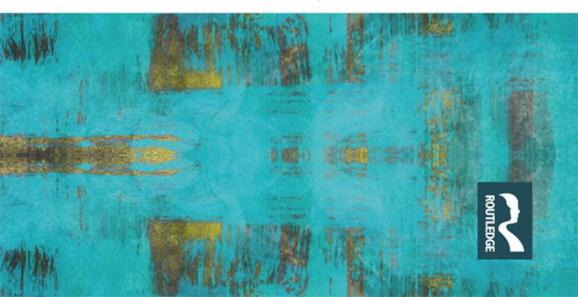# ISLAM, MODERNITY AND A NEW MILLENNIUM

THEMES FROM A CRITICAL RATIONALIST READING OF ISLAM

Ali Paya

Islam, Modernity and a New Millennium

As the world becomes increasingly globalised Islam faces some important choices. Does it seek to "modernise" in line with the cultures in which it is practised, or does it retain its traditions even if they are at odds with the surrounding society? This book utilises a critical rationalist viewpoint to illuminate many of the hotly contested issues in modern Islam and to offer a fresh analysis.

A variety of issues within Islam are discussed in this book, including Muslims and modernity; Islam, Christianity and Judaism; approaches to the understanding of the Quran; Muslim identity and civil society; doctrinal certainty and violent radicalism. In each case, the author makes use of Karl Popper's theory of critical rationalism to uncover new aspects of these issues and to challenge post-modern, relativist, literalist and justificationist readings of Islam.

This is a unique perspective on contemporary Islam and as such will be of significant interest to scholars of Religious Studies, Islamic Studies and the Philosophy of Religion.

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To my father and my mother
Two great human beings

Contents

Acknowledgements

Transliteration System

Consonants				Semi-Vowels	
ء	ʾ	ض	ḍ	و	w, v [1]
ب	b	ط	ṭ	ى	y
ت	t	ظ	ẓ		
ث	th	ع	ʿ	**Short Vowels**	
ج	j	غ	gh	◌َ	a
ح	ḥ	ف	f	◌ُ	u
خ	kh	ق	q	◌ِ	i
د	d	ك	k		
ذ	dh	ل	l	Long Vowels	
ر	r	م	m	◌َا	ā
ز	z	ن	n	◌ُو	ū
س	s	ه	h	◌ِي	ī
ش	sh	ة	h		
ص	ṣ				

Persian Letters		Diphthongs	
پ	p	◌َو	aw
چ	ch	◌َی	ay
ژ	zh	◌ِیّ	iyy
گ	g	◌ُوّ	uww

1 Labio-dental in Persian phonology.

1 Introduction

I Islam and modernity

In the early decades of the third millennium, the world of Islam, with almost two billion inhabitants (Pew, 2017), does not seem to be in a good shape. In almost all countries whose populations are mostly Muslim, all sorts of socio-political, economic and cultural ills are widespread: high rates of unemployment, especially among the young people; upward trends of family breakdown and increasing cases of divorce; authoritarian and despotic systems of governance often disguised as various forms of democracy; lack of accountability and transparency on the part of ruling classes; ineffective bureaucracies; rampant corruption, in particular, among the elite; a widening gap between the haves and the have nots; widespread disillusionment among the masses; a brain drain; and many other problems.

All around the Muslim world, there are individuals and groups who are desperately trying to make sense of the situation and find ways to respond to it in proper ways. Various kinds of explanations have been put forward by pundits and experts as well as ordinary folks. Some blame Islam and claim that it is the main source of the backwardness of Muslim societies (Abdel-Samad, 2016). Others, however, argue that Islam is the only solution for all the ills befallen on Muslim societies (Wickham, 2013). Some put all the blame at the door of the West and consider it to be the main cause of the sorry state of Muslim societies. In contrast, some are of the view that the only way out of the present predicament is for Muslims to become like Westerners from head to toe (Taqizadeh, 1920: p. 2). Of course, in between the above extreme poles, there is a large variety of other types of explanations of the situation, as well as recommendations and proposed solutions, for overcoming it (Shariati, 1986; Esposito & Voll, 2001; Kruzman, 1998, 2002; Kamrava, 2006).

Taking a longer historical view, however, reveals that the relative decline of Muslim societies had started long before recent decades and can actually be traced back to the period which marks the end of what is known as

the Golden Age of Islam, around the thirteenth century (Lombard, 1975; Saliba, 2007). Two major factors, among others, which helped this process of decline were invasions of nomadic tribes such as Mongols (Genghis Khan, Hulagu Khan etc.) and Timur (Tamerlane) and his tribe (Asimov & Bosworth, 1998) and the spread of less tolerant approaches to Islam – approaches whose outlooks have been more legalistic and literal (Black, 2011). But apart from these general factors, more specific causes too could be identified as contributory factors to the process of decline in the case of major Muslim powers, namely Persia, the Ottoman empire and the Muslim empire in India in the post-Golden era period (Irwin, 2010; Morgan & Reid, 2010). For example, tensions between followers of different sects and members of various ethnic groups who lived in territories controlled by these political entities, as well as the usual political intrigues, conspiracies and rivalries among the elite who ruled over them, have contributed to the process of decline of Muslim societies.

While anecdotal historical evidence shows that prior to the eighteenth century at least some Muslims had become worried about the gradual decline of Muslim societies (Ibn Khaldun's The *Muqaddimah* ([1337] 1967) is a case in point), it was the encounter with 'modernity' which forced Muslims to face the troubling fact of the decline of their civilisation in comparison to its Western counterpart.

On many occasions the defeats inflicted on ill-equipped and un-modernised Muslim armies by highly advanced Western armies acted as painful wake-up calls for some, though by no means all, sections of Muslim societies. Such shocking experiences prompted some reform-minded Muslims to embark on soul-searching missions to discover the causes of the backwardness of their societies. For example, Prince Abbas Mirza (1789–1833), Fath Ali Shah's (1772–1834) heir to the Persian throne, who was leading Iran's army in the two fateful Irano-Russian wars (1804–1813) in which Persia (Iran) ceded large parts of her northern territories to Russia, launched a programme for renewing Iran's military and also sent the first groups of Iranian students to Europe to master modern technologies, including medicine, chemistry, military engineering, military hardware, typography and modern languages (Abrahamian, 1982). The following conversation recorded by Pierre-Amédée Jaubert, first secretary to and interpreter of Napoleon I, during the Egyptian Expedition (1798–1799) and one of the founders of the Society of Geography and the Asian Society of France, in his book, *Travel to Armenia and Persia* (1805–1806), shows the sense of frustration felt by reformist Muslims who wanted to develop equal relations with the Western powers. The Prince asks the Frenchman:

> What is the power that gives you so great a superiority over us? . . . Is the East less inhabitable, less fertile, less rich than your Europe? Are the rays of the sun, which enlighten us before reaching you, kinder to you

than us; and has the Creator, who provides varieties of bounties, willed to help you more than us? I do not think so.

Speak, stranger! Tell me what it takes to regenerate Persia? Should I, like that Muscovite Tsar who once descended from his throne to visit your cities, abandon Persia and all this vain display of wealth? Or must I attach myself to a wise man and learn from him whatever a Prince ought to know?

(Jaubert, 1821: 175–6)

Western powers, however, had no intention of extending helping hands to Muslim countries and their people. They were pursuing their own strategic interests and any incidental offer of assistance to any Muslim country could only be made in the context of rivalry between Western powers themselves and in the hope of weakening the position of their rivals. However, even such occasional gestures of assistance and cooperation as were made, would cease to continue as soon as there were some changes in the arrangement of alliances among Western powers (Nasr, 2017).

'Modernity' was mostly, though not entirely, brought to Muslim countries on the back of colonial aggressions, occupations, exploitation, plunder and usurpation by Western powers from the late eighteenth century onward. Many writers have commented on the fact that Western powers' sole intention of their 'adventures' in Muslim lands was to benefit from the riches of the invaded countries. According to these writers, whatever 'beneficial' results which the people of the affected countries may have experienced have been the unintended consequences of actions whose main objectives have been something very different. As Galal Amin (2000) has noted,

More land was indeed cultivated, but not to feed more people or to feed them better. The main aim was of course to grow more cash crops for export to Western manufacturers or consumers. When cereals competed with vineyards, as in North Africa, wine production was increased at the expense of cereals. When cotton competed with food as in Egypt or Sudan, cotton was preferred. Similarly, roads and railways were built not to connect one part of the Arab population with another; although this was incidentally achieved, but to connect the source of the export crop or mineral with the port or the harbour from which it is exported. . . . Education was expanded only to the extent that served the requirements of colonial administration. Thus, in Algeria for example, just before independence, and after 130 years of French rule, the literacy rate among Algerian Muslims was no more than 15 per cent. This was roughly the literacy rate among Egyptians in the early 1950s after 70 years of British rule, and when the Italians left Libya during the Second World War, there were exactly two Libyans with university degrees.

(Amin, 2000:162)

The introduction of 'modernity' to Muslim communities was facilitated not only by the military might of the Westerners, but also by armies of Christian missionaries, trade delegates, fortune seekers, explorers, scholars etc., and led to the exposure of these communities, in a largely coincidental and not intentionally planned way, to a plethora of new scientific, philosophical, legal, political, economic and cultural ideas, and various types of soft and hard technologies: from modern systems of bureaucracy, judiciary, governance, banking to modern methods of medicine and engineering and to all sorts of weapons, machinery, home appliances and consumer goods (Ardakani, 1979; Hefner, 2010). As was stated earlier, one of the most important corollaries of this exposure was to make Muslims self-conscious of the harsh reality of their situation and to shatter any illusion of greatness they might have had.

Some historians have tried to argue that Western colonialism has not been altogether a force for ill, but that it also had a civilizing impact and introduced many beneficial outcomes in the societies affected by it (Ferguson, 2003). But as recent scholarly works, especially in the field of Post-colonial Studies, have revealed the significance of these seemingly 'positive' aspects of the encounter between the West and the world of Islam should not be exaggerated. A typical case in point is discussed by Shashi Tharoor in his recent book, *Inglorious Empire* (2017a), where he argues that the claim of those who suggest the British Empire introduced 'political unity and democracy, the rule of law, railways, and English education' (Tharoor, 2017b) to India should be critically evaluated. In an article which summarises his book, Tharoor argues, among other things, that:

> Far from crediting Britain for India's unity and enduring parliamentary democracy, the facts point clearly to policies that undermined it – the dismantling of existing political institutions, the fomenting of communal division and systematic political discrimination with a view to maintaining British domination. . . . Large-scale conflicts between Hindus and Muslims (religiously defined), only began under colonial rule; many other kinds of social strife were labelled as religious due to the colonists' orientalist assumption that religion was the fundamental division in Indian society. . . . Nor did Britain work to promote democratic institutions under imperial rule, as it liked to pretend. Instead of building self-government from the village level up, the East India Company destroyed what existed. The British ran government, tax collection, and administered what passed for justice. Indians were excluded from all of these functions. . . . The language was taught to a few to serve as intermediaries between the rulers and the ruled. The British had no desire to educate the Indian masses, nor were they willing to budget for such an expense. . . . The process of colonial rule in India meant economic exploitation and ruin to millions, the destruction of thriving industries, the systematic denial of opportunities to compete, the elimination of

indigenous institutions of governance, the transformation of lifestyles and patterns of living that had flourished since time immemorial, and the obliteration of the most precious possessions of the colonised, their identities and their self-respect. . . . If there were positive by-products for Indians from the institutions the British established and ran in India in their own interests, they were never intended to benefit Indians.

(Tharoor, 2017b)[1]

While Western powers were busy pursuing their 'strategic interests' in Muslim lands, many Muslim elites, in all Muslim countries, were desperately trying to find ways to rise up to challenges presented to them and other members of their communities due to the encounter of their societies with 'modernity'. The history of what has happened in Muslim countries in the past two and a half centuries could be studied from the viewpoint of the responses of the elite (and to some extent, ordinary Muslims) to the introduction of 'modernity' to their countries.

Muslims' reactions to their eventful encounter with 'modernity' have been varied and diverse. One of the difficulties in studying these reactions is to introduce effective categories to classify them. Researchers who study the relationship between the West and the world of Islam in modern times, i.e. since the late eighteenth and early nineteenth centuries, and explore its impact and consequences, have introduced various types of categories to represent Muslims' diverse responses to the onslaught of 'modernity'. These classificatory schemes differ in their scope and spheres of applicability: some are sect specific while others are country specific; and while some limit their scope to certain periods or specific issues, few aim to be as comprehensible and all-covering as possible. However, unsurprisingly, since reality, in whatever form it takes, whether natural or socially constructed, is always indeterminately many times richer and more complex than the best schemes devised by humans to capture it, none of the proposed classificatory schemes introduced by the students of Islam and modernity can fully represent the richness of the realities of the ways in which Muslims were trying to deal with the phenomenon of modernity.

Apart from this general problem of approaching reality, another important issue in dealing with Muslims' responses to modernity is that the categories used by different researchers, even when they bear the same titles, may not correspond to each other in a straightforward manner. In other words, the proposed categories, as one can expect, are contingent and 'researcher-oriented'. This means that even on occasions where overlaps can be found between similar categories used by various researchers, one should not expect complete identity between proposed categories. Nevertheless, and despite the above difficulties, these less than perfect reconstructions of Muslims' experiences provide useful accounts for us to make sense of some specific aspects of the history of Muslim communities in modern times. In other words, notwithstanding the differences among various systems of

classifications and regardless of the variety of models introduced by different researchers to explain Muslims' responses to modernity, the overlaps and common points which could be discerned among these diverse 'representations' are meaningfully large enough to assist readers of such explanations and accounts to understand (at least) some aspects of a large-scale human drama which started few centuries ago and is still ongoing and unfolding.

An important aspect of this drama is the evolution of Muslims' responses and the gradual realisation, at least on the part of some Muslim groups and individuals, that to merely blame the West and 'modernity' for the decline of Muslim societies does not help Muslims to overcome their historical underdevelopment. A point which I hope to highlight in various chapters of this book is that for Muslims to be able to change their situation in a constructive and positive way, they ought to embark on a comprehensive process of critical assessment of not only the consequences of the Western colonialism and Imperialism for Muslim societies, but also of their own ideas, ideals and achievements. An insight which could be of great help to Muslims in such a venture is that people everywhere, whether Muslim or non-Muslim, have many things in common. One of the corollaries of this seemingly simple, and yet significant, insight is that it is not the case that some nations are angels and some are devils. For example, the record of Muslim empires or Muslim local courts, in terms of their treatment of other people, is comparable with the record of the Western empires.

So far I have talked about 'modernity' as if it is an agreed-upon concept. Unfortunately, this is not the case. Modernity is a contested notion. Different writers subscribe to different characterisations of it (Turner, 1990; Frisby, 1986; Carvounas, 2002).[2] For the purpose of the discussions in the present volume I suggest the following characterisation of modernity.

Modernity, from an ontological point of view, is a vast and complex 'social' entity (in the rich sense of the term 'social') whose time and location of emergence can only be approximately and to some extent, arbitrarily, defined. Since its appearance, this entity has constantly evolved and undergone various changes and has assumed various forms and shapes. Different writers have suggested different starting points for this phenomenon. Thus, for example, Milan Kundera, the Czech novelist, says that the modern period stared when Don Quixote left his home and began his knight errantry (Kundera, 1980). Others have regarded the publication of Copernicus' *De Revolutionibus* ([1543] 1978) as the starting point of the modern world. However, the common thread among all these various suggestions is that modern times, and hence by implication the phenomenon of modernity, have emerged in Europe around the sixteenth century.

From an epistemological point of view, the very notion of 'modernity', as used by different writers, denotes a set of stories or models or narratives created to account for and give meaning to a huge number of complicated and complex events, processes and activities which cropped up in a certain space-time. Since then and from there its influences have touched almost all

corners of the globe. These events, processes and activities were the results of interactions between various social actors with each other and with their surroundings. Among various models of modernity, those which subscribe to the ideals of the Enlightenment differ from those which reject the role of reason and have succumbed to the 'seduction of unreason' (Wolin, 2004). However, all of these models of modernity share some fundamental ideas. These ideas are, to some extent, captured in the following three mottos introduced by three influential architects of modernity, namely, Immanuel Kant, Karl Marx and Friedrich Nietzsche. The mottos in question are as follows: "*Sapere aude*! -Have courage to use your own intellect!" (Kant, 1784), "All that was solid melted into air" (Marx and Engels, [1848]1967: p. 83), "Human, All Too Human (Nietzsche, [1878]1994)."

In discussing the phenomenon of 'modernity' it is also important to distinguish 'modernity' from either 'modernism' or 'modernisation' notwithstanding the common aspects shared between these three concepts.

Modernism is a name for a period in the history of art. It emerged around late 1880s in Europe and America and lasted (more or less) until the Second World War. Modernism is underpinned by a number of values. These include "a propensity to create 'culture shock' by abandoning traditional conventions of social behaviour, aesthetic representation, and scientific verification; the celebration of elitist or revolutionary aesthetic and ethical departures; and in general the derogation of the premise of a coherent, empirically accessible external reality (such as Nature or Providence) and the substitution of humanly devised structures or systems which are self-consciously arbitrary and transitory." (Craig, 1998)

Modernisation, on the other hand, is a social process which seeks to make changes in the social, political and economic institutions and relations so that they become more harmonised with and amenable to the requirements of the modern, rationalised age. The process of modernisation is almost always technologically-driven (in the extended sense of the term technology). Large scale programmes of modernisation, especially in the third world, tend to give rise to undesired and unwanted consequences which are contrary to the expectations of those who have planned and engineered the changes.[3]

II Muslims' responses to modernity

In the course of the ongoing encounter between Muslim societies and 'modernity', a number of Muslims stood above the rest and through their visions, thoughts and deeds introduced new responses to 'modernity' or made refinements, elaborations or radical changes to the existing responses. In doing so, they developed new discourses between various understandings of Islam and 'modernity'. These 'discourses' could be regarded as 'projects' for effecting 'appropriate' changes in Muslim societies in order to equip them with the means required to respond to 'modernity'. Even a cursory glance at the history of Muslim countries and communities, in this regard,

reveals a trend towards developing ever more sophisticated reactions and behaviours on the part of Muslims.[4]

It is true that understanding this trend and acquiring detailed knowledge of the ways in which Muslims have responded to modernity (or to be more accurate, modernities) is necessary for making sense of the present state of Muslim societies and possible paths which they may take in the future. However, this is, inevitably, a rich landscape making it extremely difficult, if not almost impossible, to produce a comprehensible list of the names of all those actors who have played significant roles in the drama which has been unfolding since the later part of the eighteenth century. It would be equally impossible to produce detailed accounts of the ideas and achievements of these individuals. Nevertheless, as the great Persian poet, Rumi, has advised:

> If it is impossible to drain (drink) the Oxus
>   One cannot deny one's self as much (water) as will slake [one's] thirst.
>   (Rumi, 1933: Book VI, Verse 66)

In other words, although doing complete justice to the details of a two-hundred-and-fifty-year history of the encounter between Muslim societies and 'modernity' is not possible, it seems even a brief discussion of a small selection of Muslim responses in the introduction of the present volume is not without some merit.

Perhaps the first step towards producing a brief account of Muslims' responses to 'modernity' is to introduce effective categories for classifying these responses. However, problems arise even at this preliminary stage. This is because, as was hinted above, there is no standard, agreed upon system of classification among the scholars who study the phenomenon of the encounter between Muslims and 'modernity'. It would not be an exaggeration if it were claimed that there are, more or less, as many such classificatory systems as there are researchers in this field.

For example, one writer has suggested the categories of "secular, conservative (or traditionalist), neo-revivalist (or fundamentalist), and neo-modernist" to represent the diversity of Muslims' responses to modernity (Esposito, 2000). He has described the characteristics of these categories in the following way:

> Secularists advocate the separation of religion and politics. . . . The conservative or traditionalist position is that of the majority of mainstream *ulama* [religious scholars], who believe that Islam is expressed quite comprehensively and adequately in classical formulations of Islamic law and doctrine . . . conservatives emphasize the following of past traditions or practices and are wary of any innovation that they regard as "deviation" (*bida*). . . . Neorevivalists or Islamists, often popularly referred to as "fundamentalists," share much in common with conservatives or traditionalists. They too emphasize a return to Islam to

bring about a new renaissance. . . . Like conservatives, they attribute the weakness of the Islamic world primarily to the westernization of Muslim societies, the penetration of its foreign, "un-Islamic" ideas, values, and practices. In contrast to conservatives, however, they are much more flexible in their ability to adapt to change. . . . [N]eomodernists . . . seek to bridge the gap between the traditionally and the secularly educated. They too are activists who look to the early Islamic period as embodying the normative ideal. Although they overlap with neorevivalists or Islamists . . . neomodernists are more flexible and creative in their thought. . . . They emphasize the importance of "Islamic modernization and development." . . . Islamic neomodernists do not reject the West in its entirety; rather, they choose to be selective in [their] approach. . . . Contemporary Islamic reformers or neomodernists also stress the need to renew Islam both at the individual and the community levels. They advocate a process of Islamization or re-Islamization that begins with the sacred sources of Islam, the Quran and Sunna of the Prophet,[5] but that also embraces the best in other cultures. . . . In contrast to neorevivalists, neomodernists are more creative and wide-ranging in their reinterpretation of Islam and less tied to traditional interpretations of the *ulama*.

(Esposito, 2000)

Another researcher has proposed the following categories for classifying Muslim responses: "The Isolationist Approach of Conservative Ulama", "The Early Modernist Approach", "Revivalist Islam" and "The Contemporary Modernist Approach" (Koshul, n.d). He has defined his proposed categories in the following way:

The Isolationist Approach of conservative *Ulama* was based in the institutions of traditional Islamic scholarship, and was characterized by an absolute unwillingness to interact with the modern West. *The Early Modernist Approach* considered the modern West as a place of enlightenment, progress, and prosperity, and as the ideal to which Muslims must aspire. *Revivalist Islam* represents an attempt to reform Islam from within so that it is better able to respond to the Western challenge. . . . *The Contemporary Modernist Approach* is an attempt to annul those Islamic practices and obligations that are deemed incompatible with modern thought and institutions.

(Koshul, n.d)

A third researcher has explained Muslims' responses to modernity in terms of the following three types of reactions. She writes,

The first reaction, total embrace of Western-style modernity, has been identified with the new and expanding elites educated in the West and

later also in Western style educational institutions. The total moderniz-
ers viewed Islam as practiced and implemented in the educational and
judicial spheres of their respective countries as a major cause of Mus-
lims' decline. . . . The second, rejectionist response was represented by
the uneducated masses and the clerical establishments. From their per-
spective, the main cause of Muslims' decline had been the erosion of
Islamic values and piety, and the failure to manage and govern society
according to Islamic law. . . . The third reaction . . . has been that of syn-
thesis. The adherents of this trend maintain that Islam is not a hindrance
to scientific and other progress and have worked hard to validate their
views. . . . They advocated a kind of reform in Islam close to the second
definition of the term noted earlier,[6] namely the restoration of Islam's
rationalist and scientific spirit and the interpretation of its basic tenets
in ways more suited to Muslims' current conditions and needs.

(Hunter, 2009: p. 14)

The above list of classificatory systems could be extended almost at will.[7]
For my part, I prefer to use my own categories for the purpose of discussions
and critical assessments in this volume. The system which I have adopted
may have, indeed has, some overlaps with the categories suggested by some
other researchers, including the above three writers. I suggest Muslims' reac-
tions to modernity could be studied in terms of the following categories,[8]
with the following caveat that the doctrines identified with each of the cat-
egories introduced below should not be regarded as rigid designators; they
constitute a spectrum of ideas in which many types of the 'variations on the
same theme' and 'overlaps between categories' can be found:

• Followers of Orthodoxy
• Traditionists ('Traditionalists')
• Rejectionists (peaceful and militant)
• Fundamentalists
• Assimilationists
• Modernists
• 'Late-Moderns'/Critical Rationalists/'Reformists'
• Post-Modernists
• Secularists

Ideally, in discussing each and every one of the above categories, it would
be useful if one could deal with the position of the representatives of the
above categories with regard to the following issues: religion, the Quran
and Sunnah; political systems, good governance, democracy and anticolo-
nial struggles; rights, including women's rights and the rights of minorities;
civil society, citizens' participation, the role of the elite and of intellectuals;
the rule of law, social justice and various types of freedom; identity, cul-
ture, modes of development (indigenous and otherwise) and globalisation.

However, due to space limitations, in what follows I will not be able to do justice to the rich output of each of the above categories with respect to the above issues. The most I can hope for is to introduce a general account of the main distinguishing features of each of the above categories and very briefly, in a line or two, to discuss the views of some of the better-known representatives of each of them.

The followers of orthodoxy (also known as traditionalists due to their adherence to traditional rituals) represent the largest group among Muslims. They subscribe to an interpretation of Islam which can be regarded as 'the belief system of the ordinary Muslims'; an interpretation which is represented in the teachings of official religious authorities such as imams, muftis and ayatollahs. The followers of orthodoxy observe a commonsensical code of moral conduct and try to stick to the letter of sharia[9] law. They have no qualms about making use of Western consumer goods and while they regard many aspects of social life in the West, and their echoes in their own countries, as decadent, they do not go out of their way to fight against them. They are apolitical and usually are not organised in political institutions like political parties; however, they can be mobilised for mass activities, for example, street demonstrations by religious leaders who are regarded as established authorities. When it comes to the defence of Islam vis-à-vis non-Islamic ideas, the followers of orthodoxy usually adopt an apologetic/syncretic approach (Paya, 2011b: p. 103).

Traditionism (also known as traditionalism, though not to be confused with the approach of the followers of orthodoxy despite a degree of similarity between the two positions) is an elitist trend. Traditionists maintain that the faculty of intuition (in the classic sense of the term)[10] provides the believer with a surer and more effective means than the intellect and senses, for extracting the truth of the Book and the Tradition (*Sunnah*).[11] Traditionists subscribe to the view that Divine wisdom is found in all ancient religious traditions in the form of a metaphysical system of thought called perennial wisdom.[12] In this sense they advocate some sort of selective pluralism. For traditionists the "main objective of religion is to care for the spiritual needs of the faithful and not to create a heaven on earth". Like the followers of orthodoxy, traditionists, while critical of many aspects of the modern Western secular civilisation, may choose to live and work in the Western countries. Although traditionists too are apolitical, they express their displeasure of what they regard to be the misguided adventures of modern man in active ways through peaceful means (Paya, 2011b: pp. 103–4). Perhaps the best-known representative of traditionism in our time is Seyyed Hossein Nasr (1933–). The main elements of Nasr's project can be summarised as follows: promotion of a true understanding of Islam, which in his view is based on traditionism; rejection of fundamentalist, modernist and post-modernist interpretations of Islam; rejection of modernity and of the modernisation of Islam. By contrast he favours pursuing Islamisation (in the sense of traditionist

Islam) of all aspects of modern life, including modern science and technology, and combating the distortion of the history of scientific achievements of Muslims by earlier generations of orientalists and historians of science.[13]

Rejectionists, as their name implies, are against, at least on the face of it, all things Western. They maintain that all that Muslims need has already been provided for them by the Quran and *ahadith* (*hadiths*).[14] Rejectionists usually subscribe to a literalist reading of sharia law. Some rejectionists are quietist and peaceful in their approach, in that they limit their activities to the peaceful preaching of their views and avoid whatever is 'Western' in their private spheres or within their own closed communities. Other groups of rejectionists are combative and militant in their approach, in that they support taking action against 'whatever is Western'. Groups like Al-Qaeda, Daesh (i.e. the so-called Islamic State), Jihadists and Takfiris are representatives of this militant and hard-line trend of rejectionism. In between the above two extremes, other types of rejectionists can be found who are, to varying degrees, politically active, but pursue their aims through spreading their ideas and not by violent means. Shaykh Fazlullah Nouri (1843–1909) in Iran, who was an ardent advocate of the thesis of *mashruʿa*[15] (priority of the *Shariʿah* law) over *mashrutah*[16] (constitutionalism) during the period which led to Iran's Constitutional revolution in 1906, is a case in point (AbolHassani, 2006).

Fundamentalists have something in common with traditionists but also differ with them over other finer doctrinal issues. Like "traditionists, they reject the authority of reason in revealing the truth of the Book and the Tradition. However, contrary to traditionists, they strictly follow a literal reading of these sources". They also share traditionists' criticisms of modernity and the misguided views of modern man. "However, their position in this respect is much stronger than traditionists' position in that they regard it as not only corrupt and degenerate but also deeply hostile to Islam." (Paya, 2011b: p. 136). Fundamentalists endorse, in a general sense, traditionists' call for developing 'Islamic sciences' and like them do not regard the use of modern, Western technologies for their own purposes to be un-Islamic. Fundamentalists also have many things in common with militant rejectionists and may even be identified with them. They maintain that the aim of religion is to take care of all aspects of the lives of the believers in this world and the next. This means, among other things, that for fundamentalists establishing a religious state is a necessity. Fundamentalists, contrary to traditionists, are against religious and political pluralism. Two well-known examples of fundamentalist projects are the Muslim brotherhood in Egypt (founded in 1928), especially in the earlier stages of their development which were shaped by the views of Hassan al-Banna (1906–1946) and Sayyid Qutb (1906–1966), and Jamaʿt al-Islami (founded 1941),which is still deeply under the influence of its founder Abul 'Ala Mawdudi (1903–1979).[17]

Assimilationists maintain that the only way forward for Muslims in modern times is to adopt (fully or to a large extent) all things Western.

