A Survey of the Foundations of Liberalism Axiology and Its Implications for Education

Hamid Damiri¹, Hashem Golestani¹ & Seyed Ebrahim Mirshah Jafari¹

¹ Department of Educational Sciences, Islamic Azad University of Isfahan (Khorasgan) Branch, Isfahan, Iran Correspondence: Hashem Golestani, Department of Educational Sciences, Islamic Azad University of Isfahan (Khorasgan) Branch, Isfahan, Iran. E-mail: sh-golestani@khuisf.ac.ir

Received: November 12, 2014 Accepted: February 5, 2015 Online Published: June 29, 2015

Abstract

The present study is an attempt to survey the foundation of liberalism axiology and its implications for education. To this end, educational viewpoints of liberal scholars including Locke, Smith, Hume, Kant, and Russell are examined along with an introduction to liberalism axiology. Additionally, the implications of liberalism for education from will be discussed from two viewpoints, 1) foundations of value system of education, and 2) education system goals. The results highlighted some of the foundations of liberalism axiology such as individualism, liberty, humanism, intellectualism, empiricism, scientism, law, modernism, epistemological pluralism, believe in achievement, tolerance, equality, and social justice. On the other hand, the value foundations of liberal education are rationality, autonomy, and equality of respect. Furthermore, among the liberal educational goals the most important ones include public education, civil education, applied and practical education, autonomous and liberal individuals, mental development, and expansion and promotion of secular curriculum. Such educational viewpoints, however, have attracted criticism regarding radical individualism, autonomy, ethical anarchism, and negligence of public interest.

Keywords: liberalism, education, values

1. Introduction

Education is one of the critical issues of our age. Proper education system is supposed to educate human forces helpful to and in harmony with the needs of society. Adopting fruitful and critical viewpoints to education is one of the main aims of education scholars and researchers, which is not possible unless different viewpoints of education are examined in detail. Thus, we have the necessity to evaluate current educational viewpoint to find their strengths and weaknesses. Is it notable that the values promoted by the education system must fit the norms of the society; otherwise, various cultural and value-based problems are expected. It is essential, therefore, to see whether it is possible to create a harmonious and synergic society based on the structure of education system.

One of the main viewpoints to education in our age is liberalism. The term "liberalism" coming from the Latin root *Liber* (freedom) refers to all the ideologies and ways that seek maximum individual's freemen. Proponents of liberalism are known as liberals (Ashouri, 1994, p. 280). Supporters of liberalism believe that man is born free, blessed with will and autonomy; therefore, he must grow as free as possible. In this regard, liberalism is the school/philosophy of seeking freedom (Pazargad, 2006).

Of the heated debates in this philosophy is its proponents' approach to axiological issues. It must be stated that followers of this school of thought put particular emphasis on values. Some of the values recognized by liberalism are paternalism, commutative justice, democracy (rule of majority), private property, individual liberty, equality of respect, consistent rationality, political and religious tolerance, and open market system (Comblisis, 1996).

Halstead and Taylor believe that the value foundations of liberal education are evident in the value foundations of liberalism. He argues that educational approaches followed in the West are led by the principle values of liberalism; values such as personal autonomy, independence and autonomy of academic system, equal opportunities, openness to criticism, rational ethics, respecting different beliefs, not imposing ideas and beliefs, and rejecting personal definition of "good" (Halstead & Taylor, 1996).

Although liberalism is based on liberal approaches which have found wide acceptance in educational systems all

around the world, we need to delve deeper into the value foundations of liberalism before adopting it in the Iranian educational system and to harmonize such foundations with Iran's educational system.

Given the above introduction, there is a clear need to evaluate the axiology foundations of education from liberalism viewpoint and its implication for education. Putting emphasis on freedom of man as an autonomous and decision maker individual leads to the dignity and perfection of man, who as the perfect being, teaches himself based on the environment and grows based on his abilities and talents. There is a need to delve deeper in liberalism education and extract its educational implications based on the foundations of liberalism axiology and its relevance to an Islamic educational system. As a result, it is necessary to recognize the foundations of liberalism axiology, ponder on its educational implications, and evaluate these values based on Islamic thought.

Therefore, this study wants to answer these research questions:

What are the foundations of liberalism axiology in educational systems?

What are the implications of the foundations of liberalism axiology for education?

2. Literature Review

Literally, liberalism is a school of thought that believes in "freedom" in contrast to "authoritarianism" (Shapiro, translated by Kashani, 2001, p. 13). In other words, liberalism has unbreakable ties with the idea of freedom and the man's power to fight for ultimate freedom (Bordo, 1998, p. 15). The roots of liberalism in the way we have known them are evident in John Locke's thoughts. Following Hobbes, he argued that government is the outcome of social contracts to finish the natural conditions. However, despite Hobbes, Locke argues that man is entitled to have his natural rights while he lives in his natural conditions and the purpose of the government is to preserve those rights. Locke argues that the government is merely a tool to protect the rights of society. Society is older than the government and its rights are never transferred to the government thoroughly. The power of the government extends beyond the borders of society's interests. Locke believes that the main goal of the formation of society was to open the doors of social life to human and preserve property rights (Terner, 2008). The preliminary concept of freedom under liberalism may be evolved from the concept of securing life and property against any external force (even the government) to a new meaning in which the government is considered as a useful institute to regulate the damages caused by open market. The concept of the government in the modern age is based on a new interpretation of freedom (Heil, 2009).

Many authors have studied liberalism including Pir-Hayati (2000), Khaleghi (2000), Zarean (2000), Tebi (2005), Abedi-Ranani (2009), Disnad (2009), Asadipour (2010), Nemati (2010), Arabicham-Alishahi (2011), Dinarvand (2012), Ovn (1994), Doil (1999), Manning (1999), and Yuo (2001).

2.1 Foundations and Principles of the Values of Liberalism

Challenging its theoretical foundations has been always one of the ways to criticize liberalism. Scholars such as McKein, Sendel and Taylor have attacked theoretical foundations of liberalism from different ways. On the other side, some of contemporary liberal thinkers such as Raverls and Rorti have tried to reject liberalism by rejecting its specific theoretical and philosophical foundations. Thus, the task of a liberal political philosopher is to shed light on the political, cultural aspects of liberal societies rather than bringing theoretical and philosophical reasons to support liberalism. By finding and analyzing roots of liberal values in the constituent elements of political culture, proponents of liberalism can argue for the compatibility and usefulness of liberal political model (Arbludyrt, 2007). Clearly, following a radical approach in supporting liberalism can only tackle the popularity of liberalism and prescribe liberalism for those nations which have long adopted it, for whatever reasons, and their culture and policy are rooted in liberalism. In reality, however, the mainstream among liberals is to defend liberalism definitely and universally as a preferred political theory.

