

**IFTE 2018**  
**4th International Forum on Teacher Education**

**SUPERSTITIOUSNESS AND PARANORMAL BELIEFS OF  
UNDERGRADUATE STUDENTS DEPENDING ON THEIR  
UNIVERSITY MAJOR**

Ildar R. Abitov (a)\*, Inna M. Gorodetskaya (b), Rezeda R. Akbirova (a),  
Leisan R. Sibgatullina (c)  
\*Corresponding author

- (a) Kazan (Volga-Region) Federal University, 420008, 18 Kremlyovskaya Street, Kazan, Russia, e-mail: ildar-abitov@yandex.ru  
(b) Kazan National Research Technological University, 420015, 68 Karl Marx Street, Kazan, Russia, e-mail: innamgor@mail.ru  
(c) Kazan Higher Command Armor School, 420059, Orebgusky trakt, 6, Kazan, Russia, l-s95@mail.ru

*Abstract*

This research study addresses the differences in the manifestation of superstitiousness and paranormal beliefs of undergraduate students depending on their major (engineering, science or humanities). According to sociological data nowadays in Russia there are a lot of people who believe in the paranormal, perform various rituals or visit folk healers, fortune-tellers and psychic mediums. Superstitiousness and beliefs are observed among various demographic groups, including university students. Superstitiousness as a part of university students' worldview should be thoroughly studied by psychologists and educators to be able to foresee the social trends. In the given study a hypothesis was made that students majoring in engineering and natural sciences have lower indexes of superstitiousness and paranormal beliefs than those who study humanities. The population of the study included 90 bachelor students: Group I – 30 engineering students, Group II – 30 students studying humanities (philology, psychology and sociology), and Group 3 – 30 students studying science (physics, biology, mathematics, chemistry). The hypothesis was proved: no statistically significant differences were revealed between engineering and science students, but both groups differ much from humanitarians who tend to be more superstitious.

© 2018 Published by Future Academy [www.FutureAcademy.org.UK](http://www.FutureAcademy.org.UK)

**Keywords:** Superstitiousness, paranormal beliefs, university students, undergraduate students, engineering, natural science, arts and humanities.



## 1. Introduction

Sociological researches in Russia prove that a significant part of population believes in paranormal phenomena and observe different rituals. In 2013 the Institute of Sociology (ISRAS, Russian Academy of Sciences) carried out a research that showed that about 67% of female population in Russia visited witches, folk healers or fortune-tellers. About half of respondents believed in witchcraft and more than half of the sample group believed in extrasensory perception (the data from non-governmental organization “Levada Center” and The All-Russian Public Opinion Research Center). Recent polling revealed that 36% of Russian population trust astrologists and 32% believed in alien civilizations.

### 1.1. Relevance of the Study

According to sociological data nowadays in Russia there are a lot of people who believe in the paranormal, perform various rituals or visit folk healers, fortune-tellers and psychic mediums. Superstitiousness and beliefs are observed among various demographic groups, including university students. Superstitiousness as a part of university students’ worldview should be thoroughly studied by psychologists and educators to be able to foresee the social trends. Higher education implies the development of a scientific worldview, which may be considered as antagonistic to magical worldview and superstition as its manifestation. It is very important as young generation is the future of any society.

Thus the given research aimed at revealing superstitiousness and paranormal beliefs of students with special attention to their fields of studies to be able to predict the mentality of future professionals in engineering, natural and social sciences in Russia.

### 1.2. Literature Review

Paranormal beliefs and superstitiousness were studied by Grigoriev (2015), Ismodenova (2013), Saenko (2006), Strogalshikova (2012) and others.

Grigoriev (2015) in his article describes the validation procedure of the Tobacyk’s Paranormal Belief Scale. The inventory includes the following subscales (types of beliefs): “a) traditional religious belief, b) psi-related belief, c) witchcraft, d) spiritualism, e) superstition, f) extraordinary life forms, and g) precognition” (Grigoriev, 2015). It should be mentioned that the concept “superstitiousness” is very close to the category “paranormal belief” and may be considered as a synonymic one.

Ismodenova (2013) indicates that superstitions refer to social representations or to the forms of collective consciousness that are formed in the process of the joint life activity of people. Superstitions are considered as prejudices, preconceptions or beliefs in any otherworldly forces. Often unconsciously people assume that it is possible to secure oneself from these forces or to find a compromise with them. In the author’s opinion, superstitions, as a rule, manifest themselves at the behavioral level in reduced ritual forms: the use of talismans, tattooing, magic gestures, etc. Also, superstitions include belief in signs, when certain events are attributed prognostic significance. N.N. Izmodenova notes that most of the respondents she interviewed often use signs in their everyday lives even if they do not believe in them. According to the research findings the main reasons for using superstitions and magic are socio-psychological: fear, anxiety, insecurity, the desire to foresee the consequences of their actions. Belief in some unknown, but really existing forces, hidden connections between phenomena helps a person to gain confidence in himself and

in tomorrow. Respondents are convinced that mass media played the leading role in spreading the magical way of thinking (Izmodenova, 2013).