Assimilationists are ardent advocates of all projects of modernisation. For them religion belongs to the private sphere and has no place in the public arena. A large number of technocrats in Muslim countries subscribe, to varying degrees, to this 'creed'. Some assimilationists, while pushing the agenda of imitating Western models of modernity, would try to introduce these models in ways which appear to be compatible with traditional ways of life and rituals. A case in point is Mirza Malkum Khan, a political activist and a courtier in the second half of the nineteenth century. In a lecture entitled "Persian Civilisation" delivered to the Asian Society in London in 1890, Malkum Khan, commenting, among other things, on the subtle task of communicating new ideas to a traditional society, emphasised that

> We have found that ideas which were by no means acceptable when coming from your agents in Europe were accepted at once with greatest delight when it was proved that they were latent in Islam. I can assure you that the little progress which you see in Persia and Turkey, especially in Persia, is due to this fact that some people have taken your European principles and instead of saying that they come from England, France or Germany, they have said, "We have nothing to do with Europeans; but these are the true principles of our religion (and indeed, this is quite true) which have been taken by Europeans!" That has had a marvellous effect at once.
>   (Malkum Khan, 1891, quoted in Abrahamian, 1982: p. 68)[18]

Other assimilationists may treat such rituals as 'museum pieces'. They usually maintain that religion and religious rituals belong to the private sphere and should not play any role in the public arena. Kemal Ataturk (1881–1938) the founder of modern Turkey could be regarded as an 'assimilationist par excellence'.

  Modernists aim to demonstrate that religion and modernity are compatible and maintain that while modern reason can be used in the service of developing better understanding of religion, religious values and religious life styles can greatly enrich the project of modernity. Modernists are active in the political arena. They believe in peaceful coexistence with the West and are not against religious or political pluralism so long as they do not pose threat to their own project. They also believe in the power of modern institutions and are in favour of 'piecemeal social engineering'[19] for the sake of educating the public and improving their socio-political and economic situations. Modernists are in favour of the project of Islamic revivalism and in particular would want to produce 'Islamic' models of all modern institutions, including educational system, banking system, modern science. Some modernists, though not all, welcome revolutionary changes and are in favour of establishing an Islamic state with a liberal outlook. Seyyed Jamal al-Din Asadabadi (aka: al-Afghani- 1838–1897), Fazlur Rahman Malik (1919–1988), Ismail Raji al-Faruqi (1921–1986), Mehdi Bazargan

(1907–1995) and Amina Wadud (1952–) are among the well-known representatives of the modernist project.[20]

"While in view of modernists reason, notwithstanding its utmost importance, must be regarded as subservient to the Revealed Message, for late-moderns/critical rationalists reason is autonomous in its deliberations and does not recognize any higher authority" (Paya, 2011b: p. 134). In view of the late-moderns/critical rationalists, all types of understanding, including understanding of the Quran and the *Sunnah*, are subject to interpretation, and since individuals' understanding is fallible and subject to improvement, the process of interpretation is never-ending. For critical rationalists/late-moderns, politics – as a tool and technology which can help to make the world a better place for all – is important. They maintain that religious teachings and values could inform and enlighten the arena of politics; however, religion and religious teachings should always be introduced to the realm of politics through the channel of critical reason and never in a literal, un-interpreted manner. Critical rationalists/late-moderns are pro religious and political pluralism and not in favour of ideological states. When it comes to the welfare of citizens of their societies, improving their lives, and creation of a fairer and more equitable society, they support well-thought piecemeal reforms introduced by rational and reliable institutions. They also maintain that systems of governance in which plans and policies are developed through a deliberative process with the help of 'public reason' are better than systems which aim to find and appoint the most pious individuals as leaders and decision-makers. Fatima Mernissi (1940–2015), Nasr Hamed Abu Zayd (1943–2010), Muhammed Arkoun (1928–2010) and Abdolkarim Soroush (1945–) are some typical representatives of this approach.[21] I discuss further aspects of the views of critical rationalists below.

Post-modernists, by and large, subscribe to the views introduced by their namesakes in the West and try to promote the same ideas among fellow Muslims in their societies. They challenge many of the accepted norms and beliefs among Muslims. They are advocates of a thoroughgoing pluralism. However, contrary to critical rationalists, they maintain that pluralism and relativism go hand-in-hand. In their view truth is relative and all narratives need to be constantly deconstructed, and all authorities ought to be rejected; they regard religion as something which belongs to individuals' personal and private spheres, something which provides them with psychological comfort (Ahmed & Donnan, 1994).[22] Perhaps Hassan Hanafi (1935–) and Shahab Ahmed (1966–2015) could be regarded as two representatives of the postmodern trend among Muslim writers.[23] In his latest book, *What Is Islam? The Importance of Being Islamic* (2016), which was published posthumously, Ahmed begins with an anecdote that captures the essence of his approach:

> Some years ago, I attended at Princeton University where I witnessed a revealing exchange between an eminent European philosopher who was visiting from Cambridge, and a Muslim scholar who was seated next to

him. The Muslim colleague was indulging in a glass of wine. Evidently troubled by this, the distinguished don eventually asked his dining companion if he might be so bold to venture a personal question. "Do you consider yourself a Muslim?" "Yes," came the reply. "How come, then, you are drinking wine?". The Muslim colleague smiled gently. "My family have been Muslims for a thousand years," he said. "during which time we have *always* been drinking wine." An expression of distress appeared on the learned logician's pale countenance, prompting the further clarification: "you see, we are *Muslim* wine-drinkers." The questioner looked bewildered. "I don't understand," he said. "Yes, I know," replied his native informant, "but I do."

(Ahmed, 2016: p. 3)

Secularists do not represent a unified category. Some are fiercely anti-religion, while others are not against religion and welcome it in the private spheres of individual believers. They may themselves be religious. As for the role of religion in the public sphere, while the first group of secularists totally reject it, the second group maintain that religious ideals and values could inspire and inform policies and practices. But they also emphasise that religious views should not be used, in an un-interpreted and literal sense, as policies or trump considered decisions made by means of the deliberative processes of each society. Some secularists are also fiercely anti-Western, in the fashion of Marxists or non-European ultra-nationalists, while others welcome many of intellectual and material products of the West. Nagib Mahfuz (1911–2006), Orhan Pamuk (1952–) and Nawal El Saadawi (1931–) are three better-known representatives of the secularist trend among Muslims.[24]

This book, however, is about a critical rationalist reading of Islam. While different aspects of this particular interpretation of Islamic teachings, creeds, ideals and ideas will be discussed in various chapters of the book, it would be useful to introduce its main tenets here. This will provide a common platform for developing the principal arguments of the book.

III Critical rationalism[25]

Critical rationalism is a way of life and a philosophical outlook. It was first introduced by Karl Popper ([1933]1968, [1945] 1966, [1963] 2002, 1979) and was further developed by his students and colleagues.[26] Some of the main tenets of this way of life/intellectual perspective are as follows:[27]

Critical rationalism is a quest for knowledge and truth, for 'emancipation through knowledge' and 'spiritual freedom;

(Popper, [1963] 2002: 175; Bartley, 1982: 123)

The critical attitude . . . seeks undogmatically to subject all attitudes, ideas, institutions, and traditions, along with so-called knowledge

and so-called freedom, to critical examination and appraisal (Popper, [1963] 2002: pp. 135, 151, 122, 127, [1945] 1966, vol. II: 224–7; Bartley, 1982: 123); [Critical] rationalists are those people who are ready to challenge and to criticize everything, including . . . their own tradition;

<div align="right">(Popper, [1963] 2002: 122; Bartley, 1982: 123)</div>

Critical rationalists emphasise the need to recognise everybody with whom one communicates as a potential source of argument and of reasonable information and take the attitude that I may be wrong and you may be right, and by an effort we may get nearer to the truth.

<div align="right">(Popper, 1994: xii, [1945]1966, vol. II: 225; Bartley, 1982: 123)</div>

As a methodological framework critical rationalism upholds the following theses, among others:

- There is something (reality) not created by man's ideas, language and/ or conventions. This reality, which is full of mysteries, nevertheless is assumed to be, *in principle*, comprehensible.[28]
- All knowledge claims are conjectural and remain so until they are refuted. Nevertheless, it is not impossible to get closer to a true understanding of reality, whether natural or socially constructed, by means of learning through our own mistakes[29] and by reflecting on the mistakes committed by others (Popper, [1963] 2002).
- All observations are theory-laden. There is no such a thing as 'brute or naked (i.e. un-interpreted) fact' (Popper, [1934] 1959).
- It is the 'growth of interesting and informative knowledge about reality', and not 'knowledge *per se*', which is important (Popper, [1963] 2002).
- Knowledge advances in two complementary ways: *via negativa* and *via positiva*. The former concerns what we learn from disproving the conjectures made about the reality of things. We learn that reality is not the way these conjectures claim that it is. In other words, we learn through the mistakes we have made in our conjectural exploration of reality or from the mistakes made by others. The latter pertains to conjectures which so far, and despite our best efforts to refute them, have proved resilient and remain corroborated. Such claims are regarded as our best provisional candidates for knowledge about reality.
- The following two schemata present the way we develop our knowledge (Popper, 1979: p. 243):[30]

$$P_1 \rightarrow TS \rightarrow EE \rightarrow P_2$$

Figure 1.1 Simple schema of conjectures and refutations

$$P_1 \rightarrow TS_n \rightarrow EE \rightarrow P_n$$

with branches: TS_1, ..., TS_{n+m} from P_1; and P_2, ..., P_{n+m} from EE

Figure 1.2 The fully fledged schema of conjectures and refutations

In the above schemata, P_1 is a problem which presents itself to the inquirer. TS is a tentative solution which the inquirer produces (in the shape of a conjecture) to solve the problem. There may be more than one solution for the problem with which the inquirer is grappling ($TS_1 \ldots TS_{n+m}$). Each proposed solution should then be subjected to the process of error elimination (EE). Each genuine problem, almost invariably, introduces in its wake fresh new problems ($P_2 \ldots P_{n+m}$) due to the fact that reality, as critical rationalists assume, is not exhausted by our conjectures and constantly introduces new aspects/challenges.

- Critical assessments of conjectures are made in two ways: for all those knowledge claims and conjectures which have empirical content and deal with empirically accessible aspects of reality, assessment will be done by means of empirical testing as well as analytical (i.e. rational, logical and philosophical) evaluations. For those knowledge claims which do not have empirically testable contents and/or are about those aspects of reality which are not empirically accessible, and are neither empty nor truisms nor tautologies, assessment will be done by analytical means. Such claims can also be assessed in an indirect way by evaluating empirical/practical consequences which may result from them.
- Morality/ethics and the growth of knowledge are closely connected. Morality manifests its role in the growth of knowledge in at least two ways. On the one hand, inquirers must regard 'others' as ends in themselves and not means. This is because it is only through dialogue with 'others' that one can hope to correct one's mistakes (avoid one's epistemological blind spots) and also get access to unique sources of knowledge (Popper, [1945]1966: ch. 23). But proper dialogue can only take place if the interlocutors regard those with whom they are interacting as belonging to the category of ends in themselves. On the other hand, inquirers must avoid resorting to any tactic, e.g. obscurantism or ad-hoc manoeuvres, which would make the task of critical assessment of their knowledge claims less effective (Popper, [1963] 2002: 81, 1983: 232).

- Pluralism (in the sense of diversity of ideas and views and the existence of pluralistic knowledge eco-systems) is of great importance for the growth of knowledge. In a pluralistic environment, in which a large variety of conjectures can be produced as possible solutions to the challenges presented by reality, the chances of stumbling upon a conjecture which is on the right track are much higher than in eco-systems in which one or a few dominant views stifle the flourishing of alternative ideas or supress their emergence (Popper, [1945]1966: 2, vol. II: 448).
- Justification, of all sorts and types, is impossible. Whatever people suggest as a justification for their claim is in need of further justification (Miller, 2007, 2012). The impossibility of justification however, does not mean that we cannot rationally prefer some theories to others. This is done by means of producing sound arguments which explain why some theories are to be preferred to others.
- Induction, as a method of logical inference, is invalid, and as a method for discovery is impossible (Miller, 2006a: ch. 5). The impossibility of induction has no impact whatsoever on our ability to learn from experience by means of the method of producing conjectures and trying to find their shortcomings. The so-called 'problem of induction', generalisation from a limited set of data, is one of the aspects of 'the problem of demarcation', distinguishing between genuine knowledge and pseudo-knowledge. The latter problem is about *what* we learn the former about *how* we learn (Miller, 2006a: ch. 4).
- Critical rationalists introduce the following finer sub-divisions in reality (R): the natural (physical) part of reality (World$_1$ (W$_1$)), the subjective content of each individual's cognitive and emotive apparatus (World$_2$ (W$_2$)) and the sphere which contains ALL publicly available products of human interaction with reality (World$_3$ (W$_3$)).[31] W$_3$ contains all intellectual/linguistic (in the extended sense of the term) products. It is the abode of entities such as our theories, moral principles, legal codes, blueprints and plans of all technological products, music, poetry, religious, philosophical and other types of ideas. W$_3$ is as real as the other types of reality. This is because entities in W$_3$ have the power of influencing other aspects of reality. W$_2$ is the link between W$_1$ and W$_3$. Challenges presented to people (W$_2$s), either through what happens in W$_1$ or by what appears in W$_3$, may prompt them to come up with solutions. The conceptual contents of these solutions belong to W$_3$. Similarly, ideas deposited in W$_3$ could prompt people to make changes in W$_1$ (Popper, [1994] 2012: ch. 1).
- Knowledge claims ought to be objective. Objectivity is here understood as amounting to 'public accessibility and public assessability' (Popper, 1979; Paya, 2011b). Although pursuers of knowledge are immersed in their own local cultures and traditions and carry their cultural and metaphysical baggage as well as value systems, they can do their best, in

their quests to understand different aspects of reality, to keep their conjectures free of such external influences in order to depict reality itself as faithfully as possible. What makes this task possible is the public accessibility and assessability of scientific (knowledge) conjectures. The critical assessment of these conjectures helps pursuers of knowledge to (as much as humanly possible) detect and eliminate the biases that may have been imported into their conjectures and thus make their conjectures represent reality more faithfully.

- From the above it also follows that knowledge claims ought to be, as much as it is possible, value-neutral. What pursuers of knowledge, in their efforts to understand reality, aim to achieve is a truthful understanding of reality itself and not values or habits of this or that individual, group or culture.[32]

- Human knowledge is not absolute, certain, infallible, indubitable or justified. In other words, our knowledge claims, which are always conjectural, cannot — no matter how accurate they are — fully capture reality. Reality, as critical rationalists surmise, is indeterminately infinite, whereas we are finite, fallible creatures with limited cognitive abilities.

- Certainty/certitude belongs to the realm of personal psychology. It is not an epistemological category. Psychology deals with external causes whereas epistemology is concerned with internal reasons and arguments. It is possible to induce 'certainty/certitude' about certain ideas/claims in individuals' minds by non-cognitive means such as brain-washing and propaganda. Individuals may also acquire certainty as a result of their existential experiences. However, whatever about which individuals are 'certain', as a result of external stimuli or personal experiences, as long as it remains in their $W_{2s,}$ it cannot be regarded as objective knowledge since it is neither publicly accessible nor publicly assessable.

- Whatever becomes part of the three worlds (1, 2 & 3), i.e. the realm to which human beings have access, would inevitably and necessarily assume the limitations of these three worlds. Within each world there are indeterminately large number of capacities and potentials which can, in principle, be actualised.

- All theories (conjectures, hypotheses etc.), which are needed to be produced in response to the challenges presented by reality, must be constructed by *us*. Reality does not suggest any solution or conjecture (theories). The role of reality is to act as a referee and judge in assessing the tenability (or otherwise) of our proposed conjectures (solutions) (Popper, 1994: ch. 1).[33]

- In the course of acquiring knowledge by means of the method of conjectures and refutations, one ought to distinguish between two important contexts: the *context of discovery* and the *context of assessment*. The role of these two contexts in producing knowledge is different but

complementary. Neither can, in the absence of the other, produce knowledge. The context of discovery belongs to the realm of personal psychology. It is intimately related to one's W_2. It is the arena in which, as a result of one's constant and systematic grappling with the problem(s) with which one is dealing, the 'solution(s)' to one's problem(s) may be 'envisioned' or 'experienced' in the shape of flashes of insight, moments of epiphany, flares of intuition and their ilk. These visions/experiences, which are all 'existential' in kind and not 'epistemological', are, by their very nature, transitory and short lived. As soon as they are over, one needs to 'reconstruct' them by means of one's memory, concepts and language. The reconstructed 'solution(s)' must then be presented to 'the context of assessment', which is the public arena, and must be assessed critically to expose their faults and defects. 'Reconstructed' versions of 'existential moments' can never *fully* represent reality since our language and concepts always remain imperfect. Nevertheless, such 'reconstructions' can, in principle, present good approximate representations of some aspects of reality, and it is not impossible to get closer to a better understanding of reality via such 'reconstructions'.

Critical rationalism relies on a meta-method/[34] methodological framework called situational analysis/situational logic, for exploring the situations in all those realms in which human interaction matters. Since this meta-method will be used in the subsequent chapters of the present volume, below I briefly introduce its main features.

IV Situational analysis

Situational analysis which was introduced by Popper (Popper, 1994: chs. 7&8),[35] and further developed by other fellow critical rationalists (Jarvie, 1972; Koertge, 1979; Miller, 2006b), provides, in the general context of critical rationalism, a powerful tool for analysing the acts of human actors in various situations. 'Situation' is a general name for any circumstance in which human actors interact with each other (and with the environment); in other words it refers to particular 'human conditions'. To analyse a situation means to study the ways in which the main actors act (in relation to other actors and the environment) to achieve their aims and objectives. The analyst[36] explores the impacts and outcomes (i.e. the wanted and unwanted consequences) of the actions of the actors in the situation.

The first task of the analyst is to define a boundary for the 'situation'. That is to say, the time and place which identifies the 'situation' in question. He/she should provide reasons as to why such a proposed boundary is suitable for understanding the 'situation' under consideration. For example, suppose a researcher (or an analyst) intends to do a research on the response of Muslim intellectuals to modernity. The researcher/analyst should specify

the boundary of his/her 'problem situation' by specifying the place (e.g. the country) to which the intellectuals in question belong and the period in which their activities he/she intends to explore. For example, if the analyst has in mind to explore the responses of Egyptian Muslim intellectuals to modernity in the period between 1900 and 1930. After de-limiting the boundary of the situation, the analyst should specify the main actors and others whose action may influence 'the situation' in ways which are of interest or importance from the view of the analysis in question. To each actor, a set of aims as well as a certain amount of background knowledge related to the situation and the aims they pursue are attributed. These attributions are nothing but conjectures produced by the analyst. For each attribution, the analyst ought to produce reasons as to why it fares better in comparison to some rival attributed aims/background knowledge in the face of challenging evidence/arguments. The analyst should also identify the set of 'institutions' (including traditions, laws, rules and regulations) as well as the physical environment (obstacles) in the situation under study which could influence the actions of the actors.

Each model of 'Situational Analysis' is also enriched by an empirical conjecture which serves as the major premise in the explanatory scheme of the model. This conjecture is called 'the rationality principle' or 'the principle of charity'. It simply states that actors in the 'situations' act in ways *they* think to be fit for their purpose. The rationality principle implies that an agent/actor in a situation may act according to beliefs/theories which he/she may think to be true, though those beliefs/theories may be false in reality.

The importance of this 'principle' is that it forces the analysts to do their best to find a rational explanation for the actions of the actors in a particular situation, even in the face of most adverse evidence. To ascribe the unusual actions of particular actors to their madness or insanity would not help us to learn anything from the situation and the interaction of the actors in it.[37] Mad or insane behaviour does not need rational explanation. It requires only causal explanation.

Situational analysis is not based on subjective features of actors, such as their hopes or fears, but objective problems which actors want to solve (or objective aims which they want to achieve). The analyst can ascribe various cognitive and emotional capacities to actors, on a conjectural basis. However, his/her conjectures must be empirically falsifiable. In other words, they must have informative content. They must not be truisms or tautologies.

This model for analysis could be applied equally effectively to both texts and events. The outcome of the analysis would be objective since it can be scrutinised by other researchers. They can critically examine any claims made about the situation or the actions of the actors. They can also examine the assumptions made in reconstructing the 'situation'. As a result of such critical assessments, the original account of the situation under consideration could either be improved upon or discarded.

The following table shows the general pattern of explanation used by the method of situational analysis:[38]

Table 1.1 The general pattern of explanation used by the method of situational analysis

1 Description of the Situation:	Intentional actor A was in a situation of type C.
2 Analysis of the Situation:	A, upon rational assessment of the situation, came to the conclusion that the appropriate action in situation C is x.
3 Rationality Principle:	Intentional actors in the 'situations' act in a way *they* think to be fit for their purpose.
4 Explanandum:	(Therefore) A did x.

It must also be emphasised that neither actions (in general) nor decisions (which are particular types of action) can be described as rational (or irrational for that matter). Rationality does not apply to the category of actions. It is an adjective which properly applies to our thoughts and the way we reason (i.e. our arguments). As such it can only be applied to the *process* by which we come to a decision and not the decision itself and the acting upon it. Such a process can be rational (weighing the pros and cons of a position) or irrational/non-rational (tossing a coin) (Miller, 1994, Chapter 7, *Sec*. 8; 2006a, Chapter 5, Sec. 0).

Having explicated some of the main aspects of critical rationalism and situational analysis I should also say something about the similarities and differences between science and technology since in a number of the chapters, the differences between science and technology play important roles in the arguments developed there.

V Science and technology: similarities and differences[39]

Both science and technology are socially constructed. However, despite great degrees of interaction and mutual impact, and even though it may practically be difficult to draw a fine demarcating line between the two, especially so far as modern science and technology are concerned, they remain distinct entities. Science, or more generally knowledge, responds to human beings' cognitive needs. All types of technologies, however, serve two main purposes: they either (1) respond to human beings' non-cognitive needs or (2) facilitate, as tools and instruments, human beings' cognitive pursuits. For example, cars, cutlery, chairs, etiquette norms, foods, systems of governance, banks etc. respond to our non-cognitive needs, whereas telescopes, laptops, glasses, pens, cyclotrons, universities etc. facilitate our pursuit of knowledge. But no technology can directly respond to our cognitive needs. Some technologies, such as mobile phones and tablets, could fulfil the twin functions identified for technologies.

To be value-laden is a vice for scientific (knowledge) conjectures that aim to portray reality, whether natural or socially constructed, rather than the

peculiarities of the scientists/scholars' upbringing, biases or prejudices concerning reality. Unless studying such biases is the goal. But even then, the outcome ought to be objective in the sense explained in Section 3. For technologies, on the other hand, being impregnated with those values cherished by their inventors or end-users is not only a virtue, but also an indispensable characteristic. Technologies ought to be user-friendly, for the more they reflect the values and pragmatic preferences of their inventors or end-users, the more acceptable they will be.

Scientific conjectures (conjectural knowledge-claims) aim to transcend particular contexts and account for each context's particularities by incorporating initial and boundary conditions in the theory's general body. Einstein's general theory of relativity is supposed to be valid throughout the universe, despite the fact that the particular form of the space-time curvature caused by the gravitational field of the black hole in our galaxy's centre differs from the space-time curvature caused by a quasar's gravitational field. Technologies, on the other hand, are context-sensitive, for without proper fine-tuning a technology devised to respond to the needs of people in a specific environment or context may not work properly in other environments or contexts. For example, a car designed for Europe's cold and wet climate has to be modified appropriately before it can be used in Africa's hot and dry deserts. An astronaut walking on the Moon's surface must wear a space suit, as opposed to a tuxedo or woolly jumpers.

Another notable difference pertains to the fact that scientific knowledge is, by and large, cumulative,[40] whereas technological know-how is to some extent (though not in all cases) tacit and non-cumulative. Those past scientific (knowledge) conjectures that have been successful over a long period of time and have successfully defeated our best and most effective attempts to falsify them are routinely incorporated as approximations in the subsequent and more explanatory theories. As for technologies, since part of their know-how is transferred through some sort of master-disciple relationship or acquired as personal skills, in many cases if the know-how is lost it is lost forever,[41] or at least its retrieval would be extremely difficult (Agassi, 1958).[42]

The criteria for judging advances in science and in technological activities are also different. In science, the criterion of approaching the ideal of the truth about reality provides a rough (and admittedly not yet very well formalised) measure for progress. In technology and engineering, where the main concern is usually devising more effective practical solutions, or more efficient machines and instruments, pragmatic considerations are more prominent.[43]

Contrary to the view held by a number of writers, including Martin Heidegger (1993), technologies do not have essences but only functions, which cause them to become individuated. Their users could add or omit functions in order to adapt them to the purposes they have in mind.[44]

For both knowledge claims and technological constructs, reality is the final arbiter: it corrects the mistakes of our knowledge claims and exposes the defects of our technological constructs. For technologies, although the users' tastes and preferences (which together form an important part of their

networks of meaning) are important for judging the technology's desirability, nevertheless, the constraints imposed by reality for judging the efficacy of its functions are decisive.

Each specific technology is identifiable as such only for those who share a network of meaning or a collective intentionality that recognises that particular technology and its characteristic functions. For example, an Amazonian tribal member will see a laptop as a thing, not a laptop. Philosophers define such a case as the difference between "seeing" and "seeing as" (Wittgenstein, 1953: pp. 193–229). Seeing something as something particular is only possible for those who share in the network of meaning related to that thing.

Earlier it was suggested that the aim of science is to discover the truth about reality. At the most basic level, such truth corresponds to fundamental laws that govern reality at those levels. In the natural sciences, fundamental laws are our best guesses for capturing the fundamental *laws of nature* (Rosenberg, 2005). It is therefore important to distinguish between these laws and the fundamental laws of science. The latter, as suggested above, are our best representations of the former. Fundamental laws are universal and valid in all contexts.

In the realm of technologies, which is a realm entirely constructed by us and which should be distinguished from realm of science/nature, all laws are phenomenological (technological/empirical) (Miller, 2009; Paya, 2015a, 2015b, 2016a). Phenomenological laws are used in specific contexts and for particular phenomena (e.g. the classical laws of gases, Ohm's law of electric resistance in electric circuits, Hooke's law of elasticity, the laws of fluid dynamics and Coulomb's law of the force between two electric charges). According to critical rationalists, all such laws are derivable from fundamental laws either directly or by "approximate derivation". For example, Coulomb's law is a consequence of Maxwell's equations and the Lorentz force for static charges, and the Euler equation for a perfect fluid is a consequence of the fundamental law of dynamics (Le Bellac, 2006) and Kepler's law, which states that the planets' elliptical orbits can be approximately derived from Newtonian theory (Gurzadyan, 1996; Maxwell, 2002).

Knowledge/science does not tell technologists what to do, but, at best, only specifies the boundaries or limits of what cannot be achieved. For example, the principle of energy conservation informs technologists and engineers that it is impossible for them to construct a perpetual motion machine. Similarly, entropy suggests that they cannot make a machine that functions at a 100 per cent efficiency rate (Popper, 1944: Sec. 20).

VI About the present volume

Various chapters of the present volume aim to introduce a critical rationalist understanding of Islam. Each chapter deals with a topic which, it is hoped, to be of interest to researchers in the field of Islamic Studies, and in

particular, to those who are interested in the relationship between Islam and modernity.

To make the book more accessible to readers who are not experts in Islamic Studies, I have tried to avoid, as much as possible, the use of transliterated versions of non-English words in the text. On occasions where introducing transliterated forms has been necessary, I have recorded them in the endnotes.

I have also avoided using the Arabic definite article (al) in presenting the names of all non-Arab Muslim scholars. Thus, for example, Farabi (instead of al-Farabi) or Ghazzali (instead of al-Ghazzali).

Translations of the verses of the Quran introduced in various chapters of the book are based on a number of translations produced by translators such as Abdullah Yusuf Ali, Marmaduke Pickthall, Arthur John Arberry and Ali Quli Qara'i. All these translations are available at www.tanzil.net. In some cases I have made changes in the suggested translations to make the intended meanings clearer.

