

Analysis on Construction of Science Culture and De-extremization of Religion

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Abstract

This paper first discusses different development periods of science culture and religion culture and elaborates forms of religious extremization. At the same time, by solving the evolutionary game strategy between science culture and religious extremization, it explores the important role of science culture in eliminating religious extremization. It found that science culture and religious extremization can reach an evolutionary equilibrium after a long-term game, and converge to a stable node; strengthening science culture construction can effectively eliminate the phenomenon of religious extremization. Finally, this paper puts forward some suggestions that it should continue to strengthen science culture construction in China and apply it to eliminate religious extremism.

Keywords: science culture, religion culture, de-extremization of religion, evolutionary game analysis

1. Introduction

Science culture is the organic unification of internalization and externalization of human spirit as well as the typical embodiment of advanced culture. Ernst Cassirer (2013), a German philosopher, pointed out that science is the last step of human's intelligence development and also regarded as the highest and the most unique achievement in human culture.....none of forces can compete with those of science thought. Science culture is the product of material and spiritual culture and its norms and values serve as the benchmark of progress in human civilization. It plays an important role in updating traditional culture and stepping into modernization. Science culture is generated under the context of some cultural background, and in turn it affects other cultures, becoming an important element to affect the revolution and development of other cultures. Science is a wisdom while religion is a belief. Einstein ever said, "Science without religion is lame, religion without science is blind." As for the real value of science culture to the social welfare, Francis Bacon considered that among all social welfares given to the humans, none of them can improve people's livelihood than the invention of new technologies and goods (Hanbury Brown, 1998). Bacon regards the science culture as a kind of visionary and coordinated social activity in essence. Science culture and religion culture both try to explain the one world, the latter one explains the world with the help of life meaning while the former one does it through objective knowledge. Hanbury Brown (1998) points that science and religion have their own goals, functions and approaches, and they are neither competitors nor alternatives, instead of complementing and promoting each other. We should view religion as a social and historical phenomenon with a scientific attitude.

2. Science Culture and Religion Culture

2.1 Conflict Period of Science Culture and Religion Culture

In some stages of cultural development, the authority of science culture is established at the cost of religion culture. It is pointed out that not only scientists oppose religion-oriented worldview. The conflict between science culture and religion culture was the critical in the 19th century. For example, Ludwing Feuerbach considered that those viewpoints from religion culture are illusory. Karl Marx thought that religion culture is a kind of "power and ideology" decided by economic and political interests.

At the end of the 19th century, most people claimed that science culture and religion culture reflect two different and unrelated knowledge, so Jacques Monod pointed out that rationality, observation and experiment are the only reliable authorities in accordance with that claim, and science culture is not controlled by religion culture anymore.

At the beginning of the 20th century, science developed to a new height, increasing the gap between science culture and religion culture. Affected by science culture, most people thought religion culture was old, but those who supported religion culture thought that science culture was the source of evil and enemy of religion one. In this period, the two kinds of cultures showed non-mixed.

2.2 Coordination Period of Science Culture and Religion Culture

There are two strongest forces affecting people: one is an intuitive force caused by religion culture, the other one is an impulse force caused by precise observation and logical deduction, and both forces seem to wax and wane (Whitehead, 1926). In some time and some aspects, religion culture may resist many views on science culture even distort the conclusion of the science so that people can believe in it genuinely. However, in some time, religion culture can stimulate the development of science directly or indirectly. In real life, some people who support science culture have faith in religion culture.

2.3 Essence and Function of Science Culture and Religion Culture

Science culture attempts to know and transform the world with the scientific methods, such as observation, experiment, invention and rationality. Science is established based on a belief that nature is reasonable and can be recognized and understood that we can explore freely and deeply to expand our cognition and understanding of the world and change it.

The core of religion culture lies in acknowledging “the mystery of existence” which Rudolf Otto (1923) regards as “everything else”. Religion culture is an illusion of something that stands outside, after, and within the temperate fluctuations of something ephemeral. The “something” may be real, but needs to be recognized; it means “far” possibility, but it is the most important in reality; it endows meaning with the past, but escapes from understanding; it is an ultimate dream and a pursuit without hope (Whitehead, 1926). Religion culture tries its best to explain “the mystery of existence” with faith system. In religion culture with long history, the faith system is established on the basis of “special revelation” of creating human’s whole life that theologians declared. Most religion cultures are based on a faith that God exists, so our life has meaningfulness and purpose; God promises that we will be reincarnated after death. It is the above function that religious concepts and culture are created in modern society and people are encouraged to turn the religious concepts into real actions.

