

KONDA

Barometer

THEMES

**Scientific Thought and Unscientific
Beliefs**

January 2013



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1. EXECUTIVE SUMMARY

DEFINITION OF THE SURVEY

The survey which forms the basis for this report was conducted on January 12-13, 2013 by face-to-face interviews with 2611 individuals in 150 neighborhoods and villages of 104 districts -including central districts- of 30 provinces.

THEME OF THE MONTH: SCIENTIFIC THOUGHT AND UNSCIENTIFIC BELIEFS IN DAILY LIFE

This month's theme was designed to understand to what degree the society esteems irrational superstitious beliefs on a personal level and irrational conspiracy theories on a national level and the significance of unscientific beliefs in social life.

Our findings indicate that in all social clusters, scientific thought is rather strong and that superstitious/mystical beliefs such as carrying an evil eye bead, visiting fortune tellers and pouring lead (to melt lead and pour it into cold water over the head of a sick person in order to break an evil spell) are in fact not very common. On the other hand, conspiracy theories in national level such as electoral frauds and telephone tapping are widely accepted. However, the most striking finding regarding conspiracy theories and regarding this month's theme in general is that belief in such theories rise parallel to the rise in scientific beliefs and educational level. In other words, the segments which would normally be expected to reject such unscientific conspiracy theories are in fact the ones who esteem them the most.

Remarkable findings in the theme of scientific thought and unscientific beliefs are as follows:

- The society's score on scientific thought is 3.6 on a scale of 1 to 5.
- Religiousness does not completely contradict with believing in science and even the most religious cluster shows high rates of scientific thought.
- Concerning unscientific beliefs, the society draws a clear distinction between matters in personal and national level.
- 70 percent believe that certain states intervene as to who will rule Turkey; 64 percent believe that telephone tapping spreads throughout all telephones in Turkey and 53 percent believe that there is nationwide electoral fraud in vote counting.
- Superstitious/mystical beliefs are gathered under two groups: beliefs that find acceptance in modern life such as astrology, following horoscopes and Turkish coffee fortune-telling and more traditional beliefs that are partially based on religion such as oblation, visiting holy tombs or wearing muska (Muslim amulet).





2. THEME OF THE MONTH: SCIENTIFIC THOUGHT AND UNSCIENTIFIC BELIEFS

2.1. Conceptual Framework

In almost all newspapers in Turkey, there is a horoscope section. Young girls visit holy tombs before marriage and offer oblation. In the entrance of high-technology buildings there are evil eye beads. A university graduate soccer fan does not go to a match without his lucky scarf. There is a saying “Don’t play with a gun, devil will load it.” These are all unscientific beliefs, behaviors and daily routines that have no explanation in rational thought. For some people, such behavior and routines are not to be taken seriously since they are small and harmless rituals in daily life.

However, studying irrational behavior is important in several aspects thus various scientific disciplines do just that. “Rational choice theory,” which is commonly discussed in political science, means that, when deciding on which party to vote for, people evaluate all available information and vote for the party which will bring maximum benefit to themselves. Similarly in economics, it is a basic principle that when people purchase something they behave rationally and act according to the motivation of maximizing economic benefit, and behaviors that contradict with this principle such as waiving a possible profit for environmental awareness, are confusing for economists. It is possible to state that for political science and economics, irrational behaviors are basically problematic.

Advertising and marketing experts, on the other hand, are more realistic on rationality because their focus is on appealing to the consumers’ emotions rather than to their logic.

In psychology and sociology, irrational, i.e. superstitious beliefs and behaviors are strived to be comprehended in a different aspect. For instance, they try to reveal why a soccer fan insists on wearing his lucky scarf, although he is very well aware and rationally understands that this will not affect the result of the game. A study in this regard summarizes the psycho-sociological grounds of superstitious beliefs as follows:

- Not knowing the nature of objects and events
- Desire to know the future
- Fear and stress
- Despair
- Shift in sacralization
- Need for safety
- Becoming successful and confident
- Feeling of uncertainty
- Need for social adaptation
- Attributing the responsibility to other powers
- Dreams and imagination

Superstitious beliefs resulting from the above grounds have three basic functions:



- 1) *Control*: Creating a feeling that the person is able to control certain things about himself/herself;
- 2) *Cognitive*: Creating a consistent and functional semantic system for solving problems;
- 3) *Emotional defense*: Providing protection and relief from negative feelings or uncertainty.

As for the framework of KONDA Barometer, which aims to achieve an understanding of the Turkish society, unscientific beliefs and behaviors are interesting for two reasons. Firstly, the political polarization in Turkey depends upon the assumption that two contrasting ideologies are clashing: a secular and modern pole that believes in Western rationality and leaves out both superstitious beliefs and religion due to their irrationality against another pole that is based on religion and beliefs that excludes scientific works and acts in the light of traditional beliefs. If this assumption, in which rationality and science are crucial constituents, is true, this should be reflected on the daily routines and lifestyles of people and those sections of the society which act rationally or do not should be distinguishable.

On the other hand, beliefs that are not based on scientific grounds are not limited to daily, small and “harmless” matters: Certain irrational ideas which cannot be explained scientifically end up being discussed in the media such as assumptions that it was not a coincidence that the epicenter of the 1999 earthquake was Gölcük where the Naval Command resided, there are nationwide electoral frauds in ballot boxes and the ticks that carry Crimean-Congo Hemorrhagic Fever virus were brought to Turkey as biological weapons. The positions of the poles strengthen so long as these discussions continue.

Then how rational is the society? How far does the society believe in science? Are there really two poles that do and do not believe in science? How common are superstitious beliefs and behaviors? How common are national superstitious beliefs which can be named as conspiracy theories and who believes in them? Barometer this month examines scientific thought, unscientific beliefs, superstitious beliefs and conspiracy theories in order to find answers to these questions.



2.2. Questions

Component Matrix ^a							
	Component						Dimension
	1	2	3	4	5	6	
Truth can only be achieved by science.	.677						SCIENTIFIC THOUGHT
The only reasonable and logical way of knowing is science.	.668						
Mysteries of life and universe can be solved through scientific endeavors.	.638						
The most exciting aspect of science is the fact that anything can be challenged.	.605						
A scientifically underdeveloped country cannot be expected to be democratic.	.538						
I have lead poured when necessary.		.624					MYSTICAL BELIEFS
I wear evil eye beads and hang them in my home and workplace.		.617					
I visit holy tombs for oblation.		.537					
I practice Turkish coffee fortune telling or have it told.		.530					
I carry muska or prayer and give them to my loved ones.		.514					
I pay attention to not crossing under a staircase.		.376					
Foreigners who purchase land and buildings in Turkey do so in order to divide the country.			-.539				CONSPIRACY IN NATIONAL LEVEL
Certain states intervene as to who will rule Turkey.			-.530				
There is nationwide electoral fraud in vote counting.			-.522				
Telephone tapping spreads throughout all telephones in Turkey.			-.463				
The United States is involved in natural disasters such as 1999 Gölcük earthquake and 2011 Van earthquake.			-.316				
I believe that zodiac signs explain people's characters.				-.573			INTEREST IN ASTROLOGY
It is possible to predict the future by fortune telling.				-.543			
Science does more good than harm.					.478		SCIENTIFIC THOUGHT-2
I have sufficient information on what global warming means.					.466		
Science and technology bring ease, comfort and health to our lives.					.443		
A person can overcome difficulties by acquiring knowledge however cannot change one's faith.						.641	FATALISM
The first sale of the day in a store may bring good or bad luck.						.561	
Extraction Method: Principal Component Analysis.							
a. 6 components extracted.							



All questions posed in the survey regarding scientific thought and unscientific beliefs are stated on the above table. When designing the questions, the distinction between beliefs and actions/behaviors was taken into consideration as well as questions referring to life on personal or national level.

Upon the application of the statistical technique of “factor analysis” to questions and answers, the above table is achieved.

In factor analysis, questions that function parallel in terms of answers, in other words questions that measure the same thing are grouped. The values next to the questions show the explanatory power of the question on the factor up to a maximum of 1.

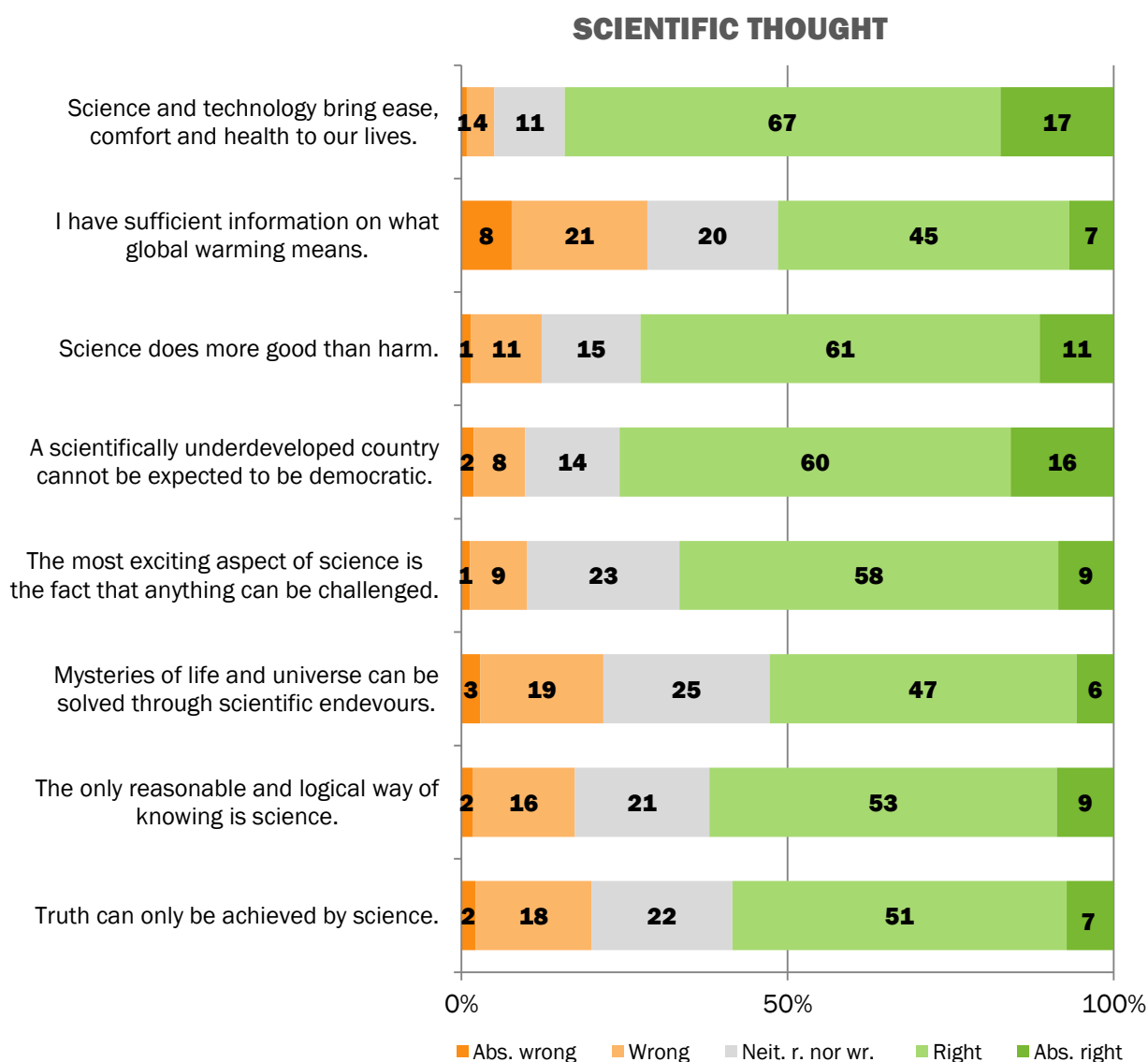
As it is apparent, the factor analysis also draws a distinction between life on personal or national level. However it turns out that there are four different dimensions of the questions pertaining to personal life. We name these dimensions in terms of the content of the questions as scientific thought, interest in astrology, fatalism and mystical beliefs.



