Why should we know? Gülen's understanding of knowledge in a contemporary epistemological context

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Knowledge is central in Islam (Qur'an 20:114, 7:89, 35:28, Walker 2003). The root verb 'alima (to know) and its derived forms occurs around 750 times in the Qur'an, making it one of the most frequent words, after Allah and Rabb, and the roots k-w-n (to be) and q-w-l (to say) (Rosenthal 1970, 20, Mohamed 2006). The Qur'an states that knowledge will lead to faith, and that those who come to faith will also have knowledge (Qur'an 30:56, 2:26, 58:11). According to Sunan Ibn Majah the Prophet Muhammad said that “the search for knowledge is incumbent upon every Muslim.” (Chittick 1989, 147)

“The Qur'an contains many verses, such as: Say: 'Are they equal – those who know and those who don't know?' (39:9), that emphasize the importance of knowledge and learning. It also warns that among his servants, only those who have knowledge truly fears God (35:28), meaning that true piety and worship is possible only through knowledge” (Gülen 2006a, 194).

This Qur'anic understanding of a correspondence and continuity between knowledge and faith, forwarded also by Gülen, stands in stark opposition to a Modern antagonistic understanding of the relation between knowledge and faith. Western Enlightenment meant to break away from the bonds of faith and tradition and enter the realm of knowledge and reason. “Credo quia absurdum”, attributed to the church father Tertullian, became a slogan with reversed value, saying that religion equals irrationalism (Weber 1998, 352). A good life and a prosperous society, according to a dominant strand of the Enlightenment tradition, could be reached by replacing faith and irrationalism for objective facts and positive knowledge (Kurtz & Madigan 1994).

Another Western tradition, closely related to Christianity, discusses knowledge in relation to wisdom. In this dichotomy knowledge has sometimes been seen as a hindrance for wisdom, as being too caught up in the material world. This is a dichotomy that seems not to be present in Islam to the same degree (Ergene 2008 66-84), with the recurrent reminder that man should respect the limitations of her mind (Nuseibeh 2001, 825).

According to the Encyclopaedia of Islam 'ilm' is the Arabic-Islamic word for 'knowledge'. Related Arabic terms are ma'rifâ (knowledge), fîkh (understanding), hikma (wisdom) and shu'ur (perception). Very early on in Islamic history "ma'rifâ means secular knowledge and 'ilm means the knowledge of God, hence of anything which concerns religion.”, says the Encyclopaedia (Lewis et al 1971, 1133). But later ma'rifâ became a sufi term for the spiritual knowledge of God, and 'ilm a general term for knowledge (Chittick 1989, 148-49). Al-Ghazzali stated that “the knowledge of God (ma'rifâ) is the end of every cognition and the fruit of every science ('ilm) according to all schools of thought” (Rosenthal 1970, 142).

How does Gülen's understanding of knowledge relate to all this? The main aim of this paper is to analyze how Gülen values knowledge and how his thinking about the role and importance of knowledge relates to other contemporary thinking on knowledge. To be able to discuss this I will start with a close reading of Gülen's presentation of the central epistemological concepts in Emerald hills of the heart (Gülen 2004a, 2004b, 2009a, 2010a).
Knowledge according to Fethullah Gülen

The English renderings of Fethullah Gülen's *Emerald hills of the heart* presents the following definitions of the central epistemological terms:

“*İlîm* (knowledge) means information obtained through the human senses or through Revelations or inspiration of God. It is also used to denote information that is in agreement with facts or realities, and to denote understanding something with its real, whole meaning and content” (Gülen 2004b, 18).

“Ma’rîfa is the special knowledge that is acquired through reflection, sincere endeavor, using one's conscience and inquiring into one's inner world. It is different from (scientific) knowledge (*îlîm*). [...] The opposite of (scientific) knowledge is ignorance, while the opposite of ma’rîfa is denial” (Gülen 2004b, 135).

“Hîkma (wisdom) [...] has been interpreted by the exacting scholars of truth [hâkikat ulemâısı] as being able to combine useful knowledge and righteous deeds in life. Righteous deeds are the willed outcome of knowledge applied, and the beginning of new Divine gifts” (Gülen 2004b, 26).

