

# On the Relationship between Adolescents' Tendency to Superstition and the Source of Control

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## **Abstract**

We live in a real world but we still see the existence of many beliefs that do not match up with any logic but magic! This study aimed at identifying the relationship between superstition and locus of control and finding out whether people with more superstitious beliefs were more in an external locus of control or internal. Two hundred and fifty students in grades one, two and three in Beheshti high school in Qazvin, Iran participated in this study. To measure source of control, Rutter questionnaire consisting of twenty nine items was used and superstitions were also evaluated using a questionnaire. The results revealed that there was significant relationship between external sources of control and having superstitious beliefs. The results also highlighted the fact that while the relationship between two variables of research was positive, but with the increase in the score of the external and internal source of control, positive relationship with the superstitions variable was reduced.

**Keywords:** locus of control- superstition- adolescents' tendency

## **Theoretical Background of the Study**

Humans from ancient days, when they could see nothing but themselves and the world around them and in this hostile world that the power of nature had forced them to defeat, had a willingness to believe in supernatural thoughts and the belief in the existence of influential and even powerful forces than nature, his eternal enemy. All of us are familiar with tales of witches, and countless legends and charms that change everyone's life in a fairy tale. The more these myths and superstitions are prevalent among people, the stronger and more intense they become the basis of thoughts and beliefs of people. Superstitions and beliefs have no scientific proof capabilities. Usually when people have a strong superstitious belief about a phenomenon they can tell exactly what happened, but they cannot logically explain why this happened. (Askik, 2002)

What is needed to discuss about is how this human, after survival and development in the field of technology and readiness against the forces of nature, still clutching to thoughts that is contrary to scientific principles and even against the laws of superb nature! Nowadays we call these thoughts and beliefs, superstitions. Could be the prevalence of superstitious thoughts is because perhaps humans are looking for of the reason of events around them and because they can't find it, they become disappointed and brings up the paranormal phenomena

to calm their troubled mind that there's something they do not know about, rather than saying that things are happening accidentally. As "Malinowski" says: "people resort to magic when they cannot inhibit Living conditions and incidents through knowledge." Is believing in superstitions happens because we assume that one random event is the reason of another event?

"Khorafe=superstition" is an Arabic word, and the root of it is "Kheref= idiocy"that means picking fruit. "Khorafe=superstition" with attached the letter "Kh", means anecdote, story or an immoral and wrong idea, and the plural of it is "Khorafat=superstitions". Superstition in Larousse dictionary means deterioration of mind. In the lexicon of Amid (1365, p. 1001) the definition of the word superstition is "unfounded beliefs that are not compatible with reason, logic and reality." Also in the Oxford Dictionary, superstition defined as fictitious and legendary speech, incorrect understanding of cause and effect, fear of the unknown and radical belief in supernaturalism factors and any unreasonable and unfounded belief. (Oxford, 2005) and in Longman Dictionary it means irrational belief based on old beliefs about luck, magic, etc. (Longman, 2012), superstition also means following void and unfounded beliefs that have nothing in common with the culture and wisdom of the society that superstitious person belongs to. (Molavi, 1382, p. 1)

Superstition in Hastings Encyclopedia of Religion and Ethics defined as a tend to ascribe incidents to supernatural or occult influences and regulate the behavior toward this approach that we should use the evils and damages that will bring forth these effects. (Hastings, 1980) Apparently the prefix "super" implies some indulgence and extravagance; this extravagance can be considered generally as exaggerating a reasonable belief to be of some supernatural factors, with a willingness to accept unproven words about spiritual or magical intervention in the material world.

Based on the book of psychology of superstition, Jahuda define superstition in this way: "Any thought or irrational act and illogical fear or dread of something mysterious and fantasy and a doubt or habit that its basis is ignorance or fear, is called superstition." (Jahuda, 1371, p. 5)

Robert Ingersoll offers a practical definition of superstition. He defines superstition as:

- Believing in things that there isn't any empirical evidence for them
- Estimation of a secret by another secret
- Believing that the world is guided by chance and whim
- Presentation of thoughts, desires and intentions with reference to their basic nature
- Believing that the mind is not able to control phenomena
- Believing that energy is beyond its nature or nature is beyond its energy
- Believe in supernaturalism
- Believe in miracles, magic, spells and divination

