

What Does It Mean to Be a Driver and What Does It Mean to Own a Car?

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Abstract The present article deals with young drivers' motives, opinions, and attitudes in relation to their driving and owning a car. In an online questionnaire, the respondents were asked to answer two questions: "What does it mean to you to be a driver?" and "What does it mean to you to own a car?". A total of 1,477 respondents, 958 males and 519 females, aged 18-25, participated in the survey. The resulting data were analyzed using a qualitative data processing method, thematic analysis. For the purposes of the analysis, the sample was broken down into four different groups according to gender and age (18-19, 20-21, 22-23, and 24-25 years). The study results show that young drivers may generally be divided into two main groups. While the first group defines its attitude to driving and owning a car as emotional, the other may be characterized as being associated with drivers whose attitudes are mostly rational and who perceive both their driving and owning a car as a means of achieving other goals. A more detailed categorization is then used to identify seven types of relationships young drivers have with driving and their cars. Finally, the practical implications of the results are presented, particularly with regard to the reduction of CO₂ emissions through increasing the rate of sustainable modes of travel, the reduction of young drivers' accident rate by addressing their risk-taking driving behavior, and their training and education.

Keywords Traffic sustainability, Traffic safety, Young drivers, Risky behavior, Drivers' education, Traffic modes

1. Introduction and Previous Research

The aim of this study is to understand the motives, attitudes, norms, and beliefs of young people in relation to driving and owning a car in order to tackle the following issues effectively: (i) reducing young drivers' risky driving behavior; (ii) promoting a shift towards more sustainable modes of travel, including service-based car use (reducing CO₂ production, reducing congestion, etc.), and (iii) improving driving education and training, which will be effective in increasing the levels of the GDE matrix.

It is well documented that the driving period between obtaining a driving license (at 17 or 18 years) and 25 years is the most dangerous and problematic one in a young driver's life (especially in the group of male drivers) [1-5]. During this period the crash and fatality risk is much higher than in the other periods of the driver's career [6]. It is also well known and documented that driving is a complex self-paced task, which indicates that the reasons, and consequently solutions, for this phenomenon will be multiple and versatile [7].

Firm evidence shows that young drivers are more prone to **risky behavior** than other drivers. The reasons for their more

risky behavior are manifold: brain maturation (the areas responsible for emotional control and the inhibition of impulsivity are not fully developed before the age of 24 or 25), lifestyle (young drivers' exposition to risky situations is high; driving by night, weekend nights, trips for fun, to concerts etc.), and the influence of peers (young drivers are more prone to risky behavior in the presence of their peers) [8-9]. Within the scope of this paper, the reasons connected to lifestyle and cultural influences are the most relevant.

General social and/or community norms, attitudes, and beliefs shape the behavior of the public. Thus, a certain driving culture develops which is very different in different countries. Cars are often used by youngsters for the expression of identity, values, and status and for differentiation from groups with different lifestyles. For this reason it is very important to understand what it means for young drivers to be a driver or to be the owner of a car. Youngsters are a mirror of the driving culture in any country. They do the same things as adults do – including the same erroneous and risky behavior – but with a certain lack of both emotional and experience-related control.

It is widely recognized that attempts to address **unsustainable patterns of travel** involve a detailed understanding of travel behavior and the reasons for choosing one mode of transport over another. The arguments for car use, including convenience, speed, comfort, and individual freedom, are well known [10]. Increasingly, psychological factors, including lifestyle, perception,

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identity, social norms, and habits, are being used to understand the choice of the mode of travel [11]. Young people nowadays are those who will shape the transport system in the next 10 to 30 years. With the earth's population growing this seems a crucial period. Within the next 50 years we cannot expect a fundamental breakthrough of new technologies or a completely new transport paradigm. This leads us to solutions which are based on the optimization of the current traffic system and raising the shares of more effective modes of travel which are already known. For this purpose we analyzed in this study the motives, attitudes, problem awareness, norms, and beliefs of young people (and compared them to those of older ones) in relation to their driving and owning a car with respect to a possible shift towards more sustainable modes of transport.

