

فكر ابن خلدون الثوري ضمن مفهوم النموذج عند كون (*)

محمود الذوادي

ملخص:

هدف الدراسة: تحاول هذه الدراسة تقديم رؤية غير تقليدية للفكر الاجتماعي المبتكر في مقدمة ابن خلدون. **المنهجية:** تسلط الدراسة الضوء على معالم أزمة علم التاريخ العربي الإسلامي التي انتقدها بشدة صاحب المقدمة، فقد كان للمؤرخين مشكلات في المنهجية وفي تحليل الأحداث التاريخية؛ ومن ثم حاجة فكرية ماسة للخروج من تلك الأزمة. **النتائج:** يمثل المنظور السوسولوجي للمقدمة نموذجاً فكرياً جديداً أو (بارادايم) بحسب تعبير الفيلسوف والمؤرخ كون، وربما تكون هذه هي المرة الأولى التي ينظر فيها إلى علم العمران البشري كنموذج. **الخلاصة:** جاء ميلاد نموذج (بارادايم) علم الاجتماع البشري لإنقاذ علم التاريخ من أزمته وإصلاح أمره باستعمال مجموعة من الأدوات المناسبة، وفي طليعتها قانون المطابقة.

المصطلحات الأساسية: ابن خلدون، العلوم الاجتماعية الجديدة للمقدمة، أزمة النموذج الفكري لعلم التاريخ، قانون المطابقة.

(*) See my essay “An Appeal for the Indigenization of Arab Sociology into “Its Own Intellectual Islamic-Arabic Cultural Heritage” (in Arabic) Alam Elfikr Journal, 34(o.1), 2005, 33-63.

Ibn Khaldun's Revolutionary Thought within Kuhn's Concept of Paradigm^(*)

*Mahmoud Dhaouadi^(**)*

Abstract

Objective: This paper attempts to take a non-traditional look at Ibn Khaldun's innovative social science work in the Muqaddimah or Prolegomina (i.e., Introduction). **Methods:** We focus here on the crisis of the state of knowledge in the discipline of Arab History of which Ibn Khaldun was very critical. Arab and Muslim historians had problems in the methodology and in the analysis of historical events; therefore, there was a pressing need to get out of the Arab Muslim History's crisis. **Results:** The Muqaddimah's new fresh sociological perspective constitutes a new paradigm to meet that crisis according to Kuhn's terms. This may be the first time that Ibn Khaldun's New Science is considered a paradigm. **Conclusion:** Ibn Khaldun's paradigm sets the pace for reforming the science of Arab Muslim historiography. The criterion of qanun al mutabaqa (conformity with reality) is the pillar for that reform.

Keywords: Ibn Khaldun, Al-Muqaddimah's (the Prolegomina) New Social Science, Muslim Historiography Paradigm Crisis, Qanun Al-Mutabaqa.

(*) The word 'knowledge' is used in this essay to cover all branches of human knowledge including what is called today scientific branches, like the natural sciences.

(**) Published by Dar al Kitab Allubnani, Beirut (no date) p. 430. We will refer in short to this book by the term: At-Ta'rif – followed by A (Arabic) or F (French). The French version of this book is: Ibn Khaldun, Le Voyage d'Occident et d'Orient, Abdessalam Cheddadi, Paris, Sindbad, 1980, p.331. To my knowledge, At-Ta'rif has not yet been translated into English.
Email: m.thawad43@gmail.com

The Study's Goal and Outlines

This study focuses on Ibn Khaldun's discovery and invention of his New Science called in Arabic 'Ilmu al-umrani al-bashari' which means 'The Science of Human Civilization and Social Organization' according to Rosenthal's translation (Ibn Khaldun, 1980, 89). The invention of new concepts and paradigms in both natural and social sciences is something very important for the development and progress of these sciences. The major theme of this paper deals with Ibn Khaldun's science as a new paradigm. To do this, the paper was divided into several sections: Kuhn's paradigm thesis, factors behind creativity in knowledge, Ibn Khaldun's revolutionary social science paradigm and concluding remarks. In this context, the modern philosophy of science and Kuhn's concept of paradigm were used to shed light on the way that led Ibn Khaldun to discover his new paradigm in his *Muqaddimah*, the worldwide eminent intellectual work of great fame. Arnold Toynbee's statement on Ibn Khaldun's mind of social sciences outlines the extreme relevance of Ibn Khaldun's invented social thought; he described Ibn Khaldun's mind as follows: "He (Ibn Khaldun) has conceived and formulated a philosophy of history which is undoubtedly the greatest work of its kind that has ever been created by any mind in any time and place" (Toynbee, 1956, 372). From the East, the late famous Moroccan intellectual and author on Ibn Khaldun's thought, sees the *Muqaddimah* as "a pyramidal and unified construct and developed thought in its content as well as in the organization of its chapters, paragraphs and the harmony which prevails among its various parts" (Al-Jabri, 1982, 118-19).