Kohler also believes: "Superstition is an irrational or unscientific belief about the role playing of phenomena in the world and this belief either formed based on imitation or it is accompanied by (usually) ill desires. So superstition is always accompanied by charms, magic and spells. Superstition is a belief or thought that has no scientific support and it's about a thing, situation, event or special act to be ominous. (Random House English Dictionary, 2012) A

superstitious mind is the one that doesn't know how to understand and identify the characteristics of signs and/or has no patience for judging unknown phenomena. (Gardner, 1980)

As humans go through the stages of growth, based on the experiences of each period, they experience certain characteristics. Paul B. Balts quoted from James W. and Vender Senden that different elements affect the changes of human growth, including: the normative effects related to age, normative effects related to social-historical context and non-normative effects. Heinz Werner is one of the theorists of transformational school; his theory is very similar to Piaget's theory. There are a couple of thoughts on the evolution of "self", one of its type is geometrical-technical intelligence, which includes logical and scientific intellection. In advanced industrial cultures geometrical-technical thinking increasingly dominates the idea of a child that is growing. Another type of thinking is physiognomy, which is predominant in early childhood. A child by this type of thinking considers the world to be alive and animate and does not distinguish between inanimate and animate objects. This is what Piaget called (animacy). One of the stages of human intellectual development is the tendency to magic and to assume that things are all animated and it can be with humans even in adulthood. (William C. Crane, 1985)

Now this question comes to mind that if a man in his process of thinking makes a mistake or get an unrealistic understanding and make it real to relieve from stress and anxiety, can it be classified as superstitious thoughts? If age plays an important role in the evolution of thinking, aren't adolescence and youth different in terms of acceptance of superstitious thoughts?

According to Werner in "Pioneers in psychology of growth", physiognomic perception, not only characterized young children, but also was used by primitive tribes without a written culture and schizophrenic patients suffer from deterioration, because they usually think base on primary methods. It looks like the way of thinking of humans change due to being at different stages of growth.

Gallup Poll in a research concluded that three factors affect the belief of strange phenomenon: gender, age and education level. For example, women slightly more than men believe in spirits and communicate with the dead, and men are believe only in one thing more than women: that some creatures out of this earthly world, somewhere in the past, have visited the earth (Gallup Poll, 2001).

According to Piaget's cognitive theory, thoughts of adolescents after childhood, goes from objective to subjective operations. In this age a teenager is capable of reasoning and making assumptions. At this age, teenagers acquire new cognitive skills and that is an initiator of thinking about the non-objective phenomenon.

According to Rutter's theory people behave base on two type of control, internal and external control. People, who identified as characters with internal source of control, believe that the reinforcement they receive is under the control of their own behavior and attitudes. Those who have characters with external source of control think that the rewards they receive is controlled by others, fate, or chance. In other words, they are convinced that in regard of external forces, they are incapable, (Wallen P. Schultz, 2005). People with external control; quickly give up on their efforts, because they consider the control of their lives and their actions to be under the

influence of environment and external factors. A research has determined that efforts for our external control starts from childhood and becomes more prominent between 8 to 14 years old (Menger and Auckland, 2000).

External control is harmful for psychological health. (Krald et al. 2002, 2003; Thomas and Astitz). Several studies show that people with internal source of control are physically healthier than those with external source of control (Farahani,1378). Those with an internal source of control are more in control of their lives and are more responsible for ordering their lives (Ashby, 2002).

Carey Kaldy et al (2002) stated that internal source of control is directly related to mental and general health. Also, people with internal source of control report more satisfaction of life. Several studies of Farahani (1379) associated with source control, health and psychopathology show that people with internal source of control, have more psychological adaptability. Married students, more than single students, tend to have internal source of control and depression among them is less likely than single students. Individuals with internal source of control more than those with external source of control have been interested in their field of study. The presence of suicidal thoughts and hopelessness about the future in those students who tend to have external source of control, is significantly higher than students who have internal source of control. Also tendency toward the internal source of control and depression levels in students showed a negative correlation. There was sharper drop in academic performance of students who have external source of control compared to those who tend to have internal source of control. (Pahlavian, and Mahboob, Zarabian, 1378)

The researchers (Baron & Byrne, 1991) believe that people with external control in competitive situations tend to give up more but at the time of cooperation, act as well as people with internal control. People with internal source of control in social challenges have more influence on their outcomes and stand up against the pressure of similarity. But people with external source of control have less inhibitory over events and in stressful situations, consider themselves unable to do anything. Besides, those with external source of control are more sensitive toward the signs that comes from the surrounding environment and show more attention to them, while people with internal source of control do not notice these subtle signs or do not respond to them.

