

Comment (shown after the answer has been given):

Traffic risk is shaped by social and economic conditions. Vulnerable groups—such as low-income individuals, children, elderly, and people with disabilities—often face greater exposure to danger due to poor infrastructure, limited transport options, and social inequalities, making risk distribution unequal.

Question 12

What is transport poverty?

- a. when people cannot afford to own a car (**incorrect**)
- b. when someone lacks affordable, safe, or accessible mobility options (**correct**)
- c. when people choose to walk instead of drive (**incorrect**)
- d. when public transport is unreliable. (**incorrect**)

Comment (shown after the answer has been given):

Transport poverty refers to insufficient access to transportation that enables participation in society—affecting employment, education, and health, especially among vulnerable populations.

Question 13

Why must traffic safety policies be equity-focused?

- a. to simplify enforcement (**incorrect**)
- b. because all groups experience traffic risk equally (**incorrect**)
- c. to ensure vulnerable groups aren't disproportionately affected (**correct**)
- d. to favour motor vehicle users. (**incorrect**)

Comment (shown after the answer has been given):

Equity-focused policies recognize that low-income, elderly, and disabled individuals often face greater risks and fewer protections in transport systems.

Question 14

What is the main purpose of community engagement in road safety?

- a. to reduce government costs (**incorrect**)
- b. to promote legal reforms only (**incorrect**)
- c. to increase public support and compliance with safety measures (**correct**)
- d. to replace the role of traffic police. (**incorrect**)

Comment (shown after the answer has been given):

When communities are involved in planning and awareness campaigns, they are more likely to support, follow, and even help enforce traffic safety measures.

Recommended reading and resources for students

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- Ward, N. J., Linkenbach, J., Keller, S. N., & Otto, J. (2010). *White paper on traffic safety culture* (White Paper No. 2). “Toward zero deaths: a national strategy on highway safety”. https://www.towardzerodeaths.org/wp-content/uploads/2020/01/Draft_TZD_White_Paper_2_Safety_Culture.pdf

Recommended (additional) reading for teacher

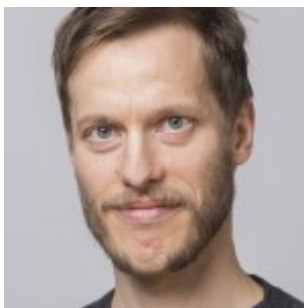
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- Nævestad, T.-O., Forward, S., Sam, E. F., Masaki, J., Mwamba, D., Miyoba, T., Francis, F., Fiangor, A., Blom, J., & Hesjevoll, I. (2024). *Mapping of road safety culture* (Deliverable D5.2). Horizon Europe project AfroSAFE. <https://www.ictct.net/wp-content/uploads/AfroSAFE/D5.2.pdf>
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- Nævestad, T.-O., Laiou, A., Phillips, R., Bjørnskau, T., & Yannis, G. (2019). Safety culture among private and professional drivers in Norway and Greece: examining the influence of national road safety culture. *Safety*, 5(20). <https://doi.org/10.3390/safety5020020>
- Nævestad, T.-O., Laiou, A., Rosenbloom, T., Elvik, R., & Yannis, G. (2022). The role of values in road safety culture: Examining the valuation of freedom to take risk, risk taking and accident involvement in three countries. *Transportation Research Part F: Traffic Psychology and Behaviour*, 84, 375–392. <https://doi.org/10.1016/j.trf.2021.12.012>
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Prepared by experts

In case you have specific questions, need a discussion partner, or just want feedback on your lecture materials, you may reach out the author(s) of this module. Please, put ‘AfroSAFE curriculum’ in the email subject.



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