2.2 Individualism

Individualism is an essential and key pillar of liberalism. The idea is that an individual prioritizes his or her interests and rights to everything. Even the government should serve the demands of individuals in the society. Religion, morality, scholars, and virtually no one can limit the individual because what counts is the individual and his or her wills (Arblaster, 2007). Individualism is the centerpiece and epistemological and metaphysical root of liberal thoughts. It also forms the core of moral, political, cultural, and economic existence of liberalism. In this regard, individual comes first and next is the society. Individualism can be divided into epistemological, philosophical, scientific, ontological, economic, moral, religious, law, and political individualism (Bayat, 2002).

The main approach to liberal thoughts is the atomic and independent island viewpoint. Hobbes pictures people like atoms which are selfish and particles of the society that keep their independent identity while accepting

different arrangements and relations with others. The core is featured with two sub-atomic elements; 1) an individual's wishes and ambitions, and 2) instrumental wisdom, which constitutes the differentiation and separateness of an individual. Human is a self-sustaining being that needs a specific space to realize its existence. Thus, social life and social norms only impose self-negligence, and frustrating tasks that lead to self-alienation. On the other hand, privacy and trying to keep distance with the society is to return to oneself and truth, which is individualism and freeing oneself from the burden of social tasks. From liberal viewpoint, group and organized action overshadow individual wishes and independent desires, which prevent the emergence of creativities. Arblaster proposes that "liberal individualism eliminates a naive suspiciousness to individualism and individuals" (Arbluster, 1988, p. 68).

2.3 Freedom

The principle of freedom overshadows all other principles. According to this principle, man's desire of whatever nature including open sexual relations in contrast to religion and moralities. Thus, any obstacle in the way of man to realize his or her desires must be removed. That is, nothing is important when it comes to man's wishes. What is important are man's wishes. The only limit to man's freedom is that of others. Thus, when peoples' desires in line with one's desire, they are permitted.

Liberalism regards freedom as the most valuable and ultimate goal. Thus, freedom has essential value not a mere tool to reach a higher good. Therefore, the first priority is freedom itself. Freedom is the prerequisite for the expansion of creativity and innovation. To put it in another way, although it has essential value, freedom has preliminary function. Freedom in liberalism means rejecting any burden and obligation, removing norms, and avoiding interrupting man's quest to reach whatever he likes (Hobbes, Leviathan, & Chs, 1948). The prevailing approach to freedom by the liberalist is a negative freedom as defined by Hobbes, Berlin, Cranston, and others. Negative freedom means not to interrupt one's freedom. Cranston maintains that, "the more prevalent the idea of not to interrupt, the vaster my freedom" (Cranston, 1953, p. 26-27). Liberalism is the desire to absolute freedom. However, absolute freedom is not achievable as it is self-contradictory and rejects itself. In this way, boundaries and norms merge to zero and only limitation to freedom is freedom itself. Therefore, people are free while their freedom is not in contrary with others'. Given Cranston's definition, a liberal should believe in freedom. The liberalist takes the principle of freedom as a value in two different ways (Cranston, 1967, p. 459).

The liberals believe that man is definitely free to do whatever he likes free of others' control or dependence to other (Locke, 1960, p. 287). Mill also argues that those opposing freedom keep carrying a burden of limitations and prohibitions. Prevailing and preliminary obligations must result in freedom (Mill, 19863, p. 262). Recent liberal thinkers such as Feinberg (1984, p. 9), Benn (1988, p. 87), and Rawls (2001, pp. 44-112) support this theory, which is the centerpiece principle of freedom (Gaus, 1996, pp. 162-166). In short, freedom is a norm.

In this way, those imposing limitation on freedom should be responsive, especially when such limitation are imposed without consent. Thus, before obeying political rule and laws, people must be argued to accept it as they both impose limitations on citizens. This poses the question "if political power is justifiable? And if yes, how?" This is why scholars like Hobbes (1948), Locke (1960), Rousseau (1973), Kant (1965) always try adopt a political viewpoint to freedom.

They argue that people are free and equal by nature and limitation to their freedom and equality must be justified rationally—i.e. social difference must be clarified.

According to this principle, limitations to freedom must be justified and should such limitations are accepted, they must be supported by Hobbes's theories and beliefs. The scholar was indeed one of the leading and outstanding liberals given his notable works on freedom and arguments to justify freedom. Locke and other similar liberals not only defended the principles of freedom and liberalism but also tried to justify limitations to freedom. Rovels wrote, "only one state is justifiable, which is the one that support and defend citizens' freedom and equality (Rovels, 1999b, p. 220). Thus, the first principle of equality is that "anyone is entitled to freedom without any limitation and all people should be granted such freedom" (ibid).

2.4 Humanism

Man feels a natural desire to being good unless such desire is corrupted by prejudice andignorance. The motto of philosophers of the age of enlightenment was in contrast with the Christian belief in the first sin. Jean Jacques Rousseau brilliantly pictures natural goodness of man. His theory argues that man, in his natural condition, desires goodness; however, this natural desire is corrupted in his quest to achieve civilization. Therefore, the present order is result of the past evilness rooted in ignorance, violence, and tyranny. Rousseau argues that establishment a natural and social order—i.e. the one that fits natural goodness of man—is necessary. Only by

realizing such order, we can solve the problems and controversies between man and the society (Arblaster, 2007).

2.5 Rationalism

The term rationalism refers to the belief in man's reason and wisdom; therefore, all human beings are blessed with wisdom. Wisdom and freedom are indispensable and integrated and rejecting one is equal with reject the other (Arblaster, 2007). The place of freedom in liberalism thought is rooted in the belief that man is rational by his nature. This is not to say that man always acts rationally, but rather man is blessed with such power. The liberalist reasonably believes in objective truth, the truth which is proved and discovered by the power of mind and through scientific experiments. What we know as rationalism means using the brain for critical thinking about whatever comes to mind including religious and non-religious matters. Rationalism talks about the enlightening power of science and finds the brain, not revelation, as the leader. Thus, whatever not justifiable and reachable by reason is rejected regardless the authority and power behind it (ibid).