Although, as was stated above, each chapter of the book deals with a particular problem, a common thread binds them together, and collectively they present a unified picture of a critical rationalist approach to understanding of Islam. Chapter 2 introduces a critical rationalist approach to studying the Quran. The chapter begins by introducing a short account the importance of the Quran for Muslims (Section I). This is followed by a brief discussion of a cluster of closely connected notions, namely, 'algorithmic compressibility', 'complex systems' and 'logical depth' which have direct bearing on the study of all sorts of texts including the text of the Quran. Taking stock from this discussion, I argue in Section III that the Quran is a complex system with a significant logical depth and that its message can be best understood with a critical rationalist approach. In Section IV possible similarities between the critical rationalist approach and one of the best-known approaches to the Quran, known as the method of *istintaq*[45] (interrogation) of the Quran are explored. In Section V some possible criticisms of the critical rationalist approach to studying the Quran are considered. The chapter closes (Section VI) with a recapitulation of the main arguments introduced in the chapter.

In an interview, conducted by Rabbi Edward Zerin in 1969, concerning the views of the Austrian philosopher, Karl Popper, on God, Popper had stated, among other things: "Some forms of atheism are arrogant and ignorant and should be rejected, but agnosticism – to admit that we don't know and to search – is all right." In Chapter 3 I focus on this interview to argue that while agnosticism is an approach which some critical rationalists, like Popper, have chosen towards religion, it is possible to develop, within the framework of critical rationalism, an approach which is consonant with the sensibilities of a Muslim believer. I argue that this view on religion, and the framework of critical rationalism in general, provide the best theoretical approach for reform-minded Muslims who wish to produce viable

syntheses of modernity and tradition acceptable to both conservative and progressive Muslims.

The focus of Chapter 4 is the programmes of producing 'Islamic Science' (cIS) and 'Islamisation of Science/Knowledge' (IoK) which are popular among many groups of Muslims and in many Muslim countries. The main argument of the chapter is that all such programmes are doomed to failure. First, I explain that the advocates of the programmes of producing cIS or IoK subscribe to mistaken images of science that are shaped by either a positivist or outmoded culturalist/interpretivist theories of science. Next, drawing on the distinction between 'science' and 'technology', introduced earlier, I argue that while creating 'Islamic' or 'indigenous' sciences is impossible, constructing 'Islamic' or 'indigenous' technologies is, in principle, feasible. However, I further explain that even in the case of 'indigenous' technologies, non-indigenous users can, with some adjustment, use the indigenous technologies in other contexts and even for purposes different from the purposes of their original inventors. Lastly, I turn to some of the more recent works on creating/constructing cIS and/or IoK. I try to show that none of the arguments introduced by the advocates of the projects of cIS/IoK is tenable.

Chapter 5 deals with a critical assessment of the epistemological status of *fiqh* (Islamic jurisprudence). Drawing on the main characteristics of engineering as well as differences between science and technology, I argue that although Muslim scholars like Farabi and Ghazzali consciously placed *fiqh* in the category of "applied science", it seems that many of the *fuqaha*[46] (Muslim jurists/jurisprudents) and other Muslim (or even non-Muslim) scholars have not fully appreciated the significance of this point. The result, as I argue, has been epistemic confusion on the part of many *fuqaha* and perhaps other Muslim scholars who have equated *fiqh* with *ilm*[47] (knowledge/science) and *fuqaha* with *ulama*[48] (men of knowledge/science). Equating a *faqih*, who is a practical problem-solver par excellence (i.e. an engineer), with an *alim* (man of knowledge/scientist), who deals with theoretical ideas, has helped the *fuqaha* further consolidate their dominant position in the ecosystem of Islamic culture. In turn, this has paved the way for the dominance of legalistic/instrumentalistic/pragmatic approaches, in contrast to truth-oriented activities, in traditional centers of learning in Muslim societies.

In Chapter 6, "A Critical Assessment of the Method of Interpretation of the Quran by the Quran, in the light of Allameh Tabatabaei's *Magnum Opus, Tafsir al-Mizan*", I begin by presenting a brief history of the application of what has been referred to as 'the method of the interpretation of the Quran by the Quran' among Shi'i and Sunni commentators, and then introduce the main aspects of Allameh Tabatabaei's approach and his own account of this method. Next, I critically examine the strengths and also the possible weaknesses of Allameh Tabatabaei's approach. The chapter argues that the so-called method of the interpretation of the Quran by the Quran is not what its name implies. It is not a way of interpreting the Quran by the Quran. It is instead a method of applying the exegetes' favourite

theoretical models/theories to make sense of the Quran. The success of the outcome of such exercises is directly linked to the theoretical richness and methodological effectiveness of the models/theories in question. In the last section of chapter, and in the light of the discussions in the preceding sections, I briefly and critically assess the views of two other authors who also have tried to critically discuss Allameh Tabatabaei's method of the interpretation of the Quran.

The aim of Chapter 7 is to critically assess the basic tenets of a powerful anti-intellectual trend in modern Shi'i thought known as the *Tafkiki* School. Following a short introduction to some anti-rational trends in the history of Islamic thought, and a brief historical background on the emergence of the *Tafkiki* School, I discuss the main epistemic claims made by the best and most articulate expositor of the School, Ustad Mohammad Reza Hakimi. I also briefly explore possible socio-political consequences of the wider promulgation of the views of the *Tafkikis* among the younger generations of the Shi'a Muslims. My basic argument is that while the *Tafkiki* School offers a powerful anti-intellectual model which appeals to the religious sensibilities of some groups of the faithful, it operates within a particularist and elitist methodological/epistemological framework which renders its epistemic claims either invalid or inaccessible to critical scrutiny in the public arena. In short, the epistemological model propagated by the *Tafkikis* is not conducive to a healthy growth of knowledge. Moreover, the School's anti-rational teachings could encourage intolerance and aversion to the use of dialogue in dealing with others.

Chapter 8, "Islamic Philosophy: Past, present, and Future", is dedicated to a critical assessment of the present state of Islamic philosophy. However, since such a study requires some knowledge of past developments of philosophical thought among Muslims, the chapter briefly, though critically, deals with the emergence and subsequent phases of change in the views of Muslim philosophers from the ninth century onward. In this historical survey I also touch upon the role played by other Muslim scholars, such as theologians, mystics and jurists, in shaping Islamic philosophy. The chapter ends with consideration of two possible scenarios for the future of Islamic philosophy.

The main argument of the next chapter of the book (Chapter 9), "Doctrinal Certainty: A Major Contributory Factor to 'Secular' and 'Religious' Violence in the Political Sphere", is encapsulated in its title. The conjecture I advocate is that individual and group certainty with regard to doctrinal dogmas, whether of secular or religious types, could prepare the ground for the act of violence against 'the other'. Those who are certain about the truth of their doctrinal dogmas consider all others who do not share their views and even those who share them but not with the same degree of fervour and zeal as epistemologically 'unjustified' and doctrinally misguided. Doctrinal certainty therefore gives those who embrace it a sense of superiority and entitlement vis-à-vis the other. Individuals and groups who are certain with

respect to their doctrinal dogmas would regard themselves to be 'justified' in their position and in the ways they choose to treat the other. Or to put it more accurately, it is this justificatory attitude (better known as 'justificationism') which gives rise, among other things, to doctrinal certainty. To further develop this argument, I critically examine, from the point of view of doctrinal certainty and justificationism, some cases of violence perpetrated in the name of secular or religious doctrines in the political sphere. Following this assessment, I further argue that a powerful antidote to doctrinal certainty and justificationism is epistemic humility. In the last part of the chapter I argue that an effective way to institutionalise epistemic humility as a supreme value in secular and religious communities is provided by critical rationalism. I show that other models of rationality, including various types of 'postmodern' models, fall short of producing efficacious strategies for combating violence due to doctrinal certainty and justificatory attitudes in the political sphere.

The three Abrahamic faiths have had a rather uneasy relationship over the past centuries. Even today, many of the major conflicts in the four quarters of the globe have their origins in the conflicting views of the followers of these three major faiths. Against such a background, in Chapter 10, entitled "Islam, Christianity, and Judaism: Can they ever live peacefully together?", I argue that the ground for peaceful coexistence, both at a theoretical level and at the practical level of living together in the same society, is reasonably within the reach of the adherents of these faiths. My argument will be focused on both the *possibility* of an honourable and peaceful coexistence and the *desirability* of genuine efforts to achieve it.

In a world in which the degree of interdependence and interconnection among nations, cultures and civilisations is ever-increasing; the necessity of creating efficient global institutions for managing global affairs has become more urgent than ever. However, what makes the task of constructing such competent institutions rather difficult is that interconnectivity and common concerns are not the only factors responsible for shaping the future of our societies. Diversity in the form of plurality of value systems/belief systems also plays an important role in this respect. The problems we are faced with are exaggerated types of the age-old universal-particular or global-local dichotomy and the apparent incommensurability of rival paradigms. To be able to create efficient global institutions, in this case a well-functioning global civil society, we ought to take into account the diverse concerns and sensitivities of local communities and cultures. For Muslim countries to be able to contribute meaningfully to the construction of such a global civil society, a prior condition is the establishment of effective local models of civil society which are in tune with the sensitivities of these communities. Such models could play a significant role in educating and training members of the Muslim communities for full and constructive participation in shaping a desirable future global civil society. This is of particular significance at a time when Muslim societies, by and large, are suffering from acute forms

of "identity crisis" syndrome. The aim of the last chapter of the book is to propose the outline of a dual-purpose model of civil society, which could be adopted by Muslim societies and communities. This model, while fulfilling the standard functions of civil societies, could also, prepare the ground for the participation of the societies which have adopted it in the creation of efficient global civil society.

Notes

1 The above observations acquire an even a greater degree of significance if one bears in mind that according to a new research, out of 193 countries currently members of the UN, there are only 22 countries which were never being invaded by the British Empire (Laycock, 2013).

2 While some writers regard modernity to be a uniquely Western project, others talk about 'modernities' or various types of modernity, each developed by members of distinct communities and cultures. See, for example, Gole (2008), Taylor (1999), Gaonkar (2001), Eisenstadt (2002).

3 The forced programmes of modernisation imposed by international institutions, such as World Bank or International Monetary Fund on developing countries in 1960s to 1990s, almost invariably produced hugely undesirable consequences including large-scale displacements of indigenous people, destructions of indigenous heritages, exponential increase in the recipient countries foreign debts, severe food shortages and social and political unrests and instability. For some examples of the outcomes of forced programmes of modernisation, see Kim, et al. (2000), Greenberg, et al. (2012).

4 Of course, parallel to this trend there is another trend which shows the emergence of ever-more sophisticated models of modernity.

5 Sunnah (lit. tradition) denotes the sayings and deeds of the Prophet (and the 'infallible' Imams in the case of the Shi'a Muslims).

6 The author had defined this second meaning of the term reform in the following way: "Other reformists advocate a broader scope for rereading basic Islamic sources in light of new circumstances, the application of modern methodologies derived from the social sciences in addition to traditional methods, and the extensive revision, even abolition, of those Islamic laws which they consider outdated and irrelevant to Muslims' current needs and aspirations" (Hunter, 2009: p. 3).

7 For some other classificatory categories see Paya, et al. (2016), Rajaee (2007).

8 This section is partly based on my (2011b, 2013a, 2013b).

9 *shari'a*

10 Muslim thinkers of the classic period maintained that intuition is a faculty which allows one to directly 'intuit' (see) reality, see, for example, Gutas (1988), Nasr (1964).

11 Tradition, in this context, means sayings and deeds of the Prophet, including his endorsement of the states of affairs he has witnessed or about which he has approvingly remained silent. For the Shi'as, the term also applies to the sayings and deeds of their infallible Imams.

12 In Latin: *philosophia perennis*; in Persian: *javidan kherad*; in Arabic: *al-hekamah al-khaledah*.

13 Nasr is a prolific writer. He has written, edited and co-edited more than 50 titles. For an overview of his ideas see Nasr, et al. (2001).

14 *Ahadith/hadiths* (sing. hadith) denotes collection of the sayings of the Prophet and the deeds attributed to him as narrated by the transmitters of *ahadith*.

15 *mashrūʿa*
16 *mashrūṭah*
17 For the life and thought of Al-Banna, Qutb and Maududi see Rahnema (2008).
18 It should be explained that although Malkum Khan was Armenian, like many of other Iranian Armenians, he had been fully integrated in the Muslim society. As was stated in the text he was a courtier and a confidante of Naser al-Din Shah. In this respect, his reaction towards modernity can well be included among the reactions of his Muslim country-men.
19 This term which was first suggested by Karl Popper (1957) refers to well-thought plans and policies which are devised to improve the life of citizens of certain societies by means of introducing changes which aim at alleviating their suffering and hardship. However, all such plans and policies must be implemented in a gradual way so that they could be stopped or altered as soon as some unwanted or undesired consequences of their implementation are detected.
20 For the life and thought of Asadabadi, Faruqi and Bazargan see the following references respectively: Keddi, (1972, 1993), Haddad (1991), and Dabashi (2017). For a more comprehensive overview of the ideas and approaches of modernists in many Muslim countries see, Kurzman (2002). Wadud discusses her project in her (2005) and Fazlur Rahman's work on the Quran ([1980] 2000) provides a good guide to his views on Islam and modernity.
21 For the life and thought of Arkoun, Zayd and Soroush see the following references respectively, Taji-Farouki (2006), and Soroush (2000).
22 It seems postmodernism, as an intellectual fashion, has, to a great extent, lost the appeal it once had. As a result, many Muslims who, during 1980s and 1990s were enthusiastically promoting a postmodern approach to Islam, are now distancing themselves from it.
23 For Hassan Hanafi's life and thoughts, see Salvatore (1995), Boullata (1990).
24 For Pumak's life and thought visit his official website at: www.orhanpamuk.net/; Beard and Haydar (1993) have edited a volume of papers which discuss various aspects of Mahfouz's thought; Saadawi introduces herself and her thoughts in her (1997).
25 This section is based on Paya (2015a, 2015b, 2016c, 2017c).
26 For reason of space I only mention some of Popper's closest students/colleagues and refer to a selective number of their publications: David Miller (1994, 2006a), Joseph Agassi (1975), Jeremy Shearmur (1996), W. W. Bartley III (1982), and Ian Jarvie (2001).
27 This section is partly based on my (2015, 2016).
28 The notion of comprehensibility 'in principle' is, in Kant's parlance, 'a regulative idea' or as critical rationalists suggest a methodological principle (Walker, 1978: Ch. XII). Einstein had famously stated that "the most incomprehensible thing about the universe is that it is comprehensible" (1954: p. 229). This does not preclude the existence of mysteries whose details may be beyond our reach, though its general principles are understood by us. A case in point is the notion of infinity: since Cantor we have made some remarkable progress in making sense of this notion and as a result, we have better understood the limits of our understanding concerning infinity. For example, while we know that set of real numbers is infinite and there is a one-to-one correspondence between the members of this set and the points on a line segment, for any given decimal number (or any given point on the line segment) it is not possible to determine its immediately adjoining number (immediately adjoining point). This property, known as 'everywhere dense' is the essential characteristics of a *continuum* (Kasner & Newman, 1968: 58). For a critical rationalist notion of comprehensibility of universe, see Maxwell (2007)
29 We may also, from feedback from others, hope to criticise our interpretations and to move closer to a better, more truthful, understanding of reality.
30 I have slightly augmented the second diagram.

31 In view of some critical rationalists, including the present author, reality is not exhausted by the three worlds introduced in the text.

32 Of course, such values and habits themselves could be object of our research and investigation. In this case we may make fallible knowledge claims about them. But these knowledge claims, once again, aim to be objective, value-free and free from particularities of this or that culture: they aim to represent the nature of the entities under study (in this case values and habits) in an impartial and objective way.

33 The point introduced in the text with respect to the role of reality, as the final judge or arbiter for assessing the tenability of our conjectures or knowledge-claims, needs some explanation lest it causes misunderstanding. Conjectures or theories or knowledge-claims in general are assessed by means of other conjectures or knowledge-claims which are less general in their scope and therefore more readily testable. This latter class of conjectures are called 'basic statements' or 'observational statements'. These statements, though still 'theory-laden' and 'fallible' or 'refutable', constitute a set of highly corroborated statements which are used as minor premises in deductive structures whose major premises are the conjectures or theories or knowledge-claims whose veracity we wish to determine (Popper, [1933] 1968; Paya, 2018).

34 A meta-method is a comprehensive method which acts like an umbrella under which a number of methods could be used.

35 This section is partly based on Paya (2011a).

36 The analyst could be a researcher who intends to study the situation or an actor in the situation under study.

37 Unless one had a specific hypothesis as to how the form of madness attributed to them affected their judgement. I owe this point to Jeremy Shearmur.

38 The table is based on Koertge (1975: p. 92) with some minor changes.

39 This section draws heavily, but not exclusively, on my (2011, 2015a, 2017c).

40 Thomas Kuhn (1970) has argued that when major paradigm-shifts happen in the course of the development of scientific ideas inevitably some part of 'scientific heritage' of the old paradigm will be lost and cannot be recovered in the new paradigm which replaces it. Realists philosophers of science have tried to show that such 'losses' can, in principle, be avoided. See Post (1971); Bird (2016).

41 Language is a good case in point. When the last native speaker of a particular language dies, the way it is spoken by its native speakers, if no recording of its has been made, is lost forever.

42 It must be stressed that what is said in the text does not entail that technological progress does not benefit from past experiences and a gradual process of improving upon earlier technologies. Since technologies ought to respond to the needs of users in specific contexts, adjusting them to these contexts usually requires some personal touch, finesse and adeptness that, contrary to scientific knowledge, are not part of an objective and detached World 3.

43 In the final analysis pragmatic considerations rely on the notion of (correspondence) truth for their credibility: an effective instrument is the one that remains true to its design, assuming that the design itself is correct and free from errors of judgment (Vision, 1988). A bridge whose design has not properly taken into account the laws of physics will collapse.

44 The following is only one example, from among indeterminately many more cases, of making changes and alterations in existing technologies to better respond to our needs: in 2013 a Brazilian mechanic produced light bulbs by using water, bleach and plastic bottles (Kuruvilla, 2013).

45 *istinṭāq*

46 *fuqahā'*

47 *'ilm*

48 *'ulamā'* plural of *'ālim*.

2 What and how can we learn from the Quran?

A critical rationalist perspective

I Introduction

The field of studies known as 'Quranic Studies' is a vast and thriving branch of the modern Islamic Studies (Hawting & Shareef, 1993; Saeed, 2008). Its origins can be traced back to the earliest efforts of Muslims to understand the message of God brought to them by the Prophet (Al-Azami, 2003). Muslims and non-Muslim scholars have studied the Quran from many different angles and aspects. Some have examined its history and the occasions on which the Quranic verses were revealed to the Prophet (Suyuti, c. 1430; Nöldeke, et al., 2013; Ramyar, 1965). Others have discussed its literary and artistic aspects or aspects which, according to Muslims, demonstrate that this book is a miracle from God (Boullata, 1990; Qutb, 2002; Razi, c. [1193]1985; Mofid, c. 1009; Mortida, c. 1029). Some have concentrated on the theological, legal, philosophical, mystical, scientific, moral and other possible features or dimensions which putatively can be found in the Quran (Dutton, 1999; Wansbrough, 2004). Some have discussed the Quran's influence on various disciplines in the fields of the social sciences and humanities (Asadi, 2000). Others have explored the mechanisms through which the Quran was transmitted to the Prophet and later appeared in the shape of a book (Abu Zayd, 1990). Still others have examined various exegetical and interpretive approaches to the Quran (Rippin, 2006).

Since the inception of the Quran many books, treatises, articles and essays have been written about it. In modern times, many scholarly journals are dedicated to in-depth studies about various aspects of this amazing book. In Muslim countries there are many academic journals whose exclusive focus is Quranic studies. For example, in Iran more than 20 journals are published which exclusively deal with various aspects of Quranic studies. More or less similar number of scholarly journals dedicated to the study of the Quran are published in Egypt. International publishers also publish journals in this field. Three such journals, all called *Journal of Quranic Studies*, are published by universities of Edinburgh, London (SOAS) and Cornell. Another journal, entitled *Journal of Quran and Hadith Studies,* is published by Brill. All in all, it can be safely claimed that this book has played a significant role

in shaping the hearts and minds of Muslims and has also influenced, directly or indirectly, the lives of non-Muslims all over the world. Two contemporary Muslim scholars have described the status of this book among Muslims in the following way:

> Philologists suggest that the word Qur'an is derived either from *qarana* (to bring together or to collect) or from *qara'a* (to recite). Here I favour the second lexical meaning for the very obvious fact that the Qur'an was originally transmitted to the Prophet Muhammad in an oral form. It is explained everywhere in Islamic literature that the Holy Spirit first used to convey or inspire some verses to the Prophet during each session of revelation, and that the Prophet used to recite them afterwards to his companions. . . . [T]he aesthetic characteristics of the Qur'anic language that affect the daily life of Muslims are mainly related to its verbal recitation and chanting. One of its major aesthetic effects is that generated by its poetic language when recited privately or collectively. That is why the recitation of the Qur'an is a very important practice in the communal as well as in the individual life. On almost every occasion passages of the Qur'an are recited: at marriages, funerals and at the inauguration of festivals or celebrations not to mention rituals, regular prayers or other religious occasions. Recitation of verses of the Qur'an is always performed in the opening of a project, a meeting, a celebration etc.
>
> (Abu Zayd, 2000: 2)

> The sacred scripture of Islam, known in Arabic by many names, of which the most famous is *al-Qur'an*, "the Recitation," is considered by all Muslims, no matter to which school they belong, as the verbatim revelation of God's Word made to descend into the heart, soul, and mind of the Prophet of Islam through the agency of the archangel of revelation, Gabriel, or Jibra'il in Arabic. Both the words and the meaning of the text are considered to be sacred, as is everything else connected with it, such as the chanting of its verses or the calligraphy of its phrases. Muslims are born with verses of the Book, which Muslims call the Noble Quran, read into their ears, live throughout their lives hearing its verses and also repeating certain of its chapters during daily prayers, are married with the accompaniment of Quranic recitations, and die hearing it chanted beside them.
>
> (Nasr, 2007: 57)

Given the importance of the Quran, any effort whose end-result is to help readers to better understand and appreciate the message of the book in an objective fashion ought to be welcomed by all those who are interested in this book. The present study is based on a particular epistemic/philosophical

approach known as critical rationalism whose main tenets I have already discussed in the Introduction (pp. 15–20 above).

II Complex system, algorithmic compressibility, logical depth and the Quran

One of the phenomena that has greatly interested many scientists and scholars in the twentieth and twenty-first centuries is complex systems. Scientists have made great advances in exploring the types, characteristics and modes of behaviour of such systems. In the 1960s some scientists (Andrei Kolmogorov in the USSR and Gregory Chaitin in US), who were involved in developing the nascent science of information, put forward the following idea for identifying complex systems and separating them from both simple systems and random systems (see below). They suggested that "the complexity of something can be defined as the length of the shortest possible description of that thing" (Davies, 1995: 250).

Simple systems are those that can be described by means of short descriptions. On the other hand, random systems, i.e. systems which do not show any pattern or regularity, can either be described by a simple, though uninformative, message, namely, 'systems which have no pattern', or by messages whose lengths are as long as the length of the systems themselves. Therefore, random systems cannot be described by means of compressed messages and remain algorithmically uncompressible.[1] In contrast to these two types of systems, there are complex systems which can be represented by algorithmically compressible messages. For example, the behaviour of the solar system (i.e. the positions of the planets around the Sun) can be described by means of Newton's laws. In other words, the solar system is algorithmically compressible. Scientists have realised that for complex systems to be algorithmically compressible they must display regular patterns and order (Davies, 1988).

When scientists turned their attention to the universe at large they noted that it is a different type of complex system: while many regularities, orders and patterns can be discovered in the universe there are also chaotic systems in the universe which display no (apparent) regularity or pattern. This led scientists to a new notion, namely, 'organised complexity' (Davies, 1992: 136). All complex systems, including the universe, which represent a mixture of fathomable orders and patterns alongside unfathomable 'apparent' disorder and irregularity, have 'organised complexity'.

The next step was taken by Charles Bennett an American scientist at IBM who suggested a way to identify complex systems in a more qualitative, rather than quantitative, fashion. Bennett introduced the notion of 'logical depth' as a criterion for assessing the 'quality' or 'depth' of a message contained in a system:

> [A] typical sequence of coin tosses has high information content but little value; an ephemeris, giving the positions of the moon and planets

every day for a hundred years, has no more information than the equations of motion and initial conditions from which it was calculated, but saves its owner the effort of recalculating these positions.

The value of a message thus appears to reside not in its information (its absolutely unpredictable parts), nor in its obvious redundancy (verbatim repetitions, unequal digit frequencies), but rather in what might be called its buried redundancy – parts predictable only with difficulty, things the receiver could in principle have figured out without being told, but only at considerable cost in money, time, or computation.

In other words, the value of a message is the amount of mathematical or other work plausibly done by its originator, which its receiver is saved from having to repeat.

(Bennett, 1998:4)

Logical Depth, the plausible number of computational steps in an object's causal history, is the complexity measure we chiefly recommend. A logically deep object, in other words, is one containing internal evidence of having resulted from a long computation, or from a dynamical process requiring a long time for a computer to simulate. Thus a fossil is deep because it is plausible only as a byproduct of a long evolution, unlike the complementary fracture surfaces in the broken glass example above, which are plausible as the result of a short evolution.

(Bennett, 1994: 38)

In other words, Bennett suggested that the more work done by the creator of a system to produce it, the greater the logical depth of the system in question. The difference between a real skeleton and a wooden (model) skeleton (used for educational purposes for children) can better explicate the point suggested above.

The difference between the two skeletons with regard to their 'logical depth' is as follows: for a real skeleton to be produced, the universe (according to the current cosmological theories) has had to evolve from the original 'Big Bang' for 13.7 billion years. This means that information about a unique evolutionary journey that a particular skeleton has experienced can be gleaned from it, layer by layer. For this reason, a real skeleton has a significant 'logical depth' with regard to the path the universe has taken to produce a human skeleton. A wooden skeleton, on the other hand, has only a limited amount of information with regard to taking the shape of a skeleton: it only represents the amount of work put into some piece wood by a carpenter or an artist to produce this particular shape. This is why the study of a wooden skeleton does not provide much information for a biologist who is interested in the evolution of human skeleton. Of course, the wood used in constructing a wooden skeleton contains in itself a considerable amount of information concerning the unique evolutionary journey which it has experienced to evolve from the original 'Big Bang' into this piece of

wood. But here what we are interested in is the information concerning the formation and emergence of the human skeleton and not the wood.

'Logical depth' and 'algorithmic compressibility' are both measures for assessing the degree of complexity of systems. Since complex systems can be simulated by computers, the difference between the above two measures can be described in the following way: "whereas algorithmic complexity focuses on the length of the minimal programme to yield a given output, logical depth is concerned with the running time for the minimal programme to generate that output" (Davies, 1992: 137).

The notion of 'logical depth' and the richness of the information of complex systems is also closely related to the degree of 'order' which the systems display. Scientists use the notion of entropy to describe the degree of 'disorder' of a system. "Entropy is the number of different ways by which one can rearrange the smallest parts of the system and still get the same system" (Becker, 2014). A pile of rubble can be 'rearranged' in many different ways without change to the 'system'. In other words, the pile of rubble is not sensitive to changes in the arrangements of its parts. It is, in this sense, highly disordered. On the other hand, an elegant house or an artistic masterpiece, such as Leonardo da Vinci's *Mona Lisa*, or a poem by Hafiz, are all highly sensitive to 're-arrangements' of their smaller parts: these complex systems are highly ordered; they have considerable logical depth.

From the above discussion it can be surmised that the Quran is a 'complex system' with significant 'logical depth'. It is a highly organised system with a great degree of order and a high information content. It can be conjecturally suggested that the Quran is an 'open book' just like the 'book of nature or the cosmos at large': both contain what God has put in them for the guidance of mankind.[2] The two 'books' complement each other and have many things in common. For example, both present patterns and regularities that can be reconstructed by means of algorithmically compressed messages, and although in the case of the Quran we do not encounter a 'chaotic sub-system', both systems of the Quran and the cosmos also present apparently unfathomable evidence that does not resemble familiar patterns or order.[3]

There are also some differences between the two 'books'. The Quran, contrary to the 'book of nature', contains both descriptive and prescriptive (normative) information. While the book of nature provides us with information about the phenomenal world (whether observable or unobservable) and also about unobserved reality beyond the realm of phenomena, the Quran provides mankind with guidelines which help them to become deserving vicegerents of God on earth. This means that the message of this book is (mostly) directed towards issues related to a particular category, or if you like 'universe', known as 'the human condition'[4] (see below). Just in the same way that nature cannot guide people with respect to proper codes of conduct (such a demand would amount to the so-called 'naturalistic fallacy'), it would be a category mistake to expect from the Quran guidance

concerning natural phenomena, for example, how to develop a model of quantum physics or genomics.

III What and how can we learn from the Quran?