2.3. Scientific Thought

In order to put the unscientific views and superstitious beliefs of the society into a framework, we first had to ascertain how far scientific thought and mentality penetrated into the society. Therefore as source of information, we posed questions relating to scientific thought and conception of a rational society.

85 percent believe that science and technology make life easier, 76 percent believe that a scientifically underdeveloped country cannot be expected to be democratic, 74 percent believe that science does more good than harm, 67 percent believe that the most exciting aspect of science is the fact that anything can be challenged, 62 percent believe that the only reasonable and logical way of knowing is science, 58 percent believe that truth can only be achieved by science, 53 percent believe that the mysteries of life and universe can be solved through scientific endeavors.





On the other hand, 22 percent believe that scientific endeavors will not solve the mysteries of life and universe, 20 percent believe that truth cannot be achieved only by science and 18 percent believe that science is not the only reasonable and logical way of knowing.

Half of the society thinks that they have sufficient information on global warming whereas one fourth does not think their information in this matter is sufficient.

On a scale of 1 to 5, 1 is designated as lowest scientific thought, 3 as belief neither low nor high and 5 as highest scientific thought and calculation on this basis reveals that no demographical, political, social or cultural cluster has more than 0.2 points of difference about thinking that science and technology make life easier. That is to say, all different groups in the society are in consensus on the fact that science and technology make life easier.

On the opinion that scientifically underdeveloped country cannot be expected to be democratic, men and women, young and old people, those having educational degrees below high school level and university graduates have similar feelings and views. The average score of the society are 3.8 points out of 5. Regarding differentiation, it must be emphasized that no cluster has negative opinions on this matter and the difference between clusters does not exceed 0.5 points. The only significant difference is between white-collar and blue-collar workers where white-collar rate slightly higher.

CHP electoral base has the highest rate (4.04) whereas Ak Parti electoral base has the lowest (3.72). People who consider themselves “modern” have stronger beliefs in this regard (4.05) compared to those who consider themselves “traditional conservative” or “religious conservative.”

Alevis, non-believers and those who do not cover their heads more strongly believe that a scientifically underdeveloped country cannot be expected to be democratic compared to Sunnis, highly religious people and those covering their heads, respectively.

A slight increase in the belief that a scientifically underdeveloped country cannot be expected to be democratic is observed depending on the increase in income, from rural areas to metropolitan areas, from slums to luxury residences.

The rate of those who believe that truth cannot only be achieved by science does not differ according to age, sex and most significantly educational status and those who think so have almost equal rate (20 percent) within these groups. In terms of political preferences, merely 10 percent of the CHP electoral base do not approve the opinion that truth can only be achieved by science whereas almost all other party electoral bases show this rate as 20 percent again.

9 percent of non-believers share this view whereas the rate climbs up to 23 percent parallel to the increase in the rate of religiousness.



The higher the income level and residence level are, the lower the opinion on insufficiency of science is.

63 percent say that “the only reasonable and logical way of knowing is science” whereas who do not agree with this view is 18 percent. It is significant that those who disagree are higher in young people (22 percent) in comparison to other age groups. Educational level does not bring any difference in this regard while lifestyle does, namely disagreement rate is 13 percent among those with modern lifestyle whereas it is 24 percent among those with religious conservative lifestyle.

53 percent of the society believe that “the mysteries of life and universe can be solved through scientific endeavors” and those disagree rate 22 percent. Disagreement level is higher among young people and people with education status below high school level.

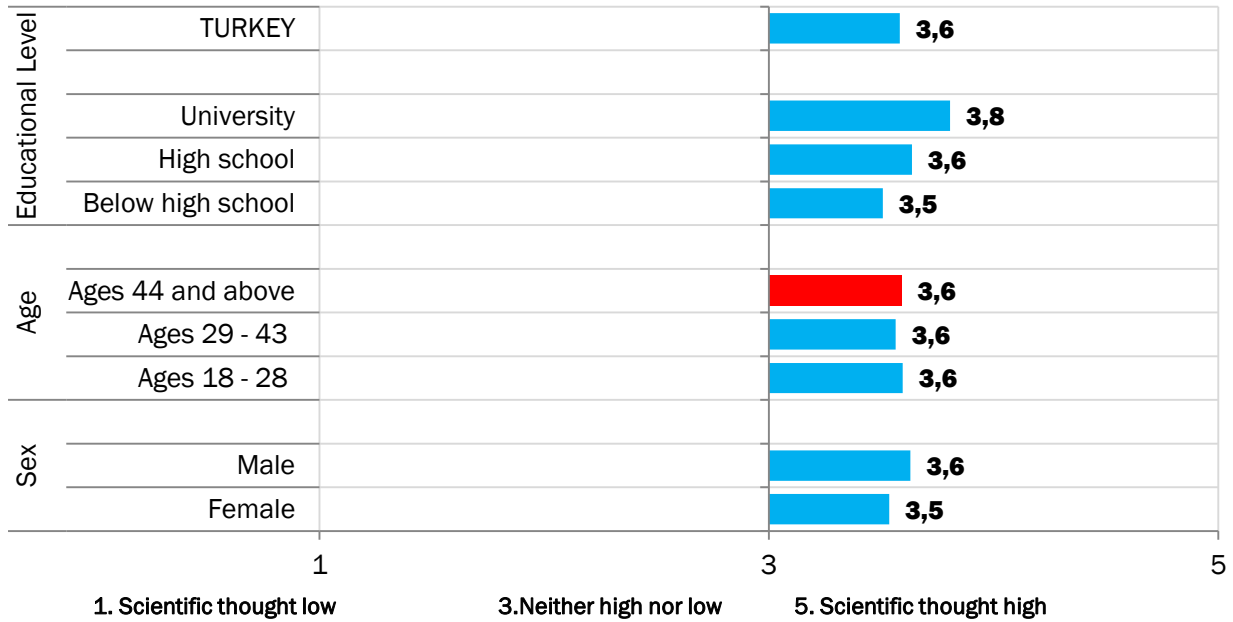
14 percent of CHP supporters and 24 percent of both Ak Parti and MHP supporters also disagree. Disagreement levels increase from modern lifestyle to religious conservative lifestyle, from those who do not cover their heads to those who do, from non-believers to devout.

2.3.1. Score on Scientific thought

It is shown that scientific thought in the society is in the positive side, i.e. scientific views predominate however they are not that strong. When eight questions on scientific thought are brought together and a common axis score calculation is made, the score of the Turkish society on is 3.58 which is in the positive side but still quite far from 5 points.



Scientific thought



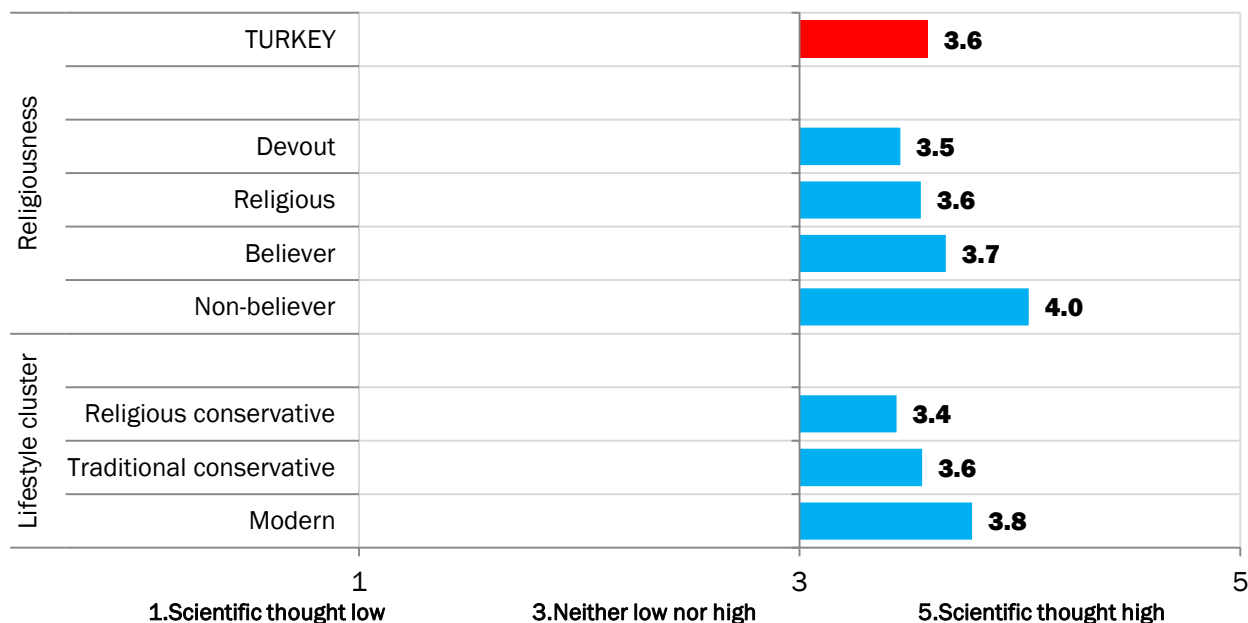
Although the score on scientific thought differs according to demographical, sociological and cultural clusters, none of them are radically higher or lower than the others.

Interestingly, the score on scientific thought does not differ according to age. The score of young people and old people on scientific thought is equal (3.59). As it would be expected, the increase in the educational level and scientific thought are parallel but not dramatically. Those having educational status lower than high school level have 3.51 points whereas university graduates have 3.81 points.

Those that have a modern lifestyle have the highest score (3.78) compared to others, who are followed by traditional conservatives (3.56) and religious conservatives (3.44).



Scientific thought



The highest scoring party electoral base on scientific thought is that of CHP's (3.81) and the lowest scoring is Ak Parti electoral base with 3.51 points.

No difference is observed between Turks and Kurds or Sunnis and Alevis. However those who do not cover their heads score higher than those who do and non-believers than devouts but the difference does not exceed 0.5 points in either of the comparison groups.

