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## ECONOMICS AND MORALITY CONFLICTS IN THE PUBLIC GOODS USING

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**Introduction.** The country's economic prosperity depends on economic, political, and social factors. A crucial component of a successful country's development is its culture, which accumulates moral and value guidelines for the individual's behaviour. Strict observance of moral rules is considerable for public trust formation, which is the foundation for social development. The relevance of the study is caused by the contradictions between individual and collective interests in using public goods. Individual interest gravitates toward cost reduction and avoiding payment for public goods. Instead, the collective interest consists in the moral obligation of the individual to pay for public goods for the general and individual well-being.

**Aim and tasks.** The purpose of the article is to interpret the phenomena of the economic, social, and cultural factors of the free-riding problem of public goods.

**Results.** An attribute of public goods is their nonrivalrous nature (the use of the good does not reduce the amount of the good available to others) and non-excludable (non-payers can use the good on an equal basis with those who honestly paid). The free-ride problem of public goods cannot be reduced to market regulation, whereas all communities benefit from the resources, regardless of whether they have paid for them (taxes, transport fees) or not. Regression analysis shows no relationship between economic and moral factors, in particular, the ability to pay for a good (using public transport) does not reduce the number of people who want to get it free of charge (free ride). The cost of the service (the ticket price) also does not affect the willingness to pay or not to pay for public goods usage. Thus, it can be recognized that the economic factor is not critical in using public goods.

**Conclusions.** Simultaneously, the social factor of compliance with rules and trust is principal. The awareness that other participants also pay for public goods gives moral satisfaction to the individual and positively reinforces his conscience. Individuals' consciousness and self-limitation form a cohesive community capable of development. Consequently, the social factor influences the individual's motivation and attitude toward the community's interests. Therefore, it can be assumed that the country's economic growth depends on cultural and social norms regarding compliance with rules and trust, in addition to other factors.

**Keywords:** culture, social norms, moral values, trust, economic growth, free-ride problem, individual behaviour.

## **1. Introduction.**

The social and economic result of a country's development is the sum of the individual's actions and their interaction. Individuals make decisions consciously and pragmatically (neoclassical school), allowing for economic factors: available resources, prices, and market conditions. At the same time, the decision-making process is influenced by beliefs (values and culture) and social norms. They are learned in socialization and form limitations in behaviour patterns and decision-making.

A community is an association of people to solve common goals, so collective interests should dominate here. Society's basis is cooperation and the mutual benefit of individuals. Moreover, here often arises a conflict of collective and individual interests, especially public and quasi-public goods use.

The collective interests are economic and social growth and an increase in the number of available goods. Group theory considers that if most individuals understand the need to contribute to the commons, the result can be projected onto the entire group. Therefore, it is assumed that all community members are interested in the general well-being.

Individual interest is the maximization of benefits. This motivation forms a rational interest and conditions for further actions. The individual actions are directed to form the structural space around him with the desire to maximize net benefit (Wallis, 2015; Yankovyi, 2020).

Public goods are used by all or most members of the community. The rules and ethics of public goods use are usually regulated by institutions and culture (social norms, rules of conduct, and traditions). The free-ride problem of public goods is controversial from the rational choice paradigm in economic theory. An individual can benefit from public goods without any cost. Since the maximum utility falls on free riding, it reduces the individual's motivation to pay (Hardin, 2003).

The research is aimed at revealing the economic, social, and cultural factors of the free-riding problem of public goods. Free riding of public goods becomes a problem when the number of free riders increases.

The free-ride problem of public goods disrupts the social system balance and reduces trust within the community and the desire to cooperate among conscientious community members. The consequence of such behaviour is a decrease in the motivation of all community members and the efficiency of the social system as a whole.

Another problem with the free use of public goods is a trust decrease in the effectiveness of the social system among community members. A minor crime convinces violators of impunity and provokes further and greater violations of the law. Conscientious payers witness the problem of free use of public goods and begin to doubt the government's ability to maintain security.

The free-ride problem is interdisciplinary. It is considered in cultural economics (free-riding aspects depending on the society's cultural characteristics), microeconomics (the cost of services, taxes, and fines for non-compliance), macroeconomics (the logic of collective actions directly affect the effective functioning of society), sociology (power of social norms, aspects of social interaction of individuals), ethics (morality and justice of free use of public goods).