According to the above analysis, science culture and religion culture attempt to explain the one world. Reasonable religion culture explains the world through the meaning of life and connects us and the world by reverence and sense of good and evil. But science culture is creating non-individual and objective knowledge that can be used to explain the world. And it can connect us and the world through reasonable cognition.

In fact, neither science culture nor religion culture can monopolize the “truth”, no matter what the truth may be. As Whitehead (1926) said, our problem lies in the fact that the explanations to the world made by both cultures wax and wane. Teilhard de Chardin (1959) pointed out that to reach a worldview that is acceptable to both science culture and religion culture, even if an attempt was made, it would not have profound impact on the major modern thoughts; we must work to figure out which problems are settled through science culture knowledge, and which ones are settled through religion culture knowledge; only when we make sure the clear boundary between them, can we maintain the mutual respect between science culture and religion culture.

Most conflicts between science culture and religion culture are resulted from some reasons. For example, religion culture claims that the truth in the nature can be guaranteed with revelation and authority of “God” while science culture claims the truth can be guaranteed with human’s experience. And the conflict between each other has been existing.

3. Religion Extremization and Its Manifestations

Generally speaking, people’s normal thoughts and concepts mean complying with national laws, rules, regulations as well as moral norms, ethical requirements and codes of conduct that are inherited. However, in some situation, people’s thoughts, concepts and behaviors are in “abnormal” state. It is emphasized that this state is different in essence from violation of laws, rules and regulations that we often talk about. As a result, in the “abnormal” moment when proposing some ideas and having some behaviors beyond the normal scope intentionally or unintentionally, the

so-called “extreme situation” is very likely to occur in future (Xinghua, L., 2002) (shown in Note).

The difference between extremity and extremism is whether the extreme thoughts and concepts may form the systematic theory. As long as the theory is formed, it will may guide some people’s behaviors and finally form the so-called extremism. We can understand extremism from two basic aspects. Firstly, extremism is extreme points or claims related to politics and religion. Secondly, extremism means taking or agitating extreme actions or combining extreme points or claims and agitated extreme actions.

Religious extremism can be also called religious extremization, and this phenomenon often occurs in the history. Phenomena of religious extremization can be divided into two types, violent (terrifying) and nonviolent according to its general manifestation. Religious extremization shows that it is a religious activity related to religion, with very radical doctrinal ideas and achieves its claims with radical methods. The phenomenon of religious extremization is the external manifestation of the radical religious ideas of some individual or group. They conduct some extreme social activities in the name of religion or in the form of religious content and activities. On the basis that extremization of religion belief leads to behavioral extremization, religious extremization is a process of making religion politicalized and its organization strange, finally causing the religious alienation.

As for the development of Islam extremist forces, after 1990s, as the western powers led by the United States were continuously attacked by international terrorism, the irrational view of “Islamic Threat Theory” emerges in these countries. That is to say, these western powers put the same place of the Islam and terrorism and mix the Islam and Islamic parties or organizations together. They even don’t differently treat some religious extremists and Muslims who stand the major places in the society, resulting in many thoughts distorted and misunderstood (Esposito, 1999). Islamic fundamentalism is a product of religious politicization in the course of Islam revitalization, but in its development, it is used by some people or organizations “with intentions” to change it into religious extremism. Moderate Islamic fundamentalism holds universal applicability of Islamic values in theory, but is flexible in actions, for example, no any terrifying or violent activities. However, Islamic extremism is totally different from moderate Islamic fundamentalism, we should treat both in different ways and not take a part for the whole. Extremists not only oppose state power, but also regard Muslims against their claim as betrayer.

Therefore, religious extremization is an act that violates normal religion culture and the same as heresy in nature. Because of its anti-science, anti-social and antihuman, it must be paid much attention and opposed resolutely. However, it is hard to suppress and crack down on the behaviors related to belief in a traditional way, so only when we eliminate its “soil” fundamentally, can we destroy its foundation of existence and eradicate it indeed.