### **Empirical Background of the Study**

Some studies (Libert & Aspigler, 1990) have shown that people with an internal or external source of control have different behaviors. Also in another study there was a significant correlation between religious attitudes, source of control, and tendency for substance abuse (Asghari, Kurdmirza, Ahmadi, 1392). In a study (Alborzi, 1391) named the mediating role of source of control on the relationship between the attitudes of working mothers about creative thinking and children's creativity, it was found that among the different aspects of maternal attitudes towards creativity, attitude towards game and attitude towards failure were positive and significant predictors of internal source of control, moreover, the attitude towards creative behavior and game, directly and positively predicted the creativity in children. The internal source of control was the positive and significant predictor of children's creativity.

The results of the study of Safarinia and Akbari (1391) showed that the risk-seeking behavior has a significant positive correlation with external source of control. Furthermore, external source of control has positive correlation with intuitive and dependent decision making styles and has negative correlation with rational decision making, while internal source of control has positive correlation with rational style. Also in another study, there was a positive correlation between age and source of control and between grade point average and self-esteem, while the source of control and self-esteem were negatively correlated. (Mirzaee Alavijeh, Rajai, Rezaei, Hassanpour, Piruzeh, Barzabadi, 1390).

The results showed that there is a significant difference between the source of control of students who are undergoing critical thinking and students who have not taken this training. This means that critical thinking can change some of the traits and characteristics and in this paper our intended characteristic is source of control and the impact of critical thinking on this variable. (Safarinia, Zare, Hassani, 1391)

A significant correlation was observed between loneliness and external source of control (tendency toward chance) in boys, who are not athlete. According to the relationship between loneliness and external source of control (tendency toward chance) in boys, who are not athlete, it can be said that boys who are not athlete and have external source of control with the belief that they have less control over the events of their life, feel more alone. Also, the existence of significant differences in internal source of control between two groups indicates that athletes have more control over their own lives and consider themselves responsible for their successes and failures. (Shamsaee &Yusefi, 1386).

In the results of research of Hassanzadeh (1381) we found significant relationship between intrinsic motivation and academic achievement. Another result of this study showed that there is a significant relationship between internal source of control and academic achievement as well. Also, there is a significant positive relationship between motivation and internal and source of control. Coleman et al. (1966) concluded that the belief in fate or destiny is an important factor that affects student's achievement. Falberg (1979) reported that the perception of control can be considered as a causal variable. In Hall's research (1978), the results showed that students who have internal source of control, are actively trying to make a better environment for learning. Such people choose, organize and create their environment; in the same manner that they believe they can optimize their learning ( Mafson and Novivski, 1991).

The results of research of Pelot and Eichmann (1968) suggests that individuals with external source of control than people with external source of control have a longer time perspective for the future.

About superstitions, very few studies have been done in Iran, but we can find more results in foreign researches. Sepehr M. (1376) conducted a study entitled "The best examples of factors, causes and ways to fight superstitions, intellectual rigidity and fanaticism". This study showed that in the field of religion, there are many superstitions in Iran. "The way to deal with superstitions" as another study that was performed by the secretariat of the general council of Lorestan province (1375). In a research named, "The study about the tendency toward superstition among Tehran citizens" by Foroughi and Askari Moghaddam (1388) it was

recognized that among the various ethnic groups, Persians and Turks believe in superstitions more than others. In terms of jobs, students had the highest level of belief in superstitions and employees of private companies, as well as school administrators and academics had the lowest level of belief in superstitions. In another study that was conducted by I.U. Cinco in 2005 in department of History, Physics and Mathematics among 132 students, it was found that, generally 7/76 percent of students always or sometimes believe in superstitious.

Peltzer and Werner in 2003, in a study, interviewed taxi drivers in South Africa, and concluded that drivers, who are more inclined to superstition, drive less carefully. The rough estimates show that US businesses every Friday the thirteenth lose between 800 and 900 dollars.

Also researches that has examined the relationship between gender and the tendency to superstition, suggests that women are generally more likely to believe in superstitious thoughts than men. An average superstitious belief among men was 73/25, while among women it was 76/25, which indicates that women compared to men, are more superstitious (Foroughi & Moghaddam, 1388)

Also to prove this hypothesis we can refer to researches of Peltzer (2002), Zab and Barbara (2003) In Colombia and Grifets and Bingham (2005). Some studies also focus on the inverse relation between superstitions and education such as the study of Bokhari and others (2002), Foroughi and Moghaddam (1388), Nadushan, Najafabadi and Heidari.

