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CRITICAL THINKING AND INNOVATION: AN ISLAMIC PERSPECTIVE

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ABSTRACT

This paper will discuss the role of critical and creative thinking in preparing new generations to respond to the challenges threatening our societies today and in the future. We have been living in an ever interconnected and changing globalized world. Therefore, climate change, migration, international terrorism, financial meltdowns, poverty, injustices, and inequalities challenge and threaten the global community as a whole. If we want generations to come with new solutions and alternatives to solve these challenges, we must prepare them with critical thinking skills. It will suggest that the Qur'an and Sunnah of the Prophet were sources and driving forces of critical spirit in the classical Muslim legacy and kindled spirit of burning for learning. Therefore, this paper will attempt to define major concepts first and then delineate the significant features of critical and creative thinking in al-Ghazali's exemplary life and teachings.

Keywords; Critical thinking, innovation, Islam, higher education, leadership, Al-Ghazali.

INTRODUCTION

COVID-19 pandemic teaches us how we are interconnected and how our lives are fragile once more in globalized world. The economic, cultural, ecological, and other acute problems in some part of the world also challenging humanity as a whole. Therefore, realizing the global nature of the problem, we have to re-think about our educational paradigm and core values of our educational systems. It assumes that we have to overcome the nation-state mentality of the 20th century and transform our education systems accordingly. Our future's shape and color will depend on the decisions we would make today if we are ever interested in a better and brighter future for generations next: our children and grandchildren.

Nevertheless, we should not forget what Albert Einstein reminded us that "The significant problems we face cannot be solved at the same level of thinking we were at when we created them" (Weinberg 2011). What he meant was conceptualized a few decades later by Thomas Kuhn, a historian, and philosopher of science, as paradigm shift in the 60s (Kuhn, 1962). However, first of all what we mean by critical and creative thinking and what they are so crucial for educational system?

CRITICAL THINKING

It is not surprising to competing and, in some cases, varying definitions of critical thinking (C.T.) in the relevant literature; therefore, it is difficult to reach a consensus on a definition of what to be understood by "critical." However, *the American Philosophical Association's* consensus describing the portrait of any ideal critical thinker may be helpful for our purpose here. A critical thinker defined as "someone *inquisitive in nature, open-minded, flexible, fair-minded, has a desire to be well-informed understands diverse viewpoints, and is willing to both suspend judgment and to consider other perspectives*" (Facione, 1990).

Moreover, it suggests that critical thinking assumes "a persistent effort to examine any belief or supposed form of knowledge in the light of the evidence that supports it and the further conclusions to which it tends" (Glaser, 1941: 5). However, critical thinking sometimes has been used with creative thinking interchangeable, but there are some differences between the two terms as noted by Beyer in his analogy:

“Whereas creative thinking is divergent,
Critical thinking is convergent.
Whereas creative thinking tries to create something new,
Critical thinking seeks to assess worth or validity in something that exists;
Whereas creative thinking is carried on by violating accepted principles,
Critical thinking is carried on by applying accepted principles.
Although creative and critical thinking may very well be different sides of the same coin, they are not identical”. (Beyer, 1989: 35)

In the sense that we are using it today, C.T.'s history is just a few decades old. We owe the development and evolution of C.T. in its new form to the American educators who were pioneers of C.T. in modern times. The National Commission on Excellence in the US, published *A Nation at Risk* report describing the plight of education in 1983. The finding of the reports was mind-blowing and a wakeup call for concerned Americans as it found that many 17-year-olds did not possess the "higher-order' intellectual skills" this country [USA] needed. Moreover, according to the report nearly 40 percent could not draw inferences from written material, and only one-fifth could write a persuasive essay.

(*A Nation at Risk*, 1983). A positive result of this wake-up call report was to immerse the spirit of critical thinking as a part of the curriculum and since then C.T. became extremely popular in the U.S. and then spread to other countries. However, fifteen years later, a new report, *A Nation Still at Risk*, revealed that "some 30 percent of entering freshmen (including more than half at the sprawling California State University system) in need of remedial courses in reading, writing, and mathematics after arriving on campus".