One of the possible implications is the car-sharing concept. The shift from ownership to service use, often promoted in concepts of sustainability, has recently become available in private vehicle mobility. Currently, 38,000 people in a number of European cities are participating. Service use, for example, through car sharing, is congruent with young people's lifestyle and beliefs [12].

While nowadays we are experiencing the peak of car use, a decline is predicted in the years to come (with those who are at the age of 18 or 19 now). It should also be noted that these young people did not create "car driving" habits (besides those adopted within their families). By 2011 the average American was driving 6% fewer miles per year than in 2004. The trend away from driving has been led by young people. From 2001 to 2009, the average annual number of vehicle-miles traveled by young people decreased from 10,300 miles to 7,900 miles per capita – a 23% drop. Young people are driving less for a host of reasons – higher gasoline prices, new licensing laws, improvements in technology that support alternative transportation, and changes in Generation Y's values and preferences – all factors that are likely to have an impact for years to come [13]. Decreasing driving among young people is not unique to America, but rather a phenomenon that is becoming characteristic of developed countries, such as Sweden, Norway, the United Kingdom, Canada, Japan, South Korea, and Germany. On the other hand, other countries (in some cases less developed ones) showed an increase in the number of young people with licenses – Finland, Israel, the Netherlands, Switzerland, Spain, Latvia, and Poland [14].

The last area we aim to address in this study is the improvement of **driving education and training**. For obvious reasons, young drivers have little driving experience. It takes a lot of practice before expert levels are reached. While vehicle handling skills are relatively easy to master in only a few hours, skills such as anticipation of potentially hazardous traffic situations, e.g., those connected to understanding how the behavior of other road users will develop during the next few seconds, require years of practice. Young and inexperienced drivers tend to choose safety margins which are too small. To a large extent, this phenomenon is a consequence of the fact that this age group

tends to overestimate its skills and underestimate the complexity of the traffic situation. This is particularly the case for young males. Even with increasing experience, self-reflection at a younger age is not developed enough, and with too little feedback from society, young drivers become, among other things, overconfident. In addition to other measures, education and training may help in tackling this issue. According to the GDE matrix, the focus should be on higher levels of self-reflection, attitudes, beliefs, and lifestyle. The conclusions of our study are formulated with regard to the above.

2. Methodology

2.1. Sample Population

A total of 1,477 respondents, 958 males and 519 females, all within the 18-25 age category, participated in the survey. Constituting a self-selection sample, the respondents answered the two questions specified above using web-based online questionnaires (the questions were incorporated into a questionnaire inquiring about driving behavior). The only criteria under observation were gender and age. All the participants were from the Czech or Slovak Republics.

2.2. Procedure

The data were collected using an online questionnaire that looked into different types of driving behavior. The questionnaire ended with two questions which are analyzed in the present article. The questions read as follows:

1. What does it mean to you to be a driver?
2. What does it mean to you to own a car?

For the purposes of the analysis, the sample was broken down into four different groups according to gender and age (18-19, 20-21, 22-23, and 24-25 years). The survey was conducted from January to June 2013.

2.3. Data Analysis

The data (written answers) were treated according to the sociological tradition in which qualitative data are regarded as a window into human experience [15]. The data were analyzed systematically using a modified version of the Editing Analysis Style [16]. ATLAS.ti 7.00 (software for qualitative data analysis) was used for this purpose. Our study applied thematic analysis as a tool for pattern recognition across qualitative data. The advantages of thematic analysis include high flexibility and the ability to generate unanticipated results and valuable data for informed policy decisions [17]. Two researchers performed the reading separately and then compared the key elements and concepts that had been elicited for consistency. Next, the complexity of the dataset was reduced and its manageability was increased both by referring to key questions and identifying key words and concepts. Then the themes were reviewed in order to generate a coherent, mutually exclusive, and easily identified and interpreted set of themes.