Saenko (2006) distinguishes three aspects of superstition. The *cognitive* component of superstition includes cognitive processes aimed at recognizing and categorizing unfamiliar events and situations, as well as anticipating the possible consequences and choosing a strategy of behavior accordingly. The emotional states that an individual experiences in the potentially dangerous or desirable phenomena reflecting his/her actual needs represent the *affective-motivational* component. The *behavioral* component of superstition includes ritual symbolic actions designed to protect a person when a threat arises, trigger a desired event or prevent an undesirable event.

Saenko (2006) thinks that superstitions formed by various irrational fears. Following signs a person seeks to protect his identity and emotions from anxiety and fear. The behavioral component of superstition assumes that superstitious ideas control human behavior in society and in the the physical world. The research and empiric findings showed that superstitiousness was directly correlated with anxiety and external locus of control of students. Saenko (2006) considers superstitiousness as a form of anxiety alongside with neurotic symptoms and religiosity.

Stogalshikova concludes (2012) in her study that the evil eye belief is a type of attribution of failure and a psychological defence (like reducing anxiety, etc.).

All these data led the authors to the idea that superstitiousness can be considered as a specific trait of an individual world-view, his/her personal relation to reality. In modern psychology the studied phenomenon is very close to so-called category of faith. According to Dvoynin (2011) faith is a type of an internal relation of a personality, a specific form of mythologized world-view and perception of the reality. Basing on this definition it is possible to consider superstitiousness as a special type of faith since it also implies individual relation to events that occur and mythologizes the personal attitude towards reality. Religious faith assumes that there exists supernatural, almighty God who has the power to regulate everything that happens in the world, including human beings and their lives. Superstitiousness is a type of faith when people believe in the cause-and-effect relationship between different occurrences or isolated human activity (or inactivity) and possible troubles that may happen after that, as well as the belief in various supernatural beings (ghosts, spirits, etc.) and their ability to influence humans. Thus psychologically superstitiousness and religious faith are not opposite categories, vice versa they may be considered as various manifestations of one and the same belief in the supernatural.

According to Pascal Boyer, the structure and functional mechanisms of a human being's mind determine supernatural beliefs and superstitiousness. The cognitive apparatus is able to work with "supernatural" ideas with a tendency to endow supernatural creatures with anthropomorphic features and consciousness, and the ways of communication with them are built according to the basic rules of social relations. So, according to Boyer (1994), the morphology of human mind predisposes to percept and take into consideration paranormal believes.

Religious (mainly Christian) myths can explain the origin of several superstitions (according to Wiseman). For instance, the "baker's dozen" (belief that the number "13" is unhappy) is a reminding of the story about the Lord's Supper where there were 13 people and one of them soon betrayed Jesus Christ. The author also explains such superstitions as forbiddance to pass beneath a ladder leaned against a wall, etc. Wiseman (2011).

## **2. Problem Statement**

Superstitiousness and paranormal beliefs form a special type of faith. The cognitive, behavioral and affective-motivational components may be distinguished in the phenomenon of superstitiousness. A superstitious person believes in the cause-and-effect relationship between different occurrences or isolated human activity (or inactivity) and possible troubles that may happen after that, as well as the belief in various supernatural beings (ghosts, spirits, etc.) and their ability to influence humans; in extrasensory perception, fortunetellers, astrology, etc. The problem was to analyse the peculiarities of manifestation of superstitiousness and paranormal beliefs among students.

## **3. Research Questions**

The main Research Questions were:

- 3.1.** To find peculiarities of superstitiousness and paranormal beliefs of undergraduate students depending on their university major (engineering, natural sciences and humanities).
- 3.2.** To observe correlations of various parameters of superstitiousness and paranormal beliefs in the studied sample group of students.

## **4. Purpose of the Study**

The study aims at revealing the superstitiousness and paranormal beliefs in students in connection with their university major. According to the hypothesis engineering and natural science students are more likely to develop materialistic belief system than students majoring in social science in humanities, more prone to mysticism, religion and spiritual concepts.

## **5. Research Methods**

### **5.1. Research Tools**

Two diagnostic instruments were used in the empiric study of superstitiousness and paranormal beliefs: The Paranormal Belief Scale (Grigoriev, 2015), and the Superstitiousness Inventory (Abitov, 2018).

The Paranormal Belief Scale includes 26 items that form 7 subscales (Grigoriev, 2015) (1 – “strongly disagree”, 7 – “strongly agree”).