Moreover, "employers report difficulty finding people to hire who have the skills, knowledge, habits, and attitudes they require for technologically sophisticated positions" (*A Nation Still at Risk*, 1998). The OECD also predicts any country's future to be shaped by the education provided for the young generation. Therefore, it suggests that schools should prepare students "for jobs that have not yet been

created, for technologies that have not yet been invented, to solve problems that have not yet been anticipated” (OECD, 2018: 2).

“It will be a shared responsibility to seize opportunities and find solutions. To navigate through such uncertainty, students will need to develop curiosity, imagination, resilience, and self-regulation; they will need to respect and appreciate the ideas, perspectives, and values of others; and they will need to cope with failure and rejection, and to move forward in the face of adversity. Their motivation will be more than getting a good job and a high income; they will also need to care about the well-being of their friends and families, their communities, and the planet”. (OECD, *ibid*).

The message of OECD on the role of education for development and prosperity is clear, unequivocal, and eye-opening: "education can equip learners with agency and a sense of purpose, and the competencies they need, to shape their own lives and contribute to the lives of others." (*ibid*). Therefore, I consider the teaching of C.T. and making it the core value of education in the broader sense as a moral imperative for Muslim ummah who care for their children and the future of ummah.

Reflecting on the plight of education in Muslims societies, it seems that we lost the sense to appreciate and understand the reality of change in culture, economics, science, and society. Yes, it is true, in the 20th century we were citizens of nation state but now we all have been citizens of global world. Therefore, without a new educational system based on a critical spirit and innovative skills, it would be difficult to understand the dynamics of change underpinning the very fabric of the global world with classical education systems that was built for an economy and a society no longer exists. Although, we can be proud of our Islamic legacy and achievements in Islam's golden age, and even we can justify it; this should not blind us to see that we have been living in a different world.

I traveled from Morocco to Jakarta and visited many schools and studied the educational systems in Muslim countries, with some exceptions here and there; it is not a secret that educational systems in many Muslim countries outdated to respond to our current and pending challenges and gives us hope for a better and brighter future. We have to change and revise it so that it can help our children to understand the complexities of the modern world, then, to propose and devise new solutions and alternatives to solve their vital problems and respond to these challenges. In that case, our education systems must provide them with the proper tools and skills for developing their God-given "individual powers of mind and spirit to the utmost" (NCEE, 1983).

In other words, education must help students to discover their abilities, shape them in the light of sound knowledge, understand and appreciate biodiversity and cultural diversity as a gift of God; base all their judgments on arguments and growing as moral agents of positive change and transformation. We should remember what Kant, the godfather of enlightenment, once said "the actual proves possible." It is not a secret that developed countries owe their success to the quality of their education system. In that case, we can do it too, not with a blind imitation or copy-past mentality but by evaluating the present situation with tools provided to us by social sciences and always keeping in mind and internalizing the Islamic Worldview and relying on our core values when proposing a new system. With these introductory remarks, we can look at Islamic history to see some examples of critical and creative thinking in context. This assumes and proposes that the spirit of the Quran and the Prophet's exemplary practice force us to be creative to find a solution to our problems.

THE MUSLIM LEGACY CREATIVE THINKING: REKINDLING AN OLD FLAME

In the classical Muslim legacy, it was not difficult to see how the spirit of critical thinking was kindled by the very teachings of the Qur'an and Sunnah of the Prophet. Açıkgenç discusses and articulates in depth to present to us how a critical spirit has been central to Islam from its inception (Açıkgenç, 2014). As a result of this spirit, from the early days of "Islamic Scientific Tradition," many scholars emerged with a spirit of "burning for learning" and "a critical mind". It was a standard of the time to take long journeys for the sake of wisdom and knowledge from East to West and vice versa. Al-Kindi (801-873), the first Muslim philosopher, summarized even canonized this attitude of burning for learning as follows:

We should not be embarrassed about appreciating the truth and obtaining it wherever it comes from, even if it comes from races distant and nations different from us. Nothing should be dearer to the seeker of truth than the truth itself, and there is no deterioration of the truth, nor belittling either of one who speaks it or conveys it (Al-Khalili, 2010).