3. Results and Discussion

The respondents answered two open-ended questions: “What does it mean to you to own a car?” and “What does it mean to you to be a driver?”. The answers to each question were analyzed separately and then any thematic overlaps were looked for. As regards their thematic focus, the answers can be divided into several categories:

Category 1 – A car as a symbol of independence and comfort

The answers generally referred to **independence, greater possibilities, and time saving**:

- “To own a car means greater mobility and flexibility to me; I can respond to various situations more quickly than if walking or traveling by bus or train.”
- “Independence of other factors, if I need to travel from A to B.”
- “I’m in control of my time; I can go wherever I need.”
- “Comfort, convenience, independence.”
- “To me, a car is a sign of freedom. The possibility of setting out to places I couldn’t get to before.”

Category 2 – A car as a matter of prestige

For many respondents, owning a car or holding a driver’s license is a sign of **prestige, luxury, and an above-average lifestyle**:

- “A certain degree of value; to own a thing that makes you “superior” to those who don’t have it.”
- “Convenience, pleasure, fun, luxury.”
- “Luxury. Comfort. A wide range of possibilities for having fun.”

Category 3 – A car as passion

For another part of the respondents driving is **passion, a hobby, a source of pleasure**:

- “I live for tuning. My car is everything to me.”
- “To have the heart and the soul. Except for the people who are close to me, my car is everything to me.”
- “Everything. I love driving. It’s relaxing and a hobby at the same time. That’s why I always say to myself to go faster; I may burn more gas, but everybody has a hobby which they put money into. And to me there’s nothing like being at the wheel. As a friend of mine said: if I could, I would even drive to the fridge.”

Category 4 – A car as a responsibility

The drivers also realize a certain degree of **danger and responsibility** on roads:

- “Being aware of the fact that I’m sitting in a thing that can kill. A high degree of responsibility.”
- “A great responsibility for my own life and the lives of my loved ones, as well as all the other people who I can jeopardize if an accident occurs. Nowadays, when everybody always seems to be in a hurry, it is far from the truth to say that driving is a pleasurable activity. On the contrary, it is a source of unnecessary stress.”
- “A driver has a great responsibility, for themselves and for other road users.”

Category 5 – A car as an occupational resource, a car as a means of transport with no additional relationship assigned to it

The respondents also find the car to be a necessity for them **to make their living or pursue their jobs**:

- “Something that makes it possible to do your job, just a means of transport.” “A working means and help.”
- “Family livelihood – earnings, business.”
- “A means that allows you to do your job.”

Category 6 – A car as a necessary mode of transport for living in rural areas

A number of the respondents further stated that a car is of great help when **living in rural areas**, where public transport services are often very limited:

- “Not to depend on public transport – the nearest bus stop is 1.5 km away from our place.”
- “I live in a village, so it is a necessity, as well as fun sometimes.”
- “To get both myself and my family wherever is needed, to take the kids to their school, get to work – if you live in a small village, you just need a car – to do the shopping, to get to a doctor... it would be much more difficult without a car.”
- “To get to places, as there are only a few buses a day going from the village. It would be almost impossible to commute to work without a car.”

Category 7 – A car as a financial burden

On the other hand, there were answers that admitted the negative aspects of being a driver and owning a car, e.g., **high cost and a lot of things to think of**:

- “A means of transport that gets me quickly to various places ... But it also means that I have to buy gas, pay statutory insurance, and pay for necessary and frequent repairs.”
- “A means of transport and plenty of things to think of.”
- “...but also a financial burden – statutory insurance, statutory technical inspection and exhaust tests, fuel, regular maintenance (oil, filters, tires, etc.)”

While not so frequent, the answers concerning the environmental impact of motor transport are also noteworthy.

3.1. Gender- and Age-Specific Differences

In comparison to females, males were more likely to show an emotional charge in relation to their ownership of a car – their answers were more likely to come under Category 3 – **passion, a hobby, a source of pleasure** – and also Category 5 – **A car as an occupational resource, a car as a means of transport with no additional relationship assigned to it**.