4. Methodology: Evolutionary Game Analysis on Science Culture and Extremization of Religion

In this part, a game model between science culture and religious extremization is constructed to analyze their relationship. In real activities, the game body is usually groups with bounded rationality, so we will make evolutionary stable strategy (ESS) analysis on the game between science culture and religious extremization by evolutionary game theory based on bounded rationality. There are hardly any literatures that analyzed how to eliminate religious extremization from a science culture perspective by game theory.

4.1 Brief Introduction to Evolutionary Game

In 1980s, with the emergence of *Evolution and the Theory of Game* written by Maynard Smith, evolutionary game theory began to attract wide attention. Evolutionary game theory originates from biological population evolution, and entire rationality is not feasible in the research on biological population evolution, in other words, it shows bounded rationality of game participants. In this paper, we mainly discuss that participants imitate the evolution process to achieve the state of balance—EES, which is an adjustment process of replicator dynamics. EES (Maynard & Price, 1973; Maynard, 1974, 1982) is stable in the strict pressure of evolutionary choices.

Replicator dynamics is a kind of common choice dynamics in the evolutionary game. Its mathematical model is $\frac{dx_i(t)}{dt} = x_i(t) \cdot [E(s_i) - \bar{E}]$, every participant represents a group who insists on adopting the strategy S_i , $E(S_i)$ refers to the expected revenue of those group adopting the strategy S_i , \bar{E} refers to the expected revenue of all groups. For the dynamic evolution equation $F(x) = \frac{dx(t)}{dt}$, evolutionary equilibrium means it has locally asymptotically stable equilibrium points.

4.2 Assumption, Variable Definition and Explanation

Assumption 1: the external environment is stable.

Assumption 2: two different groups participate in the game: science culture and religion group.

Assumption 3: considering complex social and economic factors, science culture and religion group take replicator actions.

Assumption 4: There are two strategies about science culture: “adopted” and “not adopted”, and religion group has two strategies of “extremization” and “normalization”.

Variable 1: The strategy of science culture is $P = (p, 1-p)$, that is, the probability of adoption of science culture is p , and the probability of not adoption is $1-p$, and $0 \leq p \leq 1$.

Variable 2: The strategy of religion group is $Q = (q, 1-q)$, that is, the probability of extremization is q , and the probability of normalization is $1-q$, and $0 \leq q \leq 1$.

Variable 3: The cost of adoption of science culture is C_{st} , and $C_{st} > 0$.

Variable 4: If science culture is used correctly, a good effect will come into being. We use revenue R to represent the effect, and $R \geq 0$, it means that bad results will not be produced at least even if no effect.

Variable 5: The loss of the society made by radical religion group by making acts of terrorism is represented by L , and $L > 0$.

Variable 6: The cost paid to acts of terrorism made by the radical religion group is C_{kb} , and $C_{kb} > 0$.

Variable 7: The price of destruction made by religion radicals is A , and $A > 0$.

4.3 Solution to Locally Equilibrium Point

According to the above assumptions and definitions of variables, it firstly solves the locally equilibrium point (LEP) of dynamically evolutionary game, and discusses ESS in the following.

Table 1. Asymmetrical Game Payment Matrix of Science Culture and Religion Group

		Science Culture			
		Adoption (p)		Not Adoption ($1-p$)	
Religion Groups	Radicalization (q)	$-C_{kb}-A$	$-C_{st}+R-L$	$-C_{kb}$	$-L$
	Normalization ($1-q$)	0	$-C_{st}+R$	0	0

Explanation of the above payment matrix: when the radical religion emerges and is resolved by science culture, the payment of the religion groups consists of two parts: (i) the cost of carrying out acts of terrorism is $-C_{kb}$, (ii) the price of destruction is $-A$. And the payment of science culture includes three parts: (i) the cost of science culture is $-C_{st}$, (ii) the revenue is R , and (iii) the social loss made by acts of terrorism is $-L$; if the science culture is nor adopted to resolve, the payment of the religion groups is the cost of carrying out acts of terrorism $-C_{kb}$, while the payment of science culture is the social loss $-L$. When there is no religion extremization, if science culture is adopted, the religion group pays 0, and the payment of science culture covers two parts: (i) the cost of using science culture is $-C_{st}$, (ii) the revenue is R ; if science culture is not adopted, the religion group pays 0, and the science culture pays 0.