The Quran's rich content can best help us in furthering our knowledge with regard to the 'universe' of 'the human condition' in three ways. (1) It can act as a judge to expose the defects in conjectures suggested by us as solutions for problems related to this 'universe'. (2) As a source for heuristic insights concerning general directions/frameworks for possible solutions for the problems related to the above 'universe' with which we are grappling. And, (3) as a source for introducing new problems related to the category of 'the human condition'. The following is a small sample of some problems related to the 'universe' of 'the human condition': 'how to live a good life?'; 'what are our rights and responsibilities with regard to the Lord of the realm of being?'; 'are there universal values acceptable to all people in all times and places?'; 'how and in what ways can human agents reduce human suffering?'; 'what is the best way of curbing/controlling political power and utilizing it in optimal manner?'; 'which one of the two values of justice and liberty trumps the other and takes precedence over it?'. This list can of course go on and on.

The Quran, as a source of knowledge, does not provide us with straight-forward and direct solutions (conjectures, theories) for our problems. Theories/conjectures/solutions must be produced by us. Conjectures/theories are always man-made. The Quran (as part of reality) can act as a judge and referee in exposing the defects of our proposed conjectures/solutions in response to certain problems and thus assist us in correcting our mistakes (No. 1 above). Now suppose with respect to some 'problems/challenges' related to the category of 'the human condition' we develop a conjecture. To get help from the Quran, as one possible source for assisting us in critically assessing our conjecture, we need to enter into a critical dialogue with the Quran. Suppose our proposed conjecture is refuted as a result of our consultation with the Quran. Here, as was explained above (Introduction: Section III), we learn something about 'the human condition' albeit in a negative way.

It must be emphasised that when consulting the Quran for any of the three purposes explained above we must always have our tentative conjecture/theory ready at hand. One should not expect that the Quran provides one with specific conjecture/theories with regard to specific issues. Theories/conjectures, as was suggested above, are constructed by *us* (as possible solutions) in response to the challenges presented to us by reality. We project these conjectures/theories onto reality (whether natural or socially constructed – including texts) in a bid to get corrected by reality. Reality acts as the final arbiter of our knowledge claims which are constructed in terms of conjectures and theories.

The point mentioned above, concerning the absence of theories/conjectures in the Quran, needs further explanation to avoid possible misunderstanding.

The above only represents the views of those who maintain that the Quran is the word of God without any alteration. Theories/conjectures are the products of fallible entities with imperfect cognitive abilities. Since the producers of theories/conjectures are imperfect, their products will also be imperfect. It is for this reason that human beings, in their endeavour to improve their knowledge of reality, try to expose the defects and shortcomings of their conjectures and replace them by better conjectures. God, however, is the perfect Being. He does not need to make conjectures in order to capture reality. Whatever He says about reality *is* an accurate representation of reality. Therefore, the statements in the Quran, assuming they are God's direct words, cannot be on a par with man-made theories and conjectures which are, necessarily, imperfect. Of course, for those who maintain that the Quran is God's revelation as reconstructed by the Prophet, as some Muslim scholars suggest, or maintain that the Quran was constructed by Mohammad, as many non-Muslims (e.g. Orientalists) claim, each and every indicative/declarative sentence (statement/proposition) in the Quran can be regarded as a conjecture/theory.

The important point, however, is that for both groups, i.e. those who regard the Quran as the direct words of God and those who regard it as the words of the Prophet, the only way to make sense of the content of the Quran is to construct their own conjectures/interpretations about it. This way of constructing conjectures/interpretations to understand the Quran is, by the way, the method of understanding each and every text, whether sacred or secular. The same method also, as was discussed earlier, is the only way to make sense of the book of nature. This is because 'all observations are theory-laden': whatever we observe, whether a text or a natural or social phenomenon, can only be understood/comprehended by means of our theories. These theories, however, are, at each stage, necessarily incomplete and in need of further refinement and development. Now, when it comes to particular objects of study, such as the Quran and nature, whose 'logical depths' are significant, the process of constructing ever-better conjectures to get closer to true representations of their reality will be a never-ending pursuit.

At each stage of this journey, human beings use their best background knowledge, lived experiences, and technologies in order to construct conjectures which they hope will represent, more or less accurately, the realities under consideration. They then thoroughly examine these conjectures to expose their defects. Their hope is that in the course of this process, they learn through their own mistakes and from the mistakes of others and thus get prompted/inspired to construct yet better conjectures devoid of the shortcomings of the earlier conjectures.

At this juncture, I would like to suggest, conjecturally, that the approach introduced by the critical rationalists to develop our knowledge about various aspects of reality (including the Quran) is one which the Quran also

corroborates and endorses. The following example from *Sura al-An'am* shows this point in a rather interesting way.[5]

> So We were showing Abraham the kingdom of the heavens and earth, that he might be of those having sure faith.
>
> (6:75)

> When night outspread over him he saw a star and said, "This is my Lord."
>
> (6:76)

> But when it set he said, "I love not the setters."
>
> (6:76)

> When he saw the moon rising, he said, "This is my Lord."
>
> (6:77)

> But when it set he said, "If my Lord does not guide me I shall surely be of the people gone astray."
>
> (6:77)

> When he saw the sun rising, he said, "This is my Lord; this is greater!"
>
> (6:78)

> But when the sun set, he said: "O my people! I am indeed free from your (guilt) of giving partners to Allah."
>
> (6:78)

> "I have turned my face to Him who originated the heavens and the earth, a man of pure faith; I am not of the idolaters."
>
> (6:79)

As the story clearly shows, Ibrahim (Abraham) in his quest to acquire knowledge about the Lord of the realm of being[6] makes a series of conjectures and in each case critically tests his conjectures against reality. Each time, when he finds faults with his proposed conjecture he neither tries to dogmatically stick to it nor to make it immune to criticism by resorting to ad-hoc manoeuvring. On the contrary, he tries to replace it with a better conjecture. In the process he learns from the mistakes of his earlier views and thus develops his knowledge *via negativa*. In the end, his accumulated knowledge helped him to come up with a much better conjecture with regard to his quest/problem: he realised that no perishable entity deserves to be regarded as the Lord of the realm of being and thus declared that the Lord can only be the One who has created this realm.

To better appreciate the three ways in which the Quran can assist inquirers with their intellectual engagement with the 'universe' of 'the human condition', in what follows I have provided some examples, each about one of these three ways.

Suppose one's 'problem' is what is one's duty with regard to one's elderly parents. Again suppose the inquirer lives with his wife and children and his parents in a large city in which houses and apartments are small and cost of living is very high. Both the inquirer and his wife work (indeed both must work to make ends meet), their kids go to school, and they do not have the support network of the extended families found in traditional societies. Suppose after a great deal of deliberation and soul-searching the inquirer comes to conclusion that the best solution is to provide his parents with a minimum provision (what he can comfortably afford without putting pressure on the other members of his immediate family) and arrange for his parents to live in a separate place (perhaps in a retirement home for the elderly).

As was discussed in Introduction as soon as a conjecture is being formulated it must be subjected to critical assessment in order to expose its possible defects. In the case of the above example, since the problem with which the inquirer is dealing is related to the category of 'the human condition' he can use the Quran as a source for critical assessment of his proposed conjecture. Now, if after consultation with the Quran (and also other sources, including the tradition of the Prophet) and despite his best and most sincere efforts he can find no fault in his conjecture, then he can conclude that his proposed solution/conjecture is, for the time being (and until a better solution/conjecture is proposed or in the light of new evidence it becomes clear that the proposed solution ought to be rejected), on the right track, and he is rationally entitled to put it to work. On the other hand, if as a result of critical consultation with the Quran (and other sources) the inquirer came to the conclusion that his proposed solution is rejected by the Quran (and/or other sources) he should try to come up with a better conjecture.

It is important to bear in mind that in order to use the Quran in the capacity of a critical judge, conjectures should be formulated in ways which make the exposure of their defects easy. In other words, our epistemic attitude must be to try, in the first instance, to refute our knowledge claims. However, if despite our best efforts to find faults in our conjectures they withstand criticism, we are entitled to (provisionally and until better conjectures are found and/or defects of our present conjectures are exposed) adopt them as our best knowledge about the issue under consideration. Conjectures must not be framed for the purpose of getting 'confirmation' from the Quran. Confirmation of our claims does not add to our knowledge. It only provides us with psychological assurance.[7]

The second way the Quran can help us with our knowledge pursuit is to act as a heuristic source for insight, inspiration and intuition with regard to possible solutions for problems (related to the category of 'the human

condition') with which we are grappling. Here, one's intimate familiarity with the Quran can act (contingently, though not necessarily) as an aid and catalyst for the conception of novel visions in one's W_2 in response to the problems one is diligently and methodically trying to solve.

There are many examples of Muslim scholars who have been inspired by the Quran in finding clues and indications for the problems they were dealing with. A philosopher like Mulla Sadra (1571–1640), a poet like Shams al-Din Muhammad (aka Hafez) (1315–1390) and a mystic like Rumi (1207–1273) are among a large number of Muslim thinkers whose intellectual works have been greatly inspired by their knowledge of the Quran and their intimate familiarity with this book.

It must be emphasised that there is no rule or algorithm or procedure or set of guidelines which could be used to take one from the problems one is trying to solve to the required solutions (whether the problems in question are related to the category of 'the human condition' or the category of 'nature's problems'). Solutions can only 'emerge' in the shape of insights/intuitions/visions in one's W_2 under certain circumstances. The following four conditions are among the necessary, though unfortunately not sufficient conditions, for bringing about the required solutions. The first and most important condition is to deal with the problems in question in a systematic manner. If one only haphazardly attends to the problems one intends to solve, one's chances will not be high for finding appropriate solutions.[8] The second necessary condition is for one to be equipped with proper background-knowledge. For one who knows little about the problems one intends to solve, achieving success will be highly improbable. The third necessary condition is that the general intellectual environment in which one resides and within which one is facing the problems in question must also be appropriately rich. To the combination of the above-mentioned factors, one should also add the element of luck/chance (or God's grace and assistance). If all the above conditions are properly met, then the solution, in the shape of a conjecture, may (but only may) be found in the shape of a flash of insight, an epiphany, the light of an intuition and so on. But there is no guarantee of a successful outcome even when all the above conditions are met.[9]

For one to be inspired by the Quran with regard to the problems with which one is grappling, one needs to immerse oneself in the Quran and approach it as if it is being revealed to one for the first time. It should be borne in mind that inspirations, insights, epiphanies and intuitions, as was explained in the Introduction, must be reconstructed and then be submitted to the tribune of the 'Context of Assessment'. Since all such reconstructions are man-made, they are, necessarily, imperfect. Their imperfections can be exposed in the process of critical assessment.

Apart from to the two ways described above in which the Quran helps one in one's pursuit of knowledge, there is also a third way in which the Quran can play a role in developing one's knowledge. This last function

of the Quran is its assistance in suggesting (in the shape of intuition and insights) interesting problems to inquiring minds. Here, just like the case with the book of nature, those who approach the Quran with an inquisitive and well-prepared mind are more likely to be struck by problems which the Quran may present to them. A case in point is the question 'what is the nature of the revelation?' which quite a few scholars in the classic and modern periods have tried to tackle.[10] Another related question is how and why non-Arabic terms appear in the Quran (Jeffery, 2007; Luxenberg, 2007).

As an example of the three ways the Quran can help researchers, consider a particular case in the field of human rights. Suppose a Muslim legal expert intends to explore the issue of women's rights in Islam. The researcher's initial conjecture is that Islam has given equal rights to men and to women.[11] He then consults the Quran and comes across the verses which discuss the notion of '*Mulk Al-Yameen*'[12] (lit. what is possessed by the right hand) which refers to slaves or women who are captured in war. The researcher studies the views of the classic exegetes of the Quran about this notion and notes that they all interpret the verses in which the above concept appears in ways which would refute his initial conjecture. However, the researcher decides to delve deeper and further explore the issue under consideration by examining other verses in which the topics of rights, slavery, rules applicable to captives and their ilk are discussed. Such a closer examination, as some scholars have argued, would result in the realisation that the classic exegetes had interpreted the verses in which the notion of '*Mulk Al-Yameen*' is discussed in misleading ways which were incompatible with other verses in the Quran. Their interpretations of '*Mulk Al-Yameen*' were tailor-made to suit the requirements of a male-dominated society.[13] From here the researcher may come to the conclusion that the issue of the male-dominated mentality of the classic exegetes needs a more comprehensive treatment with regard to their claims concerning other verses in the Quran. In the above example, the Quran has helped the researcher in the three different ways discussed above, namely, as a critical judge, as a source of inspiration and as a source for new problems.[14]

IV A comparison between Ali ibn Abitaleb's method of *Istintaq* (interrogation, examination, inquest) and the approach of critical rationalists

In the sermon 157 of his *Nahj al-Balagheh*, Ali Ibn Abitaleb (Muslims' fourth righteous caliph) states, amongst other things, the following:

> It is the Qur'an. If you ask it to speak it won't do so; but I will tell you about it. Know that it contains knowledge of what is to come about, stories of the past, a cure for your ills and [instructions] for regulating and organising your affairs and interactions.
>
> (Al-Islam.org, 2015)

Quranic scholars refer to the above approach as the 'Method of *Istintaq*[15] (interrogation, examination, inquest)' (Sadr, 2003). Perhaps among the contemporary interpreters of the Quran, Ayatollah Mohammad Baqir Sadr is the most prominent Shi'i scholar who has discussed the method of *Istintaq* and has used it in his own studies of the Quran (Yasaghi & Ayazi, 2010).

Ayatollah Sadr explains that "the dominant method of the interpretation [of the Quran] in the past thirteen centuries has been . . . to interpret the Quran verse by verse" (Sadr, 2003: 90, quoted in Yasaghi & Ayazi, 2010: 198).

Interpretation of the Quran in a verse by verse manner and by following the existing arrangement of chapters and verses of the Quran is called '*tafsir tartibi*' (sequential interpretation of the Quran). In the twentieth century Muslim scholars developed another approach to the interpretation of the Quran which is called '*tafsir mo'ḍuee*' (thematic interpretation).

Ayatollah Sadr is among the modern Muslim scholars who have applied this particular method to the interpretation of the Quran. In his view, in this method "contrary to the sequential method, the interpreter begins his interpretation by . . . directing his gaze and thought towards one of doctrinal, social or other types of human problems. He then considers all the verses relevant to the topic in question and asks questions and gets replies from the Quran" (Sadr, 2003: 18, quoted in Yasaghi & Ayazi, 2010: 200–1).

Ayatollah Sadr has employed the method of *Istintaq* of the Quran. He suggests that in *Istintaq*,

> [F]irst of all, the thematic interpreter only relies upon the word of God, and nothing else, for getting an answer. Secondly, the objective of this approach, contrary to the approach of the sequential interpreter, is gleaning an answer [to a question] out of the Quran. This element, i.e. interrogation of the Quran, constitutes another characteristic which distinguishes the thematic interpretation from the sequential interpretation. That [characteristic] is this; the interpreter in the sequential method has a passive and negative approach. That is to say, the sequential interpreter, studies, without any pre-plan, one or a few verses which belong to the same passage and tries to understand the signification and entailments of the verses in question in the light of the meaning of the terms which appear in them. This is an interpretation based on the apparent meaning of the text. . . . [T]he thematic interpreter, however, has an active approach. His encounter with the Quran is based upon interrogation. This is because before consulting the Quran he concentrates on particular topics concerning human life and makes himself familiar with man-made solutions and ideas about those topics. For this reason, when he studies the Quran with such background knowledge he is no longer a mere listener and reporter of something upon which he has not made any effort. Rather, he interrogates the Quran in the light of the knowledge he has already acquired with regard to topic (s) in

question and enters into a dialogue with the text and its interrogation. **The interpreter asks, one by one, [his questions] and the Quran answers [them].**

<div align="right">(Yasaghi & Ayazi, 2010: 203, emphasis added)</div>

Other writers who have discussed the method of *Istintaq* all concur that the core element of this method is to put questions to the Quran and get the answers to those questions from the Quran. Thus, for example, a group of scholars at the Department of Theology at Tehran University in a joint paper titled "Interrogation (*Istintaq*) of the Quran" (Safreh et al., 2010: 139) state, "Interrogation of the Quran means to put questions to the Quran and ask it to answer them." Similarly, Ayatollah Sadeghi, an Iranian cleric, describes the method of *Istintaq* in the following way:

> The Quran's ability to talk has two dimensions. The first is that the Quranic terms and phrases have the highest miraculous degree of ability to convey the intended concepts and significations with regard to the duties of the duty-bound [believers]. The second is that when the Quran talks about a particular signification, to understand it, one must refer to the Quran itself and ask it to talk and clarify the meaning of that signification. . . . *Istintaq* and *Istifsar* (asking for interpretation) mean requesting speech and clarification [from something]. That is to say, a request for understanding and learning about the meaning of a subject through intellectual endeavour and deep thinking. And as we have already explained, the Quran is its own interpreter and spokesperson. **If interrogation of the Quran is mixed with the inquirer's preconceptions and pre-knowledge, they act as a misleading veil with regard to the understanding of the Quran's speech and the Quran's absolute interpretation of itself.** We must solely try to find and understand the meaning of the Quranic terms and interpretation of the Quranic verses by means of the Quran alone. If we found the true meanings of the Quranic terms, then it means the Quran has spoken to us.

<div align="right">(Noor al-Hoda, 2015, emphasis added)</div>

I shall return to a critical assessment of the above approaches shortly. Another aspect of Ayatollah Sadr's approach to the Quran is his emphasis on the importance of extracting theories concerning the topics the interpreter is researching on from within the Quran. He suggests that thematic interpretation only takes shape when the view of Islam and the Quran with regard to the topics [under investigation] and objective realities of the society are extracted from within the Quran (Sadr, 2003: 14–15, quoted in Yasaghi & Ayazi, 2010: 206).

Even a quick comparison between what was discussed earlier (Section III) with the above reveals the shortcomings of the model developed by Ayatollah Sadr and others who have tried to introduce a new approach to the Quran which is, allegedly, based on Imam Ali's method of *Istintaq*. It is

the contention of this chapter that Imam Ali's method is akin to the critical rationalist approach as was explained in previous sections. The approach of Ayatollah Sadr and other thematic interpreters who have argued that the method of *Istintaq* is based on putting questions to the Quran and asking for answers from it, suffers from some serious defects which cannot be attributed to the method of Imam Ali.

Apparently, the thematic interpreters think that the Quran contains theories and formulated solutions with regard to the topics under investigation, which can be discovered or extracted from the Quran. But this view is based on mistaken methodological and epistemological models akin to the models developed by positivists and their rival phenomenologists and hermeneutists (interpretivists). Positivists are of the view that we can find hypotheses by means of observation and induction. They suggest that if we approach our objects of inquiry with a mind cleansed from all preconceptions and pre-knowledge and prejudices we will be able to 'see' patterns in phenomena and these patterns will lead us to hypotheses about phenomena (Suppe, 1977: introduction). Phenomenologists, who, by the way, would regard 'Phenomenology as genuine positivism' (Husserl, 1931/1982; Sinha, 1963), maintain that they can get to know the essence of things (Husserl, 1913/1982). To do this, one only needs to apply the methods of '*epoche*' and 'bracketing', and to get rid of all 'theories' to make sure that one only describes faithfully and without distortion what appears before one. Now, both positivists and phenomenologists have, in my view, failed to appreciate that 'all observations are theory-laden'. It is in the light of our prior theories/conjectures/expectations that we 'see' things (Paya, 2018).

Hermeneutists have made a mistake of another type. They claim that what they call 'understanding' is different from 'explanation'. The former is subjective whereas the latter is objective (Paya, 2011a). However, subjective 'interpretation' of the meaning of texts/events would not in itself amount to the development of knowledge; in the absence of objective criteria for assessing claims, epistemological relativism and the attitude of 'anything goes' would prevail.

In the light of the above it is not difficult to see why Ayatollah Sadr's view (and the views of his fellow thematic interpreters) that the thematic interpreters must ask the Quran to answer their questions and must find theories in the Quran, are not correct. Theories are constructed by us in response to the challenges introduced to us by reality. Reality, whether of a text, of a socially constructed phenomenon, or of nature, can only act as referee and judge for our theories/conjectures. As explained earlier, no theory can be found in the Quran. Even if there were 'theories' in the Quran they could only be understood through *our own* interpretations which are inevitably imperfect. Moreover, since all observations and understandings are theory-laden, there is no such thing as 'literal understanding': even the strictest literal understanding of the Quran is tainted by the readers' interpretations. When reading the Quran, or any other text, we only project /present our conjectures/theories to the Quran (or those other texts). The Quran does not provide us with direct

answers to our questions. It is the same as the way in which nature does not provide us with theories or answers. However, reality, whether we are talking about a text or a socially constructed phenomenon or about nature, can highlight our mistakes.

Another point with respect to the comments made by the advocates of the quizzing account of *Istintaq* is that approaching the Quran with a mind cleansed from all pre-knowledge, as Ayatollah Sadeqi would suggest, cannot help us to understand the Quran. It is impossible to learn/understand anything if one turns one's mind into a *tabula rasa* or a blank slate (Popper, 1994).

At the end of this section one further point needs to be explained: if, as was suggested above, one cannot (and should not) expect to get direct answers to one's questions from the Quran, then how come the tradition of Divination or omens (*istikhareh*) has been well-established and of long standing in many Muslim societies for centuries?[16]

To answer this question one needs to make a distinction between 'decision-making' and the process that leads to decision-making. The former is a type of action and therefore cannot be regarded as either rational or irrational. Rationality only belongs to the realm of reason and arguments. When it comes to decision-making, the *process* which leads to making a decision *could be* rational. Here, one rationally and critically weighs the arguments and evidence for and against a decision and opts for the one which fares better in rational argument. At the same time, the process of decision-making *could be* irrational: one can toss a coin to come to a decision. Those who use the Quran for the purpose of Divination and omen if they ponder upon the verses and try to develop some conjectures based upon the illumination and insight they may receive from their serious studying of the Quran, then they could use the information they have gleaned from the Quran to rationally assess the options before them. In other words, they should not expect something over and above the usages of the Quran as explained in Section III. However, if they, as is customary, just open the Quran and look at the first verse on the top of the page on the right-hand side (in Arabic format) or the one on the top of the page on the left-hand side (in the English format) and regard it as saying 'yes' or 'no' or 'good' or 'bad', then they appear to be reducing the use of the Quran to the status of a coin-tossing exercise.

V ظنّ (*zann* = Conjecture) and يقين (*yaqin* = Certainty) in the Quran: is critical rationalism incompatible with the teachings of the Quran

In this section I briefly deal with two possible, and seemingly serious, objections to the epistemological approach developed by critical rationalists. As was noted above (the Introduction) critical rationalism maintains that all knowledge is conjectural and forever remains conjectural. Moreover, it emphasises that certainty belongs to the realm of personal psychology and is not an epistemological category. On the other hand, those who are familiar with the verses of the Quran are aware of the existence of many verses in which the notion

of *zann*[17] (conjecture) is discussed and is repudiated as an epistemologically unsafe concept. At the same time, it seems the Quran attributes a great deal of value to certainty (*yaqin*). The following verses are almost self-explanatory.

> If thou obeyest the most part of those on earth they will lead thee astray from the path of God; they follow only surmise, merely conjecturing.
>
> (6: 116)

> And the most of them follow only conjecture, and conjecture avails naught against truth. Lo! Allah is Aware of what they do.
>
> (10:36)

> And worship your Lord until certainty comes to you.
>
> (15: 99)

> No indeed; were you to know with the knowledge of certainty, you shall surely see Hell; Again, you shall surely see it with the eye of certainty.
>
> (102: 7)

> Surely this is the truth of certainty.
>
> (56: 95)

With regard to the above possible objections, the most straightforward answer is the familiar cliché that, 'appearances can be deceptive'. Closer inspection of the verses in which the term *zann* has been used, makes it amply clear that whenever this term, or one of its cognates, is used in a negative sense; it means those beliefs or views which have been embraced, adopted, or accepted without proper critical examination and assessment. The following are just two examples of such usages in the Quran:

> I think [conjecture] not that the Hour will ever come, and if indeed I am brought back unto my Lord I surely shall find better than this as a resort.
>
> (18: 36)

> Behold! surely to God belongs everyone that is in the heavens and in the earth; they follow, who call upon associates, apart from God – they follow nothing but surmise, merely conjecturing.
>
> (10: 66)

On the other hand, in other verses where this term is used in a positive or neutral sense, it is clear that the Quran does not repudiate it. For example,

> who reckon [conjecture] that they shall meet their Lord and that unto Him they are returning.
>
> (2: 46)

> Then he said to the one he deemed [conjectured] should be saved of the two, 'Mention me in thy lord's presence'. But Satan caused him to forget to mention him to his master, so that he continued in the prison for certain years.
>
> (12: 42)

In the following verse, the Quran clearly states that only *some* conjectures, and not all, are blameworthy:

> [F]or, behold, some conjecture (suspicion) is sinful.
>
> (49: 12)

In other words, it seems wherever the term *zann* and its possible cognates are used in the sense of 'unexamined knowledge claims', the Quran rejects it as something which causes misunderstanding or misconduct. This usage of the term is, however, different from the meaning of conjecture as 'knowledge claim' used by the critical rationalists. For critical rationalists, as discussed above, all conjectures must be submitted to the most diligent critical assessment. Those conjectures which fail in this examination are rejected. But they still teach us something about reality, albeit *via negativa*. Others which remain corroborated are regarded as *positive* knowledge claims but only provisionally.

   With regard to those verses in which the term *yaqin* (certainty) is used, it is clear that the certainty the Quran is referring to always remains personal, albeit, its degree of intensity is different in the three cases of *'ilm al-yaqin* (which refers to a theoretical/conceptual knowledge of the object of inquiry), *'ayn al-yaqin* (which refers to direct intuition of the object of inquiry) and *haq al-yaqin*[18] (which refers to an existential unification between the subject and the object of inquiry). The Quranic concept of *yaqin* can be better understood in the context of other verses of the Quran, including the following, from the *Sura al-Baqarah*:

> When Abraham said: "Show me, Lord, how You will raise the dead," He replied: "Have you no faith?" He said "Yes, but just to reassure my heart."
>
> (2: 260)

Another Quranic point which sheds further light on the above is a general instruction for believers that they should never cease to strive in their quest to getting closer to God, intellectually and otherwise. Thus, for example, the faithful are reminded,

> Therefore, when thou art free (from thine immediate task), still labour hard.
>
> (94: 7)

Although, the verses in this *Sura* (*Sura Insherah*)[19] are, in the first instance, directed towards the Prophet, but given the fact that the Prophet is the best role-model for the faithful, what is expected of him is, to some extent, expected of all the faithful. When one reaches a degree of certainty, one ought to strive to get to even higher degrees of certainty. Even the highest level of certainty is not limited to just one stage but has indefinitely many grades. This being the case, it is in line with yet another aspect of critical rationalism, namely, the point that our quest for acquiring knowledge should be regarded as a never-ending process: we should always try hard to expose the defects of our conjectures in a bid to learn through our mistakes and from the mistakes of others. However, as soon the shortcomings of our present conjectures are exposed we must immediately embark upon developing new conjectures in the light of the new problems with which we have encountered and the new knowledge we have acquired.

VI Summary and conclusion

Critical rationalism presents a fruitful approach to the use of the Quran as a source of knowledge which complements the 'book' of nature. This approach suggests that the Quran can help us in our knowledge pursuits with regard to a particular category of problems collectively known as 'the human condition'. In the first place, it can act as a judge in assisting us to critically assess our conjectures. Here, the way we formulate our conjectures, for the purpose of consulting the Quran, is important. Second, the Quran can act as a heuristic source for developing conjectures as possible solutions for the problems with which we are grappling. And, third, the Quran can, again in a heuristic way, suggest new problems and challenges to those who approach it with a mind rich with ideas. It was further argued that the method of *Istintaq* discussed by Imam Ali is different from what has been suggested by a number of contemporary scholars; it is closer to the method introduced by critical rationalism.

Notes

1 One may ask here that 'but can't one produce formulae which will, in effect, simulate random sequences?' and one may give as an example of the formulas suggested for generating primes numbers (which are sequences of random numbers). But as mathematicians have argued, while such formulas exist they are worthless. See, Owens (2008).

2 The idea of God's two books is common among the Abrahamic religions (Lessnoff, 2007). Muslim scholars have referred to these two books as *al-Kitab al-takwini* and *al-Kitab al-tadwini* (Nasr, 1976).

3 There are certain verses in the Quran over whose meanings commentators have agonised for centuries. Verses 5–10 in *Surat al-Najm* are cases in point.

4 "The term 'human condition' which refers to various kinds as well as aspects of human experiences including interactions among human beings in which some sort of moral considerations, whether tacit or explicit, are also involved has a

long history. According to Robert Wise (2015) its usage can be traced back to works of Cicero (d. 43 BCE) and Seneca the younger (d.65 CE). It can also be found in Christian prayers in the early Middle Ages. The French essayist, Montaigne has used it in his *Essays* which was published in 1580. In modern times Hannah Arendt has written a book on this subject and many scholars in the field of HSS have discussed it in their works." Quoted from Paya (2018).