Community members must resolve a social dilemma: to act in favor of the common good (knowingly paying for the use of public goods, such as public transport) or against it (acting for one's selfish motives). Ways to solve the problem will depend on economic factors (level of economic development), cultural (ethical norms of community members), and political (democratic regimes and civil society are capable of evolutionary social changes).

## **2. Literature Review.**

One of the most urgent dilemmas of social sciences is the problem of collective actions, which consists of the fact that the rationality of individuals is not a guaranteed condition for the rationality of the group. The logic of collective action and the diversity of community members' interests, in which a person may have conflicting interests that do not correspond to the group interests. In the case of pure public good, individuals tend to pursue their economic interests without following the idea of collective welfare (Shughart, 2004; Bazaluk et al., 2022).

The influence of society's culture and values on its economic results has been empirically proven in many scientific works. A relationship between social norms and compliance with laws has been established. Breaking the law (tax evasion, substandard production, corruption, aggressive behaviour, etc.) depends on social norms. Individuals tend to break the law more often if it does not conform to social norms.

At the same time, tighter laws (banning behaviour) have the opposite effect – it causes an increase in lawlessness, and there is opposition to the implementation of laws. A more effective influence on social norms and behavior is the tightening of laws (Acemoglu & Jackson, 2017; Omarov, 2020; Bazaluk et al., 2022).

The interaction of criminal behavior and social order is well demonstrated in the theory of broken windows. According to the author's theory, the high number of serious crimes in cities is the result of a lenient attitude towards petty crimes, such as vandalism, graffiti, evasion of subway fares, or certain types of antisocial behavior. Visual disorder signs and crime create the illusion of chaos and anarchy and thus implicitly contribute to even more disorder (Kelling & Wilson, 1982).

When analyzing culture, it is important to note that culture is a dynamic phenomenon, it refers to knowledge about the consequences of human actions. This knowledge is formed in childhood and acquired through cultural learning from parents to children. During life, the individual acquires his own experience, and existing knowledge is updated through experience or experiments and gradually changes from one generation to another. The generation's model and values learned from the experience of previous generations explain why deep cultural values change very slowly (Guiso et al., 2007; Inglehart, 2020).

The peculiarity of cultural values is that they are perceived as generally accepted (by default), and do not require proof. Interaction between individuals takes place according to certain rules, because "it is accepted". This creates in other members of society a sense of predictability of another's behaviour. Rational cultural beliefs minimize the costs of waiting for the possible actions of others.

Thus, cultural beliefs support Nash equilibrium in repeated social interactions (Greif, 1994).

Culture evolves, and this process has a lot in common with Charles Darwin's theory of evolution, the genetic evolution of species. Evolutionary changes that occur in genetics also exist in culture. Cultural change refers to socially acquired information such as knowledge, beliefs, attitudes, norms, technology, and language. For example, variation (guided cultural change, transformation, invention), inheritance (horizontal and vertical cultural transmission, blending of cultural variations), selection (cultural selection bias), and migration (cultural diffusion). Thus, cultural change can be viewed as a process of inherited variation that changes as a result of selection, drift, migration, and other processes.

The main idea of Charles Darwin's evolutionary theory is that any changes in nature can be described by three key principles: variability, competition, and imitation (Mesoudi, 2017). Changes in culture have appeared in the language (vocabulary changes, spelling rules), religion (online services appear), and communication forms (electronic, messengers, emoticons, memes).

Let us consider the principles of evolutionary theory in the example of the ethics of using public goods. Change is seen through new technologies that give rise to new forms of communication (short messages in messengers), transport (the use of electric scooters), methods of use (public, shared use), and payment methods (modern payment methods and loopholes that get away with fraud). Competition manifests at the level to find the most convenient resources, and services and even the improvement of criminal methods. The imitation principle is that an individual acquires learning and skills through cultural learning from other individuals. In addition, the majority rule applies when individuals try to follow the community rules as most members.

The study of cultural evolution has great importance for predicting long-term cultural changes at the societal level. The analysis of cultural evolution is based on the historical memory of society, and the collective experience of the nation.