• The Expected Revenue of Science Culture and its Dynamic Evolution Equation

(i) The expected revenue when science culture is adopted:

$$E\pi_{adopted}^{science\ culture} = q \cdot (-C_{st} + R - L) + (1 - q) \cdot (-C_{st} + R) = -qL - C_{st} + R$$

(ii) The expected revenue when science culture is not adopted:

$$E\pi_{not\ adopted}^{science\ culture} = q \cdot (-L) + (1 - q) \cdot 0 = -qL$$

So, the total revenue for science culture is:

$$\overline{E\pi}_{science\ culture} = p \cdot E\pi_{adopted}^{science\ culture} + (1 - p) \cdot E\pi_{not\ adopted}^{science\ culture} = -qL + p(R - C_{st})$$

And the dynamic evolution equation for science culture is:

$$\frac{dp}{dt} = p \cdot (E\pi_{not\ adopted}^{science\ culture} - \overline{E\pi}_{science\ culture}) = p \cdot (1 - p)(R - C_{st})$$

• The Expected Revenue of Religion Group and its Dynamic Evolution Equation

(i) The expected revenue of religion extremization is:

$$E\pi_{extremization}^{religion\ group} = p \cdot (-C_{st} - A) + (1 - p) \cdot (-C_{kb}) = -pA - C_{kb}$$

(ii) The expected revenue of religion normalization is:

$$E\pi_{normalization}^{religion\ group} = p \cdot 0 + (1 - p) \cdot 0 = 0$$

So, the total revenue of religion group is:

$$\overline{E\pi}_{religion\ group} = q \cdot E\pi_{extremization}^{religion\ group} + (1 - q) \cdot E\pi_{normalization}^{religion\ group} = q \cdot (-pA - C_{kb})$$

And the dynamic evolution equation of religion group is:

$$\frac{dq}{dt} = q \cdot (E\pi_{extremization}^{religion\ group} - \overline{E\pi}_{religion\ group}) = q(1 - q)(-pA - C_{kb})$$

• Solution to LEP

Made $\frac{dp}{dt} = f_1$ and $\frac{dq}{dt} = f_2$, the dynamic evolution equation set for science culture and religion group is:

$$\begin{cases} f_1 = p(1 - p)(R - C_{st}) \\ f_2 = q(1 - q)(-pA - C_{kb}) \end{cases}$$

Then, made $f_1=0$ and there are $p_1=0$ and $p_2=1$; made $f_2=0$ and there are $q_1=0$, $q_2=1$ and $q_3 = -\frac{C_{kb}}{A} < 0$ (a unreasonable result). Therefore, the locally equilibrium points $LEP_i(p, q)(i=1,2,3,4)$ of dynamic replication system are $LEP_1(0, 0)$, $LEP_2(0, 1)$, $LEP_3(1, 0)$ and $LEP_4(1, 1)$.

In the following, the stability of four LEPs will continue being discussed. $LEP_4(1, 1)$.

5. Results and Discussion

Locally equilibrium point is not necessarily EES that reflects a stable state of equilibrium in evolutionary game. This strategy is stable under the strict pressure of evolution choice. When imitator dynamics allow groups adopt mixed strategy, the stable equilibrium of imitator dynamics is EES (Bomze, 1986).

• ESS and Stability Judgment Methods

Evolutionary equilibrium (EE) is a dynamic concept to reach an ESS by dynamic evolution process. EE is a dynamic evolution equation with locally asymptotically stable equilibrium point. So when analyzing the stability of dynamic evolution equation through EE, it needs to find LEPs of the dynamic system firstly and then judges the stability of dynamic evolution equation of LEPs. Since the dynamic system that we study is two-dimensional system, we will introduce methods to judge the stability of two-dimensional dynamic system.