As can be deduced from these short definitions Gülen both sees a kind of hierarchy and a complementarity between different aspects of knowledge. He also argues that knowledge is no aim in itself. Knowledge must not be reduced to an instrument for worldly gains, but it should not be restricted to learning the religious tradition either.

“Confining knowledge to religious sciences devoid of reflection and investigation inevitably results in contentment with animal breeding and agriculture, in idleness and the neglect of striving in the way of God. The ultimate result is misery, poverty, and humiliation.” (Gülen 2006a, 194)

Knowledge is but the first step on the way towards a true love of God (Gülen, 2004a, 123-27, 2010a, 42-46). There is “a way of light extending from belief to knowledge of God and therefrom to love of God; and then to progress to the Hereafter and God's pleasure and approval – this is the way to become a perfect, universal human being” (Gülen 2004a, 11). Gülen describes a link between real knowledge, true faith and right conduct. If you truly know, you will act accordingly. This is very similar to the Socratic understanding of a conformity between correct knowledge and right conduct. If you behave unethically, it is because you don't have proper knowledge. This is why education is essential for a good life. Virtue is the result of good education, and good education must lead the students to “wholeness of thought and contemplation” (Gülen 2000, 312, Gülen 2004c, 202-09, Plato 1985, 87D-89).

To find this way the tool of reflection (*tafakkur*) is central, as can be seen in the Qur'anic invocation “signs for a people who reflect” (Qur'an 13:3, 10:24, 16:12, 16:69, 30:21, 39:42). In Gülen's presentation knowledge could be described as a foundation for reflection. Without proper reflection knowledge can lead also to degrading results. (Qur'an 30:7-8, Rahman 1980, 34)

“*Tafakkur* literally means to think on a subject deeply, systematically, and in great detail. In this context, it signifies reflection, which is the heart's lamp, the soul's food, the spirit of knowledge, and the essence and light of the Islamic way of life. Reflection is the light in the heart that allows the believer to discern what is good and evil, beneficial and harmful, beautiful and ugly. Again, it is through reflection that the universe becomes a book to study, and the verses of the Qur'an disclose their deeper meanings and secrets more
clearly. Without reflection, the heart is darkened, the spirit is exasperated, and Islam is lived at such a superficial level that it is devoid of meaning and profundity.” (Gülen 2004a, 10)

To me Gülen can be important in the contemporary debate on epistemology with this emphasize on the importance of reflection. This is in tune with a growing trend in epistemology and science studies more interested in the use and effects of knowledge, than the classically preferred focus on procedural aspects of knowing.

Before moving to contemporary epistemology I will proceed with the detailed picture of Gülen's conception of knowledge as expressed in *Emerald hills of the heart*.

*Ilm* is broadly presented as meaning simply knowledge. But the concept of knowledge presented by Gülen under the heading *ilm* differs from what one would find in Western encyclopedias. It is important to note that the broad presentation is not central to Gülen's aim in the book. He thinks it can be useful, though, “to mention some secondary matters, such as the different types of knowledge and its sources” (Gülen 2004b, 18).

The first part of the article “*Ilm* (knowledge)” in *Emerald hills of the heart* deals with these 'secondary matters', and presents a rather scholastic exposé of the different ways knowledge can be defined. Gülen shows here that he masters the Islamic tradition and its definitions, as well as the terminology and concepts of modern science.

Gülen states that according to Islam there are three sources of knowledge: the external senses, true reports, and reason. Another way to understand knowledge is to divide it into 1) knowledge acquired through the mental faculties, and 2) reported knowledge.

Acquired knowledge 1) can be divided into

a) knowledge of incumbent matters, such as health and education,
b) disapproved knowledge such as sorcery, divination and occult sciences,
c) Social and natural sciences, which Islam regards as obligatory for a good society and a good life.

It is notable that Gülen sees sorcery and occultism as knowledge, although of a disapproved kind.

Reported knowledge 2) comes in two kinds

a) knowledge based on spiritual discovery, and
b) knowledge concerning Islam and Islamic life.

2a) can either be knowledge that occurs in one's heart as a gift from God, and knowledge that arise in the conscience. 2b) can be divided into four

i) knowledge of the fundamentals, the sources of Shari'a.
ii) knowledge of the subdivisions of Shari'a: worship, civil law, criminal law.
iii) primary Islamic sciences: language, grammar, meaning, composition, and eloquence.
iv) complementary Islamic sciences: phonetics, recitation, interpretation, exegesis.