5 All the translations of the verses of the Quran which appear in this chapter are from translations by Arberry, Pickthall and Yusuf Ali available on tanzil.net. On occasions, I have combined the translations of the three above-mentioned translators or introduced my own translations to better convey the meaning of the verses in question.

6 Some commentators maintain that the whole episode was a ploy by Ibrahim to highlight the falsity of the beliefs of the idol-worshippers among his people (Tabatabaei, 1973). This interpretation does not invalidate the main point of the argument discussed in the text.

7 The following example can help to make the issue clearer: suppose you have booked your air ticket to a certain destination and have received details of your flight. A day before the departure you contact the airlines and ask for confirmation of your flight details. Assuming that nothing has changed, what you get does not add to what you already knew about your flight details, it only provides you with psychological assurance.

8 This point needs further explanation to avoid possible misunderstanding. It is a well-known fact that sometimes in the course of dealing with a truly difficult problem, it is advisable that one gives oneself a break and takes the conscious decision of putting the hard problem aside for a while and thinks of something quite different in order to give the sub-conscious parts of the brain a chance to get prepared for tackling the problem afresh at a later stage. But this conscious postponement of dealing with the problem is completely different from a haphazard and un-systematic treatment of the problem. I owe this point to David Miller.

9 The theorem proposed by the French mathematician Pierre Fermat in 1637 and which took 358 years to be proved in 1994 is a case in point. See, Singh (2002).

10 Abu Zayd (1990), Soroush, (2013).

11 This scenario can be equally developed with the opposite assumption, i.e. the researcher's initial conjecture is that Islam has not given equal rights with men to women.

12 This example is based on the following paper, Khanfar (2017). I should like to thank my colleague Dr Khanfar for providing me with a copy of his paper.

13 For a critical assessment of the ways in which the classic exegetes had discussed the notion of '*Mulk Al-Yameen*' see the paper introduced in the previous note [Khanfar (2017)].

14 The discussion concerning the ways in which one may be able to benefit from studying the Quran is based on the assumption that one is equipped with be basic requirements of such a study. This includes a fair familiarity with Arabic language, competence in dealing with issues related to 'the human condition', a fair ability to develop tenable and contentful conjectures as solutions to issues one is concerned with and a good ability to critically assess them. The discussion in the text also implies the significance of a collective approach to the study of the Quran by a community of scholars.

15 *Istinṭāq*

16 Since the issue of the interpretation of the Quran by the Quran will be discussed in Chapter 6, I do not deal with it here.

17 *ẓann*

18 *ḥaq al-yaqin*

19 *Insherāḥ*

3   A critical rationalist approach to religion

I Introduction

In the recent XXI International Association for the History of Religions World Congress which was held in Erfurt, Germany, in the session on "Truth-Conditions and Religious Language", one of the speakers, Lars Albinus, in his paper "The Varieties of Truth" argued that a philosophical notion of religion should not restrict itself to a correspondence notion of truth instead it should consider making use of a pragmatic conception of truth. He went on to suggest that,

> [T]here are other vitally important aspects of religion available to our understanding than the propositional content of belief. Thus, the study of religion might benefit from a pragmatic view on meaning while realizing, at the same time, that this view already draws on semantic presuppositions of its own.
>
> (Albinus, 2015)

Albinus' view has a good deal of affinity with the views of an Anglican priest and philosopher, Don Cupitt, who in a best seller published in 1984 entitled *Sea of Faith* had argued that:

> Dominated by the belief that each important word must name a being, Plato went on to fill up his heavenly world with an odd consortium of values, logical ideas, mathematical objects, common nouns, human souls and qualities. Today, with the increasing differentiation of our knowledge, our discriminations have become too refined to tolerate such a quaint mythological jumble. We try instead to sort out the confusion by looking carefully at the various different ways in which language is actually used. The old reifying habit of mind which populated the universe with a host of occult beings is now obsolete. Talk of moral values can be better explained in other ways. As with values, so with God, because God's status in the language is very close to that of values. Just as you should not think of justice and truth as independent beings,

so you should not think of God as an objectively existing superperson. That is a mythological and confusing way of thinking. The truth, we now see, is that the idea of God is imperative, not indicative. To speak of God is to speak about the moral and spiritual goals we ought to be aiming at, and about what we ought to become. The meaning of 'God' is religious, not metaphysical, even though unfortunately a deeply engrained habit of self-mystification leads most people, most of the time, radically to misconstrue the true meaning of religious language. The true God is not God as picturesque supernatural fact, but God as our religious ideal.

(Cupitt, 1984: 169–170)

While I do not deny the non-cognitive aspects of religion and religious experiences, I should like to argue that the models presented by Albinus or Cupitt depict religion in a way which is not acceptable to many religious people. Religious people are, by and large, realists and some may even be naïve realists. But they are not nominalists. For them, God, is not a figure of speech constructed by some particular language games in some particular forms of life. Of course, religious language games and religious forms of life have been parts of the fabric of human societies from time immemorial. But, for majority of those who subscribe to these forms of life and share these language games, God is real and the name 'God' has a real (and not fictional) referent.

In contrast to the above models, which are inspired by the views of the later Wittgenstein ([1953] 2009) and theories of pragmatists such as Peirce (1934), the model I should like to suggest to make sense of the phenomenon of religion and of the way religious people see it is informed by critical rationalism.

II A critical rationalist model of religion

As a critical rationalist, I suggest, as a conjecture, that almost all religions, and at the very least those that belong to the Abrahamic tradition, consist of two principal parts: an ontological-epistemological and a technological part.

The first part is comprised of the following two simple statements (Paya, 2012a):

(a) Ontological part: there exists a non-human, Supreme Being who is regarded as the Creator and Sustainer and/or the Lord and Master of the whole realm of being;
(b) Epistemological part: We can, in principle, learn more and more about this Being. This however, does not imply that the realm of being is devoid of mysteries. In fact, the very existence of these mysteries

prompt seekers of God's knowledge to keep marching ahead in their never-ending quest to know God better and get closer to a better understanding of Him.

The ontological statement which posits the existence of a 'Supreme Being' of course does this in a conjectural way. However, this is an is extremely compact statement and needs to be unpacked. The process of unpacking the entailments of this statement leads to the emergence of a rich and ever-expanding network of meaning with regards to the attributes of the Lord/Master of being. Different religions may attribute different characteristics to this Lord/Master. In some religions the Lord/Master, as was suggested above, may be regarded as the Creator and Sustainer of the realm of being. Attributes such as infinite wisdom, power and compassion are among many characteristics attributed to the Lord/Master of being. In some other religions the Lord/Master may be described by means of anthropomorphic attributes such as eyes, ears, hands etc. In still other religions the Lord/Master may be identified with, and analogically described by, an amorphous cosmic force or energy.

Each of the attributes which is assigned to the Supreme Being, with the aim of further unpacking the compact statement about its existence, is of course nothing but a conjectural effort to develop a faithful understanding of this Being. These conjectures, like all other knowledge claims must be subjected to critical scrutiny.

The second part of all religions consists of rituals and religious practices, ethical norms, rules and regulations devised to assist the managing of the worldly affairs of the faithful. All elements of this second aspect fall under the general category of 'technology' and as such can be regarded as various types of 'religious technology' (Paya, 2015b, 2012a). Technologies of all sorts and types, as was explained in the Introduction (Chapter 1), have two main functions: some respond to people's non-cognitive needs while others facilitate, only as tools and instruments, our cognitive/knowledge pursuit. Of course, some technologies, like mobile phones, have both functions.

Religious technologies, just like all other technologies, have the two aforementioned functions, albeit in the sphere of religious aims and objectives. Religious technologies in the context of any particular religion help to construct particular forms of life. In this way, they respond to non-cognitive needs of the faithful. For example, alms-giving, charity works and collective forms of worship help to further consolidate community spirit amongst the faithful. Moreover, such rituals can also help the faithful to develop a better character and become a better person. On the other hand, religious technologies could help the faithful in their pursuit of a better understanding of God. Prayers, for example, can elevate believers and assist them in their pursuit of acquiring a more truthful understanding of God. However, prayers, or any other religious ritual, on their own, are not knowledge; they

are just tools (practices). Some religious technologies can serve both functions of technologies at once. For example, hajj, in the context of Islam, can assist Muslim communities in their non-cognitive need of strengthening their solidarity and communal bonds and also assist the faithful in their cognitive pursuit of acquiring a better understanding of God (Paya, 2012a).

A sure sign of the effective use of religious technologies by the faithful is the effect of those technologies on the outlook and conduct of the believers. For example, in the case of those believers who apparently observe all their religious rituals but whose outward conducts remain unacceptable (e.g. they cheat, act immorally and treat others unjustly), then one can safely assume that they have not benefitted from the religious technologies they have used (Paya, 2012a).

Here, and before proceeding further, I need to clarify some important points concerning my proposed model for understanding religion and Popper's view of religion. In his interview with Zerin when the interviewer asks him why he does not apply his method of conjectures and refutations with reference to God, Popper says,

> The best religion is so vague about God, and rightly so, that one can hardly say there is anything tangible which can be tested. It is only something which appeals to our feelings. So far as religion is testable, it seems to be false. This is not an accusation because religion is not science. Rather it is an accusation of theologians who go on treating religion as if it were science. I have introduced the term falsification criterion in order to distinguish science from what is not science. Because something isn't science, however, does not mean that it is meaningless.
>   (Popper, [1969/1998] 2008: p. 50)

Also in a lecture on science and religion, presented in 1940, Popper notes, among other things, that "a religious faith does not operate with hypotheses" (Popper [1940] 2008, p. 43). While there are many points in Popper's interview and his lecture with which I entirely agree and happily incorporate into my own model of religion, with regard to the above two points I think an alternative critical rationalist explanation can be offered.[1]

For me, as stated above, religion is not based upon blind faith. It is a quest for understanding aspects of reality that science does not touch. I do not regard religious faith as being entirely based upon non-cognitive emotive elements or meaningful language games with no real referents. In fact, I argue that a blind faith, i.e. a faith which is devoid of genuine cognitive elements, could pave the way to violence and evil acts. Such a faith is motivated purely by emotions and propelled by will-power. There is no room for critical considerations in such a combination.

Now, while, as Popper correctly observes, the realms of science and religion are distinct and trespassing should not occur on both sides

(Popper [1940] 2008). But at the same time, one should not fall into the trap of either reducing religion to purely psychological, emotional and non-cognitive states, or of regarding religious claims as being beyond rational critical assessment. Of course, religious claims need not be empirically testable or falsifiable to be assessable. They only need to be rationally criticisable. Criticisability is a broader criterion than falsifiability which Popper himself developed after he realised the limitations of the falsifiability criterion for assessing non-empirical (e.g. philosophical) claims (Popper, [1963] 2002: Ch. 8).

I have stated that religious claims ought to be rationally criticisable. If they are not, then they are cognitively empty. Moreover, religious claims cannot be declared to be beyond critical assessment due to their 'sacred' status. The reason is clear, even the most sacred religious proclamations and statements, just like reality itself, can only be approached through *our* interpretations and explanations. The latter, being human constructs, are certainly not sacred and therefore not exempt from critical assessment. In this respect, even science can be used to help us critically assess some of the claims made by believers in their conjectural bid to understand God and make sense of His words.[2]

In the case of the religion of Islam the conjectures with regard to the attributes of God are informed by a number of sources. These sources can play a role in the context of discovery as well as the context of assessment.[3] The first source is the Quran, which the majority of Muslims believe represents God's words. The second source is the tradition (*Sunnah*) of the Prophet Mohammad (and also, in the case of the *Shi'i* Muslims, the tradition of the *Shi'i* Imams). The third source is the views expressed by Muslim scholars and perhaps religious scholars who belong to other religions. And the last source is the believers' own personal religious experiences. The role of personal experiences in developing one's knowledge of God is a large topic, which deserves closer attention. Here I shall not be able to do justice to this important topic due to lack of space. However, whatever the role of the above sources, a main teaching of critical rationalism is that one should bear in mind at this juncture, is that our understanding of all these sources remains, for ever, conjectural until they are refuted.

Science, as was suggested above, can play *a* role, in the process of refuting false beliefs. For example, in the context of exegeses of the Quran, there exists a long history of using the latest scientific theories of the day to interpret the verses of the scripture. Refutations of those theories provide good admonitions to believers that they should not blindly cling to scientific theories. Moreover, such refutations serve as a warning to believers that they should not dogmatically consider their own interpretations as the final word with regard to the understanding of God and His words.

In other parts of his interview with Zerin, Popper raises some further points which chime well with the model that I am trying to develop. Popper says:

> Although I am not a Jew by religion, I have come to the conclusion that there is great wisdom in the Jewish commandment 'not to take the name of God in vain'.
>
> ([1969/1998] 2008: 48)

> I do think that all men, including myself, are religious.
>
> ([1969/1998] 2008: 49)

> When I look at what I call the gift of life, I feel a gratitude which is in tune with some religious ideas of God. However, the moment I even speak of it, I am embarrassed that I may do something wrong to God in talking about God.
>
> ([1969/1998] 2008: 48, 49, 51)

What Popper suggests above, captures some of the messages that one may be able to glean, in a conjectural way, from the Quran. One of the verses of the Quran which addresses the issue of obtaining knowledge of God states: "There is nothing like Him."[4] This verse, which reiterates a constant theme in the Quran and the tradition of the Prophet (and the Imams, in the case of the Shi'i Islam) is in line with the general critical rationalist approach towards understanding God (or reality, for that matter): whatever we conjecturally produce to represent God (or reality) should not be regarded as identical with God (reality). God is understood (from the sources introduced above) to be infinitely many times richer than our best understanding of Him. He is assumed to be infinite whereas we are finite creatures with limited and fallible cognitive abilities. Whatever we produce as a model of God would be, inevitably, incomplete.

Nevertheless, and despite all our limitations, as I would argue that in the context of my proposed model, it is not impossible to get closer to increasingly better understandings of God. Since God, just like reality (and indeed all religions, as was stated above, regard God as real, some identify Him with Reality) has power to correct our mistakes.

Earlier I suggested that more or less all religions, and in particular, the Abrahamic religions, subscribe to the conjecture that 'God exists'. It can be asked that why should anyone uphold this conjecture? What is wrong with the opposite conjecture upheld by non-believers, namely, 'there is no God'?

I think a way for providing an answer for the above question is to compare the conjecture about the existence of God with the main axiom of realism, i.e. 'there exists a reality not made by us'. We know that neither the realist axiom nor the idealist axiom can be conclusively (i.e. in an absolute way) proven. In fact, as we know, nothing can be conclusively proven. All

proofs, if valid, remain valid within a specific axiomatic framework. Those axioms are, like all other knowledge claims, mere conjectures. The 'proofs of the existence of God' are also no exception. It is not possible to either prove or disprove the conjecture concerning the existence of God in a conclusive fashion (Pasquini, 2010, Everitt, 2004, Yaran, 2003).

However, I think in the same way that realists claim that upholding realism gives them an epistemic edge in their knowledge pursuits (Popper, 1983; Maxwell, 2007), religious people could argue that upholding the conjecture about the existence of God gives them an edge, though not an epistemic edge but a pragmatic one, with regard to the vexed issue of nihilism. Nihilism seems to be the greatest intellectual threat to modern man (Crosby, 1988).

Realists have produced a number of arguments to show that pursuit of knowledge will be further facilitated by subscribing to realism. One such argument, originally due to Immanuel Kant, has been developed by Nicholas Maxwell (2007: ch. 9). In what follows I shall produce a version of this argument which is based on Maxwell's argument but differs from it in one important respect.

Kant had asked, given we have knowledge of the world, what the world must be like? (Kant, [1781]1929: Bxvi; Maxwell, 2007) Maxwell has used this argument in the context of critical rationalism's quest for the growth of knowledge and asks, "What reality must be like for our knowledge of it to become maximal?" He then compares and contrasts three rival conjectures with regard to the structure of reality as far as the possibility of obtaining knowledge of it (in a maximal fashion) is concerned. The first conjecture is that of the classical sceptic who maintains that no knowledge of reality is possible and therefore opts for 'maximum incomprehensibility'. The second conjecture belongs to a variety of non-realist, empiricist and instrumentalist positions which uphold the conjecture of partial comprehensibility of reality. Such partial comprehensibility could be manifested in terms of partial temporal comprehensibility, which means there are periods in which reality is incomprehensible and periods in which it is comprehensible, or in terms of partial spatial comprehensibility which means some areas in the realm of reality are incomprehensible and some areas are comprehensible, or, in terms of levels of reality: some levels of reality (e.g. the unobservable levels) may be regarded as incomprehensible. Partial incomprehensibility of course may mean a combination of all the above cases. Maxwell argues that to maximise our chances of obtaining knowledge about reality we will be better off if we uphold the conjecture of maximum comprehensibility of reality. The reason is that if at any stage of our efforts to make sense of reality we failed to make progress, we do not give up by assuming that we have stumbled upon one of the incomprehensible bits of reality (Maxwell, 2007).

While Maxwell regards the conjecture of maximal comprehensibility of reality as a metaphysical thesis, I regard it as a methodological one. Here I am indebted to David Miller's criticism of Maxwell's argument (Miller, 2006a/2017: pp. 92–94). Maxwell's principle can be compared to Popper's

'rationality principle' which he uses as an 'animating law' for his model of situational analysis (Popper, 1994: Ch. 8).

The argument from the maximal comprehensibility of reality is an argument for epistemological optimism. Critical rationalists are all epistemologically optimist. Popper has discussed this point in many of his works for example in his *Conjectures and Refutations* ("On the Sources of Knowledge and of Ignorance" (Popper, [1963] 2002: pp. 3–42)). But optimism plays an even more important role in Popper's and critical rationalists' philosophy: it is 'a moral obligation' (Kiesewetter, 1995, p. 283). In one of his last written works, namely his introduction to *The Myth of the Framework*, Popper emphasised that

> *It is our duty to remain optimists*. . . . When I say 'It is our duty to remain optimists', this includes not only the openness of the future but also that which all of us contribute to it by everything we do: we are all responsible for what the future holds in store. Thus it is our duty, not to prophesy evil but, rather, to fight for a better world.
>
> (1994: xiii, emphasis in original)

If classic scepticism is the greatest threat to the growth of knowledge, it seems nihilism is the greatest threat to optimism of the type critical rationalists promote for making a better world (Crosby, 1988). Nihilism destroys the moral fabric of the society and thus leads to its destruction. In his *In Search of a Better World* ([1994] 2012), Popper wrote,

> Among the traditions we must count as the most important is what we may call the 'moral framework' . . . of a society. This incorporates the society's traditional sense of justice or fairness, or the degree of moral sensitivity it has reached. . . . Nothing is more dangerous that the destruction of this traditional framework, as it was constantly aimed at by Nazism. In the end its destruction will lead to cynicism and nihilism, i.e. to the disregard and dissolution of all human values.
>
> (157)

In fact, one can argue that the promoters of what Popper, following Kant, calls 'radical evil' (1969/2008: 52), are in fact prophets of nihilism and death of all universal values and virtues as well as all hopes for a better future for mankind.

A critical rationalist who is also a believer in a religion, in this case Islam, like all fellow critical rationalists, also whole-heartedly subscribes to the wider form of optimism introduced by Popper as an integral part of critical rationalism. Such optimism, in the context of his religious belief in God, can be further enhanced by means of extra arguments which reject nihilism. One such argument is based on a thought experiment originally introduced by the British novelist Phyllis Dorothy James White, who writes under the

name of P. D. James, in her novel *The Children of Men* (1992) and further developed into a second thought experiment by the American moral philosopher Samuel Scheffler in his book *Death and the Afterlife* (2013). In P. D. James' version of the thought experiment, 'the infertility scenario', no babies are born, and in Scheffler's version, 'the doomsday scenario', people become aware of the imminent destruction of Earth and are faced with its implications. Scheffler argues that

> If we were to learn that there was no afterlife, if we were to find ourselves in the doomsday or infertility scenario, the conjecture says, a wide range of things that now matter to us would no longer do so. We would no longer value them, where "valuing" involves cognitive, motivational, and affective elements. We would lose confidence in the belief in their value, we would see ourselves as having weaker reasons to engage with them, and we would become emotionally deadened to them, as if by depression or ennui.
>
> (2013: 5)

Now, it can be argued that the above sense of despair and hopelessness is more likely to afflict those who do not believe in a benevolent God who takes care of those who have lived a genuinely moral life. As Kant had argued those who believe in God and live a moral life, when they encounter nature's might in the shape of calamities and disasters would neither despair nor fear, they, to paraphrase Kant, "become conscious of [their] superiority over nature within [themselves] and without [themselves] and can fearlessly, but with respect, stand before God because of [their] moral uprightness" (Kant [1790] 1928: 113).

Of course, the above argument should not be misconstrued as stating that only religious people can be moral. On the contrary, I entirely agree with Popper where he says, "[A] man who says that he has no belief . . . may be profoundly moral" ([1969] 2008, p. 47). What I would want to argue, with the help of the above thought experiments, is that those social actors who are profoundly moral and believe in God are less likely to be affected by the above scenarios.

The religious model informed by the tenets of critical rationalism upholds pluralism, rejects relativism in all its forms and shapes (moral, epistemic, ontological), and fully acknowledges the centrality of freedom for the well-balanced flourishing of individuals. It is *for* the open society and against all sorts of suppressive orders and regimes, be they totalitarianism, authoritarianism or despotism. It insists upon respect for the rule of law and citizens' basic rights. This model emphasises the importance of tradition: in the absence of tradition growth of knowledge would badly suffer and gets impaired. But traditions, like all our other constructs, must constantly be subjected to critical scrutiny to enable us to make effective use of their rich contents (Popper [1963] 2002, Ch. 4). The proposed model also suggests

that a suitable model of democracy combined with universal values found in Islam and other great religions and civilisations is the best technology for promoting the universal value of justice (Paya, 2011b).

Conclusion

At this juncture and as a way to conclude this chapter while hinting at some of its further capacities it seems to be instructive to briefly compare and contrast it with the model that John Rawls has proposed for accommodating doctrinal commitments (religious and secular) in liberal democracies.

Rawls, in the "The Idea of Public Reason Revisited" published in the revised version of his *Political Liberalism* (2005, Ch. 4), which seems to be his last major contribution to the field of political philosophy, asks the following important question:

> How is it possible – or is it – for those of faith, as well as the nonreligious (secular), to endorse a constitutional regime even when their comprehensive doctrines may not prosper under it, and indeed may decline?
> (Rawls, 2005: 459)

The solution which Rawls suggests is noteworthy. He says

> Here the answer lies in the religious or nonreligious doctrine's understanding and accepting that, except by endorsing a reasonable constitutional democracy, there is no other way fairly to ensure the liberty of its adherents consistent with the equal liberties of other reasonable free and equal citizens. In endorsing a constitutional democratic regime, a religious doctrine may say that such are the limits God sets to our liberty; a nonreligious doctrine will express itself otherwise.
> (Rawls, 2005: 460–1)

Rawls calls his approach 'reasoning from conjecture' and explains it in the following way:

> In this case, we reason from what we believe, or conjecture, maybe other people's basic doctrines, religious or philosophical, and seek to show them that, despite what they might think, they can still endorse a reasonable political conception of justice. We are not ourselves asserting that ground of toleration but offering it as one they could assert consistent with their comprehensive doctrines.
> (Rawls, 2005: 461)

Rawls then gives the example of the late Sudanese author Ustadh Mahmoud Mohamed Taha who in his reform project and in his bid to develop a model for reconciling tradition and modernity had suggested that in modern times

all the verses which had been revealed to the Prophet in Medina, which contain the bulk of the *Shariʻa* law, should be regarded as abrogated, and that Muslims, in modern times, should follow only the verses which had been revealed in Mecca to interpret *Shariʻa*.

Before comparing my proposed model with Rawls's model, I should like to briefly refer to another comparison which was made some years ago between Rawls's and Popper's views. In his paper, "Is an Open Society a Just Society? Popper and Rawls", Alain Boyer suggested that the Rawlsian can benefit from the Popperian critical rationalist approach. He concluded that

> In an open society, debates between Rawlsians, Nozickians, and others are to be expected, and that is a political 'good'. Popper's theory of an open society asserts the minimum set of principles that have to be accepted in liberal societies, just as Popperian meta-philosophy (critical discussion) is minimal and the best meta-philosophy, even for anti-Popperians. Rawls's theory of justice is less neutral (in particular, the difference principle). An open society is not necessarily a Rawlsian perfectly 'just' one, but a Rawlsian just society would be, necessarily, an open society.
>
> (Boyer, 2005: 24–5)

The model I have proposed in this chapter goes further than Rawls's interesting argument.[5] It suggests, as was briefly discussed above, that a democracy, in which universal values are respected, is not only in tune with Islamic teachings but the best tool for promoting the pivotal value of justice which is so dear to Muslims (Abou El-Fadl, 2004, Paya, 2011b). Moreover, it instructs Muslims and their non-Muslim interlocutors that a conjectural way of thinking is, contrary to what Rawls implies, not an exceptional mode of reasoning, but the only way for us to develop and formulate our understanding of our 'human condition' and construct our solutions to the challenges posed by it.

My proposed model also provides a reply to Rawls's key question which, I submit, is more in line with the spirit of Islamic thought. For critical rationalist Muslims, reconciliation between modernity and tradition can be achieved in more smooth, less radical, ways. They do not adhere, in a dogmatic way, to views which are not amenable to critical assessment. Those who subscribe to the proposed model not only value open-mindedness and a critical attitude but they are also fully aware of the importance of being moral. And since they are fully committed to the idea of change through rational discussion and dialogue and uphold the Popperian motto that "I may be wrong and you may right, and by an effort we get nearer to the truth" (Popper, 1994, xii, originally in Popper [1945] 1966), when confronted with the Rawlsian question they, contrary to what Rawls suggests, do not say that "such are the limits God sets to our liberty". Instead of adopting such a fatalist position, they would take a proactive stand by

arguing that while our present understanding of our doctrinal teachings may be wrong, the machine of democracy which we are benefitting from is not also perfect. It may therefore be possible for us, with an effort, to contribute to further objective improvement of the efficiency of this machine in the light of our religious values and teachings.

Notes

1 In his 1940 lecture – and consonant with what he says elsewhere – Popper takes religion to be purely ethical. Here again, it is possible to introduce an alternative explanation from a critical rationalist point of view which treats religion as more than purely ethical but a set of teachings which combines cognitive values, ethical norms and instructions for forms of life in tune with those values and norms. Jeremy Shearmur has argued that religion cannot be reduced to a mere ethical framework in his 'What Popper Should have said About the Philosophy of Religion' (Shearmur, 2013).
2 See chapter 2.
3 These terms have been explained in the Introduction (Chapter 1).
4 لَيْسَ كَمِثْلِهِ شَيْءٌ , Al-Shura (42: 11).
5 It should be noted in passing that Rawls's model relies on an unfortunate choice of example: Ustadh Mahmoud Mohamed Taha was hanged by the Sudanese regime on the charge of apostasy (Packer, 2006).

4 A critical assessment of the programmes of producing 'Islamic Science' and 'Islamisation of Science/Knowledge'

I Introduction

It appears, from the existing evidence, that interest in discussions concerning the concept of constructing 'Islamic Science'/'Islamisation of Knowledge (Science)' (cIS/ IoK)[1] and also, to some extent, 'Indigenous Science' (InS) has increased in recent years.[2] Given the importance and prestige of science in the modern world and the remarkable role it is said to play in bringing about all-embracing changes in the life of individuals and societies, a guess could be made as to the causes of attractiveness of concepts such as cIS/IoK and InS for some people. One can speculate that from the viewpoint of some ideologically driven individuals and groups, if one can create an Islamic or InS with the same, or perhaps even greater, capabilities in comparison to those of modern science, then the path for the revival of bygone glory and grandeur of the past eras will be paved. The proponents of such views maintain that success in developing their brands of science means, among other things, that by relying on their own achievements and without any need for any assistance from outside, they will be able to become the world's number one, or at least occupy a place among the highest ranking nations, in theoretical and applied sciences (International Institute of Islamic Thought, [1982] 1988, [1982] 1995; Abu Sulayman, 1994; Stenberg, 1996; Abaza, 2002; Nanda, 2004, 2005; Bennett, 2005).

Another explanation for the attention given to the cIS/IoK is that the main function of such a project is to create what Manuel Castells ([1997] 2004) calls the 'resistance identity': a defensive mechanism for those Muslim societies that have had difficulty in rising to the challenges of modernity and have been unable to rationally adapt to the exigencies of the modern world and are fearful of the threat to their traditional identities.

However, it seems that, despite lack of progress with regard to developing viable models of cIS/IoK in the past decades, the advocates of such projects, especially in the context of Iran, have remained as undeterred and as optimistic as ever concerning the success of their plans. They seem to be determined to make use of the past experiences and better-informed approaches to developing new and more viable models for cIS/IoK.[3]

In what follows, after some explanations concerning the misguided images of science developed by positivist and anti-positivist writers and some clarifications concerning the status of science and technology, I shall attempt to critically appraise the viability of the project of producing cIS/IoK in the context of the views of some of the Iranian and Pakistani advocates of such projects.