Of course, there are countless authors who analysed Ibn Khaldun's work. Yet, to our knowledge, none of them has used the concept of paradigm in dealing with his social thought even though Kuhn's work on paradigm was published in 1962. From the Arab world, neither Al Jabri nor Al Shakaa included the concept of paradigm in their writings about Ibn Khaldun (Al Jabri, 1982, 1988; Al Shakaa, 1992). From the English-speaking world, even the very specialist scholar of Ibn Khaldun Farid Alatas didn't not use the concept of paradigm even in his most recent books (Alatas, 2014, 2017). As such, our paper may be considered the first to look at Ibn Khaldun's new science through the prism of paradigm as outlined by Kuhn.

1- The Concept of Paradigm

In ordinary speech the paradigm is a word that designates a typical example or a model to be replicated or followed by others in the scientific context, for instance. This connotation was especially introduced in the study of the history of science by Thomas Kuhn, the philosopher and historian of science. The term paradigm plays a key part in Kuhn's account of the practice which he calls 'normal science'. In 'normal' periods in a science, there is a consensus across the relevant scientific community about the theoretical and methodological rules to be followed, the instruments to be used, the problems to be investigated, and the standards by which research is to be judged (Kuhn, 2012, 10-13). This consensus derives from the adoption by the scientific community of some past scientific achievements as its model or paradigm. This concept of paradigm revolutionized thinking about the philosophy of science. Kuhn's major work, *The Structures of Scientific Revolutions* (2012), was one of the first successful attempts to outline and raise philosophical questions about the nature of scientific knowledge by way of serious conceptualization of the history of sciences. Kuhn's account strongly challenges widespread assumptions about scientific progress as the piecemeal accumulation of knowledge, and about scientific rationality as a formal process of matching theory to evidence. His alternative vision is of discontinuous history, in which periods of consensual normal science were interspersed with crises and intellectual revolutions, some of which called into question the most fundamental epistemological assumptions of science itself. Far from advancing in a cumulative, gradual way, revolutionary changes in sciences, therefore, involve abandonment of much previously accepted knowledge, and proceed by abrupt qualitative transitions of perspective (Kuhn, 2012, 92-97).

It is relevant in this paper to explore Kuhn's concept of paradigm on sociology. Giddens and Sutton (2014) argued that Kuhn's work was of great importance in enabling the sociology of knowledge to extend its scope to include the natural sciences. It was also important in the discussions about the history and nature of science itself, and of significance of a persisting lack of consensus around a single paradigm in sociology, and indeed in the other social sciences. They put forward the following question: Did the persistence of rivalry between alternative perspectives show that sociology was still in its pre-paradigmatic (that is, the pre-scientific) stage or rather,

did it suggest that the model of 'scientific consensus' was permanently unattainable or inappropriate to sociology?). It should be underlined here that though Kuhn was himself a determined anti-relativist, many of his arguments were pointed in a relativist direction, and his work was in general widely used by those whose main aim was to debunk the view of science as an especially authoritative form of knowledge and to see sociology as a "multiple paradigm" science (Giddens & Sutton, 2014, 41).

2-The Nature of Science

As sociologists, Anthony Giddens and Philip Sutton (2014) provided what they called a working definition of science as follows: "a method of gaining reliable knowledge of the world based on testing theories against collected evidence" (Giddens & Sutton, 2014, 39). The origin of such a concept of science is a Western one beginning in Europe in the fourteenth century. Following the so-called 'scientific revolution of the seventeenth century manifested in many breakthroughs like Newton's discovery of the force of gravity, the term science came to be used only in relation to the physical world and the disciplines which studied it, including astronomy, physics and chemistry. However, in the twentieth century arguments on the merits of science were waging. For instance, various branches of Positivism argued the relative merits of deduction or induction and verification or falsification as basic principles to which all sciences, not just the natural disciplines, should adhere to (Scott & Marshal, 2009, 241-42,544-41, 581-82).

3-The Concept of 'Normal Science'

In his in-depth research on the nature of science, Kuhn (2012) outlined more than one phase which the development of science went through. The first phase is the one associated with a period of absence of guidelines of what is scientific and what is not. That is, it is a period where every scientist is doing his/her scientific work alone without sharing it with others. This is called by Kuhn a pre-paradigm period which he described as "regularly marked by frequent and deep debates over legitimate methods, problems, and standards of solutions, though these serve rather to define schools than to produce agreement" (Kuhn, 2012, 48).

In contrast, Kuhn considers what he calls 'normal science' as a science where scientists share common knowledge, concepts, theories, rules in their fields. Deviants from these dimensions would make them outcasts

from the domains of sciences. As such, normal science is predicated on the assumption that the scientific community knows what the world is like. Scientists take great pains to defend that assumption. Normal science means research firmly based upon one or more past scientific achievements that some scientific community acknowledges for a time as supplying the foundation for its further practice. To this end, normal science often suppresses fundamental novelties because they are necessarily subversive of its basic commitments. Thus, normal science can achieve progress and advancement through the cumulative process of scientific achievements through time and space. (Kuhn, 2012, 24-34).

4- Scientific Discoveries and the Birth of Paradigms

Science is a dynamic phenomenon which witnesses changes and shifts in its growth and development. Kuhn affirms that shifts in professional commitments to shared assumptions take place when an anomaly subverts the existing tradition of scientific practice. Anomaly in science is practically inevitable in scientific activities. Because, on the one hand, scientists cannot exhaust all explaining factors to phenomena, and on the other, the phenomena themselves are often of complex nature.