Reason, and not fate, is the only tool and leader of man in his exploration. Thinkers of enlightenment age believed that wisdom is more acquired than gifted by nature. Arthur Wilson wrote in his book *The Wise*, "reason is an energy, power, and tool to do things" and "the essence of general reason" gives people a shared identity. The only tool in the man's hands to deal with issues is his reason. By giving the opportunity of free expression of reason, it can create a new system of life toward real prosperity.

2.6 Empiricism

Empiricism is one of the main trends in epistemology which is in contrast with rationalism. According to empiricism, the man's knowledge comes from experiencing directly and indirectly. Experience, accordingly, encompasses perceptions via the senses as well as others' findings and memories.

According to the fundamentalism theory, all our beliefs are inferred from a source that does not need reasoning and justifying. Empiricism is a subset of fundamentalism sets—only experience is one of such sources. Empiricism employs what can be sensed in contrast with rationalism. Logical experiences come from acquired knowledge using non-faculty proof. According to Descartes, our brain can function even without our senses. Therefore, the experience of our existence and knowledge is not part of our senses, as it is an acquired knowledge. This approach was seriously followed after the Renaissance. Barkly, John Locke, and David Hume are some of the empiricist philosopher.

2.7 Scientism

This philosophical viewpoint places natural science techniques above all other ways through which man explores the world. Scientism only recognizes experimental and inferential methods to explain all physical, social, cultural, and mental aspects. This approach is under influence of empiricism trend of enlightenment age and correlates with positivism of Kant (1798-1857). Kant believes that true knowledge is achievable only through empirical experience. Von Haik (1952) found Kant's approach radical and argued that this approach turns rational philosophy of science into an irrational belief and ideology. Nowadays, scientism bears negative meanings (Macmillan, 2006).

2.8 Rule of Law

Regardless of its outcomes, a basic question to be asked is how liberal system emerged. The answer of the enlightenment age thinker is through the law. However, the fact is that except for the United Kingdom, all major countries of Europe were under the old system of absolute monarchy and the establishment of liberal systems was entitled by bringing down the system. Then, how is it possible to change the government that preserves the status quo into a supporter of evolution? To answer this question and find useful tools and methods to realize their goals, political philosophers of the enlightenment age began to analyze new ideas about the government, its place, functions, and power.

These ideas can be traced back to John Locke's thoughts and his book *Civil Government* (1690) that promoted political liberalism generating thoughts. From Locke's viewpoint, government is formed as convention by the people who would naturally live independently. The purpose of the contract is to form a common authority to finish instability, turmoil, and hardships of the natural situation. Thus, this common authority or government is based on common consent. The government employs limited power and does not breach the man's natural right of freedom, life, and property. What happens, then, if a government does so? The answer is that people are entitled to overthrown such government and establish new one that would preserves their rights. Confirming revolution to preserve the social contract was a novel idea proposed by Locke (West Philosophy Journal, No. 2).

What is accepted as the principles of liberal government actually come from Locke's political philosophy, which in brief are, 1) a government is not eligible unless it is based on common consent of the subjects. 2) people reserve their natural rights against autonomous action of the government that neglect such rights. 3) The government cannot employ its authority without being accountable and responsive; thus periodic elections must be held, and 4) Revolution is allowed when the government neglects the natural rights and moves toward tyranny.

2.9 Modernism

Modernity gains weight when novelty of an action or thought is a base to conclude its merits. Modernism is in contrast with traditionalism; and in fact, antiquity and modernity are controversial and both lead to faulty reasoning. What motivates man to accept modernism is its illusive and attractive appearance, as man prefers novelty. The fallacy of modernism is based on the presumption that "anything new comes from man's growth and development, and thus it is good". The roots of modernism in the West can be found in two periods: one early Renaissance when a great improvement was achieved in empirical science and led to a wave of new findings. Thus, the idea that anything from scientific development of man should be good evolved. Another one was introduction of Hegel's thoughts that add philosophical aspects to advancement and argued that the world permanently marches toward development. This idea found great support from modernist groups and they began to argue that anything new is good. One of the main aspects of promotion of this fallacy was advertisements. In addition, controversy between modern values and religious values in the Third World also has its roots in the fallacy (Khandan, 2000, pp. 2-98).

2.10 Epistemic Pluralism

Epistemic pluralism highlights that there is no fix and stable truth in the world or that man never reaches such truth. Some have taken a step forward by refusing existence of truth and promoting pluralism in episteme. Clearly, this approach is an ontological approach, which forms the basis of epistemology. The importance of the epistemic aspect of pluralism lies with the fact that clarifies other aspects of pluralism (Hosseini, 2003, p. 26).

There are different approaches to and interpretation of epistemic pluralism:

- Denying the existence of truth;
- Denying the absolute of episteme relative to truth;
- Arguing that truth is placed in nested layers and man cannot penetrate into these epistemic layers;
- Arguing that man can reach to part of truth and that he cannot reach all aspects of truth;
- Differentiating phenomenon and nomen;
- Arguing that cultural, religious, and social background influences man's epistemological perception (Obodiat, 2002, p. 145).

2.11 Believe in Achievement

Because of its secular viewpoint, liberalism has adopted a dynamic viewpoint on life and assumed that man is growing and developing. Therefore, man does anything to make this world a better place to live. Liberalism argues that man has no knowledge at birth and has to live in a social environment, which is the outcome of mistakes and injustice of the past. To solve this vicious situation, man needs to add to his knowledge and walk toward enlightenment. The goal is to build a society that supports and promotes prosperity, good will, and welfare.

These ideas regarding the man and society's nature come from the concept of development and evolution, which are new and liberal concepts. In the 17th, there was a blurred perception of development and evolution. The concept drew more attention in the 18th century and emerged as a principle of new faith in the 19th century. Liberalism argues that growth might be fast or slow and converts a bad, but not too bad, society into a good, but not too good, society. Man is condemned to step toward a better civilization, a journey that never ends. The only way to create better life on the earth is to struggle and work hard. A belief in the growth inspired some of the liberals to support with enthusiasm any reform that promised better society in future. That is, reformation is liberalism's wish. This belief in the growth and development inspired new faith in and desire to change. By growth and development, liberals referred to the idea that man has stepped toward a good cause and keeps this movement.