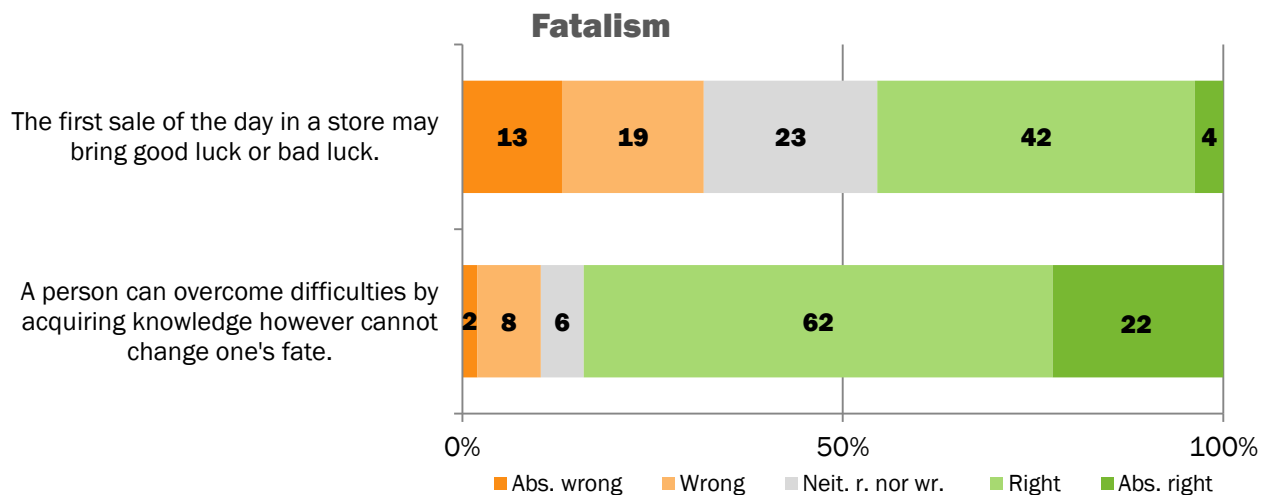
Slight increases are observed in scientific thought scores from lower to higher incomes or from rural areas to metropolitan areas or from slums to luxury residences.



2.4. Fatalism

84 percent agree with the opinion that “a person can overcome difficulties by acquiring knowledge however cannot change one’s fate” and those disagree are in 10 percent.

This conviction does not have any exceptions in any of the differences of society nevertheless just religious people and those that have religious lifestyle share this view more prominently and strongly.



The idea that the first sale of the day in a store may bring good luck or bad luck is accepted in 45.5 percent and rejected in 31.8 percent.

85 percent believe that fate is permanent

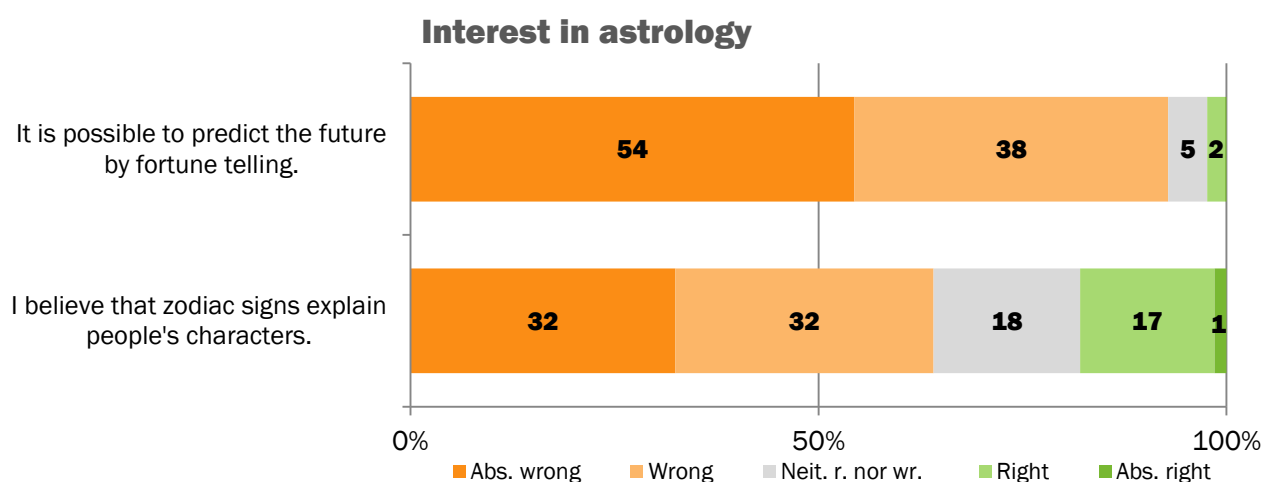
The fact of relating the first sale of the day with luck or unluck does not change significantly according to demographic or social clusters. Only Alevis have this belief much more strongly than Sunnis and non-believers have it much more weakly than believers.



2.5. Interest in Astrology

Fatalism is used as a way to measure people's ideas as to whether they could change their futures or not while interest in astrology aims to measure ideas as to whether the future can be predicted or not.

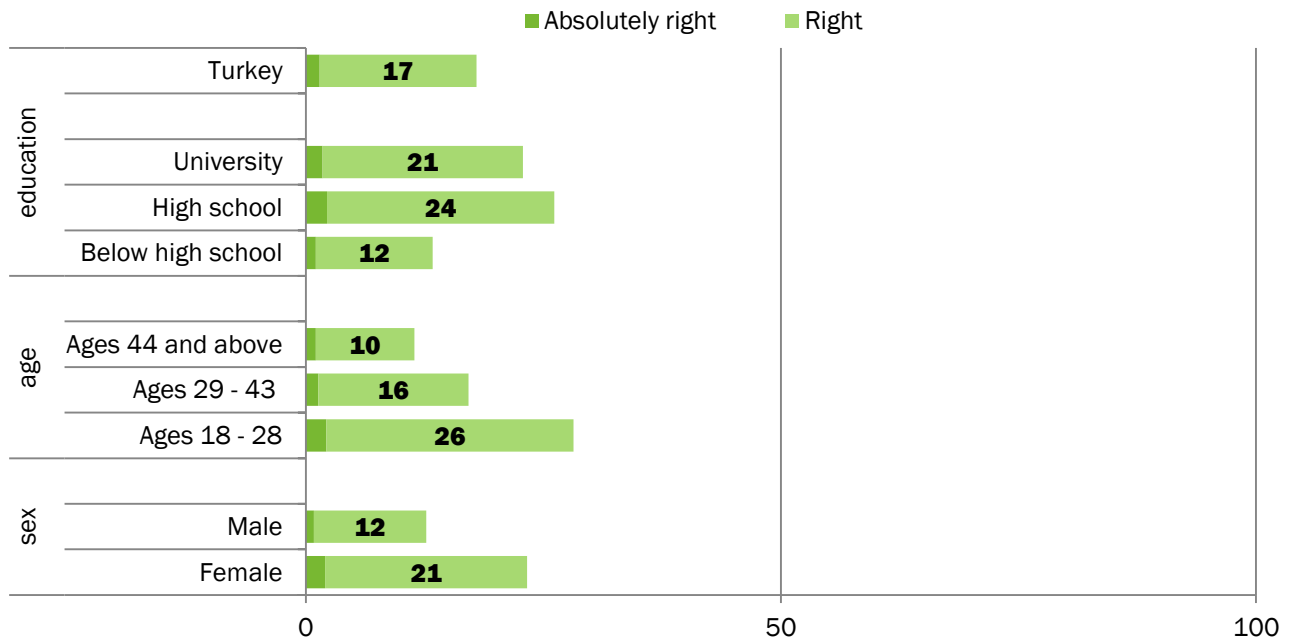
18 percent of the society believe that zodiac signs explain people's characters and 64 percent believe that they do not. It is observed that the two third of the society does not believe in the explanatory nature of zodiac signs.



On the other hand, those who say that “it is possible to predict the future by fortune telling” are almost none. Those who are clearly against it are 93 percent. Apparently, the saying widely used in daily life “do not believe in fortune-telling but do not remain without it either” pertains to a social reality. Disbelief in fortune telling is equal in almost all demographic, social and cultural clusters. Since fortune telling is considered a sin in Islam, a difference according to religiousness might be expected however even that does not constitute any difference.



I believe that zodiac signs explain people's characters

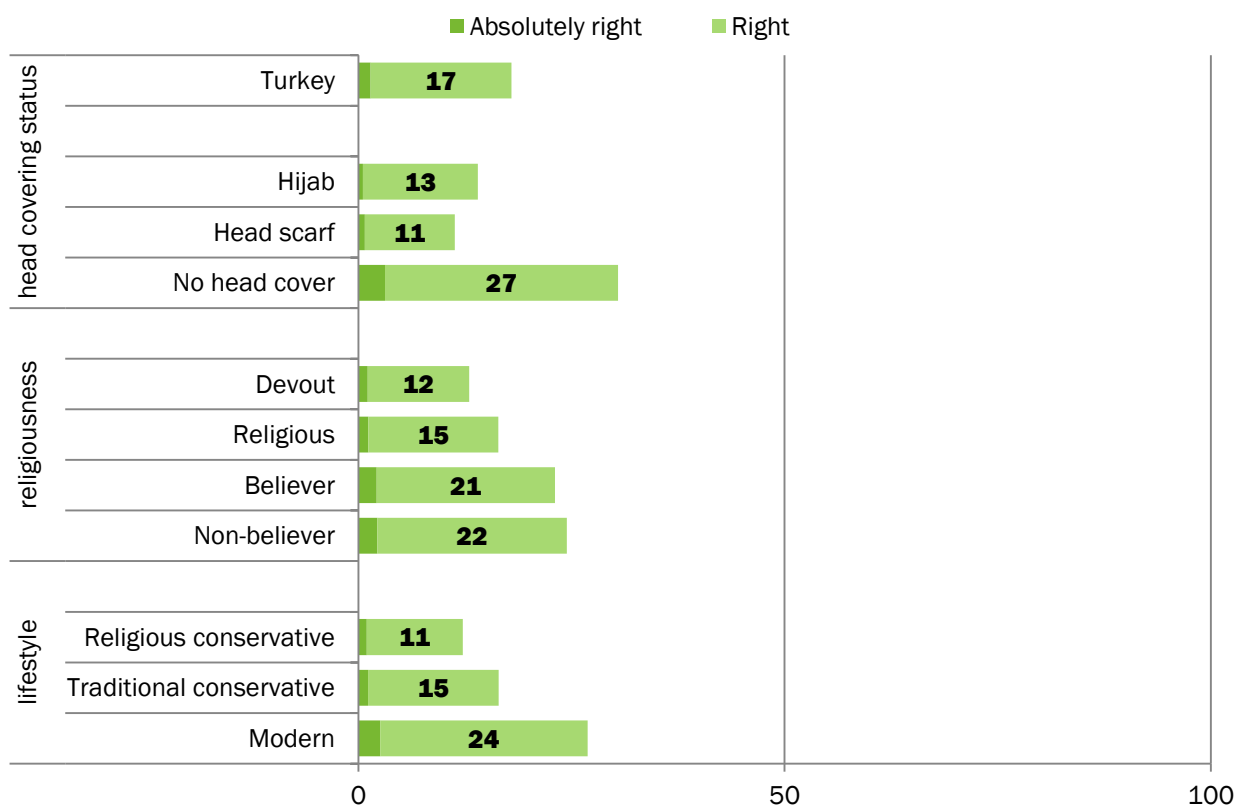


Women vs. men, young people vs. old people believe more in zodiac signs. Interestingly, university graduates are more inclined to believe in zodiac signs more than those having educational degrees below high school level do.

Those with modern lifestyle vs. conservatives, people who do not cover their heads vs. those who do and non-believers vs. religious people have higher scores of belief in the explanatory nature of zodiac signs.



I believe that zodiac signs explain people's characters



The average of these two questions, namely the interest in astrology in society, when calculated out of 5 points, receives 1.89 points as the average astrology score of the society which shows that interest in astrology is on the negative side. That is to say, although in daily life fortune telling and interest in astrology are observed to be common, there is in fact a low degree of belief especially in fortune telling.

When considered in terms of the average astrology score, all clusters as well as both female and male clusters and both young and old clusters are negative however the former are slightly higher than the latter.