Kuhn believes that shifts often lead to scientific discoveries. That is, the tradition-shattering complements to the tradition-bound activity of normal science is changed or replaced. These achievements can be called paradigms. Men whose research is based on shared paradigms are committed to the same rules and standards for scientific practice. A paradigm is essential to scientific inquiry. New assumptions (paradigms/theories) require the reconstruction of prior assumptions and the reevaluation of prior facts. This is difficult and time consuming, and it is strongly resisted by the established community. When a shift takes place, a scientist's world is qualitatively transformed and quantitatively enriched by fundamental novelties of either fact or theory. Kuhn affirms that successive transition from one paradigm to another via the new paradigms is the usual developmental pattern of mature science.

5- A Scientific Revolution

Kuhn raises relevant questions about the nature of a paradigm: why should a paradigm change be called a revolution? What are the functions of scientific revolutions in the development of science? He points out that

a scientific revolution is a noncumulative developmental episode in which an older paradigm is replaced in whole or in part by an incompatible new one. In Kuhn's view a scientific revolution that results in paradigm change is analogous to a political revolution. Political revolutions begin with a growing sense by members of the community that existing institutions have ceased to adequately meet the problems posed by an environment that they have in part created which ultimately leads to anomaly and crisis. Transition from a paradigm in crisis to a new one from which a new tradition of normal science can emerge is not a cumulative process but rather a reconstruction of the field from new fundamentals. The transition to a new paradigm is a scientific revolution (Kuhn, 2012, 52-54).

6- The Dynamics of Paradigms Emergence

As implicitly assumed in its definition, a normal science does not aim at novelties of fact or theory and, when successful, finds none. Nonetheless, new and unsuspected phenomena are repeatedly uncovered by scientific research, and radical new theories may have again and again been invented by scientists. Fundamental novelties of fact and theory bring about paradigm change. So, how does paradigm change come about?: (Discovery-novelty of fact). Discovery begins with the awareness of anomaly; perceiving an anomaly is essential for perceiving novelty. The area of the anomaly is then explored. The paradigm change is complete when the paradigm/theory has been adjusted so that the anomalous become the expected; yet not all theories are paradigms. Novelty emerges only with difficulty, manifested by resistance, against a background provided by expectation (Giddens & Sutton, 2014, 64). Consequently, anomaly appears only against the background provided by the paradigm.

Furthermore, the dynamics of paradigms emergence can be described in some more details. Paradigm changes result from the invention of new theories brought about by the failure of existing theory to solve the problems defined by that theory. This failure is acknowledged as a crisis by the scientific community. Philosophers of science have repeatedly demonstrated that more than one theoretical construction can always be placed upon a given collection of data. Once a paradigm is entrenched (and the tools of the paradigm prove useful to solve the problems), theoretical alternatives are strongly resisted. As in manufacture so in science—retooling is an extravagance to be reserved for the occasion that demands it; crises

offer the opportunity to retool. The awareness and acknowledgment that a crisis exists loosens theoretical stereotypes and provides the incremental data necessary for a fundamental paradigm shift.

The Roots of Invention and Creativity

By several accounts, Kuhn is a creative and inventive scholar in his discovery of the concept of paradigm. He was out there to change our understanding of the sciences. There are countless theories about creativity in knowledge and science.

Throughout humankind's long history and its diverse cultures and civilizations, the emergence of great creative minds in various fields of knowledge has often been associated with a good standard of the so-called "learned advanced knowledge". This requires two basic things: literacy and high command of knowledge in one's field in the first place. However, the literacy factor may not be necessary for innovation and creativity in certain fields of human activities. But we argue that literacy is very fundamental for creative and innovative minds in most of the branches of human knowledge. Theories in the field of creativity highlight the relationship between creativity and knowledge (Sternberg, 1999, 226-250, 2003, 50-70). Those theories stress the rather straight forward relation between the two (Sternberg, 1999, 248) because it is assumed by theorists of creativity that "the more one knows, the easier it will be to develop innovative solutions" (Kraft, 2005, 22). Wide knowledge initiates also intense complex cognitive processes which may often lead to moments of brilliance among humans (Kraft, 2005, 17).

The Two Decisive Forces of Creativity

On our part, we view creativity and invention in science and knowledge as the outcome of interaction between the personality traits of the individuals and the external environment (local and universal). In the absence of interaction between these two fronts, there can hardly be any materialization of the phenomenon of creativity among humans. The acceptance of personal and the environmental forces, as the two decisive forces that bring about creative works, do not in any way settle for good the issue of understanding the phenomenon of creativity. Among the leading things which remain without a transparent answer is the precise identification of the extent of the contribution of each of these two

factors (the personal and the external) to the making of the phenomena of innovation, creativity and genius in any field of human work. But the use of these two variables puts some order, so to speak, in the methodological approach to a credible understanding of the nature of creative work. The individual has, for instance, to have at least certain personality traits before he/she potentially becomes a candidate for the production of creative work. As such, an above average intelligence is needed for any person who may become among the creative individuals in his/her own field. Thus, the more than average intelligence talent is a necessary and a decisive factor on the way to creativity. For modern psychology, the importance of the variable of human intelligence is fundamental as far as enabling this or that person to achieve innovation and creativity.