II Science and the images of science[4]

Philosophers of science in the twentieth century have extensively discussed the boundaries of science and the criteria to differentiate between science and pseudoscience and also other types of human knowledge (Popper, [1933] 1968: sec. 4, 12; [1963] 2002: ch. 1, passim; Gillies, 1993: ch. 8). Below (Section III), I shall expound on 'science' and its distinctive characteristics. Here suffice it to say that from the standpoint of critical rationalism (to which I subscribe), the aim of science/knowledge is to get closer to a true representation/understanding/explanation of reality. Reality is assumed to be independent of the human mind, language and conventions.[5] All knowledge claims must be criticisable: they should be empirically testable and/or logically and analytically assessable or both (as the case may be) (Popper, [1963] 2002; Miller, 2006a; Paya, 2011a).

Second-order discussions regarding the nature of empirical sciences and demarcating their boundaries from pseudosciences and other types of human knowledge became systematised in the last century with the growth of positivist philosophy of science. Positivism, in its various manifestations, portrayed an influential image of science, which was turned into the 'received view' among a large group of scientists and philosophers. This image is still popular among many scholars (Suppe, 1977: ch. 1; Turner, 1985). The main elements of the positivist image of science are as follows: testimony of senses provides the secure foundation for knowledge about reality; knowledge claims ought to be empirically verifiable; theoretical entities are useful fictions; description (or, as Carnap, 1950: sec. 1, would put it, explication) of phenomena rather than explanation of their underlying causes is the aim of science since there are no such causes; causality means only succession of phenomena; metaphysical claims are untenable (Hacking, 1983: ch. 3). Logical positivists, who were the heirs apparent of the nineteenth-century positivists, introduced the criterion of meaningfulness, according to which only empirically testable statements were meaningful, to demarcate proper scientific claims from metaphysical and pseudoscientific claims (Passmore, 1967). Another tenet of positivist philosophy was that all branches of science (including social sciences and humanities) could be reduced to physical sciences – one twentieth-century positivist philosopher went as far as to argue that even epistemology could and should be naturalised (Quine, 1973).

Reaction to the widespread influence of positivist thought came in the form of phenomenological and hermeneutical approaches in the nineteenth

century. Advocates of these (and other) anti-positivist approaches maintain that human and social sciences (HSS) are radically different from physical and biological sciences (PBS) and cannot be reduced to them (Swingewood, 1984; Grondin, 1994). They have tried to develop alternative models of what they dub Geisteswissenschaften/Kulturwissenschaften (Copleston, [1963] 1994: vol. 7, 369). In the English-speaking spheres terms such as 'interpretivists' and 'culturalists' are used to identify the proponents of a radical rift between HSS and PBS (Moore, 1989; Reckwitz, 2002; Blaikie, 2007).

According to interpretivists/culturalists, the main aim of HSS is to understand human phenomena. Understanding is based on 'empathy' in the sense of re-enactment of the other's thought process and putting oneself in the other's shoes (Collingwood, 1946; Berlin, 1960). In understanding (verstehen), as Dilthey put it, "'life meets life' whereas explanation is concerned with external objects which have no affinity with the observer" (Bleicher, 1980, 261). Moore has summarised the main tenet of the so-called 'interpretive turn' by referring to the views of Emilio Betti (1980) concerning the difference between natural sciences and HSS:

> [M]eaningful phenomena exist in a different way, on a different level, than the meaningless phenomena that are the subject of the natural sciences. As Betti puts it, the meaningful 'belongs to a level fundamentally different from the physical', requiring its own goal (understanding, not knowledge) and its own method (interpretation, not explanation).
>
> (Moore, 1989: 920)

Interpretivists/culturalists also maintain that the phenomena in the realm of HSS, in contradistinction to the phenomena in the realm of PBS, are unique and non-repeatable (Ben-Israel, 1989: 664–667); whereas in PBS we need to resort to techniques like simplification, approximation and idealisation in order to develop effective models of natural phenomena (which are poor representations of the complexity of the phenomena in question), in HSS only a holistic approach which involves the so-called 'hermeneutic circle' (Palmer, 1969) or direct 'seeing/intuition' of the very essences of the phenomena (Husserl, [1913] 1982; Sinha, 1963) can provide the required understanding.

Other views to which the interpretivists/culturalists subscribe are as follows: since both the subject and the object of study in HSS are intentional, this makes the study of the phenomena in HSS much more difficult and indeterminate; there are no general laws in HSS – all findings in the field of HSS are context sensitive; PBS suffers from the dominance of 'scientism' – the view that all phenomena can be explained by means of empirical sciences (Berlin, 1960; Ben-Israel, 1989).[6]

Critical rationalists have long argued that the images subscribed to by both positivists and interpretivists/culturalists are based on serious

misunderstandings of the nature of science/knowledge (Popper, 1994). According to critical rationalists science/knowledge is the sum total of two sets of conjectures. The first set contains all of our refuted conjectures about reality (Miller, 1994; Paya, 2015a, 2017c). This set provides us knowledge by a *via negativa*: through elimination of our errors it tells us what reality is not like. For example, we now know that the earth is not at the centre of the solar system; the process of combustion does not produce phlogiston; and liver does not produce 'nutritive blood'. The second set contains all those conjectures about reality that are in principle criticisable and hence are not tautologies and yet so far, and despite our best efforts to expose their defects, have not been falsified (Miller, 1994; Paya, 2015a, 2017c). Such conjectures provide us knowledge by a *via positiva*: they tell us (only provisionally and temporarily and until they are refuted, or better, until more explanatory conjectures are found to replace them) what reality is like. Knowledge remains forever conjectural. Nevertheless, it is not impossible to get closer to a truer representation of reality. This can be done by means of exposing our conjectures to the severest examinations and learning through our mistakes and from the mistakes of others (Popper, [1963] 2002, 1979; Miller, 1994, 2006a; Paya, 2011a).

With regard to the claim of interpretivists/culturalists concerning the uniqueness of phenomena in the field of HSS, critical rationalists point out that the same is true in PBS and in fact in all other fields of knowledge. When scientists repeat an experiment, what is being tested is not the original phenomenon but another one similar to it. For example, when an animal is dissected so that scientists can assess the effect of a particular substance, it cannot be used for the repetition of the same experiment. Change in the setup of the experiment due to the interaction between the experimenter and the object of the inquiry is not unique to HSS. It is a well-known fact that in the field of quantum mechanics an experimental setup is sensitive to the way the experimenter approaches it. Moreover, all the context-dependent findings in HSS can be reformulated in terms of general or universal statements by means of a simple logical rule. For example, suppose a political scientist in studying a particular political regime has come to the following conclusion: 'this regime, which relies on the backing of the army and does not enjoy popular support, cannot remain in power for a long time'. His finding can be turned into a general conjecture which can be applied to all political regimes: 'it is not the case that a political regime that relies on the backing of the army and does not enjoy popular support can remain in power for long'.[7]

Understanding, in the sense described by the interpretivists/culturalists, and re-enactment, in the sense of reproducing the other's thought process in one's own mind, are simply impossible, as Popper (1994: ch. 7) has argued: one cannot reproduce even one's own earlier thought processes, let alone those of others. The most we can do is to reconstruct, in a conjectural way, 'the problem situation' as viewed by 'the other'. All sciences, whether HSS

or PBS, "start from myths – from traditional prejudices, beset with error – and from these we proceed by criticism: by critical elimination of error. In both the role of evidence is to correct our mistakes, our prejudices, our tentative theories" (Popper, 1994: 140). All sciences belong to the one and the same seamless spectrum. Their difference stems from the differences in the problems they deal with – each science/field of inquiry deals with some specific aspects of reality. Physical sciences deal with inanimate matter, the subject matter of biological sciences is animate beings (and their interaction with inanimate matter), social sciences are concerned with the behaviour of societies and communities, in human sciences, the so-called liberal arts, and only in this field, second- and higher-order study of first-order knowledge is possible (Paya, 2007).

The process of acquiring knowledge begins when reality poses a challenge (problem) that shatters our expectations. In the course of trying to find a solution to the problem(s) posed by reality (which in the critical rationalist parlance is termed 'world$_1$'; Popper, 1979), our cognitive apparatus (which comprises our rational and emotional faculties, states of mind, memories, tacit knowledge, plus all subconscious aspects of our cognitive apparatus, including what is acquired through our dreams, personal experiences, moments of epiphany etc., which are collectively called 'world$_2$'; Popper, 1979) gets richer. As a result of systematic and prolonged engagement with particular problems, we may be rewarded, if we are lucky, by an *aha* or eureka moment: the solution of the problem may come to us in a flash of insight or an intuition. Understanding, in the proper sense of the term, begins when such intuitions or epiphanies, which are existential experiences and non-propositional, are reconstructed by means of language and concepts. Such reconstructions are, in principle, publicly accessible and publicly assessable (Paya, 2011a). Explanations are developed by means of further refinements of these initial 'understandings'. In this sense, there is no substantive difference between 'understanding' and 'explanation'.

While intuitions and flashes of insight belong to the subjective world$_2$ of each individual, understandings are shared between the individual's world$_2$ and what Popper calls 'world$_3$' (the objective world that is the abode of all publicly accessible products of the human mind, including the contents of books, theories, moral and legal codes, melodies and music, movies, blueprints of technologies etc.). Explanations, on the other hand, belong to world$_3$.

Critical rationalists also reject the positivists' image of science. According to critical rationalists, knowledge does not begin by observation, since all observations are theory laden (Popper, [1933] 1968; [1963] 2002). Contrary to what Francis Bacon ([1620] 2000) preached, inquirers cannot approach nature with a mind free of all preconceptions; we always approach reality with our prior conjectures: instructions come from within, selections (corrections) from without (Popper, 1994: ch. 1). Induction, as a method of inference, is invalid; as a method for discovery of hypotheses and conjectures,

impossible (Popper, [1933] 1968; Miller, 2006a); epistemic foundationalism and justificationism are untenable (Miller, 2006a). For critical rationalists, metaphysics and empirical science are complementary components of our knowledge of reality (Watkins, 1958; Popper [1963] 2002; Agassi, 1964).

Positivism's reductionism is also not acceptable from a critical rationalist point of view. L. Susan Stebbing's reply to Arthur S. Eddington's famous 'two tables' argument can be used against the logical positivists' strict reductionism (Eddington, 1928; Stebbing, 1937). Strict or eliminative reductionism, which maintains that only one way (the reductionist way) of describing phenomena is necessary and sufficient, should be contrasted with explanatory reductionism. The latter means "explaining everything relevant to a given field of inquiry in terms of a single, all-pervasive factor outside that field, which is necessary to a proper understanding of that field" (Palmquist, 1992: 114). A theory of everything is an example of the latter form of reductionism, which is a fruitful approach, while logical positivists' failed attempts at producing a purely 'observational' language is an example of the former (Suppe, 1977).

III cIS vs. 'Islamic Technology'?

According to critical rationalists, since the only way to improve our knowledge of reality is by producing as many non-trivial and diverse conjectures as possible and subjecting them to severest critical assessment; epistemological pluralism is a sine qua non for the growth of knowledge. Conjectures are the end-results of collaboration between two sources: systematic engagement with specific challenges/problems introduced by reality on the one hand, and rich $world_2$s on the other. The three worlds, which together comprise reality, have symbiotic relationship with each other. A rich $world_3$ can enrich $world_2$ and vice versa. An individual's $world_2$ can also be enriched through efforts for responding to the challenges of $world_1$.

There is no set of rules or algorithms for producing conjectures. They 'emerge' (in one's $world_2$) in response to challenges and problems. The context in which conjectures emerge is called 'the context of discovery'.[8] This context belongs to the psychology of research and has nothing to do with epistemological concerns (Popper, [1933] 1968: sec. 2). However, as soon as conjectures are constructed by means of language and concepts, they must be subjected to critical assessment. This is done in 'the context of assessment', which belongs to the public sphere. Many factors could help the enrichment of individuals' $world_2$: myths, historical narratives, religious beliefs and doctrines, personal experiences and many more. However, the role of all these factors is only heuristic: at most they may inspire individuals and help them to formulate particular conjectures in response to particular problems. However, such conjectures, as was stated above, must be submitted to the tribunal of critical assessment. Only corroborated conjectures are, temporarily and provisionally, regarded as positive knowledge claims.

Such conjectures are upheld because they respond to reality's challenge. The origins of conjectures and also the intentions of scientists are logically distinct from the content of their conjectures and it is the content that is being assessed. Descartes and Newton were both religiously motivated scientists (Byrne, 1996; Force & Popkin, 1999; Knight, 2012). Although their relations with their respective churches were problematic (Ariew, 2003; Friesen, 2004), their scientific achievements had an impact on the rivalry between the Catholic and Anglican churches (Schaffer, 2004). Thus, when Newton's ingenious explanation of the spectrum of light undermined Descartes's system (Fara, 2011: 20) it could have worked in favour of the Church of England's claim of supremacy. However, notwithstanding Newton's motives, his explanation with respect to the effect of a prism on the sun's rays and his conclusion that white light is composed of rays of other colours had nothing to do with his religious views; his explanation had to be corroborated by reality itself to be accepted as a valid rebuttal of Descartes's views and a valid explanation for the phenomenon of the spectrum of the visible light.

Knowledge/scientific claims, as was suggested earlier, are general. All the scientific theories introduced by Muslim scientists, if corroborated, are part of the universal reservoir of knowledge which itself is part of world$_3$. They do not carry with them the tag of 'Islamic'. Ibn Haytham's (Al-Hazen, d. 1040) theory of vision/optics or Shams al-din Khafri's (d. 1550) astronomical insights, which were greatly influential in the development of modern science (Lindberg, 1976; Saliba, 2007), have nothing 'Islamic' in their content. They were accepted because they could correctly explain the phenomena under consideration. It is possible that they, and other great Muslim scholars whose works are part of mankind's heritage, were inspired by elements of their religion. But inspiration, as was explained above, belongs to the realm of psychology of discovery and is not the same as the publicly assessable content of knowledge claims. The same is true of all other knowledge claims made by other scholars in other cultures and civilisations.

Now, while there can be no such a thing as cIS (or 'Christian Science', 'Jewish Science', 'Chinese Science', 'African Science' and their ilk for that matter),[9] the same is not true for local or indigenous technologies and know-hows. It is not impossible to develop technologies whose immediate aims are to respond to the non-cognitive needs of a particular group of people who belong to a particular tradition, culture or form of life, and subscribe to a particular doctrinal framework. For example, in the context of Muslim countries, technologies of *Fiqh* (Islamic jurisprudence) and *Usul al-Fiqh* (a semantic-hermeneutical device for deciphering the meaning of Arabic sentences pertaining to *Fiqh*) are developed to respond to the religious needs of Muslims.[10] Of course, like all other technologies, these technologies too, with proper adjustments, could be used by other, non-Muslim, users. Exactly in the same way, technologies developed in non-Muslim countries can, by proper adjustments, be used by Muslim users.

In fact, one can go further and, in view of the discussions in Section II above, make a stronger case for what can be termed 'religious technologies'. If, as was discussed earlier, technologies are constructs that respond to our non-cognitive needs and/or facilitate (as instruments) our cognitive pursuits, then 'religious technologies' could be defined as a particular class of technologies that carry out the above two main functions with respect to the non-cognitive and cognitive needs of the faithful. A religious technology like Hajj (pilgrimage) in the context of Islamic culture could, on the one hand, respond to the need for social and communal cohesion among Muslims. This is clearly a non-cognitive need. It could also pave the way, as an instrument, for more refined spiritual-cognitive experiences that could bring the faithful to a better understanding of God and a closer relation to Him. However, Hajj as a practice and ritual, on its own, does not provide any knowledge. On its own, it is nothing but a technique, a tool. Tools and instruments are not knowledge, but they may, if they are so designed, facilitate our knowledge pursuits (Paya, 2013a). All religious rituals that are being practised in various religions should be regarded as 'religious technologies'. In fact, believers could use all existing (and forthcoming) technologies as 'religious technologies': they will be regarded as 'religious technologies" if they fulfil the functions required of such technologies (Paya, 2013a). Conversely, and as was suggested above, all 'religious technologies' could be used (with appropriate adjustments) in secular contexts. A case in point is so-called halal products, which are used by both religious and non-religious consumers (Akhtar, 2012). Other religious technologies, like Hajj, Salat (prayer) and Zakat (alms giving), could be adopted by non-religious individuals and be used for recreational or social binding purposes.

IV   cIS: proponents' arguments

So far I have discussed, in a general way, the case against the possibility of constructing cIS. In this section I intend to focus on some of the more recent arguments introduced by the proponents of the possibility of cIS in defence of this notion.[11] Following a brief introduction of each of these arguments, I proceed to critically assess them.

In a recent article, 'Religious Science: Its Possibility and Nature', the authors begin their long chain of arguments by rejecting some of the earlier 'definitions' of cIS:

> When religious science is discussed, sometimes what is meant are 'sciences' such as *fiqh* (Islamic jurisprudence) and *usul* (semantic/hermeneutic method of studying *fiqh*), *kalam* (theology) and *ilm hadith* (sayings and deeds of the Prophet and Imams), and sometimes 'sciences' such as history of religions, sociology of religion, and psychology of religion. . . . Sometimes what is meant by 'religious science' is study of 'scientific statements' in religious texts. Holders of this view . . . [intend]

to show that modern scientific theories can be found in the Quran. . . . Sometimes . . . ['religious science' means] . . . to use religious texts as criteria to judge the validity or otherwise of modern scientific theories. And sometimes . . . [it means] . . . to import moral norms common among religion and empirical sciences into the field of human sciences.

(Riyahi et al., 2004: 120)

Having expressed their disagreement with all of the above 'definitions' of cIS, the authors introduce their own understanding of this notion:

The Islamic society in all of its scientific activities – as in all its other activities and decision-makings – is committed to the rituals and rules stipulated by the Holy Law-maker and maintains that in this way it can achieve its ideal, namely getting closer to God. The outcome of such an activity is a particular science that is different from other sciences in respect of their aims and teloi. . . . Scientific activity of such a society cannot be similar to the research activities of those who regard themselves free from any [religious] commitment in the realm of being. First of all, as far as the choice of research topic is concerned, an Islamic society may regard itself responsible to work on particular topics which it considers to be in line with God's blessing. Similarly, it may consider studying and research on other issues as tantamount to getting engaged in futile and unfruitful activities and refrain from them. The same is true for the research methods. It is quite possible that many of the current research methods, whether for theory construction or data collection or assessment and appraisal of the truth of theories, may not be conducive to the purposes Muslim researchers have in mind or may be in opposition to the value system acceptable to them. . . . To all these we should add the effect of the assumptions, beliefs, and inclinations of Muslim scholars which stealthily select, categorise and interpret their findings; approaches and attitudes which are the results of Muslim scholars' prior education.

(Riyahi et al., 2004: 135–136)

While the authors' critical remarks about other 'definitions' of cIS are valid, their own proposed definition appears to suffer from serious shortcomings. In the first place, let us suppose, for the sake of argument, that the authors' assumption is correct and that pious Muslim scientists will be able to make great, unprecedented progress in their scientific endeavours. It can be asked in what sense the (hypothetical) achievements of these scientists are 'Islamic' as against scientific, that is, conjectures devised to produce true representations of reality? Either, the achievements of these scientists correspond to reality; in that case they are part of what is called science/knowledge. Or, they have nothing to do with reality; in that case, whatever they are, they are not knowledge.

Another point about the authors' argument is that it seems that they have conflated the piety of scientists with the content of their conjectures. It is true that according to the religious teachings those who strive in the cause of God will be guided by God in His ways (Quran 29: 69). But from such teachings it does not follow that living a pious, religious life will turn people into first-class scientists. Nor does it follow that pious scientists would turn into super-geniuses. Piety and observing religious teachings could help people to come closer to God in a spiritual sense. To learn about other aspects of reality, including material and socially constructed realities, piety is not enough. Even a cursory glance at the history of religious and non-religious societies shows that cognitive ability is distributed, more or less, evenly among all societies. No mortal soul, not even the Prophets and the saints, has a crystal ball that could enable him or her to leap forward and learn about scientific aspects of reality without going through the difficult process of engaging with real problems, trying hard to come up (if one is lucky) with suitable conjectures and thoroughly assessing these conjectures in the public arena.[12] To learn about reality, we have no other way but to proceed by making conjectures and learning through our mistakes. This is true not only with regard to scientific knowledge but also with regard to religious people's faith and their knowledge of God.[13]

What was said about acquiring knowledge of reality is true also about developing methods and techniques or in general technologies that would assist our knowledge pursuits. Here too the only way forward is through trial and error: producing conjectural solutions (including prototype machines and systems) and trying to remove their defects by means of critical assessment of their applicability. Moreover, while it is true that some research areas can be chosen by means of prior deliberation and forward thinking, this approach cannot be applied to all research topics. The reason is simple: reality is indefinitely rich and our best deliberation and planning can cover only tiny parts of it. In the course of dealing with those parts, due to our ignorance of other infinite aspects of reality related to the issues under consideration, unwanted and often undesired consequences may emerge and may force us to take into considerations issues about which we did not have a clue. The link between smoking and cancer or between consuming fossil fuels and global warming were not known for a long time.

Another author who has argued for the possibility of constructing cIS but also has made a suggestion for its development is Khosrow Bagheri, a professor at Tabiyat Moddares University in Iran. He maintains that since metaphysics of science influences science, if, in the realm of human sciences, one relies on metaphysical views inspired by Islamic ideas and ideals, one will be able to develop 'Islamic human sciences':

> Taking into account the deep reliance of scientific theories on metaphysical props at each stage of their development, it would be meaningful to consider scientific theories to be dependent upon metaphysical support.

If Islamic ideas could play the same role [as metaphysical ideas], i.e. act as underneath props in the course of developing disciplines in the field of human sciences, [then] due to their deep penetration into the content of these disciplines, they [the disciplines] can be regarded as Islamic and we can talk of Islamic human sciences. Religious science, in this sense, is a unified entity. This unification is achieved in the following way: religious insights are adopted as assumptions and in their light hypotheses concerning psychological or social sciences are formed. Naturally there is an affinity and relation between these hypotheses and religious insights. Following the formation of hypotheses we should subject them to empirical assessment and if enough evidence is obtained we can talk of scientific (empirical) findings. These findings are scientific since they are empirically assessed; they are religious since they are related to religious assumptions.

(Bagheri, 2012: 250–251)

Bagheri seems to have neglected the all-important difference between the context of discovery and the context of assessment. It is true that metaphysical outlooks or frameworks can (to some indeterminate extent) influence people's views about reality. Such influences may well play a role in facilitating formation of conjectures. However, formation of conjectures, as was explained earlier, is not subject to any rule-following procedure or algorithm. Conjectures can only emerge (in individuals' world$_2$s) in response to challenges posed by reality. Of course, there is no guarantee that even after prolonged and systematic engagement with reality, the right conjecture or solution will be developed. Poincaré was as persistent in finding a solution for the 'clock' problem as Einstein (Galison, 2004), and Fermat's last theorem frustrated the efforts of some of the best mathematical minds for three centuries (Singh, 1997). Moreover, conjectures, regardless of the factors that have been influential in forming them, must be presented to the tribunal of critical assessment and must be judged by reality itself, as the final arbiter. If what conjectures say about reality corresponds to reality, that is, if they are corroborated (i.e. not refuted) in the process of critical assessment of their content, then they will be upheld (provisionally and temporarily) as our best positive claims about reality. But once again, there is nothing 'religious', 'Islamic' or 'indigenous' about those knowledge claims which correspond to reality. They are supposed to be value neutral.

The above point could be put in another way. Metaphysical theories or conjectures can produce only very general frameworks with regard to the most general features of 'reality' as they present them. Within such frameworks, various, even incompatible, scientific theories can be developed. Newton, Laplace, Hertz, Mach, Boltzmann and Poincaré all subscribed to a deterministic metaphysical framework, which regarded point particles as the final constituents of the material universe. These scientists had different religious outlooks. Yet what made them great was the success of their theories

in producing effective explanations and accurate predictions of phenomena (Buchwald & Fox, 2013). Even when Faraday challenged the Newtonian model by producing an explanation for electromagnetic phenomena based on the field theory rather than point particles, Ampe're developed a rival explanation (based on the point-particle model) within the Newtonian framework, which was as effective (Agassi, 1971). With regard to the role of metaphysical doctrines in the development of scientific conjectures, the following should be born in mind: in the first place, some metaphysical doctrines (though not all) may, at best, provide scientists with the most general outlines within which various rival theories can be developed. There are of course metaphysical frameworks that are anti-scientific (Watkins, 1958; Agassi, 1975; Popper [1982]1988). Second, metaphysical doctrines may be used by their holders as a means for stifling or, at least, hampering scientific growth. To circumvent the Church's objection to Copernicus's heliocentric theory, Andreas Osiander in his preface to *De revolutionibus* declared that Copernicus had produced only a mathematical model that correctly predicted the positions of the planets. The model simply 'saves the phenomena'; it does not matter whether the planets really do revolve around the sun (Losee, 2001: 40). Similarly, some writers have repudiated classical mechanics and the theory of evolution, notwithstanding the empirical success of these theories, on the grounds that they provide a picture of a Godless universe (Perkins, 1840; Webb, 1994).

Among the authors who have discussed the 'possibility' of developing a cIS, Mehdi Golshani, a professor of physics at Sharif University in Iran, has been influential in promoting the idea of the need for constructing a comprehensive model of cIS. His close links with scholars in religious seminaries and modern academia as well as policy-makers has placed him in an ideal position to influence opinions in favour of the project of IoK. His main argument, however, does not go beyond stating that, since metaphysics can influence science, a religious metaphysical framework can give a religious flavour to the science developed within it:

> In summary, in our view concerning the religious science, first of all, it [Islamic science] is not limited to human sciences but covers all sciences. And secondly, its aim is to view [interpret] the totality of statements pertaining to nature and man in the framework of a religious Weltanschauung.
>
> (Golshani, 2006: 182)

Since I have already discussed the role of metaphysics in helping scientists develop successful scientific theories, I do not repeat myself here. The point I would add is that if Golshani and other advocates of the possibility of producing cIS and IoK think that it is possible to produce a new science based on an Islamic metaphysics, they should try producing such a science. In the whole of history of Islam (or any other religion for that matter) not

one single example of a science (not a technology) can be shown that is directly resulted from the metaphysical views introduced in Islam (or any other religion). This, of course, does not mean to deny the 'heuristic' value of religious doctrines and metaphysical frameworks for developing new ideas with regard to the ways reality are depicted by those doctrines and frameworks. However, playing a heuristic role is one thing, producing scientific theories is totally another thing. For the latter to be accepted as genuine science/knowledge claim, the final arbiter is reality itself and not any conceptual framework.

Following the above quotation, Golshani adds that in his view the success of modern science can be better explained in the context of a religious worldview. However, this claim, assuming it is on the right track, does not seem to offer much help to the cause of the advocates of constructing a cIS. What the success of modern science implies is that modern science, even in the presence of some (seemingly) anti-religious metaphysics, has been successful, to some considerable extent, in discovering the secrets of nature. Note that even if one, pace Golshani, argues that the success of modern science is better understood in the light of the belief in God, this has no bearing on the 'possibility' of constructing a cIS or the IoK. Whatever, a religious scientist discovers of the secrets of nature, if true, will be part of science proper.

The last group of advocates of the project of cIS/IoK whose views I shall briefly, though critically, discuss below have developed a model of cIS that they call Ijmali. The term combines two Arabic words, ijma' (social consensus) and jamal (beauty/wholeness). The Ijmali project is the brainchild of three expatriate Pakistani scholars and writers, Ziauddin Sardar, Parves Manzoor and Munawar Ahmed, who are living in the UK, Sweden and the US, respectively (Sardar, 1989; Bennett, 2005). The Ijmali project is a response and critical reaction to the project of IoK introduced by Ismail Faruqi and his colleagues at the International Institute of Islamic Thought in the US (International Institute of Islamic Thought [1982], 1995; Sardar, 2004). Faruqi and colleagues maintain that the task of IoK amounts to

> [R]ecast the whole legacy of human knowledge from the viewpoint of Islam. The vision of Islam would not be a vision indeed unless it represented a special content; namely, life, reality, and the world. The content is the object of study of the various disciplines. To recast knowledge in the mould of Islam relates to the Islamic vision. It is necessary to Islamize knowledge, i.e., to redefine and re-order data, to rethink the reasoning and relate the data, to re-evaluate the conclusion, to re-project the goals and to do so in such a way as to make the discipline enrich the vision and serve the cause of Islam. To this end, the methodological categories of Islam – namely: the unity of truth, the unity of knowledge, the unity of humanity, the unity of life and purposeful character of creation, and the subservience of creation to Man and of Man to Allah (SWT) – must replace the Western categories and determine the perception to

ordering of reality. So, too, should be the values of Islam replace the Western values and direct the learning activity in every field. The Islamic values concern:

a   the usefulness of knowledge for man's felicity;
b   the blossoming of his faculties;
c   the remoulding of creation so as to crystalise the Divine patterns and values of Islam;
d   the building of culture and civilisation and
e   the building of human milestones in knowledge and wisdom, heroism and virtue, piety and righteousness. (International Institute of Islamic Thought [1982] 1995: 20)

In other words, for Faruqi and his colleagues, IoK was to be achieved through remoulding the existing knowledge according to Islamic values and ideals and building on that basis the subsequent stages of the producing IoK.