Assuming that the eigenvalues of characteristic equation of the dynamic system at locally equilibrium point is

$\lambda_i(i=1,2)$. The Jacobi Matrix of the dynamic evolution system $\begin{cases} f_1 \\ f_2 \end{cases}$ is $J = \begin{pmatrix} \frac{\partial f_1}{\partial p} & \frac{\partial f_1}{\partial q} \\ \frac{\partial f_2}{\partial p} & \frac{\partial f_2}{\partial q} \end{pmatrix}$, the eigenvalues at locally

equilibrium point are λ_1 and λ_2 . According to the nature of eigenvalues, there are $\lambda_1 \cdot \lambda_2 = Det(J) = \begin{pmatrix} \frac{\partial f_1}{\partial p} & \frac{\partial f_1}{\partial q} \\ \frac{\partial f_2}{\partial p} & \frac{\partial f_2}{\partial q} \end{pmatrix}$ and

$$\lambda_1 + \lambda_2 = tr(J) = \frac{\partial f_1}{\partial p} + \frac{\partial f_2}{\partial q}$$

For the stability of locally equilibrium point, the judgment methods are as follows:

(i) When a LEP is an asymptotic stability point, if $\frac{\partial f_1}{\partial p} < 0$ and $\frac{\partial f_2}{\partial q} < 0$ and at this point. When $[tr(J)]^2 - 4Det(J) > 0$,

it converges to a stable node; when $[tr(J)]^2 - 4Det(J) < 0$, it converges to a stable focus.

(ii) When a LEP is a stable point, if $\frac{\partial f_1}{\partial p} = 0$ and $\frac{\partial f_2}{\partial q} = 0$ at this point. When $[tr(J)]^2 - 4Det(J) > 0$, it converges to a stable node; when $[tr(J)]^2 - 4Det(J) < 0$, it converges to a stable focus.

(iii) When a LEP is a saddle point, if $\frac{\partial f_1}{\partial p} > 0$ and $\frac{\partial f_2}{\partial q} < 0$ or $\frac{\partial f_1}{\partial p} < 0$ and $\frac{\partial f_2}{\partial q} > 0$ at this point.

(iv) When a LEP is an unstable point, if $\frac{\partial f_1}{\partial p} > 0$ and $\frac{\partial f_2}{\partial q} > 0$ at this point.

• ESS Analysis and Conclusions

The Jacobi matrix of dynamic evolution two-dimensional system of the game between science culture and religion group is $J = \begin{pmatrix} (1-2p)(R-C_{st}) & 0 \\ -q(1-q)A & (1-2q)(-pA-C_{kb}) \end{pmatrix}$

In the following, whether the above 4 LEPs is ESS or not will be discussed. If they are ESS, what are the convergence paths?

(i) Discussion on LEP₁(0, 0)

At this point of LEP₁(0, 0), Jacobi determinant is $Det(J)|_{LEP_1(0,0)} = \begin{vmatrix} -C_{st} & 0 \\ 0 & -C_{kb} \end{vmatrix}$, so

(a) When $R > C_{st}$, there are $\frac{\partial f_1}{\partial p} > 0$ and $\frac{\partial f_2}{\partial q} < 0$. Based on the judgment method (iii), the LEP₁(0, 0) is a saddle point.

(b) When $R < C_{st}$, there are $\frac{\partial f_1}{\partial p} < 0$ and $\frac{\partial f_2}{\partial q} < 0$. Based on the judgment method (i), the LEP₁(0, 0) is an asymptotic

stability point, and is the ESS of the game between science culture and religion group. However, under this circumstance, the effect of implementing science culture is lower than its cost, so in the long term, science culture tends to be “not adopted” in the condition of bounded rationality. But the extremization of religion tends to be “0”, and the higher the cost of implementing science culture is, the faster and more obvious the tendency is. Obviously, this circumstance does not conform to the reality, so there is no need to discuss it.

(ii) Discussion on LEP₂(0, 1)

At the point of LEP₂(0, 1), the Jacobi determinant is $Det(J)|_{LEP_2(0,1)} = \begin{vmatrix} R-C_{st} & 0 \\ 0 & C_{kb} \end{vmatrix}$, so

(a) When $R > C_{st}$, there are $\frac{\partial f_1}{\partial p} > 0$ and $\frac{\partial f_2}{\partial q} > 0$. Based on the judgment method (iv), the LEP₂(0, 1) is an unstable point.

(b) When $R < C_{st}$, there are $\frac{\partial f_1}{\partial p} < 0$ and $\frac{\partial f_2}{\partial q} > 0$. Based on the judgment method (iii), the LEP₂(0, 1) is a saddle point.