When compared to females, males were also more likely to refer to “adrenaline” in their answers, but not so frequently as to justify its having a category of its own.

The answers of young drivers aged from 18 to 25 did not differ much across all the categories. Some differences were

observed in drivers under 22 and those in the 22-25 age category. While recording zero or almost zero occurrence among the respondents in the 18-19 age category, the answers coming under Category 5 – *A car as an occupational resource, a car as a means of transport with no additional relationship assigned to it* – were already abundant among the respondents aged 20-25.

Young drivers belonging to the 18-19 and 20-21 age groups often reported that they did not have a car of their own.

Younger age groups (under 21) frequently referred to a car as their great hobby, passion etc. (Category 3). On the other hand, answers such as “a car means nothing to me” (Category 5) were rather rare. Interestingly, the 24-25 age category recorded no answers highlighting the aspect of luxury and prestige (Category 2).

According to the above categories, young people can generally be divided into two large groups:

- young drivers who see driving and owning a car as a meaningful activity *per se*, where owning a car and taking care of it are perceived as hobbies with a considerable emotional charge. This group is associated with Categories 1 to 3;
- young drivers who see driving and owning a car as means of achieving a certain goal; they are also aware of the negative aspects of driving and owning a car. This group pertains mainly to Categories 4 to 7: rational reasons for driving and obtaining a car predominate, while emotional charge has little significance.

As discussed at the beginning of this article, our findings may have practical implications for three major areas.

1. The reduction of CO₂ emissions through increasing the rate of sustainable modes of transport. This perspective promotes discussion about a choice of a mode of transport other than a car in young adulthood, i.e., a group of young people who will not obtain a car at all, or about a change in the preferred mode of transport, i.e., a group of young people who already drive or own a car, but are open to the possibility of reducing or even ceasing their use of their cars.

This perspective suggests the existence of a very promising (sensitive) group of young people who declare rather an instrumental attitude to driving and owning a car. In this respect, we may assume that incentives based on the promotion of good alternatives (in terms of price, quality, availability, etc.) will result in reduced preferences for the individual use of cars. As far as this group is concerned, we recommend focusing on the following measures:

- affordability and convenience of public transport;
- promoting the use of individual motor transport as a service (i.e., moving from the ownership of cars to them being borrowed), e.g., a car-sharing type of service;
- the provision of public transport, particularly in small towns and villages.

The area for intervention is rather limited as regards the group of young people who associate driving and owning a

car mainly with emotional experiences. In this case, we recommend focusing especially on interventions aimed at reducing risk-taking behavior.

2. The reduction of young drivers' accident rate by addressing their risk-taking driving behavior. As discussed earlier in this article, it is a well-known fact that young drivers, especially male ones, are overrepresented in statistics on road accidents and fatalities [1-5]. In addition, driving is also a complex self-paced task, which suggests that one of the reasons for young people's risky driving behavior has to do with their driving-related attitudes and opinions [8, 9]. In terms of addressing risky driving, of the above two groups of young people (their attitudes towards driving and owning a car determined by an emphasis on emotions and rational motives, respectively), the relevant target group comprises primarily those young drivers who define their relationship with cars through emotions (Categories 1-3) – cars and driving as passion, prestige, and a symbol of independence. We recommend that interventions targeted at this group of young drivers focus on their developing an insight into the risky nature of their driving, or delaying their authorization to drive (in general or by means of partial restrictions) until they have acquired such an insight (for example, applying a graduated license system – GLS). Naturally, the key intervention in this respect is driver education and training, which is elaborated on further below.