For philosophers of enlightenment age, the idea of growth and development is the force that powers nonstop struggle to create a more prosperous future. The paramount idea of the book "a historical image of man's mind

development" by de Kondorce is development and growth. He proposes that development and growth are inevitable historical movements, which are linear and autonomous and move toward perfection or golden age in the future. Changes for better future come from new discoveries in science and technology and more enlightenment in beliefs and moral deeds (The Western Philosophy Journal, No. 7). Dogmatism, ignorance, and fanatism are temporal enemies of development and growth. In his book as a historical document of liberal thinking, Kondorce pictures a dream about man's future. He predicts a system in which nations and citizens of the nations whether man or woman are treated equally. There is no war, poverty, slavery, and colonization. All people receive education and people can live for longer. The idea of development and growth pictures new perspective of man's desire to perfection and his prosperous future.

Belief in the idea of development and growth leads to an ideology known as secularism. Secularism of the enlightenment age fights with all divine religions as they are claimed to be rooted in fears and superstitious. The vast river of unbelief, which has started to flow since the 18th century washes the foundations of traditional and imitational religion and belief. The ultimate goal of man, according to secularism is to reach prosperity on earth through scientific and earthy thoughts. Majority of thinkers of enlightenment age believed in natural deism or natural religion, so that God has created the universe and the laws of nature. However, they did not believe in verbal beliefs and breached the canonical norms. They also rejected the church and especially church's power in the government. By limiting religion to individual and private realm, they built thick and tall wall between the church and government.

Locke was a pioneer of tolerance. He argued in a letter regarding tolerance that authority of civil government is limited to earthy matters and the government has nothing to do with heavens. He defined church as an association of volunteers who wish to worship God within their group. Therefore, authority of the church is limited to its followers and to the form of out casting its members. Nobody shall be forced to follow religious rules and the state's law shall impose no limitation on citizen to convert to specific religions. Still, Locke excluded the Catholic and the pagan form the circle of tolerance (The West Philosophy, No. 8).

Voltaire (1694-1778) is the great prophet of religious tolerance of the 18th century. In his dissertation on tolerance he attacks the popular belief that tolerance will end up with chaos and turbulent in the country. He strongly argues for freedom of belief and even unbelief. He reasons that such freedoms strengthen the brainpower and remove fanatism and religious violence. According to Voltaire, religious intolerance not only is evil but also funny. He argues that tolerance among citizens with different strength of faith promotes loyalty to the state and friendly relationship between countries and Catholic and Protestant nations.

2.12 Equality

Freedom needs ability to employ will. Without the basic needs, one will never have the power, desire, and motivation to reach his wishes, needs, and interests. Still, having the basic facilities does not mean equality even in its relative form. Whenever it comes to competition to enter the public fields and business, the wealthy prevents others to use the limited resources. Time, opportunities, and resources are never enough to meet all men's desires. At any rate, being free and enjoy freedom needs free will, self-esteem, and enough knowledge. Passive and failed person naturally feels no urges to fight, struggle and act freely. Moreover, being free or not is not the same for him. Even the wealthy, in a society that inequality prevails, are faced with limitation in their freedom. That is, they can do whatever they like without limitation and this kills their desire and motivation to move forward and enjoy their freedom as they take their freedom for granted. It is said that equality, despite freedom, does not emerge by removing the obstacles as promotion of equality needs positive actions. Such actions entail a strong administrative power, which in turn imposes limitation on freedoms. To explain the controversy, implementation of freedom is not possible without social and political reformations and equality can be promoted gradually and step by step so that the side effects are dealt with at each step. It is notable however, that inequality is a limitation to freedom. The main issue is to find a balance point where equality is promoted enough so that inequality cannot be of major problem. Additionally, desire to expand equality must not overshadow limitations on freedom.

Doubtlessly, this balance point can be found in a test and retest political ground. The point is that equality is a value per se and also guarantees freedom. Of course, equality, like freedom, is a relative concept and no absolute form of equality is imaginable. It is a goal that realizing and promoting it needs permanent fight (Vincent, 1999, p. 312). Liberalism claims to be of support of equality of all men everywhere. It is notable that equality does not mean equal ability, moral perception, or personal attractions but it means that all are treated equality before the law and civil freedom of all citizens is guaranteed. No special group should be granted with special privileges or no discrimination should be imposed. The regulations, whether penalty or a reward, must be equal for all citizen.

Liberalism has continuously fought against the special rights and advantages (including race wealth, or place of birth) which are perceived as artificial obstacles ahead of personal growth and accomplishments. The principle of equality was promoted to the extent that it covered voting rights for all social groups including women. Liberalism, in our age, is aimed to create a society with equal opportunities for everyone where more people have the chance to realize their capacities and talents.

2.13 Social Justice

One of the main principles of liberalism is justice. One of the scholars who focused on this principle is Ravels. He showed that new liberalism is based on the theory of developing social justice. The idea of this principle comes from structure of the society and political inequalities imposed on specific social classes (Ravels, 1999b, p. 266). According John Ravels, the main issue is about relevance of capital and revenue. He argues that different principles of the constitution are controversial so that no social class overlaps another social class (Ravels, 2001, pp. 122-24). Many of his proponents have adopted moderate ideas regarding controversy of the regulations (Ravels, 2000). In fact, what was known as liberalism welfare and tranquility is now known as liberalism justice. John Ravels believed that welfare and piece are not the basic structures of capitalistic policies (Ravels, 2001, pp. 137-138). It not surprising that classic liberals such as Heik (1976) argued that liberalism of contemporary century is based on social justice and neglects public freedom. It finds poverty too far away and expected results of it are not predictable. In this regard, Nozik (1974, p. 160) brings the idea that any quest to reach stability of models encompasses personal freedom as well.

Ravels (1996, p. 5) emphasizes that the goals of political liberalism is not to add naive principles of development, rather to provide a political framework that fit the rational principles. In the context of the West, liberalism must be limited to political principles. This is the principle, which is publicly accepted (Lazmor, 1996, p. 121).

3. Liberal Scholars' Viewpoint on Education

The next sections introduce some liberal scholars' viewpoint on education.

3.1 John Locke

Locke wrote his book "Some Thoughts Concerning Education" when one of his noble friends asked his help in upbringing his child. The book, therefore, mainly constituted of methods and principles for upbringing children in royal families in the UK. Expectedly, the book guides the reader to educate a member of royal family. This book limits education of other social classes to professional education, which provoked serious criticism (Kardan, 2002, p. 120).