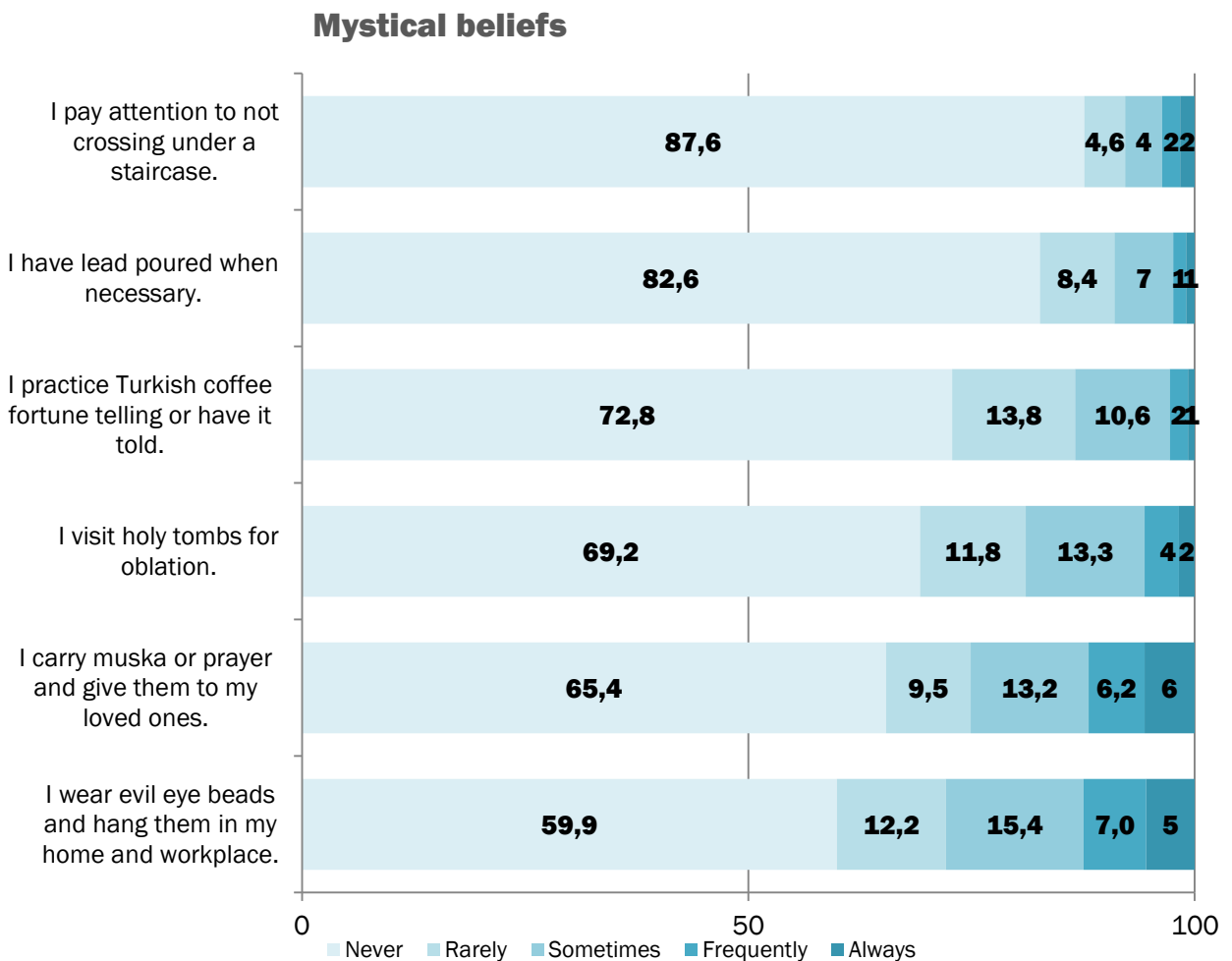
CHP supporters vs. electoral bases of other parties, those with modern lifestyle vs. other lifestyles and those who do not cover their heads vs. those who do have slightly higher scores in interest in astrology.



2.6. Mystical Beliefs

Questions in this dimension we call mystical beliefs pertain to daily routines.

87.6 percent declare that they never pay attention to not crossing under a staircase, 82.6 say that they do not have lead poured, 72.8 say they never have Turkish coffee fortune telling, 69.2 say that they do not visit holy tombs for oblation, 65.4 percent say that they do not carry muska or prayers and 59.9 say that they do not wear evil eye beads.



Roughly speaking, those who always or frequently perform such routines are 10 percent; those who perform them rarely are 10 to 30 percent. When all of these routines are calculated out of 5 as a national average (1. Never, 3. Sometimes, 5. Always), the national average is 1.53 which is between never and rarely.

Even evil eye bead is used by merely 40 percent

No difference is observed in terms of average mystical belief score in any demographic, social and cultural cluster except that females and Alevis more frequently practice these rituals than men and Sunnis, respectively, do.



2.7. Conspiracy in National Level

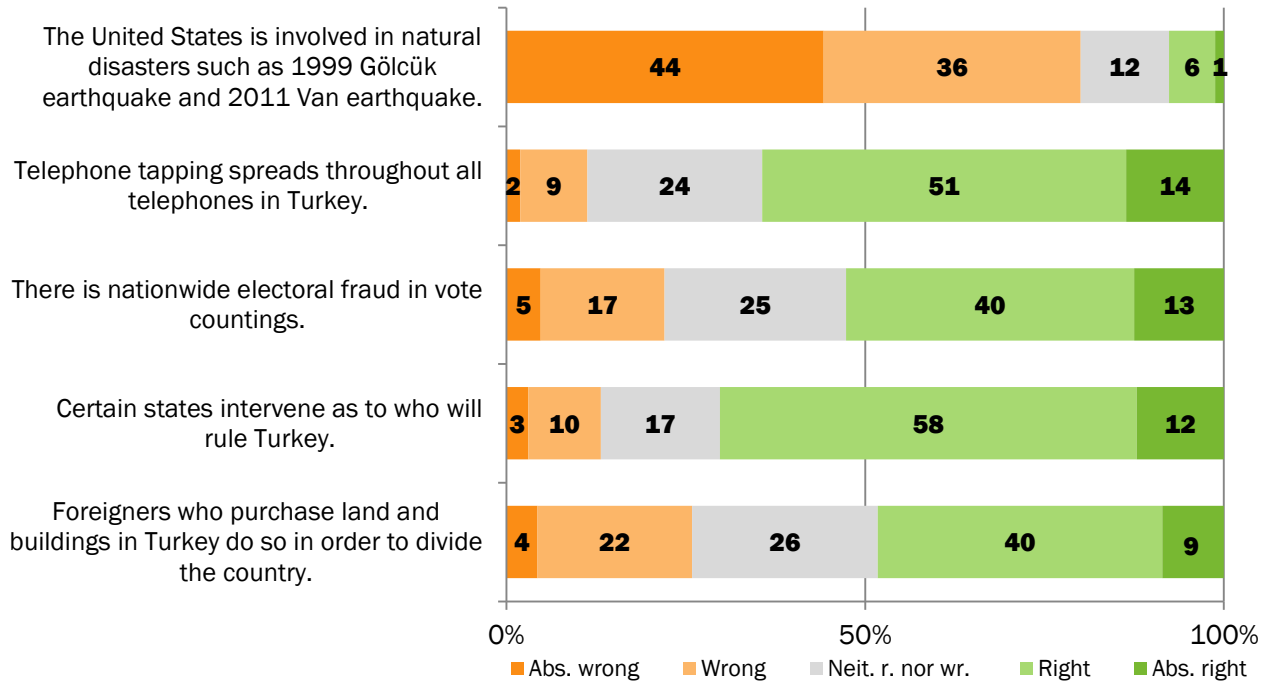
The questions and answers examined up to this point provided data as to the scientific and unscientific beliefs and practices in personal life. The questions in the present section, on the other hand, were designed nation wise. Hence, the factor analysis led to the fact that the questions revealed a separate dimension also with regard to their content.

Firstly, as to the distribution of answers to five questions, 70 percent believe that there is intervention by certain states as to who will rule Turkey. 64 percent believe that telephone tapping spreads throughout *all* telephones in Turkey. 53 percent believe that there is nationwide electoral fraud in vote counting. 48 percent believe that “foreigners who purchase land and buildings in Turkey do so in order to divide the country.” 7 percent believe that the United States is involved in natural disasters such as Gölcük earthquake (A 7.6 magnitude earthquake that struck northwestern Turkey on August 17, 1999, at about 3:02 am local time which lasted for 37 seconds, killing around 17,000 people and leaving approximately half a million people homeless) and Van earthquake (A 7.1 magnitude earthquake that struck eastern Turkey near the city of Van on Sunday, 23 October 2011 at 13.41 local time which killed 604 and injured are 4,152).

The society which behaves more reasonably in personal scale seems to be more skeptical at national level and to a large extend believes in certain arguments that are not and cannot be explained by scientific data. Moreover, this fact is even more significant when the percentages are converted to actual numbers out of 52 million voters above age 18. 36 million adults in Turkey believe that foreigners intervene in the governing of the country, 33 million adults believe that telephone tapping is spread all over the telephones of the country, 28 million believe that there are electoral frauds in vote counting, 25 million believe that foreigners who purchase real estate do so in order to divide the country and 4 million believe that The United States is involved in even natural disasters such as earthquakes.



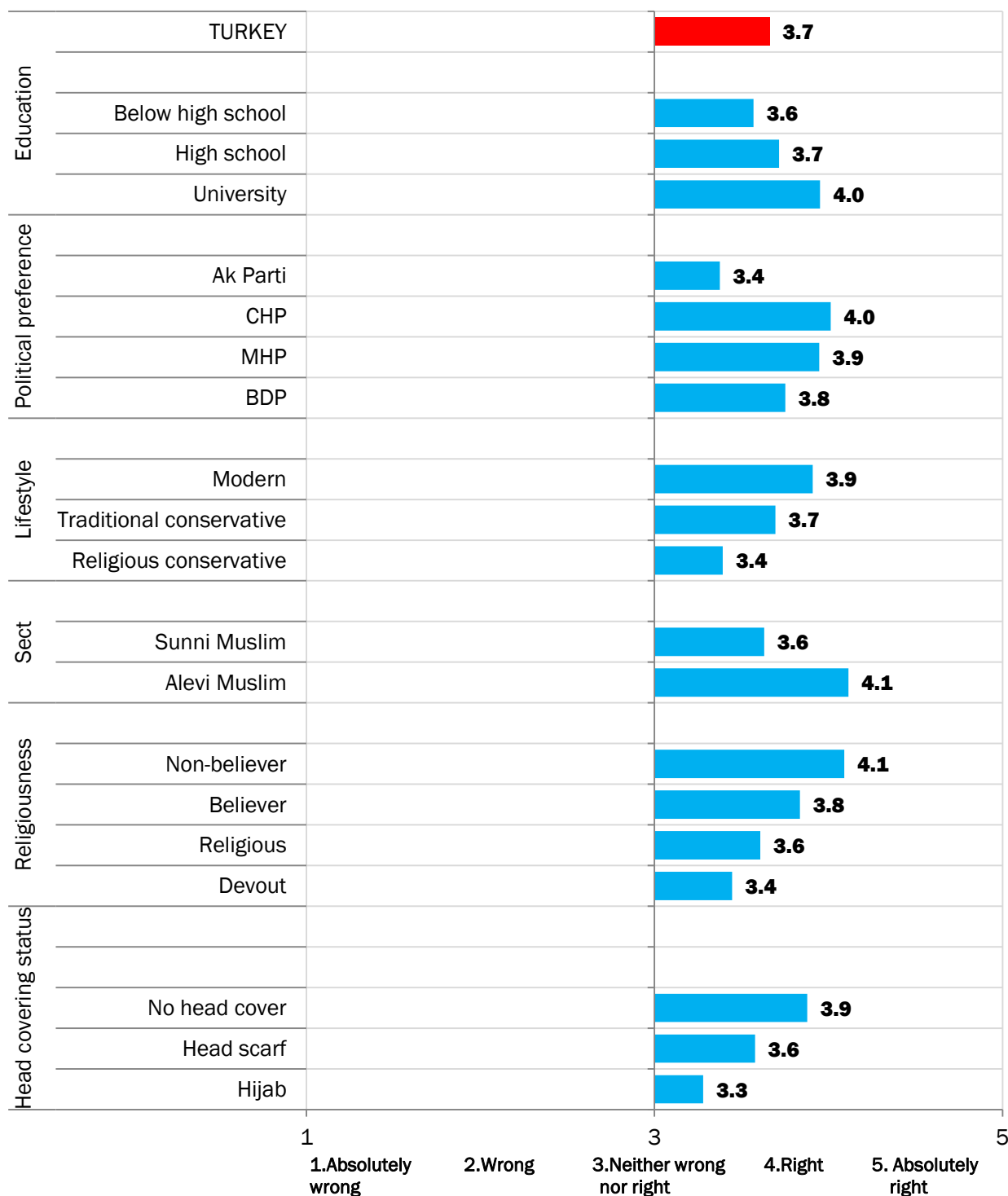
Conspiracy in national level



Those who believe that certain states intervene as to who rules Turkey increase parallel to the increase in educational level. Self-employed professionals, public officers and retired people share this view more strongly than others.