After this thorough classification Gülen says that *Emerald hills of the heart* is a study of reported knowledge (of the type 2.a).
As I understand it Gülen presents his sufi concepts as means to deepen this kind of knowledge (‘ilm 2.a) and transform it into ma’rifa, being the “substance of knowledge attained through reflection, intuition, and inner perception” (Gülen 2004b, 135). Ma’rifa is “the station where knowing is united with the one who knows” (Gülen 2004a, 146). The next vital point is that in order to have ma’rifa, “one should also have enough will-power to apply what one knows” (Gülen 2004b, 136). Knowledge must be transformative to be valuable. To become wisdom (hikma), knowledge must be combined with action (Gülen 2004b, 30, Gülen 2005a, 59-66). The activist aspect of Gülen’s work is thus linked to the more introvert sufi reflections, the conception of life as service (hizmet), so important for the broader movement, can be deduced also from this angle. Gülen has a consistent philosophy of knowledge, education and social activism (Celik 2008, Cetin 2010).

In discussing wisdom (hikma) Gülen lies close to the aristotelian concept of phronesis, talking about “wisdom as correct judgement, and acting as one should act and doing what is necessary to do at the right time and the right place” (Gülen 2004b, 27, Celik 2009). Phronesis is the ability to apply what you know in specific circumstances, to see what is right and wrong directly, as a result of experience and reflection, rather than from a rational analysis of the present situation. Again we can see a parallel in contemporary philosophy, where Aristotelian ethics have found new interest, with the concept of phronesis (practical reason, judgment, wisdom) as a central point (Gülen 2000, 306-08, Dunne 1998, Nussbaum 1990, 2001).

But acting correctly in every situation is not the final outcome of wisdom. Knowledge and wisdom are elements of the heart [qalb], of the spirit [ruh], that is: “an individual's real nature” (Gülen 2004a, 22), “the essence of human existence and nature” (Gülen 2009a, 172).

As I have already said, I discuss the value and role of knowledge, rather than follow the concepts and try to place them in the broader metaphysical frame of all the Sufi concepts presented by Gülen in Emerald hills of the heart. This would be a much harder and more time consuming task than I can take on here. I think it is worth noting, though, that Gülen does not present his exegesis of the Sufi concepts in a systematic fashion. This shows that his main point is not systematic clarity, it is more didactic and orientated towards practice, as the subtitle Key concepts in the practice of Sufism expresses.

Gülen and epistemology
The Western philosophical field of epistemology is almost never concerned with the type of knowledge discussed in Emerald hills of the heart, it is hard to find a definition allowing this type (2.a) of ‘ilm to be called knowledge (Klein 1998). According to the sufis knowledge is “the light and radiation that come from the realms beyond the material world and have their source in God's knowledge” (Gülen 2004b, 23), as such it is outside of modern epistemology. It might seem hard to find openings for a real dialogue about the concept of knowledge in Islam (as expressed in Gülen's thought) and in Western philosophy (generally). They are at best incommensurable; at worst Western philosophy negates the Sufi knowledge as meaningless.²

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1 Even if we can find parallels between Gülen and contemporary Western philosophical thinking this does not imply influence in any direction. Especially in Emerald hills of the heart, Gülen builds his arguments exclusively on Islamic sources. His engagement with Western thought is most visible in more precise areas of science. There is no visible trace of anything Islamic in the Western debate, even if the renewed interest in Classical and Medieval philosophy relates to sources present in all the Abrahamic religions.

2 The concepts of incommensurability and meaning(less) relates to positions in Western philosophy of science expressed by Thomas Kuhn and the Vienna circle.
Gülen writes that knowledge covers also the meaning of the modern scientific term instinct, what Gülen calls innate knowledge and categorizes as “knowledge without means” (Gülen 2004b, 18). This shows that the Islamic conception of knowledge is broader than the episteme-centered Western concept.