Also, based on studies that has been done in many countries by using the theory of guilt, Freudian theory, deprivation theory, social learning theory and the theory of role, It can be said that women are more religious than men. (Dewas, 1376) In another study, conducted by Arvin, Talborn and Peltzer it became clear that the more religious, the more inclined to superstition, in this regard, perhaps we could find a relationship between religion and superstition. This study intended to investigate the relationship between adolescents' tendency to superstition and the source of control among them. In other word, this study finds to answer for the following research question:

1. Are there any relationships between Iranian adolescents' tendency to superstition and the source of control among them?

## **Methodology**

### **Participants**

A sample of two hundred and fifty female students in three grades in Beheshti high schools in the city of Qazvin participated in this study. The age of the participants ranges from 15 to 19 with Persian as their L1 and none of them have the experience of living in another country.

### **Procedures**

To conduct this research, survey was used and data collection method is a questionnaire with closed questions. The study population included 250 girls in grades one, two and three in Beheshti high schools in the city of Qazvin and the sample size is 200 persons. The independent variable in this study is source of control, and the dependent variable is the tendency to

superstition. To measure source of control, Rutter questionnaire consisting of 29 items was used (reference). The pre-test determined that to maintain reliability, three items (items 1, 3 and 24) should be removed. Each item consists of two clauses (a) and (b) that one of them should be selected by the respondent. After re-encoding items, their scores were calculated as an indicator of source control so that higher scores indicate external source of control and lower score indicates internal source of control.

Superstitions were also evaluated using a questionnaire (reference). Superstition was measured theoretically and practically; thus, with 16 items, the respondent belief in some superstitious was questioned and in 10 items of them the respondent were also questioned about doing or referring to these superstitious and in case of referring he was asked if he get any result or not. Cronbach's alpha coefficient was used to calculate the reliability of the variables that is presented in Table 1. Reliability of both variables had the extent necessary (0/7).

Table 1. reliability of the related variables

Cronbach's alpha	variable
0/705	Source of control
0/758	Tendency to superstition

### Results

In order to find out any possible relationship between Iranian adolescents' tendency to superstition and the source of control among them, the data obtained from the students' responses submitted into SPSS.

Table 2 shows the distribution of population of research in different classes.

percentage	Abundance	Class
50/0	90	First
30/6	55	Second
19/4	35	Third
100	180	Total

Figures 1 and 2 are Histograms of source of control and the tendency to superstition variables and Table 3 shows statistics related to them.