Tusi (1975) argued that Locke's theory on education is based on four principles: principle of usefulness, principle of rationality, principle of training, and principle of direct experience. Locke found proper education featured with three aspects of physical, moral, and rational aspects (pp. 132-133).

Regarding the purpose of education, Locke believes that as result of education, the individual must be prepared for life and membership in the society or as the way Locke puts it to become a citizen. He argues that the ultimate goal of education is to acquire moral merits, which in turn needs balanced and strong personality and decorum. First prerequisite for this is a healthy physics as, he believes, sound mind is in healthy body. Thereby, Locke offers a series of health advices for his readers including physical practices (Kardan, 2002, p. 121). As Maier (2005) argues, education in loyal families has four main purposes:

- Virtue; to distinguish good and bad;
- Wisdom; a practical measure to manage personal affairs skillfully;
- Good education; feeling dignity, in a sense of something between arrogance and modesty; and
- Trainings; that leads only to superficial knowledge (pp. 318-319).

He begins his education program with reading, writing, and painting and start a second language after mastery in the mother tongue. He argues that learning another culture is essential and that Latin and ancient literature are highly useful. Moreover, he has great zeal for English and finds it far more essential than knowing ancient Greek and Roman literatures. Mathematics, natural science, geography, history, and art were also part of his curriculum (Maier, 2005, pp. 319-320). Like Comenious, Locke believes that learning a profession brings in physical and moral health and that traveling is the final stage of education (Kardan, 2002, p. 122).

Regarding education method, like Comenious, Locke argues that education must be started from tangible to reasonable and from simple to more complicated problems. Moreover, the child must be motivated to experience and observe by teaching them ways of arguing. He recommended "mental discipline" and "mental practice"

(Kardan, 2002, p. 122). In general, the process of education was more important than its content for Locke. He believes that through education, the student learns physical discipline and acquires preferred habits. Moral principles must be education and reasoning and thinking power of the trainee enhances as a result of learning matters with disciplinary values (Tusi, 1975, pp. 134-135).

3.2 Adam Smith

According to Adam Smith, along with its social importance, education is also important for economic development. He believes that economic development is a requirement of a decent ruling system, which in turn needs well-educated people. Thus, the first thing needed to have a thriving economy is creative, educated, and committed human forces. Educating researchers and scholars in different fields of science paves the path for economic development and also removes the challenges ahead. People should be educated to save and invest their resources as much as possible. Using the right and rational education method, the education system can promote the culture of hardworking and improve public welfare (Kardan, 2002, p. 124). Basically, education is of social nature and the government cannot extend its supervision over it as an individual is not expected to obey the laws or social norms when the state controls the quality of education they receive. On the other hand, the state cannot keep neutral position regarding education, when it is defined as a basic social task; in fact, the smallest issues regarding education must be relatively a function of state's policies.

3.3 David Hume

Hume argues that anything, including knowledge and science, comes from experiencing and logic. In fact, by observing how things happen, one understands that things happen because of a need. Education, according to Hume is a branch of psychology. Kant maintains that we experience what we are sure and think about them. Hume believes that experience is a mental need of man.

In this introduction, Hume invades natural laws and rights in the philosophy of *Treaties of Human Nature*. He objects the position of reason in the way supported by natural rights theoreticians who believed that the norms are outcome of previous moral actions, which are achievable by the reason. In addition, man's emotion that may mislead the norms must be brought under the control of reason. That is, the only way to find the right path is to employ reason. Hume argues that natural rights approach is a wrong perception of reason as it can be used in very limited fields. It is the job of reason to find the logical relationship between things; however, it cannot prove existence of truths or values (principles of natural law). Values for man are determined by emotions and feelings while we employ reason to comprehend these values and the role of reason is of accidental nature. According to Hume, reason is slaved by emotions (Alem, 2003, p. 383).

The emotion that motivates man's deed is both natural and accidental. The natural emotion is with man since the birth and a priori of experience. The accidental emotion based on experience leads to happiness or sadness. For instance, man is attracted to an experience when he finds it joyful. Thus, everything is a function of experience and there is no a priori truth. Man learns from the experiences that meet his wishes and recognizes them as right thing to do while bad experiences represent wrong action. Hume argues that sociologists, rather than relying on the presumably everlasting rules, should examine man's behaviors. This is not to say that Hume neglects the values, as he actually believed that social behavior has general norms. The point is that these norms are rooted in experience and accessible only through experiencing not abstract reasoning. He argues that these norms are universal as different people have the same thinking trends. Therefore, while moral codes are generally the same everywhere, different political and social systems have emerged due to different experiences (Bakhshayeshi-Ardestani, 2009, p. 145). In fact, that Hume argues that reason is a tool in hands of emotions does not mean that emotions are always rational. People are not the same regarding their ability to employ reason in a satisfactory manner. Different people have different interests and emotions to guide them. He states that most people fail to see that, with moral codes that may entail delay in meeting immediate needs, they can reach higher welfare in long run. He also distinguished between soft and harsh emotions; the former is led by the reasons that meet the personal interests in long run and the latter meet the immediate needs. The practical and political implication of this difference is that the society should be led by the minority with grown brain as a result of educations and wealthy enough to be resist temptations to follow their personal interest. Additionally, justice is promoted when the society performs its duty with an eye to long-term personal interests. People morally accept a social-political system that meets their interests. People obey the system because it is functional and useful. The moral codes are also rooted in interests. Justice, moralities, freedom, and so on is not a priori and they are valuable to the extent that they are useful. In this way, Hume introduces utilitarianistic theory, which was later developed by Behntah to philosophy of utilitarianism (Pazargad, 2009, p. 312).

3.4 Immanuel Kant

For Kant, man's freedom is more important than other existential aspects. He believes that freedom is joyful and one never gives up his freedom if he had tasted it in early years of life (Corner, 1999, p. 183). The purpose of education is to impose limitations on freedom and then lead it in the right path (Kant, *Metaphysical Foundations of Natural Science*, 1991, p. 201). Therefore, the child should be taught that freedom has limitations and borders. Education program must be designed in pyramid form so that at any stage the learner is learned something useful.