Knowledge by presence
Mehdi Ha'iri Yazdi’s analysis of ‘knowledge by presence’ (‘ilm al-huduri) is in a similar way on the edge of what would be called knowledge in the broad Western tradition. Ha'iri Yazdi argues that we have a self-evident and certain self consciousness, an understanding, or experience, that I am I. This experience is called 'knowledge by presence ('ilm al-huduri).³ Ha’iri Yazdi also tries to show the philosophical validity of the claim that “a mystic ascends to unitary consciousness and becomes united with God in the sense of absorption.” (Ha'iri Yazdi 1992, 146) This mystic experience is also knowledge by presence. Ha’iri Yazdi’s book argues that knowledge by presence can be accommodated within an analytical paradigm.

Scientific knowledge on the other hand is always reached through an intellectual process that can deduce correspondences between subject and object. Knowledge by correspondence ('ilm al-husuli) can never be certain. It is vital for a just understanding of the world, but it is always contingent. (Ha'iri Yazdi 1992, 33-41) We can see a similarity in this hierarchization of knowledge in Ha'iri Yazi and Gülen. Emerald hills of the heart could be described as a catalogue of stations and aspects of the ascendance towards a unitary consciousness (Gülen, 2010a, 175-189).

Knowledge by presence is “a private state of the individual reality of the self as knowing subject being united in presence with the reality of the object known” (Ha'iri Yazdi 1992, 176). It can never be fully expressed, even if the science of irfan is an attempt to represent knowledge gained in this state. But knowledge that cannot be represented does not count as knowledge in modern Western epistemology, despite Ha’iri Yazdi’s efforts.

Doxa
As almost all theorists of science have argued for the last 40 years we can see that true knowledge is not related to verified observations and correspondence with reality. This is well in tune with the Islamic understanding of knowledge by correspondence (‘ilm al-husuli).

Another kind of philosophical critique of classical epistemology says that truth is what corresponds to the doxa of our community. Doxa is a Greek word meaning belief. In classical philosophy doxa has been considered as an opposite to knowledge (episteme). It has mainly survived as a rhetorical concept, meaning the common opinions that a speaker needs to address to be successful in her communication (Schiappa, 1999). In Outline of a theory of practice sociologist Pierre Bourdieu uses doxa to denote what is taken for granted in any particular society (Bourdieu 1977).

What we consider to be facts and knowledge is formed by the doxa we grow up with. Whether we like it or not our understanding is formed by the languages and symbolic systems we grow up with. Saying that we create our own reality and that what is considered true knowledge therefore is changeable does not mean that anyone is free to choose their own personal doxa. Cultures, languages and traditions are vast and deep, they do not change easily or rapidly (Rosengren 2008). But the bottom line is that we cannot step outside our own doxa and measure knowledge in relation to any correspondence with reality.

³The concept of 'ilm al-huduri was developed by Shihab al-Din al-Suhrawardi in the late 12th century and elaborated further in the Ishraqi philosophical tradition.
Gülen describes science very much as a *doxa*, as contingent knowledge. But for Gülen there are sources beyond this – revelation (*wahy*). The Divine Word revealed to the Prophet Muhammad is stable and ahistorical, but must always be reflected upon through exposition (*tafṣīr*), commentary (*ta'wil*) and interpretation (*me'al*) (Gülen, 2006b). The Islamic interpretational system built around revelation can be called *doxa*.

*Life is more than knowledge*

As said before, for Gülen the *praxis* stemming from revelation is as important as *doxa*, he calls for a revival of Islamic thought and activism (Gülen, 2005a).

The positivist narrowing of the field of knowledge is under more and more critique, from many different areas. There is an expressed need to respect and acknowledge other forms of human experience.

In *Ritual and its consequences*, an essay arguing for the importance of ritual to allow us to live together in a perennially imperfect world, the authors points to the limits of knowledge as a compass in the world, saying “cognition itself implies the loss of unity that exists only when that unity is experienced in a ‘self-evident’ manner.” (Seligman et al. 2008, 110) Experiences are not only individual, we can share them. Seligman et al. argue that shared experiences, carried in ritual, fills a role that elaborate explanations of the experience never can. We cannot of course live without cognition, but we must have ways to live and share the experiences that escapes cognition. The Modern assumption that a sincere and accurate description of the world as object is the key to a better world is problematic. Positive knowledge is fantastic for solving technical and medical problems, it can understand differences. But Seligman et al. talks about

“the failure of our existing cultural resources [in the West] to deal with ambiguity, ambivalences, and the gentle play of boundaries that require both their existence and transcendence. All too often the modern world has absolute boundaries. [---] Rather than trying to eliminate boundaries or to make them into unbreachable walls – the two approaches that so typified the twentieth century – ritual continually renegotiates boundaries, living with their instability and labile nature” (Seligman et al. 2008, 10).