The Qur'an, from the beginning, instructed the Prophet Muhammad (pbuh) to read the universe saying "Read! (or Recite!)" to which the Prophet immediately responded, "I do not know how." The angel Gabriel when repeated the command for third time, said "Read in the name of your Lord and Sustainer who created." (Qur'an 96:1)

The point is that the Prophet was not literate, and there was not yet a text in any form to be read, so what was the meaning of this first holy command "Read!"? One answer, I think, is that "reading" here means an entirely new way of looking at the world. The fundamental notion is that this reading should be in the name of our Sustainer (Ozdemir, 2003). Therefore, at the very beginning, the Quran declared a paradigm shift in the pre-Islamic Arabs mind about how to understand the world and establish God-human, human-human, and human-universe relations. Thus, it has been coined on people's minds that God, as the Sustainer and Creator, gives existence and meaning to everything else. Hence, all reality should be seen and read with this perception in mind.

It is difficult for any reader of the Qur'an, to discover how it denounces those who do not use their critical faculties in strongest terms (8:22). The Holy Qur'an even reminds the Prophet to seek more knowledge, "And say, O my Lord! increase me in knowledge" (20:114). It is, in fact, full of praise for knowledge: the words *ya'lamûn* (they ponder), *yatafakkarûn* (they reflect), *yatadhakkarûn* (they meditate), and other similar expressions occur on almost every page of the Holy Qur'an. (Ali, 1944). So, a new era opened in human history and we witnessed the making of Islamic civilization in the seventh century.

In doing so, the Qur'an "wants to establish a relationship between man and its message. Man's inner perceptive faculties, including his mental states and feelings, are taken as the locus of this relationship; they must, thus, become a "receiver" for what the Qur'an says on the transcendent truth" (Ozdemir, *ibid*). This is the rise of Islamic civilization, which is a miracle phenomenon concerning many of its aspects. (Açıkgenç, 2015, 95).

After almost a decade, the Qur'an described the profile of a Muslim in the Madinah period as someone "who celebrate the praises of Allah standing sitting and lying down on their sides and contemplate the

(wonders of) creation in the heavens and the earth (with the thought): "Our Lord! not for naught hast thou created (all) this!" (3:191). This was a new revolution of mind and heart in the Arab Peninsula in the 7th century. Thus, the enduring Qur'anic emphasis on human potentiality with critical and creative powers pays the way for a rebirth of Islamic civilization, which is the only cavillation based on knowledge (*ilm*). (Açıkgenç 2014; Rosenthal, 2007). Therefore, there are abundant and beautiful examples of creative thinking in Islamic history.

The Prophet Muhammad (PBUH)

The Prophet Muhammad (PBUH) presented as a role model for us at the very beginning of revelation: "And indeed, you are of a great moral character" (68:4). Muhammad Asad renders the term "khuluq" as "way of life," describes a person's "character," "innate disposition" or "nature" in the broadest sense of these concepts, as well as "habitual behavior" which becomes, as it were, one's "second nature." (Asad 1980). "There has certainly been for you in the Messenger of Allah an excellent pattern for anyone whose hope is in Allah and the Last Day and [who] remembers Allah often" (33:21).

When we look at the Prophet Muhammad's life and practice (PBUH) as he embodied the Qur'an's spirit in his personality, there are many creative thinking examples. However, it would suffice for our purpose here to give two examples. First, when he was 25 years old, there was a great debate during the restoration of Kaaba, regarding who would lay down Hajar al-Aswad (the Black Stone) to its place as it would be an honor for that clan forever. Therefore, nobody compromised his position. They were at the brink of a great fight and even war as a result of disagreement. Hopefully, they agreed the young Muhammad to find a solution as everyone in Makkah trusted him and even named him as al-Amin (Truthful). According to historians:

He resolved this dispute with great wisdom in an amicable way. He spread his cloak on the ground and placed the Stone upon it. He then asked the representatives of each tribe to lift the cloak together. When the Black Stone reached the required height from the ground, he went forward and set it in its place, thus sharing equally in the glory and privilege of replacing it. (Haykal, 1976; Lings, 1983)

When we analyze this event with a critical mind, it is not difficult to find out that it contains all significant creative and critical thinking elements by finding a new and inclusive solution to the problem at hand.