Sardar and his colleagues, however, under the influence of some modern philosophers and historians of science, most notably Thomas S. Kuhn (1970), argued that a successful project of IoK can be developed only within the framework of an entirely new paradigm or a different Weltanschauung. The new paradigm, as Sardar and his colleagues argued, is based entirely on Islamic ideas and ideals (as understood and interpreted by them). The Ijmali science is, according to Sardar and his colleague, the new paradigm needed for developing genuinely cISs. Sardar has compared the main methodological and philosophical aspects of Western science with cIS as envisaged in the Ijmali point of view: see Table 4.1 below.

From the table below it is clear that the advocates of the Ijmali project have made a number of serious methodological and epistemological mistakes. In the first place, they have targeted one of the mistaken (i.e. positivistic) images of science and conflated it with a more realistic image of science. Second, they have conflated science/knowledge with technology. And third, they have conflated epistemological aspects of science with its social aspects.

For example, the claim that modern science seeks 'conclusive evidence' betrays the authors' positivistic view of modern science. Similarly, the claim that 'although science is universal its primary fruits are for those who can afford to pay hence secrecy is justified' shows that the authors have mistaken 'scientific claims', which are openly accessible in academic journals, with 'technological know-how', which is a closely guarded secret in the case of advanced technologies. Moreover, the authors' talk about the management of science suggests that they have not clearly differentiated the 'institution of science' (which is a technology) from 'the content of scientific claims' (which belongs to the realm of science/knowledge). Another type of category mistake can be observed in the authors' talk about combining facts and values: representations of reality ought to be

Table 4.1 Norms of Western and cIS according to the Ijmali approach (adapted from Sardar, 1989: 95–97)

Norms of Western science	Norms of cIS
1 Faith in rationality	1 Faith in revelation
2 Science for the sake of science	2 Science is a means for seeking the pleasure of Allah
3 One all-powerful method as the only way of knowing reality	3 Many methods, based on reason as well as revelation
4 Emotional neutrality as the key condition for achieving rationality	4 Emotional commitment is essential for a spiritually and socially uplifting scientific enterprise
5 Impartiality	5 Partiality towards truth
6 Absence of bias	6 Presence of subjectivity
7 Suspension of judgement: scientific statements are made on the basis of conclusive evidence	7 Exercise of judgement: scientific statements are always made on the basis of inconclusive evidence
8 Reductionism	8 Synthesis: the dominant way of achieving scientific progress, including the synthesis of science and values
9 Fragmentation: science . . . has to be divided into disciplines and sub-disciplines	9 Holism
10 Universalism: although science is universal, its primary fruits are for those who can afford to pay, hence secrecy is justified	10 Universalism: the fruits of science are for the whole of humanity
11 Individualism: this ensures that scientists keeps his or her distance from social, political, and ideological concerns	11 Community orientation
	12 Value orientation
12 Neutrality	13 Loyalty to God
13 Group loyalty	14 Management of science: science . . . must be carefully managed and planned for, and it could be subject to ethical and moral considerations
14 Absolute freedom: all restraint or control of scientific investigations is to be resisted	15 Ends do not justify means
15 Ends justify means	

as truthful as possible, whereas technological products should maximally reflect users' cherished values.

In a later publication, Sardar (2004) discusses his encounter with Faruqi and narrates their discussions with regard to the notion of cIS/IoK. The account produced by Sardar further exposes the unfamiliarity of both inter-locutors with the minutiae of philosophy of science:

> Al-Faruqi was adamant that from the Islamic point of view, there was no distinction between Truth and Knowledge. If God is Truth, then Truth cannot be many. Islamic Knowledge is thus Truth. I suggested that equating Knowledge with Truth was problematic because those who defined Knowledge end up defining Truth, and thus playing God. Furthermore, there will always be some amongst us who would hasten to suppose those Truths that, according to their view, do not serve the

ummah well. And that will lead to suppression of Knowledge and to censorship.

<div align="right">(Sardar, 2004: 198)</div>

The above quotation clearly shows Sardar's concerns for the possible misuse of Faruqi's approach to the IoK with regard to social and political issues. However, in his bid to correct Faruqi's 'mistakes' he himself has committed the fallacy of 'category mistake' and has conflated the socio-political aspects of Faruqi's thought, which deal with external factors, with epistemological issues, which are about the internal content of his thought.

Truth, as critical rationalists explain, is the property of all those knowledge claims that correspond to reality. The aim of all knowledge pursuits is to attain a truthful account of reality. In this respect, Truth and Knowledge can be equated. For relativists and for justificationists, Truth and Knowledge cannot be equated. The latter equate Knowledge with 'Justified True Belief', while for the former there is no such a thing as Truth (with a capital T) as all 'truths' are relative to certain paradigms, traditions, forms of life, culture and so on.

V Concluding remarks

If the intention of, at least some of, the advocates of the projects of constructing a cIS and/or IoK is to rid modern sciences from the straitjacket of narrow-minded and rigid metaphysical frameworks and encourage scientists to think, as it were, out of the box, then the way forward is to produce viable arguments in the service of explaining the significance of richer metaphysical frameworks and the hazards of rigid metaphysical outlooks in the growth of science. They should also, if they can, try to suggest alternative, more fruitful, metaphysical frameworks. Some philosophers of science, as well as some scientists qua philosophers of science, have already done a great job in this respect (Popper, [1982]1988; Chalmers, 1996).

One of the main shortcomings of all approaches towards cIS/IoK is that, contrary to modern science, which has a problem-oriented approach and develops in response to real problems, projects of producing cIS are either based on some sort of pious wish and aspiration without detailed programmes or, if they have any programme, they combine their pious wishes and aspirations with misguided conceptions about science and its methodologies in the course of developing their programmes.

The above, of course, does not mean that religious individuals cannot be great scientists. On the contrary, history of science provides ample evidence concerning successful scientists who have held strong religious beliefs.

Religious teachings could, in principle, help scientists in, at least, two very general ways. On the one hand, one of the main teachings in many religions is to encourage people to acquire knowledge about reality. On the other, belief in a benevolent God who assists those who try to make best use

of their faculties in the service of learning more about reality provides seekers of knowledge with an added moral impetus. In recent decades this very topic has become a subject of scientific research (Miller & Thoresen, 2003; Weaver et al., 2006).

In a religious society, as was discussed earlier, it is possible to develop 'religious technologies'. However, people's understanding of the religious teachings and values are also influenced by what they learn about reality. A sound scientific education combined with a critical and rational attitude could greatly help believers to better appreciate not only their religious teachings but also other diverse vistas and horizons which modern science has opened towards reality and its awe inspiring secrets (Paya, 2017a).

Notes

1 The term cIS used in the context of the present article does not denote the works of Muslim scholars in the pre-modern period, mostly written in Arabic, Persian and Ottoman Turkish. It refers, as will be explained in the article, to 'new models of science' which, according to their advocates, surpass modern sciences in their efficacy in explaining various aspects of reality (whether natural or socially constructed). cIS, in the classic sense of the term, would denote practices and disciplines such as *fiqh* (jurisprudence), *usul al-fiqh* (lit. the principles of *fiqh*, meaning a semantic-hermeneutical tool in the service of developing *fiqh*), *Rijal* (the method of ascertaining the trustworthiness of the narrators of *ahadith* (sayings and deeds of the Prophet, and Imams in the case of Shi'i Islam)), *dirayeh* (the method of demarcation of genuine *ahadith* from pseudo-*ahadith*), philosophy, *kalam* (theology) and *tafsir* (Quranic exegesis and interpretation). Apart from the last three disciplines and *usul* all other disciplines/practices collectively known as cIS in the classic sense of the term, are technologies rather than science proper. I use the two technical terms 'science' and 'knowledge' in tandem and sometimes interchangeably. Both refer to our efforts to 'understand' various aspects of reality as it is, as against our efforts to change reality according to our plans. The latter give rise to various types of technology. In the sense explained above, both empirical sciences and philosophy belong to the general field of knowledge/science. Theology and Quranic interpretation, as long as their aim is to understand the mind of God, belong to the same field (more specifically, the field of humanities or human sciences).

2 The literature on all the above three topics is very rich. The following are just a few examples: Nasr ([1980] 1989), International Institute of Islamic Thought ([1982] 1988), Sardar (1989), Nasr (1991). Furlow (1996), Stenberg (1996), Snively and Corsiglia (2001), Abaza (2002), and Nanda (2004, 2005), who is a critic of Hindu science; Haneef (2005), which contains a list of many works on cIS/IoK. Among the new works on cIS/IoK published in Iran the following are worth mentioning: Bagheri ([2003] 2012), Riyahi, Safavi-far, and Attari (2004), Bostan et al. (2005), Golshani (2006), and Hasani, Alipour, and Taqavi (2006). It must be emphasised that the arguments and approaches produced by the above authors and others whose works are not cited here present a great deal of diversity. To discuss all these diverse positions, even to introduce them in a very brief manner, would be far beyond the remit of this article. Within the space available in the context of the present article, the differences in the approaches and arguments of some of these authors will be critically discussed.

3 In Iran, and almost immediately after the victory of the Islamic revolution in 1979, some individuals began to promote the idea of the necessity of producing cIS (Bostan et al. 2005). These individuals were either self-motivated or were inspired by the examples set in some other Islamic countries especially Pakistan during General Zia-ul-Haqq's rule. They received some official support and assistance. However, somewhat like the plans of their Pakistani's counterparts the early efforts of Iranian practitioners of cIS, too, did not bear any fruit. With regard to Pakistan's fanfare about the cIS during Zia-ul-Haqq's rule, it is alleged that all the hype was a red herring to distract attentions from Pakistan's nuclear programme which was the real recipient of Saudi's generous funds. For a critical assessment of Pakistan's experience in developing cIS with the financial support of the Saudi Arabia, see Hoodhboy (1991).

4 This section is partly based on Paya (2017c).

5 Needless to say, all socially constructed realities are somewhat related to mind. But as Searle (1995) has explained, they are the product of collective intentionalities and are independent of individual minds. Moreover, as Trigg (1980) has argued, even in the case of mental states, when they are our objects of study, they are no longer mind dependent: we study them as objective entities.

6 An anonymous referee who has made constructive and useful comments on some aspects of this chapter has made the following observation with regard to my discussion concerning the culturalist/interpretivist position: while Dilthey was not a direct participant in this debate [i.e. radical distinction between PBS and HSS], his position that the human sciences were radically ontologically different from the natural sciences was strongly opposed by Max Weber – whose influence on the interpretive current has been far stronger than Dilthey's – and other neo-Kantians (e.g. Rickert) who argued for the ontological similarity between the natural and social sciences. Weber and the neo-Kantians argue that the *Naturwissenschaften* and the *Sozialwissenschaften* are ontologically similar, and only differ with respect to their process of concept formation. . . . Moreover, Weber, who was not an advocate of hermeneutics per se, also did not wish to restrict *verstehen* to its psychological roots (i.e. empathy) because he regarded the *Sozialwissenschaften* as ontologically similar to the *Naturwissenschaften* (as pointed out above) and sought to duplicate their level of objectivity even as he sought to defend the legitimacy of *verstehen*. The difficulty for Weber was two-fold: one, to argue for objectivity in the *Sozialwissenschaften* whilst also holding onto the ideal of *verstehen*; two, to take *verstehen* out of its psychological basis and to locate it in empirical social reality.

The above observation invites further explanation. As the referee has pointed out, the views of Weber who has exerted a good deal of influence on the culturalist/interpretivist trend, was more nuanced with regard to the radical difference between PBS and HSS. But even his views, which had many things in common with critical rationalism and were different from the views of radical interpretivists/culturalists, were not exactly up to the mark as critical rationalists would expect. As Malachi Haim Hacohen has observed, Weber subscribed to 'historical relativism', albeit a nuanced one (Hacohen, 2002: 476). And despite rejecting the distinction made by the like of Dilthey and Rickert between explanation and interpretation, maintained that 'social science was interpretive (*verstehende*)' (Hacohen 2002, 474). He 'accepted the Neo-Kantian view that "value relevance" constituted the objects of social research' (Hacohen, 2002: 474). For Popper, however, value relevance "added nothing 'to the methodological analysis.' Scientists were interested in phenomena for multiple reasons, and this made no difference for procedure" (Hacohen, 2002: 473). Popper notes:

Meyer writes . . . 'The selection of facts depends upon the historical interest taken by those living at the present time, . . . '. Weber writes . . . 'Our . . . interest . . . will determine the range of cultural values which determines . . . history.' . . .

Weber, following Rickert, repeatedly insists that our interest, in turn, depends upon ideas of value; in this he is certainly not wrong, but he does not add anything to the methodological analysis. None of these authors, however, draw the revolutionary consequence that, since all history depends upon our interest, *there can be only histories, and never a 'history'*, a story of the development of mankind 'as it happened' (Popper [1945] 1966, 731n9; emphasis in the original).

Popper also notes that:

Weber always rightly emphasised that history is interested in *singular events*, not in universal laws, and that, *at the same time*, it is interested in *causal explanation*. Unfortunately, however, these correct views led him to turn repeatedly . . . against the view that causality is bound up with universal laws (Popper, [1945] 1966: 730n7; emphasis in the original).

7   The conversion of a singular (existential) statement into a general (universal) statement is of course based on a simple logical rule: $\exists x\ (Fx\ \&\ Gx\ \&\ Kx) \leftrightarrow \forall x\ (Fx \rightarrow (Gx\ \&\ Kx))$. Needless to say, such general claims are as, Popper ([1945] 1966: 689) has noted, 'of hypothetical character and must be tested'. The arguments in the paragraph in the text are mostly based on Ben-Israel (1989).

8   According to Losee (2001: 104), Herschel (1830) made a clear distinction between the context of discovery and the context of assessment of conjectures. Losee writes, "He [Herschel] insisted that the procedure used to formulate a theory is strictly irrelevant to the question of its acceptability."

9   Of course, we talk about 'Greek philosophy' or 'Polish logic' or 'Islamic astronomy' and so on. What is meant in such cases are intellectuals constructs developed by individuals who happen to be Greek, Polish, Muslim and so on. As has explained in the text, all genuine knowledge/ science claims are regarded as true assertions about various aspects of reality. They are true in the sense that they correspond to the reality aspect in question. Such claims represent the 'reality' in question in a truthful way. If they, instead, reflect scientists/scholars' personal biases, ideological preferences, cultural traditions, they can no longer be regarded as genuine and truthful knowledge claims. Knowledge claims, if true, are universal, and do not belong to any particular way of life, religion, ideology, culture, paradigm, tradition, civilisation and so on. Of course, scientists/ scholars' personal biases, ideological preferences, cultural traditions can be the subject matter of proper scientific research. But is this case, once again, the outcome of such research must be objective, that is, publicly accessible and publicly assessable.

10   See Chapter 5.

11   In this section I draw to some extent on some of my earlier papers, including Paya (2012b, 2013b). For critical assessments of the views of some of well-known earlier advocates of cIS see Stenberg (1996); Abaza (2002). For earlier works on Iok, see Al-Attas (1979); International Institute of Islamic Thought ([1982] 1988; [1982] 1995); Nasr (1989).

12   One may raise an objection to the above argument in the following way: a religious person might say that the pious scientist does not need luck, since he or she is inspired by God. That is the difference. (I owe this point to David Miller.) But the above reasoning is rather fallacious. God rewards only those who, when faced with a challenge or problem, work hard and in a systematic and appropriate manner towards meeting the challenge/finding a solution for the problem. No amount of prayer in the absence of a proper approach to the challenge/ problem in question will act as a magic wand. Moreover, even if a believer does his or her best to meet the challenge in question, there is still no guarantee that he or she will find the correct solution. The right solution for Fermat's last theorem had to wait three centuries to be found.

13   See Chapter 2.

5 *Faqih* as engineer

A critical assessment of *Fiqh*'s epistemological status

I Introduction

In his *Ihsa al-Ulum*[1] (*The Enumeration of the Sciences*), Farabi (c. 870–950)[2] presents the first comprehensive classification of the sciences of his day. He categorised the known sciences of Islamic civilisation's intellectual ecosystem into five categories:

I   [The] Science of Language: Syntax, grammar, pronunciation and speech, poetry
II   Logic (including oratory [rhetoric] and the study of poetry)
III The Preliminary Sciences: 1. Arithmetic: Practical and theoretical; 2. Geometry: Practical and theoretical; 3. Optics; 4. [The] Science of the heavens: Astrology and Astronomy; 5. Music: Practical and theoretical; 6. [The] Science of weights; and 7. Science of tool-making
IV   Physics (sciences of nature) and Metaphysics (sciences concerned with the Divine and the principles of things)
V   [The] Sciences of Society: 1. Politics, 2. Jurisprudence (law or *fiqh*), and 3. Theology (dialectics or *kalam*[3] [apology]) (Farabi, [c.935] 2008 quoted in Nasr, [1968] 2001: 60–2)[4]

Interestingly enough he refers to both *fiqh* and *kalam* as *sana'ah*,[5] i.e. a technique or technology (Farabi, [935] 2008: p. 85).[6] The technology of *fiqh* enables human beings to infer and determine those issues that the Law-maker (*wadi' al-shari'a*)[7] left unspecified by referring to what is explicitly determined and to endeavor to correct their inferences according to the Lawmaker's intention (Farabi, [935] 2008: 85).

Similarly, Ghazzali (1058–1111) divides knowledge into several different but overlapping general categories in the first book of his *Ihya al-Ulum al-Din*[8] *(Revival of the Sciences of Religion)*, which deals with knowledge (*kitab al-ilm*)[9] (Ghazzali, [1098] 1962). In each of these categories, further subcategories are introduced and contrasted with each other. The first category consists of two subcategories: *fard ayn* (*wajib-e ayni*;[10] absolutely obligatory) vs. *fard kifayah (wajib-e kifayi*;[11] conditionally obligatory). The

former refers to the knowledge Muslims are obliged to study; the latter denotes knowledge that is not obligatory upon everyone (Ghazzali, [1098] 1962: Sec. 2, pp. 23–40). In this case, if even one member of the community studies such knowledge, then no one else is religiously obliged to do so.

The second category contrasts two subcategories: religious (*shar'i*)[12] and non-religious (*ghayr shar'i*) knowledge. This latter subcategory is divided into three further sub-categories: praiseworthy (*mahmud*),[13] blameworthy (*mazmum*)[14] and permissible (*mubah*)[15] (Ghazzali, [1098] 1962: p. 30). Ghazzali defines praiseworthy knowledge as "that upon which the activities of this life depend, such as medicine and arithmetic. They are divided into sciences the acquisition of the knowledge of which is *fard kifayah* and the sciences the acquisition of the knowledge of which is meritorious though not obligatory" (Ghazzali, [1098] 1962: p. 30). He goes on to state,

> [Those] sacred sciences that are intended in this study are all praiseworthy (*mahmud*). Sometimes, however, they may be confused with what may be taken for praiseworthy but, in fact, are blameworthy. For this reason sacred sciences are divided into praiseworthy and blameworthy sciences. The praiseworthy sciences comprise sources (*usul*),[16] branches (*furu'*),[17] auxiliary (*muqaddimat*),[18] and supplementary (*mutammimat*).[19]
>
> (Ghazzali, [1098] 1962: p. 31)

According to Ghazzali, the sources are the Qur'an, the Sunnah (the Prophet's sayings and deeds), the agreement or consensus of all Muslim scholars (*ijmā'*) and the traditions related by the Companions (*athar al-Sahabah*).[20] Furu', which are drawn from these sources, are of two kinds: "The first kind pertains to the activities of this world and is contained in the books of *fiqh* and entrusted to *fuqaha*, the learned men of this world; the second pertains to the activities of the hereafter" (Ghazzali, [1098] 1962: p. 31). Having clarified the *fuqahas* position, Ghazzali states, "Upon my life I declare that jurisprudence is also connected with religion, not directly but indirectly through the affairs of this world, because this world is the preparation for the hereafter, and there is no religion without it" (Ghazzali, [1098] 1962: p. 33).

The above examples suggest that Muslim scholars knew that *fiqh* belongs to the field of 'applied sciences'.[21] Nevertheless, it seems that the majority of *fuqaha* have not fully appreciated the significance of this important point. Despite the fact that Muslim philosophers, scientists, theologians, historians, interpreters of the Qur'an and mystics have stressed the importance of theoretical approaches for understanding Islam's core message and to live as true Muslims, it seems that as far as the majority of Muslims are concerned, theoretical deliberations have not seriously challenged the dominance of the jurisprudential approach.

As a result, to a large extent, the ecosystem of traditional Islamic culture has been shaped by the dominant legalistic trend, which has badly affected

its diversity and plurality and has caused it to remain severely underdeveloped. Since all legal systems, religious or otherwise, belong to the realm of technology, the dominance of legal systems implies the subordination or even the diminishing of knowledge-garnering pursuits via technological activities. But ironically, in the absence of the healthy development of such knowledge-oriented activities, technological disciplines and practices also suffer and become impoverished. The end result is the general impoverishment of the whole eco-system.

I argue here that the misconception of (at least some of) the *fuqaha* (and perhaps some other scholars) with regard to *fiqh's* epistemological status has played a major role in its emergence as the Muslim world's dominant intellectual discipline. Of course, this epistemological deficit should not be regarded as the sole contributory factor to *fiqh's* rise. Other causes and factors should also be taken into account, among them the political interests of powerful groups and actors along with the general public's unawareness of its responsibilities and rights in the community and vis-à-vis policymakers. However, for the purpose of the present chapter and in view of the fact that social, political and economic aspects of its ascendency have already received some attention,[22] I limit the scope of my study to the misconception of *fiqh's* epistemic status.

In what follows, since I have already discussed the differences between science (knowledge) and technology in the Introduction to the book, I make use of the arguments made there to explain why *fiqh* belongs to the broad category of technologies as opposed to the category of sciences (knowledge) proper.

To make this point clearer, I will expound upon the main characteristics of engineering as a particular field within the broad church of technologies and briefly explain the main characteristics of a branch of technology/engineering, which somewhat misleadingly has been labeled as the realm of 'applied sciences'. I argue that the meanings attached to engineering and applied sciences have changed greatly over time. While both are part of technology, the narrowed modern meaning of applied sciences now refers to a particular activity that may be regarded as only a part of engineering in the general sense.

Engineering, as will be discussed in Section II, is a far richer activity. So while engineering may once have had a more limited meaning and the scope of applied sciences may have been wider, in modern times this situation has changed rather drastically. In this respect, the *sana'ah*[23] of *fiqh* can no longer be identified as an applied science (as had been suggested by the like of Farabi and Ghazzali). In Section III, I posit that *fiqh* could be regarded (with some provisos) as a branch of soft engineering. To sharpen the focus of my discussion, I clarify the differences among *fiqh, shari'a, usul al-fiqh and maqasid al-shari'a*[24] and then highlight the implications of this categorisation by drawing parallels between how these two groups of experts, namely fuqaha and engineers, perform their jobs.

II On engineering

Engineering belongs to the broad church of technology. In line with the main objectives of technological activities, engineers in all fields either respond to people's non-cognitive needs or provide tools to assist pursuit of knowledge in various fields. Nevertheless, despite sharing the main objectives of all technologies, it differs from other types of technologies. For example, politicians, managers, mayors, shopkeepers, door-to-door salesmen and bankers are all technologists, but they are not engineers.

Another term that needs to be explained in this context is *applied science*, which, notwithstanding the label *science*, belongs to the realm of technology. Even a cursory glance at the history of ideas reveals that the meanings of *technology, engineering* and *applied sciences* have changed over time. Technology is related to the Greek concept *techne*. "This concept and its Latin equivalent, *ars*, encompassed a broad range of activities – rhetoric as well as carpentry, medicine as well as sculpture" (Schatzberg, 2012: 556). "The phrase 'applied science' . . . had been coined by Samuel Taylor Coleridge in 1817, translating the German Kantian term *'angewandte Wissenschaft'* " (Bud, 2012: 537). The term *engineering* also has a chequered past. Since the mid-nineteenth century, when the phrase *engineering sciences* (probably as a translation of *Ingenieurwissenschaft*) was introduced into Britain, its meaning has evolved considerably (Kline, 1995).

Some writers maintain that *applied science* no longer serves a useful purpose and thus should be dropped to avoid the wrong implication that it is about some sort of knowledge (Miller, 2009). I agree with this sensible suggestion; however, because the term is still used by some, I suggest that one should bear in mind the following points: (1) applied sciences are part of technology and do not belong to the category of science/knowledge, and (2) the boundary between them and engineering is not rigid. Other writers maintain that an 'applied scientist's' main task is to ascertain whether a particular theory can be applied to a particular problem (Agassi, 1966). In other words, his/her task is to determine whether or not a particular practical problem could be deduced as one consequence of a certain theory (or technological law). To do this, he/she needs to find suitable initial and boundary conditions that can serve as the minor premises of a deduction in which the theory (or the technological law) is the major premise (Agassi, 1966). However, an applied scientist can only deduce the theory's 'in principle' applicability, a task that can be regarded as a part of modern engineering.

An engineer's main task is to turn an 'in principle' solution into an actual solution by relying on abilities and techniques that are highly practical and not based on rule-following procedures. A case in point is an electronic engineer who wants to construct an amplifier (Cartwright, 1983: 101–12). An 'applied scientist' or an engineer working in that capacity would develop a model based on a deduction from theories (laws) of the circuit elements

(e.g. transistors, capacitors, resistances and inductors) that are, in turn, based on the basic laws of electromagnetics. The model, thus calculated, represents an 'in principle' solution. Now, to *actually* produce an amplifier that works properly, an engineer usually makes several local changes in the calculated values of the circuit elements while taking into consideration a certain degree of tolerance for the prescribed values. In doing so, he/she deviates to some extent from the original values and design that had been developed with the help of the original theory. These changes in the model, or in any other device or system for that matter, represent the contextual and environmental requirements that the device or the system have to fulfill.

The construction of the iconic Sydney Opera House is another typical example of the intricacies involved in engineering. When Danish architect Jørn Oberg Utzon presented his plan in 1958, he had taken into account the nitty-gritties of the laws dealing with static and structural engineering. These technological/phenomenological laws were, in turn, based on the fundamental laws of Newtonian mechanics and other basic sciences. However, actually building it took the construction firm Civil & Civic, monitored by the engineers Ove Arup and Partners, fifteen years of extremely hard work and involved thousands of ingenious tricks and techniques that could not be found in any textbook (Sydney Opera House, n.d.)).

While pursuing their education and training, engineers learn a great deal of basic science and mathematics. They are then exposed to the sort of technical knowledge needed to solve problems. Since engineers deal only with practical problems, the knowledge they need differs from pure theoretical knowledge. Part of what they know can be derived from theoretical knowledge indirectly through engineering textbooks, which are full of such valuable derived knowledge that can be used to design effective devices and systems. This part of their knowledge can be termed the *knowledge of phenomenological laws*, which is the knowledge used by applied scientists or engineers working as applied scientists. Phenomenological/technological laws, as stated above, are based on the more fundamental laws of pure science.

However, engineers need more than just a knowledge of phenomenological laws in particular fields if they are to become good problem solvers. They also need to know what Gilbert Ryle, somewhat misleadingly, called *knowledge how* or *know how*, which differs from the *knowledge why* or *know why* of pure scientists (Ryle, 1949: 41). *Knowledge how* is the knowledge of how to perform things, how to design an appropriate solution. Herbert Simon has explained the differences between science and engineering as "[w]hile science deals with how things are, engineering deals with what things ought to be" (Simon, 1969, quoted in Channell, 1991: 573).

Knowledge how can be taught by observing a master or an expert directly or, in some cases and to some extent, by a reading the instruction booklet pre-pared by the relevant experts. Recipes for certain dishes; how to drive

cars, swim or make dresses; and how to operate a washing machine, a dish washer or a camera – all of these examples show that know-how takes different shapes, forms and degrees of complexity. To varying degrees, all people possess this type of knowledge, defined as the ability to construct or change reality. Engineers, however, are expected to apply this knowledge to complex engineering systems based upon their aptitude and ability to do so. This ability very much depends upon a sound and constructive relationship between one's hands and one's mind/brain.

It also emerges after actual wrestling with specific problems. Here, the guidance of a master or expert could greatly help the novice better develop his/her grasp of the particular *knowledge how* in question. But people, even when exposed to the same regime of theoretical and applied education and training, show varying degrees of mastery. A good engineer is one who has a developed vision, insight, intuition, ability or aptitude that allows him/her to 'see' the solution for a particular problem in a particular problem-situation. This ability sets him/her apart from his/her peers.