Before education age, children are free to enjoy their boundless freedom. However, school is strict limitation on children freedom and it is the teachers' task to control the uncontrolled desire for freedom. Kant highlights three main limitations on freedom; 1) People should be taught that their freedom is allowed while it does not impose any limitation to that of others; 2) Freedom must not worsen your future compared with the present—i.e. freedom that threats future is not desirable. This explains why parents prohibit their children to play or rest unless they do their homework; 3) Freedom should not threaten spiritual growth. That is, the purpose of freedom is to lead people toward growth and perfection (Kaplston, 1996, p. 185).

3.5 Russell

Although a variety of definitions have been introduced by Russell as to education, one general definition of education according to Russell is "acquisition and development via education using specific mental habits with specific viewpoint about life and the universe" (Russell, 1918, p. 33). Russell argues that before determining the best form of education we need to determine what type of human we sought after. Despite other philosophers like Locke, Hobbes, and Rousseau, Russell does not believe in intrinsic goodness or badness.

One of the key goals of education, according to Russell, is to achieve social solidarity first at national and then at international level. Following his optimistic approach, he argues that education system can educate citizens who can follow a cooperative and interactive social life (Russell, 1982).

He believes that people have fundamental motivations that emerge in different people as creative, constructive, and motivations. Many social problems can be overcome by fostering constructive motivations. He never rejects appropriative motivation but rather believes that creative motivations have stronger role in the best way of life comparing with appropriative motivations (Candice, 2003). With this introduction, let us look at the main question of this section. Surely, realization of any educational theory in practice is directly related to its shortcomings. In other words, the fewer the problems and shortcomings, the higher the chance of implementing an educational theory in practice. Concerning Russell's educational system, few problems have been noted and some are discussed in what follows. Surveying these problems helps us finding better answer to the question of this section:

- A fundamental assumption of educational system introduced by Russell is that the individual tries to balance and cooperation between will and wisdom. However, some have objected this assumption, which is surely rooted in optimistic viewpoint of Russell on man's nature. On one hand, he argues that will and desire are not rational necessarily and on the other hand, he maintains that through the interaction between will and wisdom one can control appropriative motivations. In short, one may conclude that such assumption is too much optimistic for the current condition of the world (Candice, 2003).
- Education system proposed by Russell educates people as independent individuals. However, the problem lies with the fact that this education system fails to reach an agreement between individual and cooperative citizen independence. Clearly, educating citizens usually needs loyalty to status quo, which is in contrast with individual education supported by Russell. It was mentioned earlier that Russell's ideal human tries to find creative solution for the problems, which is in contrast with his claim that citizens usually cannot find novel solutions (the same).
- The global state, which is a prerequisite for Russell's ideal education also seems unrealistic. He believes that the same classification of creative and appropriative motivation holds for the states. The latter results are crises at international level and this indicates necessity of a global authority. He assumes that this authority must supervise national states and the states are independent regarding their internal affairs and while their deeds do not negatively influence other nations. This assumption can be criticized from different angles. In addition, emergence of multination enterprises and institutes is a great challenge ahead of formation of global power. Therefore, Russell's education system cannot promise promotion of rational attitude (one of the ultimate goals of the system) in the world (Candice, 2003).

4. Value Foundations of Liberal Education

Halstead believes that in spite of different perceptions of the concept of liberalism, there is a set of general and pivotal values of liberalism shared by different viewpoints. Three main values of liberalism are:

- Individual liberty (freedom of action and no limitation and bounds when it comes to personal wills and needs);
- Equality of respect for everyone whether in the structure or in practice (no discrimination); and
- Consistent rationality (decision and activities are justified based on integrated rational and logical justifications).

There is no general agreement about priority of these three values as Berlin and Hike emphasize on the first item and Durkin, Gotman, and Heart have focuses on the second item. Regardless of these disagreements, one may conclude that controversy between the first two items highlights the role of the third item. At any rate, there is wide agreement regarding these three items as the foundations of liberalism. Moral liberal theory is also based on these three values (Shoarinejad, 1985, p. 233).

The principles "unilateralism" and "tolerance" are set as the second and third values respectively by the theory, while autonomy is related to the first to third values. Interaction between the three values provides the ground for a fair solution to the controversies and enforcement of law.

Halstead maintains that the fundamental values can be approached from different angles. Paying attention to each one of these three values is a purposeful quest to remove and eliminate some concepts from liberalism. The first item (individual liberty) clearly rejects the dictatorial and single-party system that threats individualism. Classification of people based on their claim for more freedom than the others and slavery liberalism are also avoided by the second item (equality of respect). Eventually, the third item (consistent rationality) rejects uncontrolled power, irresponsiveness, and negligence of effective factors. According to the third item, passive acceptance of dogmatic beliefs brought in whether by individual power or revelation without critical thinking is rejected.

In addition to these three values, there are other important elements in the liberal viewpoint. One of them is "right" which usually comes with prefixes such as moral, social, natural, humanistic, and religious. Halstead focused on two rights; moral and social rights and believed that realization of the three values is not possible without these rights. Right to live, right to be free, and right to be safe from brain washing are also in the same classification. Social rights, in this regard are those that rational analysis find them the best way to achieve to reach a fair solution to the controversies and guarantee man's survival on the earth. These rights including education and dwelling rights and free health services are usually set by the law.

Another key element of liberalism is democracy. Proponents of liberalism find democracy the most reasonable defense against oppression. They also argue that democracy guarantees equal right of citizens so that they can achieve as much as possible of their interests. The role of the state and law's role under democracy is that sovereignty is not the goal but more of a tool to regulate competition among people and help them reach their individual goals. Liberal government, according to Halstead, is a tool to preserve common interest and social justice and law is the way to expand discipline in the society. Religions matter, in this regard, is an interesting issue. Liberal government is expected to follow a neutral approach to religious affairs; while it preserves individual rights and liberty regarding religious concerns, the government is legally banned from intervention in religious affairs in passively or actively (Pergman, International Encyclopedia of Education).

Liberal education, like liberalism itself, has a long history and naturally there is different interpretation of it. Still, Halstead believes that principles of liberal education are evident in value foundations of liberalism. He argues that the Western education approaches are controlled by principle values of liberalism. Values such as individual autonomy, accepting criticism, independence of academic system, equal opportunities, rational morality, tolerance, avoiding dictation of beliefs, and rejecting personal definitions of "good" all are based on three basic value of liberalism (i.e. liberty, quality, and rationality). Recent movements in education system to emphasize democratic values, citizen rights, and children rights are also based on these basic values.