It provides an opportunity to understand how cultural prejudices were formed and changed and what the cultural code is now. And this, in turn, can help in the basis of cultural changes, and the development of new, relevant social norms. Analysing these cultural studies, it can be concluded that further research on morality is needed, in particular on the injustice of public goods free riding (Ostrom, Ostrom, 2019). This research can contribute to a better understanding of economic, social, and cultural differences in the attitude to public goods among different countries.

### **3. Methodology.**

A regression model of the dependence of the moral values (avoidance of payment in transport) on economic (the ticket cost and the level of income per capita), social (level of trust), and cultural (level of abiding with rules) factors were used.

The input data are the results of the World Values Survey sociological statistics (2005-2009, 2010-2014, 2017-2021). The question concerns the individual's subjective assessment of justifiable to avoid a fare in public transport (Inglehart et al., 2022). Responses range from 1 (never justifiable) to 10 (always justifiable). The calculation of the index was carried out using the weighted average indicator method. The number of countries in the sample varies depending on the wave of the survey: the 5th wave of the survey (2005-2009) has data from 52 countries, the 6th wave (2010-2014) – 56 countries, the 7th wave (2017-2021) – 69 countries.

Such data has certain limitations for research analysis because there is a very high likelihood that individuals are answering the questions not from their current position but from a desire to improve. Note that this restriction applies to all sociological studies. At the same time, cross-cultural quantitative and time-series survey statistics make it possible to conduct a comparative analysis and understand the differences between moral values in the examples of different countries.

The second warning is that the assessment of ethical values is based on a sense of justice. Different cultures have different attitudes toward justice, which depend on society's value orientation (individualist, collectivist), the dominant religion, and the historical past.

Despite all the warnings, cross-cultural and time-series data analysis can contribute to a better understanding of the logic of collective actions and the peculiarities of public goods used in countries with different cultural values.

### **4. Results.**

The broken windows theory makes it possible to assume that the economic and social benefit will consist in responding to minor offenses and eliminating the consequences of minor crimes. This helps to create a tidy environment and will encourage the majority to keep order. Petty crime (violation of traffic rules, avoiding fare on public transport, non-payment of taxes, littering, broken windows, and architectural vandalism) gives the criminal a sense of impunity and demonstrates to other community members the system's inability to fight crime. This creates a sense of impunity and anarchy. If the community is not able to prevent crime, then the number of such illegal cases can be predicted to increase.

The key problem here is not the crime itself (avoiding fare in public transport, a broken window), but the meaning conveyed to others. A well-organized world that appears safe is a reflection of collective action effectiveness. This is a kind of message to all community members and strangers – the system works well, everything is controlled, and criminal actions are unacceptable. Let's consider the economic and social reasons for committing petty crimes in the example of avoiding fares on public transport.

#### **4.1. Economic factor.**

The free-ride problem of using public goods, first, has an economic basis. The availability of financial resources and the ability to pay for public goods using is the first important factor that potentially affects an individual's behaviour. The economic reason for the free riding of public transport may be the high-ticket cost or the low income of the individual. A regression analysis of moral values and economic factors was carried out. No correlation is between the ticket cost and avoiding a fare in public transport. Correlation and causality are absent. Thus, the cost of the service is not a determining factor for the individual (Table 1).

**Table 1. Regression analysis of moral values and ticket cost.**

	World		Europe	
	correlation	R <sup>2</sup>	correlation	R <sup>2</sup>
Average cost for public transport, 2018, \$	-0,291	0,149	-0,320	0,186

Source: compiled by the authors according to the Haerpfer et al. (2022), Statista (2020).

Let's test the hypothesis about the prosperity influence (based on GDP per capita data) on moral values. A time-series analysis of the three survey waves did not reveal a

relationship between income level and moral obligation to pay for the use of public goods (Table 2).

**Table 2. Relationship between moral values and GDP per capita.**

	2005-2009	2010-2014	2017-2022
R <sup>2</sup> (Index, avoiding a fare in public transport* / ln GDP per capita)	0,170	0,097	0,161
Countries number**	52	56	69

Source: calculated by the authors based on Haerpfer et al. (2022), and World Bank (2022).

\* Justifiable: Avoiding a Fare on Public Transport. Equivalences in other waves: 2005/2009 – V199, 2010/2014 – V199, 2017/2022 – Q178.

\*\* The survey time-series data contain different countries number by years.