3. As for the education and training of young drivers, the implications of our findings lie especially in the higher levels of the GDE matrix (knowledge, skills, self-reflection, attitudes, beliefs, and lifestyle), with a focus on training aimed at developing insight and appropriate self-monitoring while driving. For obvious reasons, young drivers have little driving experience. It takes a lot of practice before expert levels are reached. While vehicle handling skills are relatively easy to master in only a few hours, skills such as anticipation of potentially hazardous traffic situations, e.g., those connected to understanding how the behavior of other road users will develop during the next few seconds, require years of practice. Given the two groups of young drivers (attitudes to driving and owning a car defined emotionally and rationally, respectively), those young drivers who define their relationships with cars in terms of emotions – Categories 1-3 (cars and driving as a passion, prestige, and a symbol of independence) – comprise a group that is at greater risk.

Education and training may help in addressing this risk. Education and training refers to the whole area of traffic safety education (secondary schools – youngsters aged 15-18), driver training and education in driving schools, testing (knowledge test, performance tests – practical exam, hazard perception tests), and licensing. The GDE matrix (knowledge, skills, self-reflection, attitudes, beliefs, lifestyle), accompanied driving (private, supervised driver training), education by parents, and the influence of peers are issues to be addressed. Licensing approaches, such as the graduated licensing system (GLS), feature about 20 different

components which are widely used. They include:

- night-time restrictions
- probationary driving licenses
- the introduction of a 16-year age limit
- driver training
- driver training which leads to the lifting of driving restrictions
- practical training associated with the driving test
- driving tests *per se*
- stricter blood alcohol limits
- a maximum number of traffic violations
- an event-data logger (“black box”)
- restrictions on the number of passengers
- restrictions regarding driving on motorways

These measures have to be studied further, as evidence of their effectiveness is not available in all cases.

4. Conclusions

As regards their attitudes towards driving and owning a car, young drivers may be divided into two major groups: the first defines its attitude to driving and owning a car in emotional terms – driving for the sake of it, passion, prestige, or a feeling of independence – while the second group may be defined as comprising drivers whose attitudes towards driving and owning a car are primarily rational; they perceive their driving and owning a car as means of achieving other goals. A more detailed breakdown may be used to identify seven different categories:

- Category 1 – a car as a symbol of independence and comfort
- Category 2 – a car as a matter of prestige
- Category 3 – a car as passion
- Category 4 – a car as a responsibility
- Category 5 – a car as an occupational resource, as a means of transport with no additional relationship assigned to it
- Category 6 – a car as a necessary mode of transport for living in rural areas
- Category 7 – a car as a financial burden

The first three categories pertain to the group of young drivers who define their attitudes towards driving and owning a car in emotional terms, while Categories 4 to 7 are characteristic of the second group of young drivers, who define their attitude towards driving and owning a car in rational terms.

As for gender-specific differences, a higher representation of male drivers can be observed in Group 1 (emotional relationship), particularly with respect to Category 3 – passion, a hobby, and a source of pleasure. There are also a higher proportion of males in Category 5, which is defined by an instrumental relationship with the car and driving at the occupational level.

As regards age-specific differences, we found that younger drivers (aged 18-21) are significantly more likely to

define their attitudes towards driving and having a car in emotional terms (especially those coming under Category 3) than older drivers (aged 22-25). On the other hand, the group of older drivers (aged 22-25) are more likely to define their driving-related attitudes in instrumental terms (Category 5) in comparison to their younger counterparts.

As for the practical implications of our findings, we recommend the adoption of measures at three levels:

1. reduction of CO₂ emissions through increasing the rate of sustainable modes of transport – it is recommended that these measures are particularly targeted at drivers who define their attitudes towards cars and driving in rational terms, using incentives intended to increase the attractiveness of alternative modes of transport;
2. reduction of young drivers' accident rate by addressing their risk-taking driving behavior – it is recommended that these measures are targeted at the other group of young drivers, who define their attitudes towards cars and driving in emotional terms, using especially activities intended to enhance young people's insight into the level of risk and improve their self-monitoring skills;
3. training and education of young drivers – in particular, we suggest intensifying training in relation to the higher levels of the GDE matrix (self-reflection, attitudes, beliefs, and lifestyle) and measures aimed at eliminating or delaying risk-taking behavior and driving – e.g., by applying a graduated licensing system (GLS).

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