Without going into a discussion on Gülen’s relation to ritual we can notice the shared understanding that epistemic knowledge is not enough for a good life, individually or on a social scale.

**Gülen and scientific knowledge**

Under the entry *ma'rifa*, Gülen talks about *ʿilm* as (scientific) knowledge. “(Scientific) knowledge is acquisition reached through study, investigation, analysis, and synthesis” (Gülen 2004b, 135). And in the opening remarks about *ʿilm* he says that “it is also used to denote information that is in agreement with facts or realities” (Gülen 2004b, 18) – in line with the standard definitions of knowledge in modern philosophy.

“Encouraging people to engage in reflection focused upon a determined aim entails urging them to learn and use the methods of sciences that study how existence is manifested” (Gülen 2004a, 12). To know all the different parts of the Book of the Universe (*Kitab al-manshur*), we need to study it empirically, to fully understand the meaning of the scientific knowledge we gain we need to study the Qur'an, the written Book (*Kitab al-mastur*).
But the means and methods (science) must never take precedence over the aim (love of God). Most of the time, science is a means to reach a whole number of Islamic aims, it creates understanding and also helps us in our role as khalifa's, in using and caring for the Universe in a better way, since "loving something depends on knowing it well" (Gülen 2009b). Earlier, before the environmental and climatic crisis became everyday headlines, Gülen stressed that "we are to establish science and exploit natural resources by discovering the Divine laws of nature and reflecting on natural phenomena. However, while doing this, we should seek God's pleasure and practice Islam.” (Gülen 2006a, 194)

Through reflection we can use the Universe as a book, to study and learn from. But it is not something only to master and exploit, it is also a source for humbleness and respect. Here we can see a similar shift in Gülen as in most of society, earlier he talked without reservations about the positive aspects in man's mastery over nature. Now the need for respect is given more attention.

**Gülen and Ramadan**

On the relation between Islam and science there are many similarities between Fethullah Gülen and Tariq Ramadan. Ramadan is more academic, though, and emphasizes the need for reform harder. Gülen is more didactic, and traditional. They are both radical in the very literal sense of the word, the way to meet the needs of the present is to go back to the roots and revitalize the values of the Companions, values such as love of knowledge, openness to change, tolerance and free-thinking (Gülen, 2010b, Ramadan 2008).

Both Gülen and Ramadan are universalists, they do not want to develop or argue for a specific Muslim way to know, any specific Islamic knowledge. “The methods, techniques, and scientific methodologies established to understand and analyze an object under study and realize how it functions are by no means inherently 'Islamic' [...] What is 'Islamic' are the ethics, the norms, and the goals that orient – and limit – the use of knowledge acquired.” (Ramadan 2009, 128) This is very similar to Gülen's position. People should not fear science, it is the bad use of science that is the problem (Gülen, 1999, Gülen 2000, 75-82).

In Gülen's understanding there is a clearer hierarchy between religion and science. “Religion guides sciences, determines their real goal, and puts moral and universal human values before science as guides” (Gülen 2004c, 196). Also Ramadan stresses that science-in-and-for-itself is one-legged, and might lead to catastrophic results. “For a believing conscience, what matters is not just to understand facts – although this in itself is essential – but also to understand the intents, meaning, and finality of the world's order and of the substance of the revealed message, where ultimately, the two revelations [the Universe and the Qur'an] meet” (Ramadan 2009, 98). Gülen talks about guiding science, Ramadan about giving it proper attention. The main argument of Ramadan's *Radical reform* is that there is a need to renegotiate the Islamic stance towards the sciences. “The Universe, the social and human context, has never been considered as a self-standing source of law and of its production. It is this status, this qualitative differentiation in authority – between the text and the context – that to my mind is a problem today.” (Ramadan 2009, 82) This is radical indeed, and even though he does not mention Gülen I think Ramadan's critique goes out also to his position.