It is notable that proponents of liberal education find this approach the only reasonable and justifiable way of education so that they argue that the right education system is liberal education system.

A detailed explanation of some of basic values of liberal education is as follows:

1) Rationality

"Education is committed to rationality nothing more nothing less" (Hirst, 1974, p. 6). By this, Hirst clearly

expresses the pivotal role of rationality in liberal education. He believed that children must learn critical thinking and freethinking if we desire growth of rationality among them. That is, they must be allowed to criticize whatever ideas and never to accept an issue as the ultimate truth. In this way, it is not accepted to transfer and dictate values to children under liberal education system. Freethinking has clearer definition in liberal education as being indifferent and neutral position toward synonym ideas. Thus, freethinking means that no specific idea can be taught to children as "good way of life."

In agreement with the principle of being neutral, some liberalism proponents believe that moral education should only tries to improve moral reasoning and choosing power. In other words, no specific value should be introduced as moral merits. There are others like Durkin how believe that some values such as justice and equality are accepted by liberalism and moral education should create reasonable and documented morality based on the commonly accepted values (Chamblis, 1996, p. 303).

2) Personal autonomy

Autonomy development is a distinct value of liberalism. Billi (1984) defines liberal education as a system that frees the individual from all limitations so that he can freely choose his beliefs and deeds. According to Dirden "any person is autonomous to extend that "his" thought and deed in his life is justifiable by referring to "him", "his" choice, "his" decision, "his" judgment, "his" plan, and "his" reasoning."

From liberal education viewpoint, autonomy development in children encompasses wide range of issues including development of knowledge and perception, awareness of beliefs and different ways of living, rational decision-making, and ability of independent thinking based on reasoning rather than the thought dictated by the others.

3) Equality of respect

Equality of respect is a key value in liberal education. Liberal education policy to fight race, gender, nationality, religious, social class discrimination is based on this value. Halstead believes that equality of respect does not mean that all individuals are treated identically, but it rather means that plurality of ideas is accepted by liberal society. To prove his statement he quotes "all gardens in the ideal liberal society are equal even though they are decorated in most delicate way." Another value pertinent to equality of respect is equal opportunity. There is no general agreement about definition of this value, but at least in the field of education it is defined as equal access to resources, so that no citizen should be deprived from living opportunities due to unfair access to resources.

Goals of liberal education:

1) Public education

Creating a public education system available for all citizens is one of the goals of liberal education system. This is based on the assumption that citizens are summons to make decision about all social matters. Education system creates a cognitive basis for rational decision-making (Guteck, 2007, p. 279). Taking into account the emphasis of liberal thinking on equality of people regarding access to their fundamental rights, all citizens in liberal society are entitled to have equal forma education. To administer justice according to liberals' definition, all citizen must be allowed to realized their talents and develop.

2) Civil education

One of the main organs of liberal society is the rule of majority, which according to the liberals, is the fairest way of political decision making (the same, 254). The aim of civil education under liberalism definition is emotional and cognitive development of future citizens (the same, p. 280). Thereby, improvement of civil attitudes and the values that strengthen social processes and foundations are the aims of the education system so that people are trained to intentionally commit themselves to participate in political fate of the society and to respect the laws.

3) Practical and applied education

Many liberal thinkers such as John Locke find the education system featured with practical and applied aspects as an acceptable system that prepares the students to take independent role in their society. Thus, theoretical learning that has no practical and professional value is not a priority.

4) Educating free and autonomous individual

With liberty as the most valuable thing in liberal thinking, educating free and independent people is of the main objectives of liberal education. Individuals are expected to learn to think and to decide under deep-rooted freedom in the society and to act according to his beliefs. Education system, in this regard should educate individuals who choose their way of life independently, freely, and away from others' influence.

5) Development of wisdom

Inspired by the ideas from enlightenment age, liberals accept the wisdom's power to solve their problems and improve their and society's living condition. Philosophers of liberal education such as Richard Pitters, Powel Hirst, and Robert Dirden (also known as creators of the London school) introduced a version of liberalism based on rationalism (liberal rationalism) in the 19th and 20th centuries. They emphasize that individual liberty and independence depend on the performance of individual's wisdom and all social and morality codes can be set or reformed through individual thinking (Walker, 1999, p. 55).

4.6 Development and Promotion of Secular Curriculum

By accepting secularism, liberals try to eliminate religious educations from formal educational system. This is because some liberal scholars believe that religious trainings are like transferring religious educations to the next generation regardless of the fact that this is negligence of thinking power of the students. Therefore, this is in contrary with individual independence and soul of liberty (Hirst & Zhiter, 1970, p. 20).

5. Discussion and Conclusion

The axiology foundation of liberalism and its implication for education was studied. To this end, educational viewpoint of some of liberal thinkers (e.g. John Locke, Smith, Kant, and Russell) was introduced along with the axiology foundation of liberalism. Moreover, implications of liberalism for education were studied from 1-value foundation of education; and 2-purposes of education viewpoints. As recommended by the studies, among the axiology foundations of liberalism are 1-individualism, 2-liberty, 3-omanism, 4-intellectualism, 5-empiricism, 6-scientism, 7-rule of law, 8-modernism, 9-epistemological pluralism, 10-believe in achievement, 11-tolerance, 12-equality, 13-social justice. On the other hand, value foundations of liberal education are 1-rationality, 2-autonomy, 3-equality of respect. Moreover, of the liberal educational goals are 1-public education, 2-civil education, 3-applied and practical education, 4-training autonomous and liberal man, 5-mental development, 6-expansion and promotion of secular curriculum.