The second example of critical and innovative thinking in the Prophet's life is "digging a trench" to defend Madinah. As we know, the leaders of Jewish clans in Madinah conspired a plan with Quraysh and all Arab tribes, which see Islam as a threat to their tribal self-interest to seize Madinah and destroy the Muslim ummah and solve the so-called problem at the grassroots. As soon as the Prophet informed us about the plan, what he did is exemplary for us as it contains layers of lessons to be taken away.

The first thing he did was to alert "the whole oasis and spoke words of encouragement to his followers, promising them the victory if only they would have patience and fear God and obey orders." As we see, there is tremendous hope and confidence first in Allah and second in themselves as believers.

Second, what he did was extraordinary and mind boggling for a Prophet as "he had done at Uhud War, he summoned them to a consultation at which many opinions were expressed as to what would be the best plan of action." It can quickly be expected that he can solve the problem as the Prophet of Allah through a direct revelation from Allah or his leadership wisdom. Instead, he consulted with his

community to find an innovative solution, which is, to our surprise, provided Salman, the Persian. There are many lessons of creative thinking in this example.

First, at the war council of the Prophet, everyone was full freedom to raise his voice and present his proposal. Second even a man from Persia is given the same freedom to talk and present his ideas unknown to the Prophet and Muslims. Third, Salman was a former slave. To listen to a non-Arab man who used to be a slave was unknown in Arab history and Arab mentality. Salman, with full of confidence and freedom he found at the company of the Prophet since he became Muslim, said that in Persia when there was a pending attack of the horse, they would surround and defend themselves with a trench. Then he suggested, "let us dig a trench about us now." Seeing how the Prophet himself respects Salman and listens to him, everyone agreed to this plan with enthusiasm and immediately set to work.

The Prophet with a strategic mind, made each section of his community responsible for a part of the trench. Then, he was humble to join and work with them like a layman. They went out at dawn every day immediately after the prayers and came home at twilight. (Lings, 1983). An idea and a hero had saved Madinah and Islam as the trench immobilized the Makkah cavalry. It is difficult to imagine that without the trench, the might army of enemy "would have overrun Madinah, and they would have killed everyone in it" (ibid).

The Case of al- Ghazali

When we look at the Islamic History of ideas, it is not surprising to see the abundance of scholars traveling from central Asia to Baghdad, Damascus, Madinah, Makkah, Cairo as far as Marrakesh, and Cordoba, in search of wisdom and knowledge. However, here we will focus on al-Ghazali (d.1111), who was acclaimed by several historians of religion and orientalis as "the most remarkable figure in all Islam" with the title "Ornament of Religion and Proof of Islam."

As his autobiography reveals as a child of a poor family, he gifted by grace of God with thrust for knowledge which lasted to the very last day of his life. He made extensive travels at an early age from his village to nearby cities, then to Baghdad, Damascus, Jerusalem, and Makkah. As R.J. McCarthy assumes "if the critical and creative thing is an awakening", as the American poet Robert Frost (d.1963) once says "I am not a teacher, but an awakener", then the life and teaching of Ghazali was a real awakener not only for Muslims per se but members of faiths. For McCarthy, when translating al-Ghazali's book sees him as "a real-life giving awakener" referring to al-Ghazālī's masterwork *Ihya'*:

To sum it, "[the *Ihya'*]" all up, I have...found. I believe others can find, in the words and example of al-Ghazālī a true *ihya'* [quickening, revivification, bringing back to life, causing to live]—an *ihya'* from the dark, dead coldness of atheism, or more. accurately, 'without-Godness'; an *ihya'* from enervating, debilitating, and crippling sinfulness; an *ihya'* from lifeless and spiritless intellectualism; an *ihya'* from the tepidity and listlessness and uncaring of social and moral mediocrity." (Ghazali, 1980, 51).

al-Ghazali in this seminal book presents us a method of philosophical doubt and skepticism which is very similar to Descartes' methodical doubt, in spite of the fact that he precedes Descartes few centuries. It seems that al-Ghazali was not satisfied with capacity of human reason alone, especially on metaphysical issues, to reach certain knowledge of reality.