Based on the data analysis, it can be confirmed that the free-riding problem does not have economic reasons, since the desire for a free ride of public goods does not depend on income or the cost of the ticket. The unexpected result of the lack of dependence on moral values with economic values can be explained by the low value of the goods for the individual. The price of the ticket is usually not high, and the very fact of avoiding payment of the fare in transport has the character of a petty crime, for which there is no shame and no big punishment is foreseen. And this is where the moral dilemma arises. If it is not so weighty and economically feasible, then why avoid paying?

#### 4.2. Social factor.

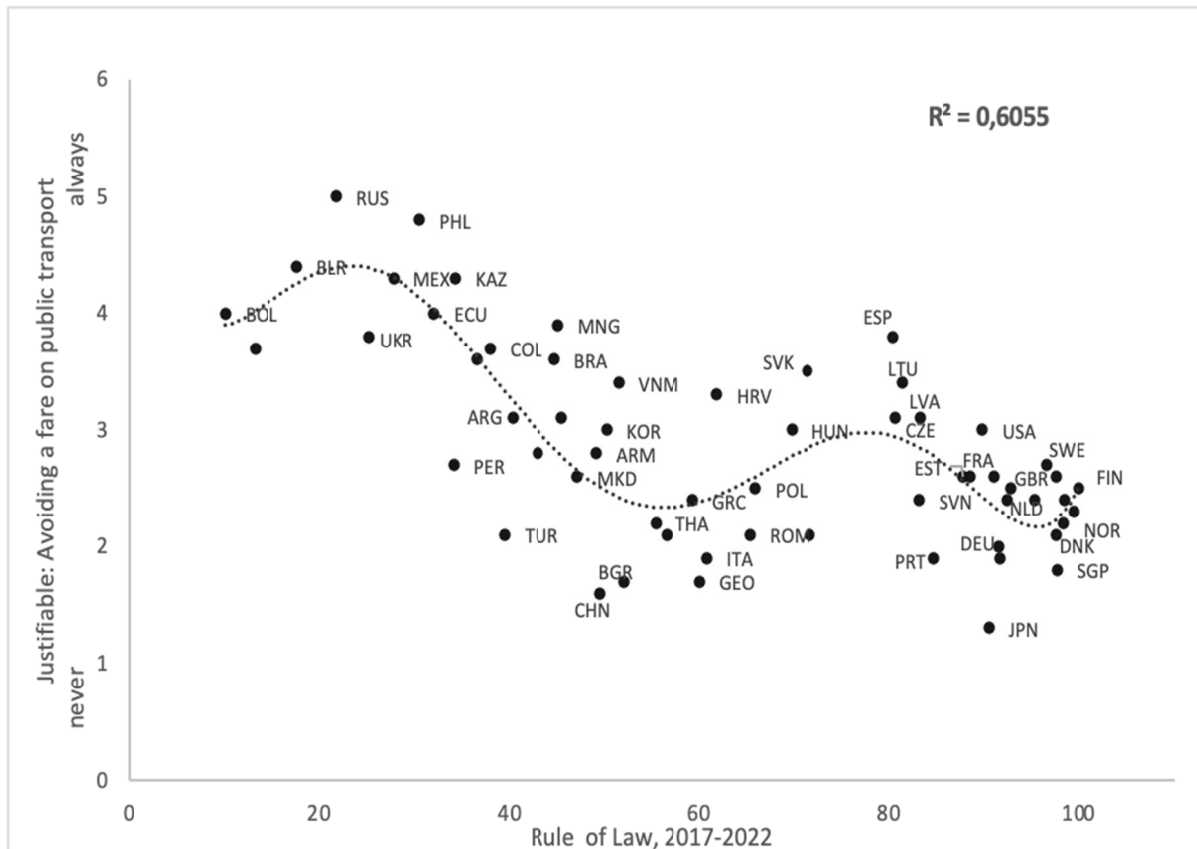
A system of moral self-control is important in reducing illegal behaviour and maybe even more effective than laws. It is based on social norms and is implemented by community members through encouragement or a sense of shame.

Regular minor offenses become the norm over time and lay the groundwork for larger, more serious offenses. In addition, offenders non-verbally signal to others that the system is vulnerable, defenceless, and unable to cope with crime. And this, in turn, opens the door for future violations. The moral rules of society are the result of the cognitive abilities of individuals and cultures.