Certain states intervene as to who will rule Turkey.



The electoral bases of CHP and MHP are almost certain as to foreigners' intervention in the governing of Turkey whereas Ak Parti electoral base is relatively doubtful.

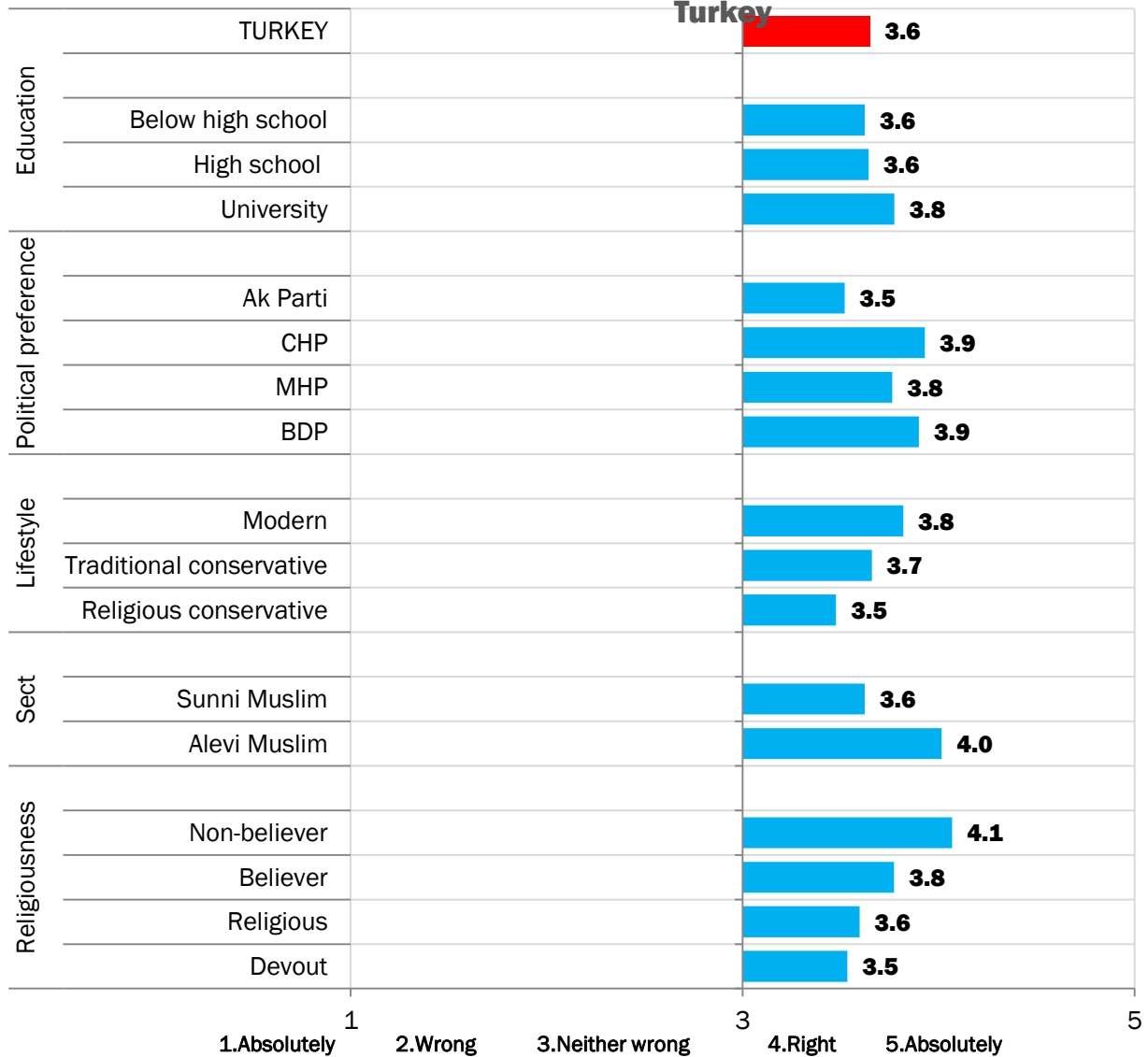


In addition, readers of newspapers Cumhuriyet, Sözcü and Milliyet and those who watch news channels CNNTürk and Habertürk are more decided in this matter.

Belief in the foreign intervention in Turkish government is higher in those who have modern lifestyle than conservatives, in those who do not cover their heads than those who do and in non-believers than religious people.

However it is worth emphasizing that even those who least believe in such interventions in fact believe it averagely and they do not stay in the disbelieving side of the index.

Telephone tapping spreads throughout all telephones in Turkey





Those who believe that telephone tapping spread all telephones in Turkey show the same characteristics as those who more strongly believe in foreign intervention to the governing of Turkey. Those who have almost full confidence in the belief that telephone tapping spread all telephones in the country are higher in high educated people than others, electoral bases of CHP and BDP than the electoral bases of other parties, Alevis than Sunnis, moderns than conservatives and non-believers than religious people.

Those who believe that there is nationwide electoral fraud in vote counting are significantly high making 58 percent of university graduates, 78 percent of CHP supporters, 74 percent of BDP supporters, 65 percent of MHP supporters, 37 percent of Ak Parti supporters, 67 percent of those with modern lifestyle, 62 percent of Kurds and 80 percent of Alevis.

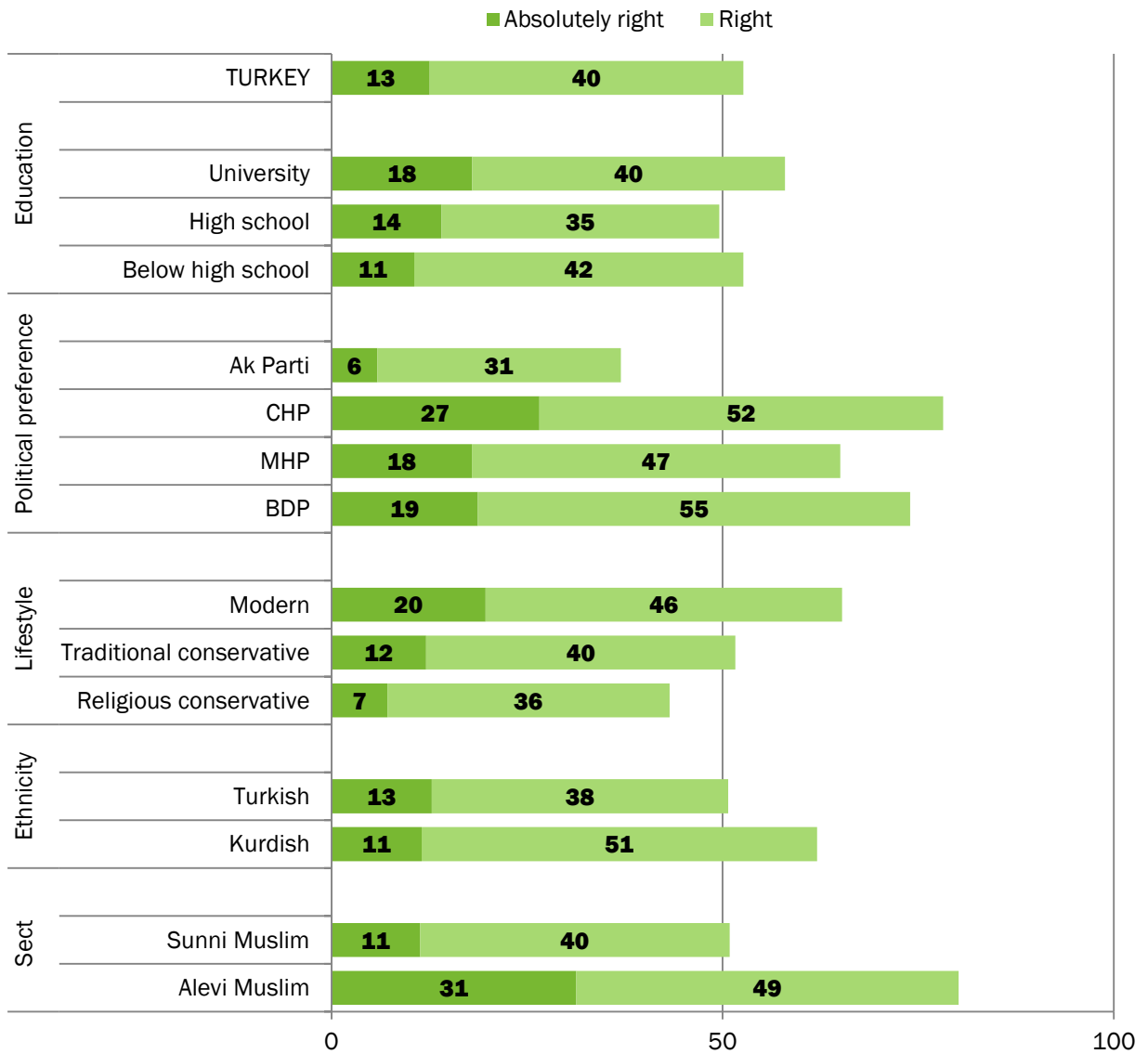
In the election survey of KONDA which was conducted in June 2007, one month before the general elections of July 22, 2007, a similar question was posed. The question “Are elections held freely and lawfully?” was answered by approximately one third of the voters as “No.”

Are elections held freely and lawfully?	Percentage
Yes	61.1
No	27.5
No opinion	11.4
Total	100

Source: KONDA June 2007 Election Survey



There is nationwide electoral fraud in vote countings.





Electoral fraud and scientific point of view

As it happens right after every election, rumors spread about electoral frauds in ballot boxes and intervention to vote counts when they are transmitted from ballot boxes to the centers. It is claimed that votes are either thrown away or modified in central computers which result in the assumption that they somehow do not reflect the real votes of public. It is sufficient to evaluate such claims in a scientific approach so that the hypothesis can be proved.