(iii) Discussion on LEP₃(1, 0)

At the point of LEP₃(1, 0), the Jacobi determinant is $Det(J)|_{LEP_3(1,0)} = \begin{vmatrix} -(R-C_{st}) & 0 \\ 0 & -(A+C_{kb}) \end{vmatrix}$, so

(a) When $R > C_{st}$, there are $\frac{\partial f_1}{\partial p} < 0$ and $\frac{\partial f_2}{\partial q} < 0$. Based on the judgment method (i), LEP₃(1, 0) is an asymptotic stability point.

In addition, $tr(J) = -R + C_{st} - A - C_{kb}$ and $Det(J) = (A + C_{kb})(R - C_{st})$, $[tr(J)]^2 - 4Det(J) = (R - C_{st} - A - C_{kb})^2 > 0$. As a result, the long-term dynamic game between science culture and religion group finally converges to a stable node, and its convergence path of the dynamic evolution is continuously stable.

Under this circumstance, the effect of implementing science culture is more than its cost, so in a long term, science culture tends to be “adopted” in the condition of bounded rationality. When science culture does not well in being implemented, it is to deviate from EES, the expected revenue will be less than the total expected revenue. The

science culture that does not well in being implemented tends to be “adopted well” until it reaches EES as time goes by. The more obvious the effect of implementing science culture is, the faster the tendency is. The evolutionary dynamic phase diagram of game between science culture and religion group is shown in Figure 1.

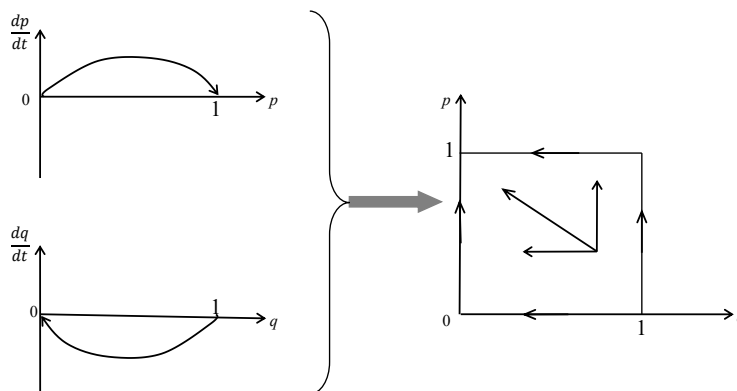


Figure 1. Evolutionary Dynamic Phase Diagram of Asymmetric Game between Science Culture and Religion Group

(b) When $R < C_{st}$, there are $\frac{\partial f_1}{\partial p} > 0$ and $\frac{\partial f_2}{\partial q} < 0$. Based on the judgment method (iii), the $LEP_3(1, 0)$ is a saddle point.

(iv) Discussion on $LEP_4(1, 1)$

At the point of $LEP_4(1, 1)$, the Jacobi determinant is $Det(J)|_{LEP_4(1,1)} = \begin{vmatrix} R-C_{st} & 0 \\ 0 & A+C_{kb} \end{vmatrix}$, so

(a) When $R > C_{st}$, there are $\frac{\partial f_1}{\partial p} > 0$ and $\frac{\partial f_2}{\partial q} > 0$. Based on the judgment method (iv), the $LEP_4(1, 1)$ is an unstable point.

(b) When $R < C_{st}$, there are $\frac{\partial f_1}{\partial p} < 0$ and $\frac{\partial f_2}{\partial q} > 0$. Based on the judgment method (iii), the $LEP_4(1, 1)$ is a saddle point.

According to the above analysis, when the effect of implementing science culture is higher than its cost, the EES of long-term dynamic game between science culture and religion group is $(1, 0)$. It is a stable node, and its convergence path is continuously stable. It shows science culture-a soft power- plays an important role in the de-extremization of religion. As long as the implementation effect can be maximized, this “soft power” can be utilized to gradually correct religion extremism thought.

6. Suggestions on Strengthening Construction of Science Culture

At present, it science culture construction in China needs to be improved further to become systematic and focuses on forming the thoughts of science culture construction with national characteristics.