Modern research views the role of social (external) factors in the ignition and the promotion of creativity among individuals, as lacking considerable precision as far as their decisive influential weight on the creative persons. The creativity of this or that thinker, scientist, or artist is often attributed at least in part, to certain social circumstances. There is a genuine agreement on the determining role of social factors in the production of creative works. What remains unclear, however, is the way those social factors help make the creativity of the thinker, the scientists, or the artist unfold itself. The impact of social factors on the working out of creativity tends to be less transparent than that of human intelligence (at least above average intelligence). The confusion surrounding the way social conditions may influence the process of creativity in each social situation comes from the fact that these same social conditions do not lead to creativity among most of the individuals of the same social situation. In the terms of modern social science, the phenomenon of creativity is hardly a mere dependent variable on the social factors. It is rather the outcome of a harmonious marriage between the creative individual's personality traits, on the one hand, and the social situations, on the other.

Nevertheless, when we ask: Do personal and social factors contribute equally to the making of creative works? A clear answer to this question is hardly possible at present, given the rarity of articulate scientific information on the forces involved in the making of the event of creativity. Nonetheless, modern psychology data on the issue of creativity indicate with considerable transparency that personality traits are the most decisive factors in determining the individuals' creativity. Research conducted by

modern psychologists stresses the correlation between certain specific personality traits of the individual and his/her chance to become creative; the typical creative person is someone who is independent and flexible in his/her thought. He/she has above average intelligence and an important cognitive capacity in the organization of his/her knowledge. He/she resorts to the frequent use of metaphors which help him/her develop concepts and theories about the phenomenon that preoccupies him/her. Furthermore, modern psychology has discovered the importance of the role of unconsciousness and the religious belief in the unfolding of human innovation and creativity. Last, but not least, the factor of isolation/seclusion appears to be a common feature among creative individuals.

Thus, some of these traits or all of them have to exist a-priori in the personality profile of a given individual before he/she can seriously be considered as a successful candidate in the domain of creativity. Personality traits are, therefore, necessary ingredients by which the door of creativity becomes wide open for some individuals. Those traits are the basics of basics which enable this or that person to be among the creative individuals. Consequently, the role of social factors in the making of the phenomenon of creativity can only be second in importance; that is, social factors play just a helping and activating role in the processes of creativity whose roots are in the very psychological profile of the personality of creative individuals (Hunt, 1982, 272-314). As such, the political factors surrounding Ibn Khaldun can be considered as part of the global set of the external social factors which may be only helping forces toward Ibn Khaldun's discovery of his New Science, as we already explained the role of personality traits and social factors in the making of the phenomenon of creativity among scholars and thinkers.

Kuhn and Ibn Khaldun's Creativity

As such, this article considers the creativity and invention of both Kuhn and Ibn Khaldun as largely the result of their personality traits. Kuhn is seen as the first thinker who extended the notion of revolution to the fields of sciences. He broke away from common assumptions about progress in science and challenged long-standing linear notions of scientific progress. Kuhn argued that transformative ideas hardly arise from the day-to-day gradual process of experimentation and data accumulation, and as was explained before, revolutions in science occur outside "normal science"; in other words, his personal cognitive map with its scope of thinking

imagination with metaphors and concepts had led him to revolutionary thought about the dynamics of the entity of science (Kuhn, 2012, xi).

Likewise, Ibn Khaldun had revolutionized the discipline of History by asserting that a good historian must be first a good sociologist (Ibn Khaldun Rosenthal, 1980, 84). His revolutionary social science thinking came mainly from his personality traits and not from his social milieu as claimed by many. If this had been true, many of his contemporary intellectuals would have written their own *Muqaddimahs* as well. Ibn Khaldun states very clearly that his new science is different from other sciences and discourses in his time and before: "It should be known that the discussion of this topic is something new, extraordinary, and highly useful ...In fact I have not come across a discussion along these lines by anyone" (Ibn Khaldun, 1980, 77-78). Thus, familiarity with Ibn Khaldun's profile is helpful for understanding his creative mind.

1 - Ibn Khaldun's Education and Knowledge

As for Ibn Khaldun's education, we should mention some essential features; during his youth years in Tunisia, he studied three main areas:

(1) Islamic studies covering the science of the Quran, Hadith (i.e., the Prophet's sayings and behaviours) as well as Islamic jurisprudence (i.e., *Fiqh*), especially the Maliki School.

(2) The sciences of the Arabic language dealing with grammar, conjugation and the art of Rhetoric (*al-Balagha*).

(3) Logic, philosophy, natural sciences, and mathematics. This shows that

Ibn Khaldun had an educational background in the two cultures of his time.

In his autobiography book *At-Ta'rif bi-Ibn Khaldun wa rihlatuhu gharban wa sharqan* (Introducing Ibn Khaldun and his Travels to the West and East) 2, he described in details two of his most distinguished masters, namely Abu Muhammad Ibn 'Abd al Muhaymin al-Hadhrami and Abu 'Abd Allah Muhammad al-Abli (*Al-Ta'rif* (A, 21-23, F, 47-49). Ibn Khaldun speaks of al-Hadhrami as the Moroccan leading scholar in the sciences of grammar and Hadith. He received fundamental knowledge from him on the six reference books on Hadith and other important books on the subject of *al-Muwattaa*, the reference book of the famous Maliki jurist and theologian (Faqih) Malik Ibn Anas.