According to the current election law in Turkey, there are representatives of at least four parties in each ballot box and the ballot box counting report (i.e. 300 votes) are handled to each representative in hand-written and signed format. In addition, any voter who wishes so may witness the counting process. This means that all parties hold the counting reports of about 200 thousand ballot boxes. Therefore, in order that a claim of fraud is considered valid, a party should demonstrate that the declarations of the Supreme Election Board do not correspond to the counting reports that they hold. To our knowledge, no claim in this regard was ever evidenced this way. The comparison of two documents is sufficient for proving or refuting this hypothesis. If the votes are thrown away, then this can easily be proven in the current high-technology age of mobile phones with cameras and all kinds of visual media and such proofs will definitely enter the agenda of the media, at least that of the social media. However such scientific evidences never follow these rumors after elections.

Neither do the inventors of such rumors and conspiracy theories take numbers into consideration. It might be possible to conduct fraud in a ballot box of about 300 votes or in a ballot box site of 15 boxes making up to 4,500 votes. However, in order to modify 1 percent of the votes of 52 million voters, in other words in order to change the election results by 1 percent, it would be necessary to change 520 thousand votes which would necessitate conducting fraud in at least 1,700 boxes. Such a great scale of fraud, if it remains unproved, may safely be considered as a conspiracy theory from a scientific point of view.

Electoral fraud is a sensitive matter for KONDA in several aspects. Firstly, election surveys are conducted under the scientific methodology of statistics. Election surveys are based on the assumption that the opinion of the voters revealed in surveys shall be reflected in the election results much the same. On the other hand, there is a public opinion that the elections are manipulated and KONDA, which conducts scientific measurements before elections, somehow is a part of this manipulation. Accordingly, determining the presence of electoral fraud is essential for the very existence of KONDA.

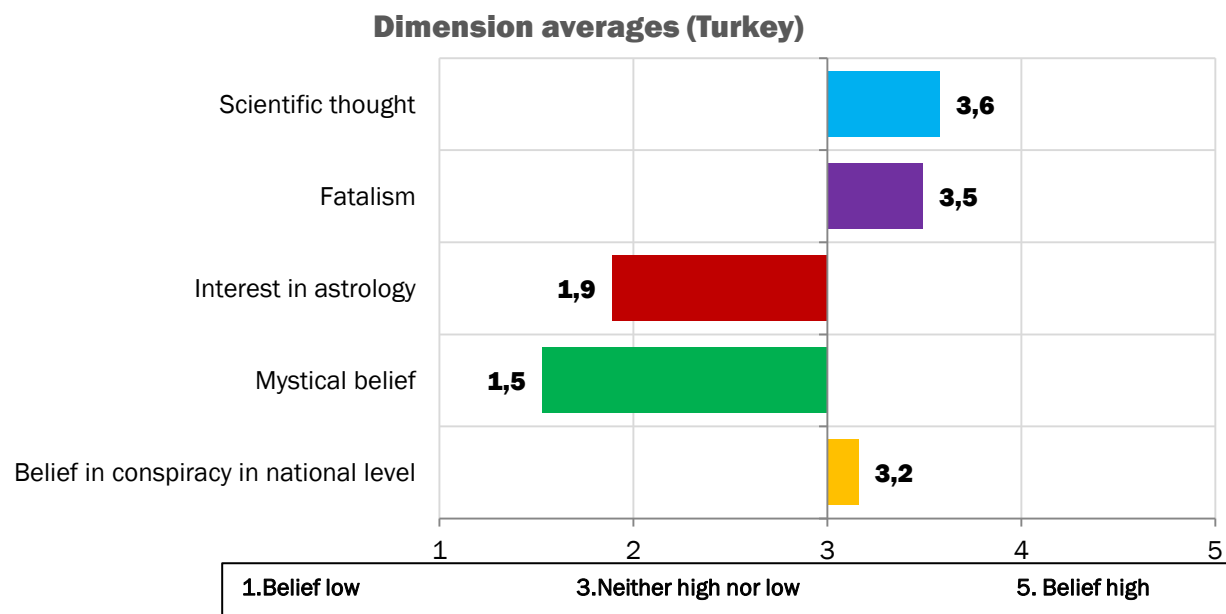


2.8. Evaluation and Commentary

2.8.1. Dimensions

Based on the answers received for the questions of each dimension, the average score of said dimension is calculated out of 5 points and it is revealed that the highest score is for scientific thought as 3.58 points which is followed by fatalism with 3.49 points.

Belief in conspiracy theories in national level gets 3.16 points which is on the positive side although just above average. This high tendency of the society to believe in conspiracy theories in national level might be a result of the political polarization.



Interest in astrology and mystical beliefs are very low despite contrary biases and prejudices regarding the society.

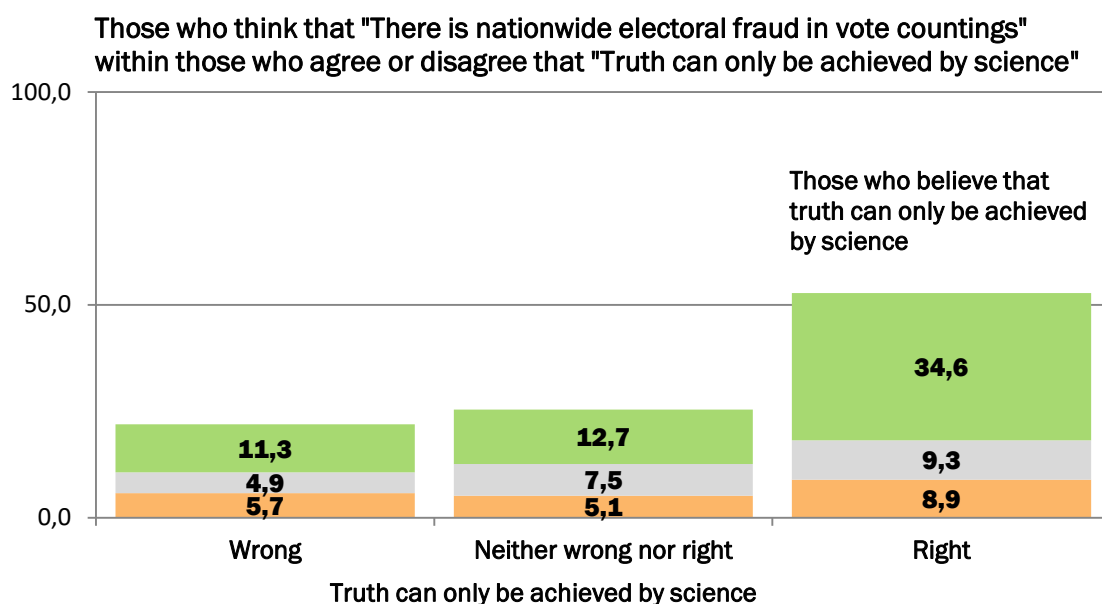
With regard to the correlation of the dimensions with each other and their effect on each other, the initially significant relation is the fact that the axis of scientific thought has no relation with fatalism and on the other hand, is in relation with belief in conspiracy. Fatalism dimension and interest in astrology and mystical beliefs do support and strengthen each other.

2.8.2. Scientific thought and conspiracies

Statements on scientific thought find support in different rates however their correlation is eminent. Accordingly, it is safe to deduce that the belief of the society in science is highly consistent.



One of the interesting correlations between dimensions is that scientific thought and belief in conspiracy in national level support each other, i.e. there is a correlation between them. That is to say, the higher the scientific thought in the society is, the higher the belief in conspiracy in national level (correlation score 0.22) is. This shows that the social segment with higher educational level on the one hand emphasizes scientific thought and on the other hand forms a part of the society that is more likely to believe in the conspiracy theories addressed in this survey, which points to an indirect relation. However even when educational level is left out of the evaluation (i.e. when controlled correlation is performed) the relation remains intact (correlation score 0.18). One of the most striking findings of this survey, therefore, happens to be the irrational behavior in the matter of conspiracy theories of those who seem to be rational about scientific thought.



For instance, those who favor the opinion that “truth can only be achieved by science” were roughly the three fifth of the society (53 percent). 34.6 percent of this 53 percent also believe that there is nationwide electoral fraud. That means that roughly 17 million out of 52 million adults or voters have unshakeable belief in scientific thought and at the same time think that there are nationwide electoral frauds.

Similarly, more than half of this 53 percent of strong believers in science (namely, 17 million of the total adult population) believe that foreigners purchasing real estate in Turkey do so in order to divide the country.

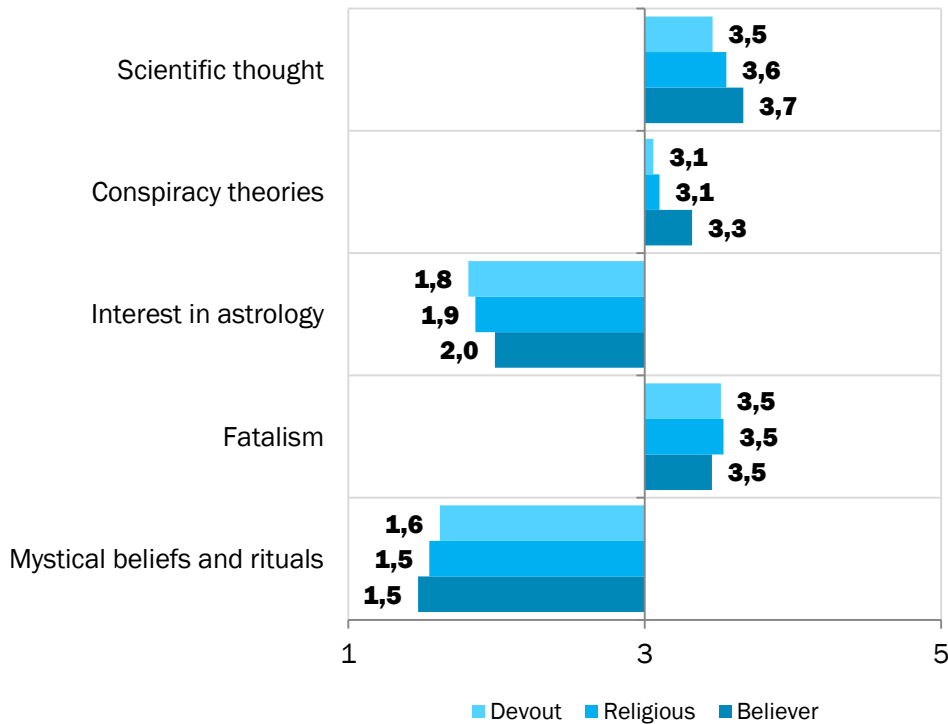
2.8.3. Religiousness and dimensions

It is generally believed that religion and religiousness contradict both scientific thought and certain superstitious/mystical rituals which are considered sinful, such as Turkish



coffee fortune telling. The present survey provides the opportunity to test whether this assumption is correct and surprisingly reveals that religiousness in fact does not contradict with any of them.

Dimensions and religiousness



When we compare the scores of dimensions according to the degree of religiousness in society, we detect several significant findings. Firstly, irrespective of the degree of religiousness, the score of scientific thought stays in the positive side. That is to say, even the most religious social segments believe in science as source of knowledge and in a rational society. As expected, this score tends to get slightly lower as the religiousness increases. On the other hand, belief in conspiracy theories and interest in astrology get slightly lower as the religiousness increases. Fatalism level changes almost to none therefore fatalism is very closely connected to religious beliefs irrespective of the frequency of fulfilling religious requirements.