They are acquired in the process of socialization, within the interaction of individuals, including under the influence of social pressure. This factor becomes especially significant in small groups and small towns, where members of the community know each other or have mutual friends. The importance of moral norms lies in the guidelines formed for an individual's behaviour and the ability to predict the actions of other individuals.

Let's test the hypothesis regarding the influence of cultural and social factors on the example of the rule of law. The World Bank indicator (Rule of law) measures the degree of trust in society's rules and their observance. The value of the indicator demonstrates the government's effectiveness in the fight against crime, the predictability of the judicial system, and the fulfilment of social obligations and contracts (Worldbank, 2022). The index ranks countries in terms of the fairness and predictability of the rules, and social norms, which form the basis for law and order, and economic and social interactions. Higher values of the index reflect respect for social rules and the rule of law; lower values indicate selectiveness of justice and disrespect for social rules.

The regression coefficient between the rule of law and morality is  $R^2 = 0.6055$ , which shows a strong level of influence (Fig. 1)



**Fig. 1. Dependence of the moral values index on the rule of law.**

Source: calculated by the authors based on Haerpfer et al. (2022) and Worldbank (2022).

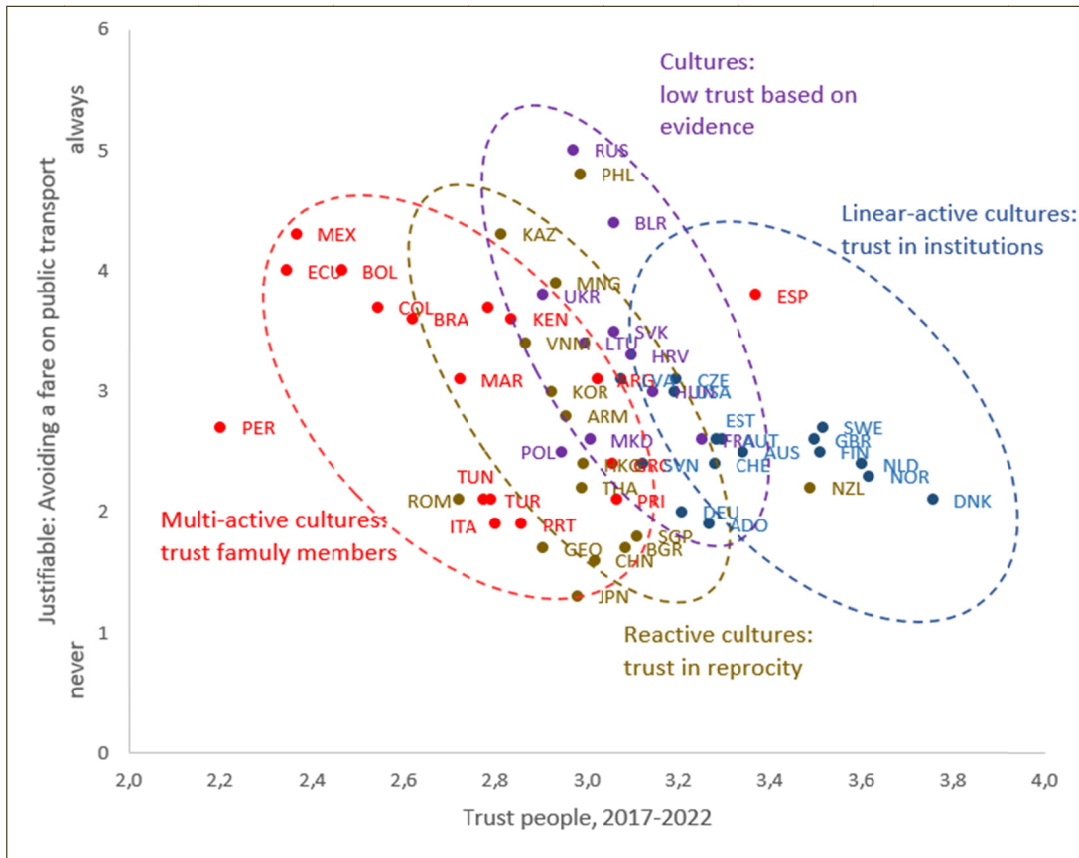
The morality choice is determined not only by the person's distinct characteristics but is also a social indicator of an individual's awareness of being a part of the "I am one of them" community.