Ibn Khaldun's second master, al-Abli, taught him the two fundamental sciences (al-asli yyayni): logic and all philosophical and mathematical disciplines. Al-Abli found Ibn Khaldun well talented in those subjects (At-Ta'rif, A, 23, F, 49).

Ibn Khaldun himself admitted that he had a strong desire for learning and knowledge since his early infancy: "Since my very early infancy, the time of my weaning, I have never ceased to seek knowledge and the best virtues, dividing my time between attending the courses and the circles of scholars until the time of the devastating plague that killed dignitaries, notables and most of my teachers in Tunisia" (At-Ta'rif, A, 57, F, 72).

Later, Ibn Khaldun had the opportunity to return to his studies in Fez, which became the centre of scholars and writers who emigrated from Al-Andalus (Spain) and Tunisia. Fez had the greatest Islamic libraries, and Ibn Khaldun's presence in this stimulating intellectual milieu had expanded and consolidated his scope of knowledge and satisfied his true desire for knowledge. He wrote: "I took advantage of the situation to reflect, read, and meet the great scholars from Morocco and Al-Andalus who came as ambassadors of their princes to the Moroccan Sultan. I, thus, fulfilled my desire for the acquisition of knowledge" (At-Ta'rif, A, 61, F, 75). As such, Ibn Khaldun's personality traits for knowledge acquisition had been deeply and strongly set since his early childhood.

2- The Cognitive Reason and Revelation ('Aql-Naql) Muslim Mind

It is clear from the previous short biographic and autobiographic sketches that Ibn Khaldun's education as well as the societies he studied were profoundly Islamic in nature. On the one hand, he had a wide and high standard of knowledge of the various Islamic sciences and disciplines (The two Cultures) of his time as shown in the Sixth Part of his Muqaddimah. Moreover, Ibn Khaldun had first-hand experience knowledge about numerous Arab Muslim societies, tribes, clans, and groups he analyzed and wrote about with his Umran mind. In other words, his social theoretical paradigm and field work knowledge were strongly influenced by the Islamic ethics of doing science and knowledge. Thus, Ibn Khaldun's intellectual mind is bound to be heavily a Muslim mind which is the outcome both of the Islamic learned culture and that of the social realities of the Muslim Arab societies. *Gibb's* (1962) description of Ibn Khaldun's intellectual mind leaves no doubt about his Muslim identity

as a great thinker “Ibn Khaldun was not only a Muslim, but as almost every page of the *Muqaddimah* bears witness, a Muslim jurist and theologian, of the strict Maliki school. For him, religion was the most important thing in life. The Sharia is the only true guide” (Shaw & Polk, 1962, 171). On his part, the author M. Al-Shaqaa affirms that Ibn Khaldun's *Umran Theory* is Islamic from the beginning to the end (Al-Shaqaa, 1992, 100-130). Ibn Khaldun himself appears to be referring to his authentic Islamic and personal thought when he denies the foreign influence on his conceptualization of his *New Science* “We became aware of these things with God's help and without the instruction of Aristotle or the teachings of the *Mobedhan*” (Dawood, 1974, 41).

The Islamic features of Ibn Khaldun's mind are furthermore manifested in what we may call the cognitive reason and revelation “*Aql-Naql*” perspective of the Muslim mind. Historically speaking, Arab Muslim civilization's earlier scholars and scientists of all disciplines and sciences of the two cultures carried out their works on the basis of the principle of Cooperation between the revealed-sacred knowledge (*Naql*) and the human acquired knowledge based on human reason “*Aql*”. Ibn Khaldun's well established interdisciplinary social science thought in his *Muqaddimah* is no exception to the rule of the combination of the “*Naql*” and “*Aql*” knowledge. That is, he strongly adopted the cognitive dualist *Aql-Naql* perspective in writing his entire *Umran* work including his *Muqaddimah*. As such, the Khaldunian cognitive mind is well in line with the Quranic inspired five major characteristics of the ideal type of the classical intellectual Muslim mind characterized by five features: (1) Top priority to knowledge acquisition and creation; (2) Continuing observations in three main areas: the universe, historical human events of human civilizations, and human nature; (3) Authentic knowledge and science make scholars and scientists most pious and humble toward God; (4) Good credible science and knowledge are spiritual salvation for scientists and scholars; and (5) Human knowledge and science are very limited compared with God's.

This extremely curious and motivated mind to learn from both ‘*Aql* and *Naql*’ worlds should help explain the great milestones in many branches of knowledge and sciences accomplished by the Arab Muslim civilization before the Middle Ages. Ibn Khaldun's manifested and articulated mind in his *Muqaddimah* is a convincing example of the potential high intellectual performance of the Muslim “*Aql-Naql*” mind. This has made

one researcher to consider this type of mind as the dividing line between what he called Khaldunian Eastern Sociology and contemporary Western sociology (Dhaouadi, 1990, 319-335). The Khaldunian “Aql-Naql” mind is expected, for instance, to be praised by the late Immanuel Wallerstein for its epistemological unification of the two cultures in his *Muqaddimah*³.