2.8.4. The Division in Personal and National Level

When scientific thought and belief in conspiracy in national level are evaluated together, it is possible to conclude that individuals clearly divide their personal lives from national level.

In personal life, the scientific thought is high and mystical beliefs are low whereas in national level, there is a high degree of belief in conspiracy.

This might be due to different reasons which are worthy of a separate survey. However this difference is visible in all surveys conducted within the framework of KONDA Barometer series. The most important reason is the mistrust of individuals in social



life and social institutions. Individuals who possess no trust in politics (40-45 percent do not believe that the political actors can solve the urgent problems of Turkey), in law (58 percent believe that in a court action, the judge shall make decisions according to their financial status) and in others who are different from himself/herself, abandon the calm attitude that they hold in their personal lives when evaluating national events and resort to an insecure mentality prone to conspiracy.

2.8.5. Women and interest in astrology

Just like most of the other Barometer surveys, men and women do not show special differences however women tend slightly more to believe in zodiac signs, have their fortune told, wear evil eye beads or muska and have lead poured.

On the other hand men slightly more strongly believe that foreign countries intervene in the governing of Turkey and telephone tapping spreads throughout all telephones. These differences show that there is no difference between women and men regarding scientific or irrational thought but the areas and subjects to which they approach rationally are slightly different.

2.8.6. “Luck” and “astrology” in modern life rituals

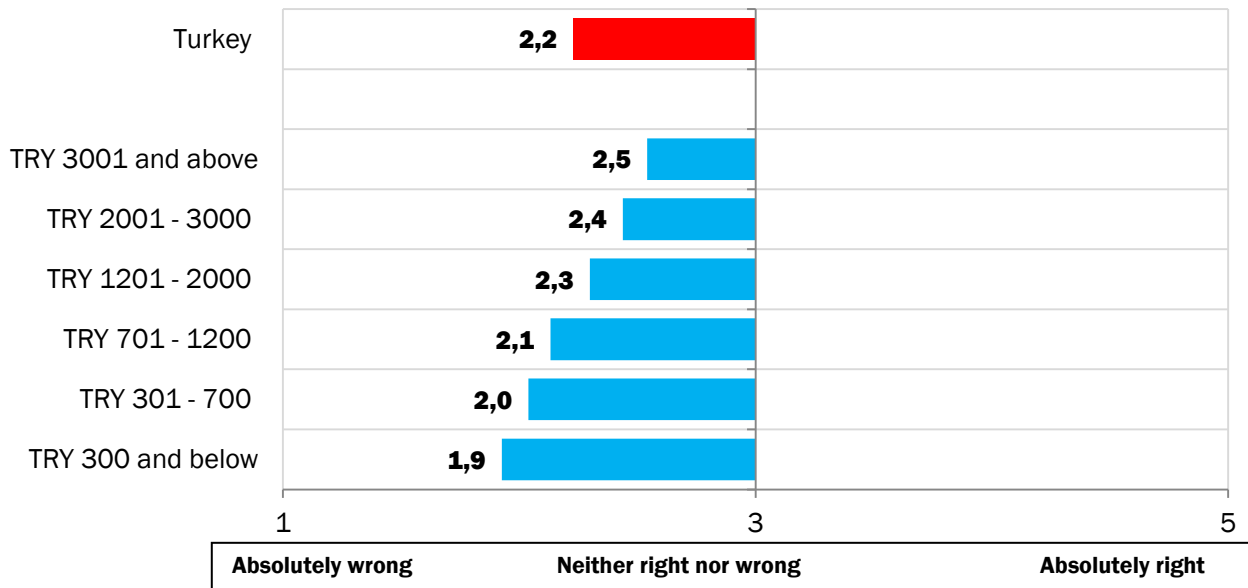
One of the questions posed in the survey was whether they had lucky items such as above mentioned sports scarves. According to the answers given to the question “Is there any item that you deem lucky and wear or carry with you in special occasions? If so, what is it?” one in ten in Turkey has a lucky item, and nine do not. Those who do mentioned varied items such as jewelry like necklaces, wristbands or rings, religiously significant items such as muska or prayer beads, certain numbers, evil eye beads or other natural stones.

Those who are more inclined to carry lucky items in the society are young people, university graduates, those who identify themselves as modern and those who do not cover their heads, who surpass the national average in this regard. Accordingly, it is understood that carrying lucky items is not a traditional but rather a more “modern” ritual.

One remarkable aspect of interest in astrology and zodiac signs is that they are more common in less religious and traditional social segments. Young people have higher tendency to know their zodiac signs and to believe that zodiac signs explain people’s characters. Those employed in the private sector have a higher score of interest in astrology than other working or non-working groups. Those with higher education level, no head covers and modern lifestyle know their zodiac signs in higher degrees. However the most striking fact is the clear correlation between income level and the belief that zodiac signs explain people’s characters.



I believe that zodiac signs explain people's characters.



In the light of the above data, it would be correct to take astrology not only as a modern mystical belief but also as a “consumption” item in modern society.

2.8.7. Mystical beliefs: from tradition to modernity

Mystical beliefs and rituals are divided into two in terms of lifestyle, religiousness, age, residential area, etc. One is the more traditional mystical rituals such as visiting holy tombs for oblation and carrying muska, prayer or evil eye beads. The other type of mystical rituals finds more practice in modern urban life such as Turkish coffee fortune telling and following horoscopes. Rituals such as Turkish coffee fortune telling swiftly increase from rural to metropolitan areas or in higher education levels which shows that “modern” life does not diminish mystical beliefs and rituals but rather modifies them. A young, educated, urban girl who does not cover her head seeks aid for marriage not through offering oblation in a holy tomb but through Turkish coffee fortune telling or her daily horoscope.

2.8.8. Unscientific beliefs in Alevis

The attitude of Alevis towards scientific thought and unscientific rituals considerably differs from the rest of the society. On the one hand they believe in science and conspiracy more than the society in general and on the other hand believe in fortune telling and zodiac signs more and they perform all mystic practices except for carrying muska, more frequently than Sunnis.

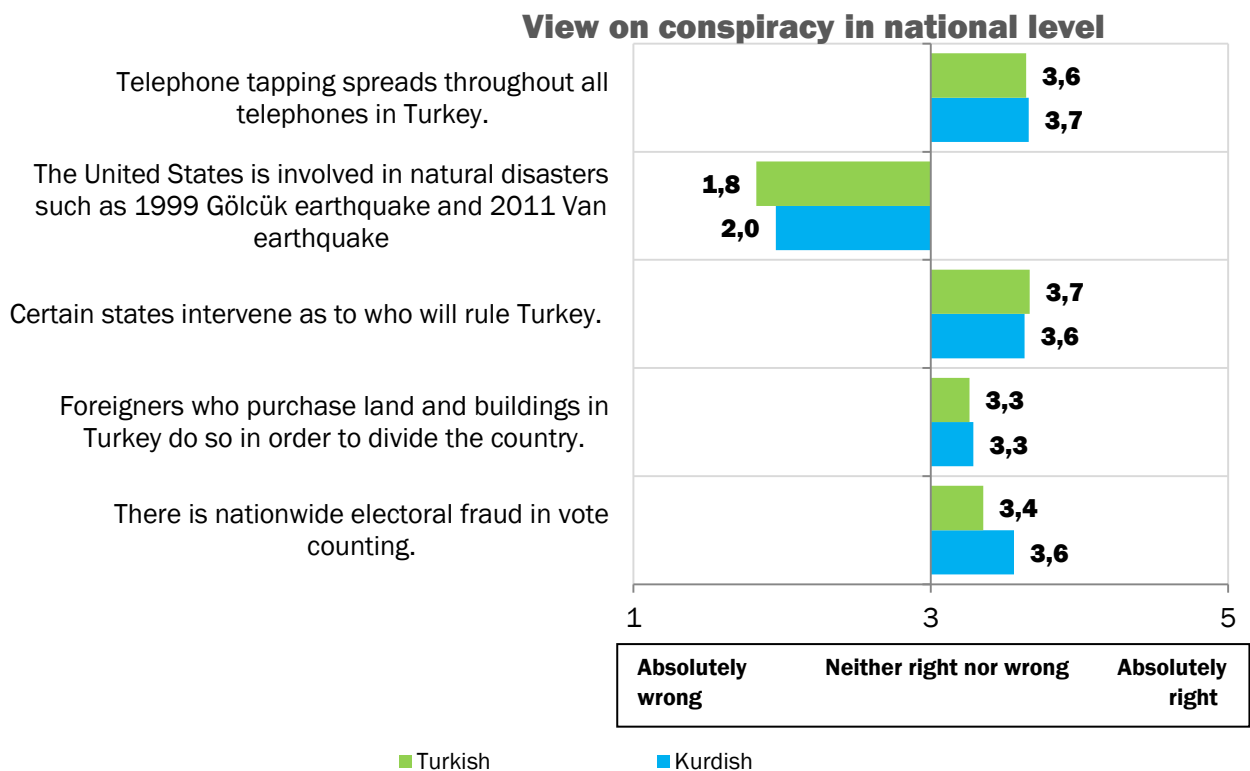
Both science and religion exclude mystical rituals, especially the modern ones. The fact that they are more common among Alevis shows that these mystical beliefs date back to thousands of years. Alevism is defined by some theological sociologists as a



heterodox religious order that combines orthodox Islam with traditional religions that existed in Anatolia before Islam, even with shamanism. Accordingly, it is not surprising that certain daily rituals that are based on thousands of years of tradition and considered as mystical in our current scientific point of view, are maintained more in the daily practices of Alevi. On the contrary, it may be safe to assume that modern mystical rituals such as Turkish coffee fortune telling and astrology redefine and reshape mystical beliefs. According to this survey, it could be concluded that Alevi have an interesting blend of the most unscientific and most scientific mentalities. However, Alevism and unscientific beliefs deserve to be the subject of a more comprehensive study.

2.8.9. Attitude of Turks and Kurds towards conspiracy

The difference between the attitude of Turks and Kurds towards conspiracy theories is insignificant. Kurds believe in slightly higher percentages that The United States is involved in earthquakes and there are electoral frauds however it may be assumed that this unscientific view towards national events roots from differences in political opinion rather than ethnic origin.







3. METHOD OF THE SURVEY

3.1. General Definition of the Survey

The survey on which this report is founded was conducted by KONDA Araştırma ve Danışmanlık Ltd. Şti. for KONDA Barometer subscribers.

The field survey was conducted on the dates of January 12-13, 2013. This report reflects the current political tendencies, preferences and profiles of the adult population above age 18 in Turkey.

The survey was designed and applied for the aim of determining and monitoring the tendencies and changes in the preferences of the subjects that represent the adult population above age 18 in Turkey.

The error margin of the survey is +/- 2 in the confidence interval of 95 percent and +/- 2,6 in the confidence interval of 99 percent.

3.2. Sampling

The sample was prepared by stratification of the data on population and educational level of neighborhoods and villages based on Address-Based Population Registration System with the neighborhood and village results of the general elections dated June 12, 2011.

Residential areas were first graded as rural/urban/metropolitan and then the sample was determined based on 12 regions.

Within the scope of the survey, face-to-face interviews were carried out with 2611 individuals in 150 neighborhoods and villages of 104 districts -including central districts- of 30 provinces.

Provinces visited	30
Districts visited	104
Neighborhoods/villages visited	150
Subjects interviewed	2611



Age and sex quotas were applied to 18 surveys conducted in each neighborhood.