Some of the criticisms of liberalism are as follows:

- Liberalism is empty of axiological concerns; thus, moral values come from things other than the realm of decision, will, and credit of the individual. In this way, liberalism's journey starts from ontological individualism toward axiological and moral individualism, then to distinguishing reality from value, separating ought and existent from ought not and non-existent and eventually to relativism and individual values. Laksi writes that values that had their root in heavens descended to realm of man's will. There is not heavenly value left. The scene is beautiful but empty of meaning and the only meaning comes from man's decision.
- Liberalism has provoked criticism from different angles; some have criticized foundations of liberalism
 especially radical individualism. Some others have focused on liberal arguments about freedom, policy, and
 government and some have dealt with practical results of liberalism and its historical role needs deep
 reflection.
- Autonomy: selfishness and egomania are of the main ideas and results of liberal autonomy. Altruism and philanthropy are only accepted when they are along personal interests and breach of liberalism value otherwise (i.e. satisfaction of *Amara Soul*). Barry, a contemporary author writes the man's goal in life is to meet his personal desires and if he is to sacrifice his life for sake of an imaginary existence called society, it is construed as the breach of liberalism values. The same conclusion is written by Rend in his book on autonomy. The growth of individual autonomy has resulted in death of common conscience, social morality, anarchism, negligence of public interest, society as the tool to fulfill personal desire, and creating commercial and selfish relationship with the society.
- Moral anarchism: Relativeness and individualism of values in practice have led to moral anarchy and serious social chaos. According to Mcintaier, throughout the history, humanity has tried to achieve values and led the society to perceive such values and then liberalism with its double edged sword (liberty and individualism) wasted away all those values.
- Negligence of public interests: public interest, patriotism, nationalism and in general humanistic and social
 values are nothing but illusion from liberal individualism. We read in a noted declaration of loyalty by
 Forester at the dawn World War II: I hate ideal values, if I have to choose between betraying my country or
 friend; I hope I would have the courage to betray my country.

• Arblaster interprets Forester's belief not as an aberration but rather a feature of liberalism of 20th century and regeneration of old liberal tradition of doubting government and power. Arblaster points out the key issue that liberalism is deeply and naturally anti-group... and struggles to change this have led to problems in liberal political action and theory.

In addition to the fundamental values of liberal education, Halstead briefly surveys different and opposing viewpoints on liberal education mainly those from Islam. Halstead's viewpoint on Islamic foundations of education is worthy of attention; he wrote "the main opponents of liberal education are those rejecting the basic values of liberalism; among them, Marxists, radical feminists, post-modernists, and Muslims and Catholics are notable. Islam, based on values rooted in revelation, has adopted an education system, which is in contrast with liberalism from different point. The ultimate goal of Islamic education is to educate faithful individual; good Muslims; individuals who never question Islamic foundations and codes; they are supposed to accept the foundation of their religions as their parents did."

Regarding disagreements and agreements between Islam and liberalism, Halstead believes in a moderate solution. However, he finds liberalism's foundation in contrast with religions approach by saying "some liberals do not stand religions (Islamic) approach and believe that the state should support the children's right of freedom from cultural environment (religious environment) limitation and help them to grow as independent adults.

6. Implication of Liberalism in Education

Liberal education has a long history, while different interpretations of it have prevailed in different periods. Aristotle's philosophy was to educate liberal people and establish liberal society. During the Middle Age, liberal education was about purifying souls and John Dewey defined liberal education as an education that leads to the student's freedom. In public domain, liberal education is known as public education (Shoarinejad, 1985, p. 234).

To avoid any prejudice in our definition of liberal education, this section focuses on Halstead's article "Liberal values and liberal education" (Taylor, 1996, p. 241). Halstead's studies were on cultural and value aspects of education. He also has some works on Islamic Education and believes that educational values are achievable when the fundamental values of the society are surveyed beforehand. In light of this, his article first surveys liberalism—he believed that liberalism constitutes foundations of values in the West- and then discusses effects of liberal values in the Western education system. He concludes with a review of different liberalism viewpoints including religious viewpoints.

References

Abedi-Ranani, A. (2008). A survey of Alsdier Mc Inteir in criticizing foundations of liberalism (M.A. thesis, Islamic training and politics, Imam Sadegh).

Ali Babaei, G. (2003). Arash Political Dictionary. Tehran: Ashtian.

Arabicham-Alishahi, Z. (2011). Comparative survey of values in Islam and liberalism and their implications for moral education (M.A. thesis).

Arblaster A. (1998). *The West liberalism: Emergence and overthrown* (Translated by A. Mokhber). Tehran, Markaz Publication.

Asadipour, N. (2010). A survey of the effective factors on development of the concept justice in liberalism (M.A. thesis, Mashhad, Ferdousi University).

Ashouri, D. (1994). Political Encyclopedia (9th ed.). Tehran: Morvarid.

Bagheri, K., Sajadei, N., & Tavasoli, T. (2010). *Approaches and methods of research in education philosophy*. Tehran, Cultural and Social Studies Research Center, Ministry of Science.

Baratalipour, M. (2002). Liberalism (1st ed.). Qom: Islamic Training Association.

Basirnia, Gh. (2002). Relationship between democracy and political schools (1st ed.). Qom: Maref Publication.

Biro, A. (2010). Sociology Dictionary (Translated by B. Saoukhani).

Borodo, Zh. (1999). Liberalism (Translated by A. Abdlovahad). Tehran, NashrNei.

Dinaryand, R. (2012). Wise man as the goals of liberal education and role of high education (M.A. thesis).

Disnad, F. (2009). Elaboration of Healthy life from Quran's viewpoint and liberalism utopia and its education goals (M.A. thesis).

Galton, J. V., & Mozer, S. K. (1995). *Methodology in sociology* (4th ed.) (Translated by KazemIezadi). Tehran: Keihan.

Ghanbari, A. (2004). A critique review of liberalism and humanism. Qom: Faraz Andisheh.

Khalieghi, R. (2000). Elaboration of liberal education system. Tehran: Tarbiat Modaresh University.

Nemati, L. (2011). A review of principles and values of liberalism and its causes in moral education (M.A. thesis).

Pazargad, B. (2006). Political Schools. Tehran: Eghbal.

Pirhaiati, A. (2000). *Elaboration on Education (goals, content, methods) from Pitters viewpoint with emphasis on its philosophical foundations*. Tehran: Tarbiat Modares University.

Rabani-Golpaigani, A. (2003). Criticizing foundations of liberalism. Qom: Hozeh Elmieh Management Center.

Rabani-Golpaigani, A. (2003). Freedom and democracy from Islam and liberalism viewpoint. Qom: Islamic Research Center.

Rajabi, M. (2003). Anthropology (3rd ed.). Imam Khomeni Research Center.

Saie, A. (2008). Research methodology in sociology (2nd ed.). Tehran.

Shapiro, J. (2001). Liberalism from concept and history (Translated by Kashani). Tehran: Markaz Publication.

Tebi, H. (2007). *Theoretical foundations of liberalism and critiques from Quran viewpoint* (M.A. thesis, Arak Islamic Azad University).

Zarean, M. (2000). Religious and liberal education. Marefat Journal, 33, 8-15.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/3.0/).