From an Islamic epistemological view point, tensions and conflicts between “Aql” and “Naql” views have no room in the Muslim mind, because the source of the two “Aql and Naql” is one : Allah (source of the unity of the two). Seen this way, the Muslim mind could rightly be considered the meeting ground for the secular and the revealed knowledge. This strongly agrees with the modern thesis that hybridization in knowledge is a source of innovation and creativity in social sciences (Dogan & Pahre, 1990).

3- Ibn Khaldun and the Crisis of Muslim Historiography

Having outlined Ibn Khaldun’s general background which should help assess the roots of his discovery of his New Science. Familiarity with the literature of modern philosophy of science is highly in order to capture the revolutionary scientific spirit of the author of the *Muqaddimah*. It is our intention now to see if Ibn Khaldun’s social thought in his *Muqaddimah* constituted a revolutionary scientific social science thought in his time according to Thomas Kuhn’s perspective as an eminent philosopher of science. We have already been acquainted with the three basic things relevant to standard measures of what is science: (1) the definition of science from a sociological point of view; (2) what is a normal science; and (3) what are scientific revolutions, as defined by Kuhn’s outlook.

Following Kuhn’s perspective on paradigms emergences and their changes, we wish to apply this on Ibn Khaldun’s scientific scholarship in the Middle Ages. Ibn Khaldun’s first step in his scientific road was represented in his strong critical position of Muslim historians which explicitly shows that Muslim historiography was in full crisis. His own terms below speak very loudly about his attitude toward the lack of scientific credibility among those historians. The discipline of history or what Ibn Khaldun calls ‘the art of history’ did not appear to be in a good state in his time and before in the Muslim world. In Kuhn’s terms, Muslim historiography was in a crisis.

The author of *The Muqaddimah* made several criticisms of Muslim historians in different periods of the Muslim world. It should be enough to mention some outstanding yet limited descriptions of the state of Muslim

historiography as perceived by Ibn Khaldun:

A-“The outstanding Muslim historians made exhaustive collections of historical events and wrote them down in book form. But, then, persons who had no right to occupy themselves with history introduced into those books untrue gossip which they had thought up or freely invented, as well as false, discredited reports which they had made up or embellished. Many of their successors followed in their steps and passed that information on to us as they had heard it. They did not look for, or pay any attention to, the causes of events and conditions, nor did they eliminate or reject nonsensical stories.

Little effort is being made to get at the truth. The critical eye, as a rule, is not sharp. Errors and unfounded assumptions are closely allied and familiar elements in historical information. Blind trust in tradition is an inherited trait in human beings. Occupation with the (scholarly) disciplines on the part of those who have no right is widespread. But the pasture of stupidity is unwholesome for mankind. No one can stand up against the authority of truth, and the evil of falsehood is to be fought with enlightening speculation. The reporter merely dictates and passes on (the material). It takes critical insight to sort out the hidden truth; it takes knowledge to lay truth bare and polish it so that critical insight may be applied to it (Ibn Khaldun, 1980, 6-7).

B-“The later historians were all tradition-bound and dull of nature and intelligence, or, (at any rate) did not try not to be dull. They merely copied the (older historians) and followed their example. They disregarded the changes in conditions and in the customs of nations and races that the passing of time had brought about. Thus, they presented historical information about dynasties and stories of events from the early period as mere forms without substance, blades without scabbards, as knowledge that must be considered ignorance, because it is not known what it is extraneous and what is genuine. (Their information) concerns happenings the origins of which are not known. It concerns species the genera of which are not taken into consideration, and whose (specific) differences are not verified. With the information they set down they merely repeated historical material which is, in any case, widely known, and followed the earlier historians who worked on it. They neglected the importance of change over the generations in their treatment of the (historical material), because they had no one who could interpret it for them.

Their works, therefore, give no explanation for it. When they then turn to the description of a particular dynasty, they report the historical information about it (mechanically) and take care to preserve it as it had been passed on down to them, be it imaginary or true. They do not turn to the beginning of the dynasty. Nor do they tell why it unfurled its banner and was able to give prominence to its emblem, or what caused it to come to a stop when it had reached its term. The student, thus, has still to search for the beginnings of conditions and for (the principles of) organization of (the various dynasties). He must (himself) investigate why the various dynasties brought pressures to bear upon each other and why they succeeded each other. He must search for a convincing explanation of the elements that made for mutual separation or contact among the dynasties. All this will be dealt with in the Introduction to this work” (my emphasis, Ibid: 9-10).

4- Ibn Khaldun’s Reform of the Discipline of History

Ibn Khaldun describes the way he has adopted to correct the mistakes of the discipline of history as exercised by Muslim historians of his time and before. He wrote:

C-“Only knowledge of the nature of civilization makes critical investigation of them possible. It is the best and most reliable way to investigate historical information critically and to distinguish truth and falsehood in it. It is superior to investigations that rely upon criticism of the personalities of transmitters. Such personality criticism should not be resorted to until it has been ascertained whether a specific piece of information is in itself possible, or not. If it is absurd, there is no use engaging in personality criticism. Critical scholars consider absurdity inherent in the literal meaning of historical information, or an interpretation not acceptable to the intellect, as something that makes such information suspect. Personality criticism is taken into consideration only in connection with the soundness (or lack of soundness) of Muslim religious information, because this religious information mostly concerns injunctions in accordance with which the Lawgiver (Muhammad) enjoined Muslims to act whenever it can be presumed that the information is genuine. The way to achieve presumptive soundness is to ascertain the probity (‘adalah) and exactness of the transmitters”. (Ibid, 76).