The study included also an original 30 item inventory “The Superstitiousness Questionnaire” that reveals behavioural patterns determined and prescribed by signs and beliefs integrated in the contemporary mentality of Russian citizens. Open questions gave an option to include also individual and popular superstitions and beliefs that were not included in the list by the author. Each statement was evaluated with the use of a 4-points scale (Abitov, 2018). The face validity of the inventory was also tested during the empiric procedure.

The survey was completed via the Internet: respondents got the on-line version as a link by e-mails.

The data distribution was normal; the correlations and differences were analysed by the methods of parametric statistics. The acquired data were processed using Pearson's and Student's coefficients.

### **5.2. Population of the study**

Undergraduate students from the four state Russian universities located in different cities (Kazan, Novosibirsk, Cheboksary and Yaroslavl) formed the sample of the study. The total of 90 Bachelor: 30 engineering students (Group 1), 30 humanitarian students (Group 2, Linguistics, Psychology and Social Studies) and 30 Natural Sciences students (Group 3, Chemistry, Physics, Mathematics and Biology) took part in the survey.

## 6. Findings

Student's correlation criteria revealed no statistically significant differences between Group I and Group 3 (engineering students and Natural Sciences students). Students studying humanities (Group 2) showed higher indexes of the following scales: a) traditional religious beliefs ( $p \leq 0,05$ ;  $t = - 2,379$ ) and b) spiritualism ( $p \leq 0,001$ ;  $t = - 3,060$ ) in comparison with students studying science (Group 3). Also humanitarian students (Group 2) showed more significant traditional religious beliefs ( $p \leq 0,05$ ;  $t = - 2,488$ ) and beliefs in spiritualism ( $p \leq 0,01$ ;  $t = - 2,826$ ) in comparison with engineering students (Group 1).

Humanitarian students tend to follow religious tradition: they are more prone to believe in God, devil, paradise and hell comparing to their engineering and natural science peers. Besides they have a stronger manifested faith in possibilities to contact with the spirits of dead people, in reincarnation and different types of out-of-body experiences.

The revealed differences between the student groups show the specifics the so-called "naturalistic" and "humanitarian" paradigms that determine the choice of profession by young people and that may be further developed during the university studies. Humanitarian students often develop mystical or religious concept of the world (or their combination). In their cognition they focus on personality, human capabilities and existential laws. Young men and women choosing engineering and science as their future profession are interested in the universal laws of nature and development, not in the study of a human being and such specific issues as spirituality, meaning of life, existential fear and other philosophical concepts.

The correlation structure of the studied parameters in all sample groups is similar: all the parameters have statistically significant correlations with each other. This indicates the unified framework of superstitiousness and faith in the paranormal regardless of the peculiarities of sample groups.

## 7. Conclusion

Superstitiousness and paranormal beliefs are rather spread among undergraduate students in contemporary Russia. According to the acquired data humanitarian students have a more mystical and religious world-view than students who choose engineering or natural sciences. There are no significant differences between the engineering and natural science students. Naturalistic and humanitarian paradigms imply different attitude towards faith issues and in their turn may greatly influence cognitive strategies, behaviors, motivation and communicational patterns of young people. Therefore university educators should pay attention to the revealed peculiarities in the educational process.

## Acknowledgments

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

The work was supported by the research grant of Kazan (Volga Region) Federal University.

## References

- Abitov, I., Gorodetskaya, I., Akbirova, R., & Sibgatullina, L. (2018). Superstitiousness and Paranormal Beliefs of Engineering Students Comparing to Students Majoring in Sciences, Arts and Humanities. *Revista ESPACIOS*, 39(10).
- Boyer, P. (1994). *The naturalness of religious ideas: A cognitive theory of religion*. Univ of California Press.
- Dvoynin, A. M. (2011). Psychology of Believer: Values and Meanings and religious faith of a person. St. Petersburg: Rech.
- Grigoriev, D. S. (2015). Adaptation and validation of the Paranormal Belief Scale by J. Tobacyk. *Social Psychology and Society*, 6(2), 132 – 145.
- Ismodenova, N. N. (2013). Superstitions as a way of living of the educated population groups. *Proceedings of Kola research center of the Russian Academy of Science*, 6(19), 20-35.
- Saenko, Y. V. (2006). 'Psychological aspects of the superstitions studies'. *Voprosy Psichologii*, 6, 85-97.
- Strogalshikova, M. Y. (2012). *Socio-psychological peculiarities of superstitiousness as a phenomenon*. PhD Thesis Summary (19.00.05 – Social Psychology). Moscow.
- Wiseman, R. (2011). *The strange logics of our behavior. Psychology of lies and deceit*. Moscow: ACT, Astrel.