He wants to reach more convincing conclusions, which do not leave any space for doubt and then he can surrender himself with his whole heart and mind to God. With this in mind, he embarked to study the

history of ideas where he found the four distinctive groups as Theologians, Philosophers, Authoritarians, and Mystics. Then, he decided to study these disciplines in-depth with a critical mind as he tells us his own venture:

"From my early youth, since I attained the age of puberty before I was twenty, until the present time when I am over fifty: I have ever recklessly launched out into the midst of these ocean depths, I have ever bravely embarked on this open sea, throwing aside all craven caution; I have poked into every dark recess, I have assaulted every problem, I have plunged into every abyss, I have scrutinized the creed of every sect, I have tried to lay bare the inmost doctrines of every community. All this have I done that I might distinguish between true and false, between sound tradition and heretical innovation." (Ghazali, 1980).

The text reveals a true spirit of burning for learning not blindly but with a courageous and critical mind; reckless spirit to delve into oceans, brevity to embarked on the open sea, throwing aside all craven caution; poke into every dark recess, made an assault on every problem, plunged into every abyss, scrutinize the creed of every sect, tried to lay bare the inmost doctrines of every community. The real challenge in front of us is how to translate this spirit into our education system so that students from all learning branches can approach their field with the mindset and confidence. Thus, it is not difficult to see and understand the spirit of critical thinking and burning for leaning in this confession of al-Ghazali, which is unique in the Islamic history of philosophy.

Therefore, Abūlaylah considers al-Ghazali as “an original, independent-minded thinker who sees doubt and independent thought as a virtue and who rejects blind following of others, considering it one of the diseases of the community.” (Yasin 2016: 158). Moreover, he argues that al-Ghazali was familiar with the causes of the confusion and error that had befallen the nation. He says that most of the mistakes of the thinkers of his day came from believing what they had heard and were familiar with from childhood, having received it from their fathers, teachers, and people regarded as virtuous (ibid).

CONCLUSION

The present challenges of the globalized world require a paradigm shift and new mindset to respond them and survive not only ourselves but also serve our nation and fellow human being. In the case of COVID-19, for example, anyone who discovers a vaccine would be hero for all humanity. This pandemic once more may make it clear that we are interconnected as well as interdependent than ever. We can nor respond these challenges unless with change our educational system with a critical and creative model.

Critical of once cherished old ideas and creative to devise and propose new ones. To do this the education must give them a sense of responsibility and self-confidence to solve problems. In other words, "the education required to adequately equip the current generation for the tremendous legacy we are leaving them must involve not only learning facts about the past but also learning a range of critical-thinking skills to deal with an unprecedented future: tolerance for uncertainty, difference, and surprise; the ability to solve problems flexibly and creatively; and the ability to cooperate with others under stress to deal with the challenges that will undoubtedly come. It then makes the fight for good education preparation for climate change". (Isham, Waage, McKibben 2006: 87)

Therefore, this paper suggests that it is necessary to replace traditional educational systems in Muslim societies with a critical and creative education system, which will prepare our students to solve our problems and propose Islamic solutions to the world's overwhelming challenges. To that, we have to rekindle the spirit of critical thinking of Muslim civilization and scientific tradition. Moreover, provide them with the moral compass of the Qur'anic values through education.

Without a compass of revealed knowledge and the Prophet's exemplary life (PBUH), we would get lost; thus, further holistic and systematic studies on the subject are required. We have to improve our God-given abilities and potentialities through innovative education and realizing our full capacity to propose solutions for problems besetting us. Therefore, to be hopeful and self-confident are the foundation of creative and innovative things; hence, it also suggests that creativity is something we can develop through education and training.

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