Age Groups	Female	Male
Ages 18-28	3 subjects	3 subjects
Ages 29-44	3 subjects	3 subjects
Ages 44 and above	3 subjects	3 subjects

	Level 1 (12 regions)	Provinces visited
1	İstanbul	İstanbul
2	Western Marmara	Balıkesir, Tekirdağ
3	Aegean	İzmir, Denizli, Kütahya
4	Eastern Marmara	Bursa, Eskişehir, Kocaeli
5	Western Anatolia	Ankara, Konya
6	Mediterranean	Antalya, Adana, Hatay, Mersin
7	Central Anatolia	Kayseri, Sivas, Niğde
8	Western Black Sea	Samsun, Bartın, Tokat
9	Eastern Black Sea	Trabzon, Giresun
10	Northwestern Anatolia	Kars
11	Middle Eastern Anatolia	Malatya, Van
12	Southeastern Anatolia	Gaziantep, Şanlıurfa, Diyarbakır, Mardin



The below table shows the distribution of subjects according to regions and residential areas.

	Region	Rural	Urban	Metropolitan	Total
1	İstanbul			19.2	19.2
2	Western Marmara	2.1	3.5		5.6
3	Aegean	4.1	6.2	5.5	15.8
4	Eastern Marmara	1.4	2.1	4.1	7.6
5	Western Anatolia	.7		9.6	10.3
6	Mediterranean	3.4	2.8	6.3	12.5
7	Central Anatolia	1.5	2.1	1.4	5.0
8	Western Black Sea	2.8	3.3		6.1
9	Eastern Black Sea	1.4	2.0		3.4
10	Northeastern Anatolia	1.4			1.4
11	Middle Eastern Anatolia	1.4	2.1		3.4
12	Southeastern Anatolia	2.1	3.4	4.2	9.7
	Turkey	22.1	27.5	50.4	100.0





4. FREQUENCY TABLES

4.1. Profile of Subjects

Sex	Percentage
Female	50.1
Male	49.9
Total	100.0

Age	Percentage
Ages 18 - 28	26.8
Ages 29 - 43	35.7
Ages 44 and above	37.5
Total	100.0

Educational Status	Percentage
Illiterate	5.6
Literate without degree	1.9
Primary school graduate	37.7
Secondary school graduate	15.3
High school graduate	26.1
University graduate	12.1
Post graduate / Doctorate	1.2
Total	100.0



Paternal educational status	Percentage
Illiterate	14.3
Literate without degree	6.3
Primary school graduate	56.6
Secondary school graduate	8.9
High school graduate	9.6
University graduate	4.1
Post graduate / Doctorate	.2
Total	100.0

Monthly household income	Percentage
TRY 300 and below	3.8
TRY 301 - 700	10.4
TRY 701 - 1200	36.2
TRY 1201 - 2000	31.2
TRY 2001 - 3000	11.6
TRY 3001 and above	6.8
Total	100.0

Household population	Percentage
1 - 2 persons	17.4
3 - 5 persons	64.7
6 - 8 persons	14.7
9+ persons	3.2
Total	100.0



Head covering status	Percentage
No head cover	27.3
Head scarf	51.3
Hijab	7.5
Chador, purdah	0.5
Bachelor men	13.4
Total	100.0

Ethnicity	Percentage
Turkish	82.7
Kurdish	10.2
Zaza	0.7
Arab	3.3
Other	3.1
Total	1.8

Religion/Sect	Percentage
Sunni Muslim	93.5
Alevi Muslim	5.1
Other	1.4
Total	100.0

Religiousness	Percentage
Non-believer	1.7
Believer	27.4
Religious	59.9
Devotee	10.9
Total	100.0



Lifestyle cluster	Percentage
Modern	26.1
Traditional conservative	44.9
Religious conservative	29.0
Total	100.0

Work status	Percentage
Public officer	6.3
Private sector	5.0
Worker	11.9
Small retailer	6.2
Industrialist / Businessman	.3
Self-employed	1.8
Farmer, agriculturalist, stock breeder	4.1
Works, Other	3.1
Retired	12.7
Housewife	34.0
Student	8.4
Unemployed, seeking job	5.1
Disabled	1.0
Total	100.0



Which TV channel do you usually prefer for watching the news?	Percentage
Kanal D	21.2
ATV	14.8
TRT	13.0
Samanyolu	9.3
Fox TV	7.6
Show TV	6.0
NTV	5.5
Star	5.4
Kanal 7	4.3
Haber Türk	3.4
CNN Türk	1.8
Ulusal	1.2
Roj TV	.4
TRT 6 (Şeş)	.3
Local Channels	2.6
Other Channels	3.3
Total	100.0

Newspaper preference	Percentage
Zaman	12.4
Posta	12.1
Hürriyet	9.5
Sabah	6.3
Milliyet	4.7
Habertürk	4.4
Sözcü	3.6
Cumhuriyet	1.9
Radikal	.8
Other newspapers	15.4
Does not read newspaper	29.0
Total	100.0



Birthplace	Percentage
İstanbul	6.1
Western Marmara	4.8
Aegean	14.5
Eastern Marmara	6.0
Western Anatolia	6.7
Mediterranean	11.5
Central Anatolia	8.5
Western Black Sea	10.4
Eastern Black Sea	7.3
Northeastern Anatolia	5.2
Middle Eastern Anatolia	5.3
Southeastern Anatolia	12.3
Abroad	1.5
Total	100.0

Paternal birthplace	Percentage
İstanbul	1.9
Western Marmara	4.3
Aegean	13.4
Eastern Marmara	5.8
Western Anatolia	5.2
Mediterranean	10.6
Central Anatolia	9.5
Western Black Sea	11.0
Eastern Black Sea	9.7
Northeastern Anatolia	6.1
Middle Eastern Anatolia	6.2
Southeastern Anatolia	13.3
Abroad	3.2
Total	100.0



Region of Survey	Percentage
İstanbul	19.2
Western Marmara	5.6
Aegean	15.8
Eastern Marmara	7.6
Western Anatolia	10.3
Mediterranean	12.5
Central Anatolia	5.0
Western Black Sea	6.1
Eastern Black Sea	3.4
Northeastern Anatolia	1.4
Middle Eastern Anatolia	3.4
Southeastern Anatolia	9.7
Total	100.0

Residential area	Percentage
Rural	22.1
Urban	27.5
Metropolitan	50.4
Total	100.0

Type of residence	Percentage
Traditional residence	36.8
Slum	5.5
Standard urban area	54.6
Luxury residence	3.1
Total	100.0



4.2. Scientific Thought and Unscientific Beliefs

4.2.1. Views on Science

Science and technology bring ease, comfort and health to our lives	Percentage
Absolutely wrong	.8
Wrong	4.2
Neither right nor wrong	10.8
Right	66.8
Absolutely right	17.4
Total	100.0

Science does more good than harm.	Percentage
Absolutely wrong	1.4
Wrong	10.9
Neither right nor wrong	15.1
Right	61.2
Absolutely right	11.3
Total	100.0

I have sufficient information on what global warming means.	Percentage
Absolutely wrong	7.7
Wrong	20.8
Neither right nor wrong	20.0
Right	44.7
Absolutely right	6.8
Total	100.0



Truth can only be achieved by science.	Percentage
Absolutely wrong	2.2
Wrong	17.7
Neither right nor wrong	21.6
Right	51.2
Absolutely right	7.2
Total	100.0

The only reasonable and logical way of knowing is science.	Percentage
Absolutely wrong	1.7
Wrong	15.7
Neither right nor wrong	20.6
Right	53.3
Absolutely right	8.7
Total	100.0

Mysteries of life and universe can be solved through scientific endeavors.	Percentage
Absolutely wrong	2.9
Wrong	18.9
Neither right nor wrong	25.5
Right	47.0
Absolutely right	5.7
Total	100.0

A scientifically underdeveloped country cannot be expected to be democratic.	Percentage
Absolutely wrong	1.9
Wrong	7.9
Neither right nor wrong	14.5
Right	59.9
Absolutely right	15.8
Total	100.0



The most exciting aspect of science is the fact that anything can be challenged.	Percentage
Absolutely wrong	1.3
Wrong	8.8
Neither right nor wrong	23.3
Right	58.1
Absolutely right	8.5
Total	100.0

4.2.2. Interest in Astrology

Do you know your zodiac sign?	Percentage
Yes	66.3
No	33.7
Total	100.0

I believe that zodiac signs explain people's characters.	Percentage
Absolutely wrong	32.4
Wrong	31.7
Neither right nor wrong	17.9
Right	16.5
Absolutely right	1.4
Total	100.0

It is possible to predict the future by fortune telling.	Percentage
Absolutely wrong	54.4
Wrong	38.5
Neither right nor wrong	4.8
Right	2.2
Absolutely right	.2
Total	100.0



4.2.3. Mystical Beliefs

Do you have any lucky items?	Percentage
Yes	10.8
No	89.2
Total	100.0

A person can overcome difficulties by acquiring knowledge however cannot change one's fate.	Percentage
Absolutely wrong	2.0
Wrong	8.3
Neither right nor wrong	5.7
Right	61.6
Absolutely right	22.4
Total	100.0

The first sale of the day in a store may bring good luck or bad luck.	Percentage
Absolutely wrong	13.1
Wrong	18.7
Neither right nor wrong	22.8
Right	41.8
Absolutely right	3.7
Total	100.0



I practice Turkish coffee fortune telling or have it told.	Percentage
Never	72.8
Rarely	13.8
Sometimes	10.6
Frequently	2.0
Always	.8
Total	100.0

I pay attention to not crossing under a staircase.	Percentage
Never	87.6
Rarely	4.6
Sometimes	4.2
Frequently	2.0
Always	1.6
Total	100.0

I wear evil eye beads and hang them in my home and workplace.	Percentage
Never	59.9
Rarely	12.2
Sometimes	15.4
Frequently	7.0
Always	5.4
Total	100.0

I carry muska or prayer and give them to my loved ones.	Percentage
Never	65.4
Rarely	9.5
Sometimes	13.2
Frequently	6.2
Always	5.6
Total	100.0

I have lead poured when necessary.	Percentage
Never	82.6
Rarely	8.4



Sometimes	6.6
Frequently	1.4
Always	1.0
Total	100.0

I visit holy tombs for oblation.	Percentage
Never	69.2
Rarely	11.8
Sometimes	13.3
Frequently	3.8
Always	1.8
Total	100.0



4.2.4. Conspiracy in National Level

There is nationwide electoral fraud in vote counting.	Percentage
Absolutely wrong	4.8
Wrong	17.3
Neither right nor wrong	25.3
Right	40.1
Absolutely right	12.5
Total	100.0

Foreigners who purchase land and buildings in Turkey do so in order to divide the country.	Percentage
Absolutely wrong	4.3
Wrong	21.6
Neither right nor wrong	25.9
Right	39.6
Absolutely right	8.6
Total	100.0

Certain states intervene as to who will rule Turkey.	Percentage
Absolutely wrong	3.0
Wrong	10.1
Neither right nor wrong	16.6
Right	58.1
Absolutely right	12.1
Total	100.0



The United States is involved in natural disasters such as 1999 Gölcük earthquake and 2011 Van earthquake	Percentage
Absolutely wrong	44.2
Wrong	35.8
Neither right nor wrong	12.3
Right	6.5
Absolutely right	1.2
Total	100.0

Telephone tapping spreads throughout all telephones in Turkey	Percentage
Absolutely wrong	1.9
Wrong	9.4
Neither right nor wrong	24.4
Right	50.7
Absolutely right	13.6
Total	100.0