Figure 1: Histogram of source of control variable

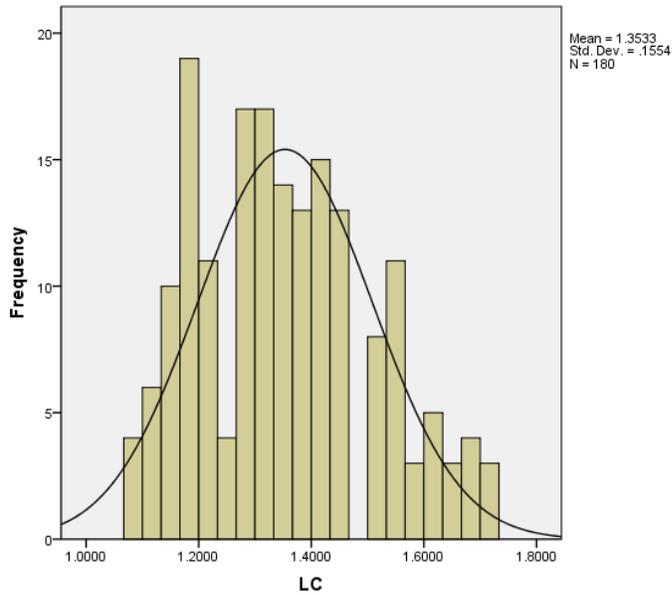


Figure 2: Histogram of tendency to superstition variable

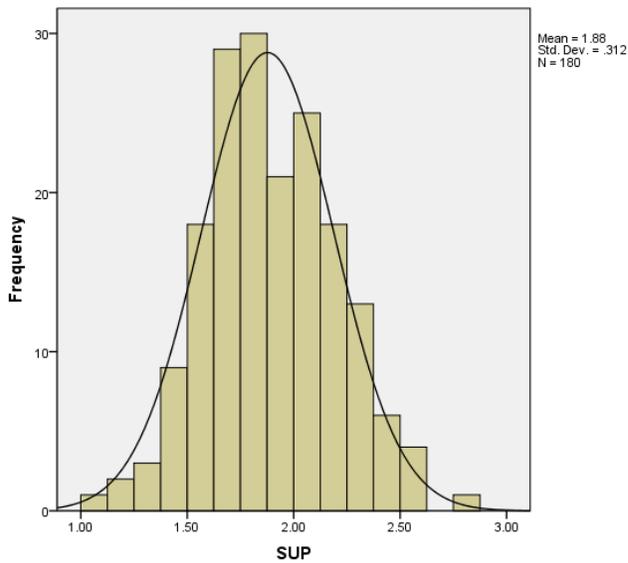


Table 3: Description of independent and dependent variables

Elongation	Skewness	Standard deviation	Mean	Maximum	Minimum	Variable
-0/445	0/444	0/1554	1/3533	1/7308	1/0769	Source of control
0/003	0/111	0/3117	1/8771	2/81	1/00	Tendency to superstition

According to the grading of questionnaire, the change scope of source of control is between 1 and 2, so the more individual's score is closer to 1, the more introverted he is, and the more closer to 2, the more extroverted he is. As it can be seen from the histogram, the distribution is close to normal. This issue was also confirmed by, making the Kolmogorov-Smirnov one-sample test, meaningless. (Significance level 0/126 for source of control and 0/710 for the tendency to superstition) So doing parametric analysis is possible. Pearson correlation test shows a significant positive correlation between external source of control and the tendency to superstition.

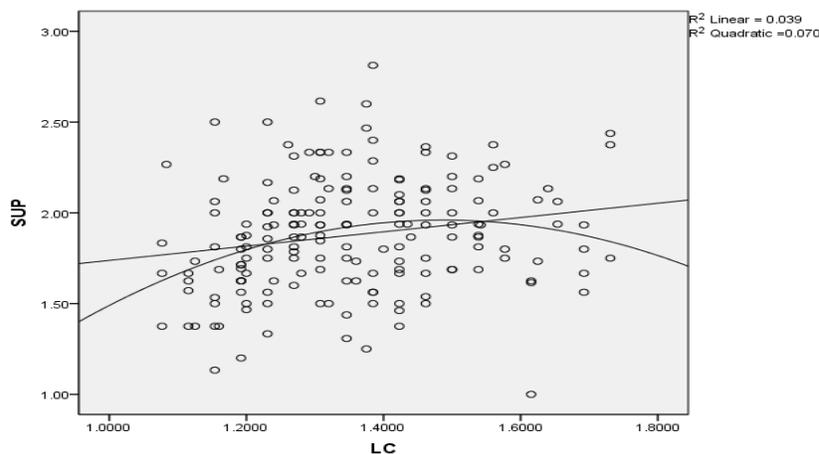
Table 4: Pearson correlation between the source of control (external) and a tendency to superstition

Practical superstition	tendency to superstition	
0/114	0/196	Pearson correlation coefficient
0/127	0/008	Significance level
180	180	Number

The results of Table 4 confirm the research hypothesis. However, though the relationship between source of control and tendency to superstition is positive and significant, but it is not a strong relationship. Furthermore, there is no significant relationship between source of control and the practical aspect of superstition.

For a more detailed examination of the relationship between the variables of the research, the scatter plot between source of control and tendency to superstition is presented in Figure 3.

Figure 3. The scatter plot between source of control and tendency to superstition



The coefficient of determination (R<sup>2</sup>) of the regression line is 0/039, but when the contribution model was used this ratio increased to 0/070. So it can be concluded that increase in fitting in the contribution model shows the existence of a nonlinear relationship (quadratic) among the variables of the research. In other words, the bottom and top of score of source of control, (that is those who have excessive internal or external source of control), than those between these two categories, are less likely to have superstitious tendencies. Nonlinear regression equation is as follows:

(Source of control)  $1/986 - (\text{source of control}) 5/905 + -2/429 = \text{tendency to superstition}$

### Conclusion

What the statistics obtained from research indicates is that there is a significant relationship between external source of control and having superstitious beliefs. And the less people tend to control their own lives, the higher they believe in superstition. Another thing that was obtained from statistics indicates that while the relationship between two variables of research is positive, but with the increase in the score of the external and internal source of control, positive relationship with the superstitious variable is reduced. It can be suggested for further researches and finding an answer for this incident in the research. You may need to use a mediator variable for further study on the impact of various factors on the variables of this study. Also in some studies the relationship between religion and superstition was mentioned, it is also recommended for further studies.

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