Gülen's main message is that there are ways of reconciliation between what is seen as opposing traditions, if both sides just understand their position fuller and realizes their true ethos we can create a universal civilization of love and tolerance (Gülen, 2005b, 233-36). I think it is very important to see the different roles and genres of Gülen and Ramadan here. The differences we can see are partly related to the different dialogues they are involved in. As I said, Gülen is more didactic and is a spiritual guide; he aims for change and praxis. Ramadan is more academic; he is
analytical and aims for problematization. But there is also the factual difference that Ramadan is more prone for reform of Islam. Gülen uses Islam to reform society, Ramadan also thinks that the ever changing societal context needs to reform Islam, putting a lot of emphasis on the distinction between the spheres of *mu'amalat* (social affairs), where reform is vital, and *'aqidah* (the creed) and *'ibadat* (worship), where the critique of *bid'a* (innovation) is applicable. (Ramadan 2009, 20-25).

Ramadan, as his position is stated in *Radical reform*, also sees science as more self sufficient than Gülen. Ramadan accepts the argument that science and religion are two separate and equal entities that must be left to function according to their respective logic and axioms. No side has any right to interfere with the other. Gülen most often criticize the use of science in Modern Europe, but sometimes his critique also goes out to science as a practice. This is for example the interpretation Mehmet Enes Ergene gives when he writes that “science plunged into materialistic views and was forced to be unidimensional – to ignore moral, religious, and metaphysical concerns.” (Enes 2008, 76) Science is necessary, but it should keep within the boundaries set by religion, Gülen thinks. Ramadan upholds the theory of complementarity and equality of science and religion. Science is free, the problem lies with the social interpretation and use of scientific results. Ramadan's main argument in *Radical reform* is that scientists should be recognized as context scholars (*ulama' al-Waqi'*) and be integrated on an equal plane in *fiqh* councils (Ramadan 2009, 130). Ramadan thus argues for a new synthesis of science and religion, Gülen talks about re-establishing a balance between science and religion, lost in both the West and in Islam.

In a broader (Islamic and/or Western) context I think the similarities of Gülen's and Ramadan's thinking about the role of knowledge are more striking than the differences.

**Relation before knowledge**

In the words of Mehmet Enes Ergene: “Gülen clearly points to the old cosmological view that espoused the idea that the cause for the universe to exist was love and compassion.” Ergene says that the cosmology preferred by Gülen “established a constant and causal relation among man, the universe, and God.” (Ergene 2008, 76)

To restate Gülen’s criticism of materialist science: the major mistake is that it denies man's relation to the Universe, and puts itself outside of what becomes a mere object. It denies the relation. In the words of the Arch bishop emeritus of the Church of Sweden K G Hammar: “Faith is not primarily an alliance with a doctrine, or upholding certain theoretical truth claims. Faith is relation, and faith must always be personal” (Hammar and Lönnroth 2004, 45).

One etymology for the Latin word *religio* is that it means union, connectedness. I would like to interpret the critique of materialism as a critique of science in the sense not so much of a denial of God as of a denial of relation, union, connectedness, responsibility. Maybe this is stretching the interpretation a little bit, but it has the advantage that it connects Gülen with interesting trends in contemporary Western thought otherwise quite unrelated to religion.

Gülen is in line with Western contemporary debates of science in two respects: on the contingency of scientific theories (Grinell 2010a), and in this critique of the denial of relation. In the theory of science field this has been criticized as 'the view from nowhere' (Haraway 1997, 23-45), the observer became a 'Master-of-all-I-survey' (Pratt 1992, 201). From a Jewish perspective the philosopher Emanuelis Levinas criticized Western philosophy for putting ontology before ethics (Levinas 1991, 22). The question that ought to come first in our meeting with the Other (the world around us) is not “How can this object be classified and explained?” but “What is my responsibility
towards this subject?” The mistake is to transform thinking into theories about an indifferent (adiaphora) world.

Post-Cartesian philosophy has narrowed itself to discussions on what knowledge is and how it is produced. More and more critical thinking about modernity now argue that this concentration, although very productive in a technoscientific respect, lost many aspects critical for a sound understanding of what a good life might be. Questions not possible to answer by verifiable, empirical, physical observation were seen as metaphysical, and thus as meaningless and nonsensical (Kauffman 2008, 1-9). This was an important and valid limitation of the realm that can be known scientifically. The mistake was to say that questions where meaningless and unimportant just because they were impossible to falsify by reduction to physical observations.