Under such conditions, a feeling should be formed: "There is a rule according to which you have to pay for public goods. All members of the community pay, so I have to pay too". This rule works in countries with a high level of rule of law.

At the same time, in distrusting conditions of social order or other community members, the individual seeks to receive the benefit for free, but he has no motivation to pay. Irresponsible pragmatism is in contradiction with moral and cultural factors.

### 4.3. Cultural factor.

The trust in other members' community factors has significant cultural differences. It is determined by the conditions of social development, historical factors, etc. Differences in trust between different countries were defined by Lewis (Cross Culture, 2015). He singles out multi-active (trust family only), linearly active (trust in institutions), and reactive (trust in reciprocity) cultures Cross Culture, 2015). Next, the dependence of the choice of morality on trust is analysed based on data from the World Values Survey and R. Lewis's cultural map (Fig. 2). The World Values Survey's trust scores match the Lewis cultural distribution with a few exceptions (Cross Culture, 2015).



**Fig. 2. Dependence of moral values on trust.**

Source: calculated by authors based on Haerpffer et al. (2022) and the Cross Culture (2015).

Citizens of countries that have a high level of trust in others are more conscientious, this is what linear-active societies (blue) look like. Multi-active countries (red) have a low circle of trust only in family members. As a result, behavioural patterns of more and more fare avoidance are observed. Reactive cultures (brown) and countries with slow trust based on evidence (purple) are located in the middle between polar blue and red. The figure clearly shows the cultural differences in the circle of trust between different countries.

Thus, in the absence of the importance of the economic factor, the influence of social and cultural factors on the free rider problem was discovered. Note that the problem of payment for the use of public goods is very important and forms the basis of the efficiency of the entire social system. Obviously, with no regulation, the problem of a free ride of public goods can lead to the collapse of the public goods system. Therefore, it is important to respond to the commission of petty crimes, reduce the number

of free riders and form moral standards (understanding the value of good, responsibility, and conscience). It is moral and ethical values in addition to economic ones (taxes and market competition for a certain set of goods) that can contribute to a better understanding and regulation of payment procedures for public goods (Bilodeau, Gravel, 2004).

**5. Conclusions.**

The value system is the basis of a country's culture, it includes everything that was created by the community in the civilization. Moreover, cultural values (understanding the logic of collective actions) can contribute to economic and social development. At the same time, there are some factors restraining economic growth (free ride of public goods, paternalism, low level of public activity, communist past). For example, if the country has a problem of free-riding public goods and there is complete mistrust in the community, this may become a danger to the social balance.

Is it possible in the country to form an understanding of the importance of public goods and the value of growth? How successful will the experience of bringing effective cultural practices from one country to another be? The answers to these questions are not unambiguous. However, if the process of evolution and social development is accompanied by a change in worldview and values, then effective social norms can be formed taking into account cultural practices. Governments of different countries often pass laws without taking into account the social norms. However, such solutions may turn out to be ineffective. Economic decisions must take into account social norms and the country's cultural code. The existing cultural code (cultures of high or low trust, individualistic or collectivist culture) and the past of the nation will create the frameworks and limitations for the development of new social norms, values, and practices.

The free-riding problem is debatable, has great social significance, and does not have a single effective solution. Approaches to solving the problem depend on the country's social system (democracy – authoritarianism), the level of economic development (a limited set of goods – the welfare state), cultural aspects (individualism–collectivism), the strength of social norms and the level of trust.

We assume that the free-riding problem can be solved by changing cultural norms and institutions. Institutions change when it makes economic sense, such as to make a profit or reduce transaction costs. The game rules remain unchanged when the cost of changing them can be high. Let us try to expand the ideas of changing institutions to the category of social norms. A new idea or norm can be adopted by the community if it is economically beneficial or there is a demand for it, and if the majority of the community members begin to follow these rules.

It is important to note that there is a system of formal (law enforcement) and informal (moral self-restraints and active civil society) control. Informal social control can be even more effective than laws. It is very important to reduce uncontrolled behavior.

Beliefs, moral norms, and culture are the result of the country's collective experience. Social norms are formed based on the search for the optimal form for the interaction of individuals under the conditions and are gradually adjusted and established as generally accepted. So, it can be said that today's norms are the result of events in the past. Accordingly, current events will shape future social norms.

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