D- “When I had read the works of others and probed into the recesses of yesterday and today, I shook myself out of that drowsy complacency and sleepiness. Although not much of a writer, I exhibited my own literary ability as well as I could, and, thus, composed a book on history. In (this book) I lifted the veil from conditions as they arise in the various generations. I arranged it in an orderly way in chapters dealing with historical facts and reflections. In it I showed how and why dynasties and civilizations originate” (Ibid, 10-11).

5- Ibn Khaldun's Revolutionary New Science

Ibn Khaldun's discovery of his New Science can meet Kuhn's paradigm of revolutionary science where many of its characteristics are spelled out by Ibn Khaldun himself in his description of his New Science. He wrote:

E- “Such is the purpose of this first book of our work.(The subject) is in a way an independent science. (This science) has its own peculiar object- that is, human civilization and social organization” (Ibid, 77).

F-“I corrected the contents of the work carefully and presented it to their judgment of scholars and the elite. I followed an unusual method of arrangement and division into chapters. From the various possibilities, I chose a remarkable and an original method. In the work, I commented on civilization, on urbanization, and on the essential characteristics of human social organization, in a way that explains to the reader how and why things are as they are, and shows him how the men who constituted a dynasty first came upon the historical scene. As a result, he will wash his hands of any blind trust in tradition. He will become aware of the conditions of periods and races that were before his time and that will be after it.” (Ibid, 79).

6- The Novelty of this Different Science

Ibn Khaldun strongly believes that his New Science is different from other known disciplines of his time and before. The following citations show how Ibn Khaldun views the novelty of his ideas:

H- “It should be known that the discussion of this topic is something new, extraordinary, and highly useful. Penetrating research has shown the way to it. It does not belong to rhetoric, one of the logical disciplines (represented in Aristotle's Organon), the subject of which

is convincing words by means of which the mass is inclined to accept a particular opinion or not to accept it. It is also not politics, because politics is concerned with the administration of home or city in accordance with ethical and philosophical requirements, for the purpose of directing the mass toward a behavior that will result in the preservation and permanence of the (human) species” (Ibid, 77-78).

7- Ibn Khaldun’s Distinct Science

The author of the Muqaddimah strongly believes his new science is distinct from other sciences. He wrote: “The subject here is different from that of these two disciplines which, however, are often similar to it. In a way, it is an entirely original science. In fact, I have not come across a discussion along these lines by anyone. I do not know if this is because people have been unaware of it, but there is no reason to suspect them (of having been unaware of it). Perhaps they have written exhaustively on this topic, and their work did not reach us. There are many sciences. There have been numerous sages among the nations of mankind..... The sciences of only one nation, the Greek, have come down to us, because they were translated through al-Ma’mun’s efforts” (Ibid 78).

Concluding Remarks: Insights on the Two Paradigms

In conclusion of this article on the issue of paradigm invention and use in science, we would like to compare the Western mind with the Muslim mind (Ibn Khaldun’s mind) regarding the creation and acquisition of knowledge and science. These two minds raise controversy. On the one hand, the Western modern paradigm (mind) looks with suspicion, disbelief and even hostility to knowledge and science coloured by religion. On the other hand, the classical Muslim paradigm (mind) finds support in the fundamental revealed Islamic texts for the human-made science and knowledge. Furthermore, what may make them still more controversial is that each one of them has contributed to the advancement of human science and knowledge. Because the Western learned modern mind is the widely dominant adopted reference for knowledge and science creation and acquisition in contemporary times, a discussion is appropriate here to see if there is ground or justification for the Muslim “Aql-Naql” paradigm to stand on its own feet and may even compete with the Western one in science and knowledge acquisition and creation turf.

The Muslim learned mind is strongly pro-knowledge science acquisition and creation. The Quran text (the first Naql source in Islam) is an open wide invitation to Muslims and Non-Muslims alike to think and reflect on the universe's endless phenomena. It is estimated that the sixth of the Quran's verses speak directly or indirectly about the importance of knowledge and science of the two cultures for humans. It is in this sense that "true scientists and scholars are the inheritors of the prophets" according to the Prophet Muhammad (the second Naql source in Islam) who strongly and repeatedly appeal to Muslims to seek science and knowledge: "seek knowledge from the cradle to the grave" or "seek knowledge even in the far distant China". The knowledge-seeking ethics is, thus, deeply rooted in the Muslim "Aql-Naql" paradigm (mind).

The "Aql-Naql" mind is credible, because human-made knowledge always remains problematic. This type of knowledge is a combination of correctness and error. It is a mixture of certainty and doubt. Man's use of his own thoughtful and analytical reasoning often involves probabilities of truth and falsehood in the corpus of knowledge he attains. Thinkers, philosophers and scientists have been, throughout the ages, aware of the problematic nature of the correctness/error dimension that characterises the human-made knowledge.