This critique of positivist epistemology comes from different angles. Complexity theorist Stuart Kauffman states his critique from a biological point of view. He criticizes scientific reductionism from within.

“In physics, there are only happenings, only facts, only statements of fact about what 'is'. But we have seen that biology is not reducible to physics, nor is agency, an aspect of life, reducible to physics. With agency [...] values enter. Once this is true, meaning and 'ought' enter the universe. [...] But this agency-borne 'ought' is [...] not reducible to physics, and the language of bare facts, of what 'is'. [...] Values, meaning, doing, action, and 'ought' are real parts of the furniture of the universe. 'Ought' is central to much of human action and all our moral reasoning.” (Kauffman 2008, 87)

Also from within the field of physics we find similar critique of reductionism and simplified objectivism. In the fascinating book Meeting the Universe halfway Karen Barad uses her expertise as a theoretical physicist and a feminist philosopher to argue for the entanglement of matter and meaning. The world does not consist of facts to be observed. The world is always coming into being and we always meet the Universe halfway, that is – “we don't have the distances of space, time, and matter required to replicate ‘what is’; in an important sense, we are already materially entangled across space and time with the diffractive apparatuses that iteratively rework the ‘objects’ that ‘we’ study” (Barad 2007, 384).

Neither Kauffman nor Barad departs from materialism. But their materialism seems to me to be something very different from the one that Gülen criticizes. They both hold that the world is constantly refigured (created) by agency. And agency is everywhere, not only connected to intellects. Since the intra-connectedness of agents is what shapes the world, there is no study of the world disconnected from ethics. “Ethics is about accounting for our part of the entangled webs we weave” (Barad 2007, 384). Our prime goal cannot be to know objects as accurately as possible, it must be to take responsibility for our meeting with the Universe, “since reason truly is an insufficient guide, we truly must reunite our humanity. And if so, we truly need to reinvent the sacred for ourselves to guide our lives [...] At last, we must be fully responsible for ourselves, our lives, our actions, our values, our civilizations, the global civilization” (Kauffman 2008, 282). There is a dire need for reflection also for materialistic scientists, and Kauffman's and Barad's books can be described as sincere reflections on their scientific and existential knowledge.

**Border thinking**

This reinvention of the sacred must start with a broader reflection (tafakkur) on the use and role of knowledge, and on our relation to the Universe. This is not something we can get a full understanding of using only scientific knowledge. A detailed analysis of a traditions/doxas search
for a loving relation to existence, such as Gülen’s *Emerald hills of the Heart*, has a role to play here. Human knowledge is always partial; to see more we need to engage with more than one way of approaching the world. There is an increasing openness towards the need of dialogic knowledge.

I call this border thinking, following Walter Mignolo who promotes the concept of border thinking as a method to include several traditions/*doxas* in the construction of decolonial knowledge (Grinell 2009, 2010a, 2010b, 2010c).

Border thinking must recognise the colonising and paternalistic aspects of modern European *doxas*, (such as science), and use alternative resources (such as Islam) to confront and alter its relation to the Universe. It must at the same time recognize for example the patriarchal aspects of Islamic *doxas*. Reflections on how to live for the good of the Universe can from a border thinking perspective not stem from an unproblematic belonging to only one *doxa*.

### Concluding remarks

My exposé of the contemporary epistemological thinking is of necessity fragmented and biased. It is difficult to draw any conclusions from it. It might also be difficult to see how all parts of the descriptive presentation of Gülen's conceptions of knowledge relate to this context. What I think I have been able to show is that there is a growing interest for the use of knowledge, for the need for reflection, for the recognition of the fundamental ethical character of all knowledge.\(^4\) This reflection is something that religious thinkers, such as Gülen, have elaborated in a greater detail than representatives of the scientific tradition. The two *doxas* can, as Gülen also argue, complement each other.

There can be a more balanced dialogue between science and religion, beyond the mere comparison of scientific and scriptural facts and statements that has dominated for too long.

\(^4\)Other arguments for this opening can be found in the interesting and growing field of reflections on the post secular.
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