Firstly, science culture construction should be combined with traditional culture. Science culture provides soil for the production of scientific spirit and atheism. If the society creates a strong atmosphere for science culture, religion radicals will have no space to exist. Besides, it is found through research that science popularization is a major way for science culture construction, and science popularization in villages and communities are most combined with traditional culture. For the culture construction in the primary level, apart from the transmission of science culture in science community to the society, the society will generate some science culture which meets the requirement of scientific rationality in the social development, especially in the process of regional economic development. Therefore, in a broad sense, science culture construction should make scientific rationality integrated into social culture, bringing more science elements in social culture.

Secondly, science culture educational system needs to be improved. It is urgent and necessary to transmit science culture and spirit to teenagers. Formal schooling education should improve science education system in the elementary education stage at the core of promoting scientific spirit, and help teenagers to form right view of science and belief. The science culture course should be included into compulsory course system in colleges and universities, and much attention should be paid to some topic courses like scientific spirit and ethics of science, leading students

to form rational mind. In addition, civic science literacy should be enhanced by science transmission and spread the significance of scientific spirit to the public, creating a good atmosphere of scientific rationality.

Thirdly, social publicity network for science culture needs to be built. The social publicity network for science culture, on the one hand, can provide a major channel for the public to improve their science culture literacy, on the other hand, it can promote the improvement and development of science culture. It includes the construction of science culture facilities, introduction to science culture concepts and expansion of science community faith to the society. We can leverage on the source strength, present facilities and internet information to arrange classic books related to science culture and protect science culture heritage.

Fourthly, scientific and educational infrastructure needs to be strengthened. Scientific and educational infrastructure is an important part of science culture and necessary condition for the development of science culture. Scientific and educational infrastructure serves as a material carrier to make the public learn about science and improve their science culture literacy. The construction of scientific and educational infrastructure includes hardware and software. On the one hand, it should increase investment and construction to expand the building area of popular science venues; on the other hand, it should pay much attention to the content construction in order to provide much good learning resources for target audience. In rural areas and urban communities, it should establish some opening-up school history museums and popular science parks, push messages by cellphone and Wechat, making the public learn about science knowledge and exposed to the influence of science culture at any places at any time.

Fifthly, science culture and scientific spirit should be further integrated into social mainstream value system. China is facing following situations: for one thing, after being affected by market economy and western values, traditional values is difficult to lead people's mind and behaviors; for another thing, new values that conform to the requirements of market economy have not yet formed, and the modern value system centered on scientific and technological rationality has not been widely recognized due to many reasons. Therefore, the following main work should be do well: (i) study, discover and select the reasonable ones from traditional values, and inherit and promote the scientific part of the traditional values; (ii) study ways and approaches to spread and popularize scientific rationality and develop scientific spirit to meet the need of society and the public and change the traditional value system with value concept of modern society; (iii) study modern society development tendency and value orientation, grasp the mainstream values, guide people actively and improve their rational awareness with scientific thought and spirit.

7. Conclusion

This paper puts emphasis on analysis on the relationship among science culture, religion culture and its extremization. It utilizes evolutionary game to analyze evolutionary stable strategy of long-term dynamic game between science culture and religion extremization based on the bounded rationality. Science culture and de-extremization of religion are two aspects of one matter. If the present measures of de-extremization of religion are to address "symptoms", the science culture construction is to address "roots and causes". The main viewpoints in this paper include the following: firstly, science culture is a product of material and spiritual culture, and its behavior norms and values are the benchmark of human civilization progress; science culture is generated and developed under some cultural background, and in turn it influences other cultures, so it becomes an important factor to affect revolutions and evolutions of different culture. Secondly, extremization of religion is external manifestation of radical religion concepts of an individual or a group. They usually take some extreme social activities in the name of religion. Therefore, we should treat Islam, extremization of religion and terrifying violence in a different way. Thirdly, in real situation, with the good effect of science culture construction, the extremization thought of the religious will get more and more restrict, finally will tend to normal. As a result, when we employ science culture in the practice of deradicalization of religion, it should pay much attention to maximize the real effect of science culture, and make sure it turn into a powerful weapon against the extremization thought.

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Note: Xinghua, L. (2002) pointed out that Chinese society was so tolerant that only those loving our own country and obeying all of laws are normal and allowed. The Chinese people could not forgive the minority and showed resolute opposition and resistance to those extremists who are extreme in mind and deeds, and they should be denied and condemned by the whole society.

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