Ibn Khaldun's law of al-Mutabaqa (i.e., "conformity with reality": the matching between historical events and human social realities) in the Science of History aimed at minimizing the pitfalls of historical knowledge in which Muslim historians were involved in before and during Ibn Khaldun's time. This law was meant to raise the level of rightness and credibility in the historical knowledge. Something similar could be said as well of the influence of the ethics of Positivism and Empiricism on modern knowledge. But no doubt, modern knowledge has been and will hardly be able to exhaust all the causes that lead to errors and pitfalls in the human-made knowledge. Being limited in scope (in terms of its correctness and certainty in its facts) human-made knowledge would legitimately and modestly need divine knowledge as its complimentary to help humans deal particularly with controversial ethical issues that have proven to be rather difficult to settle for the good of Man and society when relying only on human reasoning.

It is clear from the above that the prejudiced Western learned paradigm (mind) against religion is the result of special socio-historical

circumstances which Western civilization has known since the Renaissance in the confrontation between the Church, on the one hand, and the scientists and Western modernized societies at large, on the other. This specific Western experience has created among Westerners a culture of separation and distrust between science and religion (Schmalzbauer, Mahoney, 2008, 16-21). Thus, they could hardly understand, let alone accept, the cooperation between religion and science as shown in the “Aql-Naql” Muslim paradigm. At present, the latter is even getting rather more strength from modern scientific new discoveries.

From an Islamic perspective, the “Aql-Naql” mind is the ideal paradigm to reach out for more credible and complete solid corpus of knowledge. Ibn Khaldun’s Umran paradigm in his Muqaddimah is an excellent manifestation of the work of the “Aql-Naql” Muslim mind. Ibn Khaldun’s Umran paradigm may be considered as the avant-garde of today’s Islamization of the knowledge movement.

This type of mind has not only accomplished a good standard social science Handbook (the Muqaddimah), but it has achieved, by objective accounts, a real breakthrough in the field of social sciences not only in the Arab Muslim civilization but also in the entire long history of the rest of human civilization. Ibn Khaldun made explicit reference to this “In a way, it is an entirely original science. In fact, I have not come across a discussion along these lines by anyone” (Dawood, 1974 : 39).

Ibn Khaldun’s high intellectual pioneering Umran (social science) work raises, therefore, serious questions about the assumptions of the modern Western mind’s persistent claims that true science and authentic knowledge cannot be obtained if religion and science are not kept separate from each other. As shown, these claims are based on the Western knowledge/science special experience with the Church. Thus, they ought not be generalized to other religious experiences with knowledge creation and acquisition. Ibn Khaldun’s ‘Aql-Naql Muslim paradigm strongly defies the substance of those claims and open the lead for scientists and scholars to seek more than one way to create and establish solid knowledge and science in the two cultures.

References

- Alatas, S. F. (2014). *Applying Ibn Khaldun : The Recovery of lost tradition in sociology*. London: Routledge.
- Alatas, S.F., & Sinha, V. (2017). *Sociological theory beyond the Canon*. London: Palgrave Macmillan.
- Al-Jabri, M.A. (1988). *Formation of the Arab Mind I* (in Arabic). Beirut: Centre for Arab Unity Studies.
- Al-Jabri, M.A. (1982). *Al- Assabiyya and the State in Ibn Khaldun's Thought* (in Arabic), Beirut: Dar Attalia Publisher.
- Al-Shaqaa, M. (1992). *The Islamic Bases in Ibn Khaldun's Thought and Theories* (in Arabic). Cairo: Al-Dar Al-Masriah Al-Lubnaniah.
- Dawood, N. J. (ed.) (1974). *The Muqaddimah: An Introduction to History*. (translated from Arabic by Franz Rosenthal, Princeton, Bolling Series, Princeton University Press.
- Dhaouadi, M. (1990). Ibn Khaldun: The Founding Father of Eastern Sociology. *International Sociology*, 5(3), 319-335.
- Discover Magazine, October 1996.
- Dogan, M., & Pahre, R. (1990). *Creative marginality: Innovation at the intersection of social sciences*, Boulder,Oxford: West View Press.
- Hunt, M. (1982). *The Universe within: A New science explores the human mind*: New York: Simon and Schuster, Inc.
- Kraft, U. (2005). Unleashing Creativity, *Scientific American Mind*, 16(2), 22
- Scmalzbauer, J. & Mahoney, K. (2008). *American Scholars Return to Studying Religion*, Context, 7(1), Winter 2008.
- Ibn Khaldun. (1980). *The Muqaddimah: An Introduction to History*, Rosenthal, F. (Translation), I, Princeton: Princeton University Press.
- Shaw, S. J., & Polk, W. R. (Eds.) (1962). *Gibb's H.A. Studies on the Civilization of Islam*. London: Routledge and Kegan Paul.
- Sternberg, R. (1999). *Handbook of Creativity*, Cambridge: Cambridge University Press.

Sternberg, R. (2003). *Wisdom, Intelligence, and Creativity Synthesized*. Cambridge: Cambridge University Press.

Toynbee, A. (1956). *The Study of History*. London: Oxford University Press III.

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