The British engineer G. F. C. Rogers states that "[e]ngineering refers to the practice of organizing the design and construction [and operation] of any artifice which transforms the physical world around us to meet some recognized need" (Rogers, 1983: ch. 3, quoted in Vincenti, 1993: p. 6).[25] In other words, an engineer's main tasks are to organise, in the sense of devising appropriate designs for particular problems (planning and design); translate the designs into finished constructs or products (construction); and then use the constructed artifice to meet the recognised need (operation) (Vincenti, 1993: p. 6). It must be emphasised here that construction does not only signify material products, but denotes non-tangible or less-tangible products, such as organisations, systems, algorithms and sets of rules and practices.

Drawing on Thomas Kuhn's distinction between *normal science* and *revolutionary science* (Kuhn, 1970), some writers have distinguished between *normal technology* and *normal design* and *revolutionary technology* and *radical design* (Vincenti, 1993). Kuhn defined normal science as "a puzzle-solving activity" (Kuhn, 1970), meaning a routine activity of deducing particular solutions for particular problems in light of the established laws in the particular paradigm guiding the normal scientists' activities.[26] Revolutionary science refers to the periods of radical conceptual change and paradigm shift (Kuhn, 1970). As the above definition implies, Kuhn reduced science to applied science, which is part of technology.

Edward Constant defined normal technology as "what technological communities usually do," as comprising "the improvement of the accepted tradition or its application under 'new or more stringent conditions'" (Constant, 1980, quoted in Vincenti, 1993: p. 7). Walter Vincenti defined normal design as "the design involved in such normal technology. The engineer engaged in such design knows at the outset how the device in question works,

what are its customary features" (Vincenti, 1993: p. 7). But radical design is very different, for "how the device should be arranged or even how it works is largely unknown. The designer has never seen such a device before. . . . The problem is to design something that will function well enough to warrant further development" (Vincenti, 1993: p. 8).

Normal design is an evolutionary process, for improvements to the existing solutions come in a gradual and piecemeal manner. Gradual changes in the environment that are being absorbed by osmosis prepare the ground for further subtle changes to existing solutions and devices. It must be emphasised that just as in normal science, normal technology and normal design comprise the bulk of day-to-day ongoing activities in applied science, technology and engineering. As one expert said, "For every highly innovative design engineer there are thousands of useful and productive engineers designing from combinations of off-the-shelf technologies that are then tested, adjusted, and refined until they work satisfactorily" (Vincenti, 1993: p. 8).

III The *Faqih* as engineer

To avoid any misunderstanding, I will now clarify the relationship between fiqh and several closely related disciplines and concepts, namely, *usul al-fiqh, shari'a, maqasid al-shari'a*,[27] *mujtahid*, mufti and fatwa. I begin with a very general definition, which will be followed by a more technical definition when discussing the *fiqh*'s link to engineering.

> *Fiqh* is a term for Islamic law, particularly as it is interpreted and implemented by legal experts from among the *Ulama*.[28] Whereas the *shari'a* is ideally the comprehensive body of law ordained by God, *fiqh* involves Muslims' commitment to understand God's law and make it relevant to their lives. As such, it is a religious form of what is called "jurisprudence" in the West, and it extends its reach from matters of worship to detailed aspects of everyday conduct. A member of the *Ulama* who is trained in *fiqh* is called a *faqih* (jurist).
>
> (Campo, 2009: p. 238)

A closely related notion, and one that is often mistakenly identified with it, is Shari'a,[29] which incorporates all of the laws introduced through the Qur'an and the Sunnah (the Prophet's saying and deeds). The Shi'a have an additional source: their Imams whom they regard to be infallible. *Usul al-fiqh* is a semantic-hermeneutical tool that helps *fuqaha* formulate their expert opinions concerning *shar'ī* problems. Wael Hallaq suggests the following definition: "[A] discipline or a field of study specializing in methods of interpretation and reasoning . . . with the aim of arriving at new legal norms for unprecedented cases or rationalizing existing ones" (Hallaq, 2009: p. 177).

The *maqasid al-shari'ah* signify the aims and objectives that the supreme Lawmaker, God, intended to be achieved by implementing the *Shari'a*. Mohammad Hashim Kamali has made the following observation:

> Generally the Shari'a is predicated on the benefits of the individual and that of the community, and its laws are designed so as to protect these benefits and facilitate improvement and perfection of the conditions of human life on earth. . . . The underlying theme in virtually all of the broad spectrum of the *ahkam*[30] is realisation of benefit (*maslahah*)[31] which is regarded as the *summa* of the *maqasid*.[32] . . . The *masalih*[33] (pl. of *maslahah*) thus become another name for *maqasid* and the *ulama* have used the two terms almost interchangeably. The *ulama* have classified the entire range of *masalih–cum–maqasid* into three categories in a descending order of importance, beginning with the essential *masalih*, or *daruriyyat*,[34] followed by the complementary benefits, or *hajiyyat*,[35] and then the embellishments, or *tahsiniyyat*.[36] The essential interests are enumerated at five, namely faith, life, lineage, intellect and property. . . . The essential *masalih*, in other words, constitute an all-encompassing theme of the *Shari'a* as all of its laws are in one way or another related to the protection of these benefits. These benefits are an embodiment, in the meantime, of the primary and overriding objectives of the *Shari'a*.
>
> (Kamali, 2008: pp. 1–4)

Fiqh is also related to *ijtihād*, a procedure undertaken by a learned jurist or a *faqih* that applies *fiqhi* (*fiqh*-based) and *usuli* (*usul*-based) methods of interpretation and reasoning to derive appropriate fatwas from the Shari'a. The person who does this is known as a *mujtahid*. This term is mostly (though not exclusively) used by Shi'is; Sunnis use *mufti*. *Fuqaha, mujtahids* and *muftis* are ranked in a hierarchical manner.[37]

From the above, it is clear that none of these briefly introduced terms, concepts, practices and disciplines deal with Muslims' cognitive/epistemic needs in a direct way. Rather, they all respond to Muslims' non-cognitive needs or (possibly) facilitate (as tools and instruments only) their cognitive pursuits. In this sense, they all belong to the general category of technology.[38] Among these technologies, *fiqh* has a particular status. I will now discuss this status.

My contention that a *faqih* is an engineer can be better understood if we compare both of their tasks. In his *Qawa'id-Fiqhi*[39] (*The General Rules of Fiqh*), Mahmoud Shahabi defines *fiqh* as

> *ilm-e* [sic.] *fiqh* (the science or discipline of *fiqh*) has been established to discuss the five types of rulings related to prescribed duties (*ahkam taklifi*)[40] (namely, obligation (*wujub*)[41] recommendation (*istishab*),[42]

prohibition (*hormat*),[43] discouragement (*kirahat*),[44] and permissibility (*ibahe*))[45] and the declaratory or conventional laws (*ahkam wad'i*)[46] (such as being a cause (*sababiyat*), being a condition (*shartiyat*),[47] being an obstacle (*mane'iyat*),[48] validity (*sihhat*),[49] and non-validity (*fisad*)).[50]

(Shahabi, 1962: p. 6)

Both *faqih* and engineer deal with practical issues. In addition, the categories determining the boundary of a *faqih's* activities, namely, the five types of religious duties, resemble those that determine the boundary of engineering activities.[51] The same could be said about a physician or a surgeon, for all of these people deal with practical problems for particular problem-situations and are involved in the triad processes of normal design, construction, and operation/application.

Many Muslim scholars have noted that *fiqh* and medicine are, to some extent, similar. The contrast between *al-tibb al-ruhani*[52] (spiritual medicine) and *al-tibb al-jismani*[53] (corporeal medicine) is a constant theme in Islamic culture. In his *Ihya al-Ulum al-Din,* Ghazzali, after defining *fiqh* as a type of [applied] science, like medicine, whose acqsition is conditionally obligatory (*fard kifayah/wajib kifayi*),[54] preempts a possible objection to his approach via an imaginary dialogue with his reader:

> If you should say, "why have you regarded medicine and jurisprudence in the same way when medicine pertains to the affairs of this world, namely the welfare of the body, while upon jurisprudence depends the welfare of religion . . .?" then know that . . . in fact the two sciences differ. Jurisprudence is superior to medicine on three counts; first because it is religious knowledge and unlike medicine, which is not religious knowledge, jurisprudence is derived from prophecy; second, it is superior to medicine because no one of those who are treading the road to the hereafter can do without it, neither the healthy nor the ailing; while on the other hand only the sick, who are a minority, need medicine; thirdly, because jurisprudence is akin to the science of the road of the hereafter, . . .
>
> (Ghazzali: [1082] 1962, p. 39)

His argument for *fiqh's* superiority over medicine is interesting in that it shows an epistemic attitude that does not favor temporal sciences and technologies. Such an attitude, which can be seen both among *fuqaha* and mystics (Ghazzali belonged to both groups) has had a continuous and seriously negative impact upon the healthy development of science and technology in Islamic culture's ecosystem.[55] The negative epistemological impact of *fiqh* being the most prestigious discipline is exacerbated by the fact that its practitioners' power and social status have caused the majority of Muslim seminary students to regard it as the most attractive discipline. Thus other disciplines of 'the Islamic sciences' did not receive the attention they deserved. But

Ghazzali's argument, regardless of its epistemic attitude, cannot conceal the fact that *fiqh*, like medicine, is a type of engineering.

One can also argue that like engineers, *fuqaha* attend to specific problems that respond to people's non-cognitive needs or facilitate their cognitive needs within the sphere of religious outlook and network of religious beliefs. For example, *fiqh* explains how to perform the required ablutions and prayers, fulfill the pilgrimage, conduct business transactions and many similar issues according to the general rules of *fiqh* and *masail al-fiqh*[56] (problems of *fiqh*). These rules and problems resemble engineering's phenomenological laws and, in turn, are 'derived' from the main sources, namely the Qur'an, the Sunna (traditions) of the Prophet and Imams (the latter for the Shi'as only), *'aql* (intellect) and *ijma*'[57] (consensus of the jurists).

Importantly, the differences between the *fiqhi* (*fiqh*-based) schools have no impact on the general nature of this practice as a branch of soft engineering. Any differences that might appear in their fatwas pertain to the specific content of their specific rulings. However, there are differences in terms of general methodology and epistemology. To better appreciate this point, consider the following example: German, French, Italian, Japanese, American and Russian mechanical engineers produce many types and models of cars, but all of them, regardless of their varied appearances and efficiencies, obey the same phenomenological/technological laws. In other words, these differences are due solely to the engineers' implementation of these laws in ways which are informed by their own personal social, economic and cultural considerations.

Both a *faqih* and an engineer are trained to acquire the basic tools for practical problem-solving. He (mostly he, since there are very few female *fuqaha, mujtahids* and *muftis*) is not trying to solve fundamental epistemic or abstract doctrinal issues, for his concern is purely practical. And yet he can only solve practical problems if he has acquired a certain level of theoretical background knowledge (e.g. doctrinal, theological, philosophical, historical and even scientific) with respect to the problems in question.

Like engineers, *fuqaha* adjust their solutions to the problem-situations and the contexts within which they are expected to be used. For example, religious edicts concerning prayer and fasting in places like Scandinavia differ from the same edicts for places nearer to Saudi Arabia. A recent dispute over fasting during long, hot summer days brought differences among the Iranian *fuqaha* into sharp focus. An edict issued by Ayatollah Bayat Zanjani declared,

> With reference to the *mawthawqih* (trusted news) of 'Ammar and the report (*rawāyat*) of Mufaddal ibn 'Omar of Imam Sadiq which is included in the chapter 16 of *Wasa'il al-Shi'a*,[58] in the section entitled "The One Whose Fasting Is Correct," those who fast but cannot endure thirst can drink water, but only to a minimal extent that quenches their

thirst. In this case, their fasting is not invalid and does not need to be repeated.

(Zanjani, 2013)

In an explicit and unexpected reaction to the above edict, Ayatollah Makarem Shirazi warned the public that such fatwas should be ignored (Makerem Shirazi, 2013). Similarly, Yusuf al-Qaradawi's[59] fiqhī ruling for Muslim minorities in Europe, which permits them to connect *salat al-zuhr* (mid-day prayer)[60] and *salat al-asr* (later-afternoon prayer),[61] as well as *salat al-maghrib* (early-evening prayer)[62] and *salat al-isha* (late-evening prayer),[63] by performing the second prayer immediately one after the first one, has generated controversy among the more traditional Sunni fuqaha and muftis (al-Qaradawi, 2001).[64]

Such rulings belong to an emerging branch of *fiqh* known as *fiqh al-aqalliyat*[65] (the jurisprudence of Muslim minorities) and more vividly demonstrate the contextual nature of a *faqih*'s activities.[66] Another example is Ayatollah Sistani's collection of fatwas for his followers living in the West (Al-Seestani, 1999). The nuances of these religious edicts are not always the same for those of his followers who live, for example, in Iraq. This reality clearly shows *fiqh*'s pragmatic nature, some of which is seen in the way *fuqaha* change their fatwas in response to changing circumstances or even to changes in their own considerations.

Said Fares Hassan discusses one such example in the case of Al-Qaradawi, who has given two different fatwas to two almost identical religious question, namely, if a Muslim living in a non-Muslim environment can accept the invitation of his non-Muslim friends, neighbors or colleagues:

> The first question comes from a Muslim student writing a research paper on the issue of dealing with non-Muslim neighbors in a non-Islamic polity. To complete his research, the student asked al-Qaradawi about the legal ruling pertaining to an invitation of a non-Muslim to his Muslim neighbor to have food with him. Having the possibility of serving alcohol on the table, the student asked, what the Muslim should do. Can he accept the invitation and sit at the table with the intention of making *da'wah*?[67] Al-Qaradawi responds that a Muslim should not accept the invitation if he knows that there will be prohibited things served, especially if he cannot change that. . . . The second question comes from Muslim immigrants in Japan asking about accepting an invitation from their non-Muslim coworkers or neighbors to attend their social gatherings. The questioner indicates that accepting the invitation will strengthen the relationships and facilitate the *da'wah*. Al-Qaradawi's approach is completely different. First he elaborates the different categories of prohibited commandments, to end up arguing that the prohibition of attending the gatherings that have, for example, wine served is meant "to block the forbidden" and not forbidden in itself. If this is the case, al-Qaradawi argues, "it is permissible [to attend such gatherings]

due to the need to befriend the people and strengthen their relationships with Muslims as well as freeing Muslims from the prison of isolation so that they would have a presence and an impact in the society."

(Hassan, 2013: 81–82)

Hassan has correctly noted the pragmatic nature of al-Qaradawi's approach which, of course, stems from the pragmatic orientation *fiqh*, a discipline or technology for solving practical problems, has been developed (Hassan, 2013: 81).

A more recent example is the change in the fatwa issued in 2005 by Egypt's then grand mufti Ali Gom'a as to whether Muslim men can attend a prayer led by a Muslim woman (Gom'a, 2005).[68]

Like engineers, some *fuqaha* are sharper than others and more competent in producing effective solutions. The nuances contained within their edicts with regard to the same problems are therefore the result of two sets of factors: individual ability and, as suggested above, the particular problem – situations with which they deal. A faqih's socioeconomic background and his intellectual and cultural upbringing, as well as the milieu in which he operates, also influence his proposed solutions. Ayatollah Morteza Motahhari highlighted this issue thus:

> If one compares the fatwas of *fuqaha* and also takes into consideration their personal history and their attitude toward real life issues, one would see that how the *faqih*'s background knowledge and his information and understanding of the real world influence his fatwas. To the extent that the edict of an Arab *faqih* has the smell of Arab, and the fatwa of a non-Arab has the smell of non-Arab, the edict of a rural *faqih* has the smell of rural areas and the fatwa of an urban *faqih* has the smell of urban areas.

(Motahhari, 1983: p. 122)

An example here is the differences between the views of the Lebanese mujtahid Ayatollah Seyyed Hossein Fadlullah[69] and the Iraqi mujtahid Ayatollah Seyyed Sadiq Shirazi. The former maintained that self-flagellation and using blades during the mourning ceremonies in 'Ashura is forbidden, whereas the latter ruled that such acts are recommended (Fadlullah, 1999; Sadiq Shirazi, 2013).

Engineers distinguish between optimisation and satisficing. The latter term refers not to the best solution, but to the one that is satisfactory (Vincenti, 1993: p. 220). To some extent, this resembles the difference between two types of *fiqhi* (*fiqh*-based) edicts, namely, *wajib* (obligatory), which indicates that the faqih thinks he has reached an ideal understanding of the relevant religious verdict, and *al-ihtiya al-wajib*[70] (obligation to exercise caution in applying the edict), which implies that he doubts its correctness. Thus he allows his followers to follow another fatwa that might be more

satisfactory in their particular circumstances. A case in point is those fatwas that regard the People of the Book (*Ahl al-Kitab*)[71] as *tahir*[72] (clean). For followers of these *fuqaha* who happen to have an *Ahl al-Kitab* stepmother or a stepfather, living under one roof with their parents would become almost impossible. In such cases, if the faqih's fatwa is *al-ihtiat al-wajib*, then the follower could turn to another faqih who regards the *Ahl al-Kitab as tahir*.[73]

Like engineers, *fuqaha* can produce effective solutions only if they use more than mere conceptual frameworks and intellectual arguments. For instance, they often need to reconstruct the problem-situation to get a better grasp of the issues and the proposed solutions' suitability. The story of Allameh Hilli[74] (1250–1325) and his edict concerning the uncleanliness of well water is relevant here. Until his ruling, all Shi'a mujtahids had held that if a dead animal were found in a well, a certain amount of its water had to be removed before the rest of it could be regarded as clean and fit for drinking or washing. Allameh, however, opined that this ruling was only recommend and preferable. When faced with this very situation, he ordered his servants to cover the well and not to use its water so he could study the problem-situation without any self-interest. After this procedure, he decided that his earlier ruling was sound (Motahhari, 1977).

The majority of *fuqaha* and engineers are engaged in "normal design" activities, meaning that they use their expertise to gradually improve upon existing solutions or introduce other solutions based on a new arrangement of the existing know-how or solutions to the known problems. A case in point is the fatwa of Ayatollah Saanei[75] concerning a new type of ghusl (a type of religious ritual of washing) called "the ghusl in lieu of wudu'" (obligatory washing ritual before daily prayers) (Saanei, 2014).

In contrast to the 'normal' *fuqaha*, the number of founding jurists (*al-fuqaha al-muassissun*)[76] is very limited. Founding jurists are those great innovative individuals who deal with issues that have no precedent and are of great importance and gravity. These innovative *fuqaha* suggest groundbreaking solutions and thus pave the way for substantial conceptual developments. The founding mujtahids of the four Sunni schools are good examples of this second category. A more recent example of a founding jurist is Ayatollah Khomeini, who developed the theory of 'the guardianship of the *faqih*' and issued some revolutionary edicts with regard to the role of an Islamic government. One such edict was that the government can oblige the faithful to abandon their routine religious duties (e.g. daily prayers or hajj) for as long as it deems doing so to be necessary (Paya, 2006).

Even a cursory glance at the collections of religious edicts, known as *majmu fatawa*[77] among the Sunnis and *tawdih al-masail*[78] among the Shi'as, clearly shows that these texts, which resemble the handbooks and manuals published by engineers to teach the end users how to operate various devices, machines or systems, always undergo subtle changes. This is to be expected, because some instructions become obsolete due to changes in the intellectual and technological/practical environments and new instructions

are added to deal with new issues (*al-masail al-mustahdithah*).[79] Two examples here are atoning for one's sins by freeing a slave (now irrelevant) and the acceptability of IVF treatment for barren couples (a new issue).

Another similarity between *fuqaha* and many engineers is that they both, rather mistakenly, think that they rely on inductive reasoning for devising solutions.[80] In both disciplines, problems at the higher level of abstraction are more conceptual and relatively less structured, whereas those at a lower level are more or less well-defined. The influence of the ambience and environment is greater at the upper levels of the design process in both *fiqh* and engineering, whereas the influence of the context on this process at the lower levels is usually minimal.

Another important similarity is that both groups seek to achieve certainty. This is not a goal for theoretical researchers, however, because they are only concerned with epistemic value. Certainty belongs to the realm of personal psychology and thus only confirms/affirms what one already knows (Miller, 2006a). The following example is instructive here. Suppose an individual has booked a flight to Makkah. The airline has informed him/her of the relevant details. Now, if a day before the flight he/she contacts the airline and asks them to confirm the flight's details, assuming that nothing has changed, their response does not add an iota to the passenger's knowledge about the flight, but only provides psychological reassurance. To achieve certainty, engineers usually increase the margin of safety well beyond the calculated values, whereas *fuqaha* rely on their subjective sensitivities in light of acquiring more confirming evidence.

One point that needs to be clarified here is that *fuqaha* famously claim that the "task of *faqih* is to obtain expert knowledge (know-how) about *fiqhi* topics and not their specific instances". This is reflected in how they formulate their fatwas, which usually take the form of a hypothetical statements: "If what is stated in the question (*istifta*)[81] is the case, then the fatwa (*hukm*[82] [judgment]) would be . . ." On this basis, some may argue that their approach differs from that of the engineers. But a closer look at the issue shows that this claim is incorrect.[83]

Unfortunately, the expression "identification of topics rather than instances" is misleading. This is a good example of what Wittgenstein identifies as the misleading power of language and against which he warns (Wittgenstein, [1953] 2009). This means that the faqih is responsible for resolving specific problems (topics) in a general fashion. How his believers or followers do or do not apply the proposed solution is not his concern. However, one must realise that it is usually his followers who bring these problems (and topics) to his attention. When a faqih himself identifies a problem (topic), he does so as a believer who has come across the problem, just like his followers. But unlike them, he is obliged to devise a general solution.

Engineers follow this same procedure. For example, understanding that people needed to wash their clothes, they came up with the general solution

of manufacturing washing machines. They provide the necessary instructions and then leave it up to the end users (their 'followers') to adjust the solution and its accompanying instructions to their particular contexts (e.g. where to place or use it), with which they do not interfere. After all, they cannot imagine all of the possible contexts. Incidentally, in recent decades and due to a better appreciation of diverse contexts, appliance manufacturers ask their end users about their own contexts so that they can adjust their appliances accordingly. This resembles applying fatwas to various contexts. The fatwas concerning fasting in different geographical locations is a case in point.

In other words, both groups are interested in devising generic solutions in which the general limits of potential solutions, as opposed to specific cases in which the solutions can be used, are determined. The number and diversity of such cases are indeterminately large. Even in the case of specific solutions, such as constructing a bridge over a river, engineers only issue general instructions, for example, the maximum weight or height of the load. It is then up to the end users to choose how to meet their particular needs within the limits set by the engineers: the shapes of the boxes used to transport their goods, which type of vehicle to use and when they can cross the bridge. The possibilities are infinite, and the engineers bear no responsibility for telling the end users what to do in each case. This is also true for the *fuqaha* – they can instruct those who are fasting that they should stop eating before *fajr* (dawn), but not when to begin their pre-fast meal, exactly when to stop, which body posture to adopt while eating, what to eat and drink, whom they can eat with and so on.

IV Conclusion

If the arguments presented here are sound, then their implications for the discipline or practice of *fiqh* will be significant. The first immediate consequence is that if the *faqih* is to be effective, he must constantly improve his knowledge and awareness of local and particular problem-situations and contexts. If an engineer is assigned to construct a dam on a particular river, he must have a first-hand understanding of the relevant requirements. Unlike a theoretical scientist, he cannot discuss the issue in terms of abstract theoretical models. And unlike an applied scientist, he cannot apply those models by relying on approximations with regard to the initial and boundary conditions. He must travel to the region, fully familiarise himself with the situation, and then do his best to adjust the existing theoretical and applied knowledge to the task's specific requirements.

In a similar way, if a *faqih* living in Qom or Najaf or Cairo or Makkah is asked how believers living in a remote part of the globe with totally different conditions should fulfill their religious duties, he cannot simply rely on the customary rulings; rather, he must make sure that he fully understands the relevant conditions and adjust his rulings accordingly. I have had first-hand

experience in dealing with Muslims born and raised in the West who are seriously dissatisfied with the rulings issued by *fuqaha* and *mujtahids* who live thousands of miles away in completely different cultural and environmental settings and yet pass rulings on their particular situations. Some of these Muslims talk quite openly about the need for producing home-grown *mujtahids* and *fuqaha* who will have a first-hand awareness of the problems that they face.

A second implication is that given the ever-increasing complexity of these new problems, all competent engineers have realised that they can be effective only if they keep up with scientific and technological developments. If a *faqih* is an engineer, he also must ensure that he is well-versed about these same changes. For example, a *faqih* who knows nothing about modern banking cannot possibly produce a sensible fatwa on such modern business contracts as futures, swaps, collateral debt obligations and other types of derivatives. Similarly, a *faqih* who is insufficiently educated about modern developments in genetics, proteomics, molecular biology, cloning, neuroscience and similar fields will be completely unable to issue informed fatwas on any of the countless problems emerging from these developments.

The last, though by no means the least, implication is that if *fiqh* belongs to the broad church of engineering, then just as each major field of engineering is divided into many sub-specialties and engineers are trained as specialists in specific areas, *fiqh* should also move toward specialisation and the *fuqaha* should begin specializing in sub-categories that deal with a specific range of highly specialised issues. Given the incredibly fast pace of change in almost all spheres of modern life, which is mainly driven by scientific and technological change, it seems that if the 'technology' of *fiqh* does not adapt itself, it will be in danger of becoming an obsolete technology that can no longer offer any meaningful or applicable service.

Notes

1 *Iḥṣā'al-'Ulūm*
2 I have dropped the definite article *al* from the names of all non-Arab authors. Hence Farabi rather than al-Farabi.
3 *kalām*
4 I have slightly revised the English translation of the quotation in the text in the light of the original Arabic text.
5 *ṣanā'ah*
6 To better appreciate the relationship between *technology* and *ṣanā'ah* see the discussion concerning the differences between science and technology in the Introduction.
7 *wāḍi' al-sharī'a*
8 *Iḥyā' al-'Ulūm al-Dīn*
9 *kitāb al-'ilm*
10 *farḍ 'ayn* (*wājib-e 'aynī*)
11 *farḍ kifāyah* (*wājib-e kifāyī*)
12 *shar'ī*

13 *maḥmūd*
14 *madhmūm*
15 *mubāḥ*
16 *uṣūl*
17 *furū'*
18 *muqaddimāt*
19 *mutammimāt*
20 *athār al-Ṣaḥābah*
21 See pp. 84–86. Also see the discussions concerning the differences between science and technology in the Introduction.
22 See, for example, Muhammad Qasim Zaman, "The 'Ulamā and Contestations on Religious Authority," in *Islam and Modernity: Key Issues and Debates*, ed. Khalid Masud, Armando Salvatore, and Martin van Bruinessen (Edinburgh: Edinburgh University Press, 2009); Nikki R. Keddie, "The Roots of the 'Ulamā's Power in Modern Iran," *Studia Islamica* 29 (1969): 31–53; Said Amir Arjomand, ed., *Authority and Political Culture in Shi'ism* (New York: State University of New York Press, 1988); Linda S. Walbridge, ed., *The Most Learned of the Shi'a: The Institution of Marja' Taqlid* (Oxford: Oxford University Press, 2001); Knut Vikør, *Between God and the Sultan: A History of Islamic Law* (London: Hurst, 2005).
23 *ṣanā'ah*
24 *maqāṣid al-shari'a*
25 I have relied heavily on Vincenti (1993) to complete part of the arguments made in this section and the next. In the above quote I made a slight change to what he had added in the bracket to the original quote.
26 Kuhn identified the main aspects of normal science as follows: (1) increasing the precision of agreement between observations and calculations based on the paradigm, (2) extending the scope of the paradigm to cover additional phenomena, (3) determining the values of universal constants, (4) formulating quantitative laws which further articulate the paradigm and (5) deciding which alternative way of applying the paradigm to a new area of interest is most satisfactory (Kuhn, 1970). Quoted in Losee (2001: p. 198).
27 *maqāṣid al-shari'a*
28 *'Ulamā*
29 Alternative spelling: shari'ah.
30 *aḥkām*
31 *maṣlaḥah*
32 *maqāṣid*
33 *maṣāliḥ*
34 *ḍarūriyyāt*
35 *ḥājiyyāt*
36 *taḥsiniyyāt*
37 Roughly based on Hallaq (2009: *Introduction*, p. 173 and p. 175). With regard to the Sunni conception of a *mujtahid*, Hallaq writes, "*Mujtahid*s are of various ranks, the highest of which is reserved for the one who is said to have fashioned the very methods and principles that he and others in his school apply, while those who are loyal to, and capable of applying, these principles belong to lower ranks" (Hallaq, 2009: p. 175). The highest ranking *mujtahid*s are the founders of the Shafi'i, Ḥanbali, Maliki and Hanafi schools. Among the Shi'ah, the highest ranking *mujtahid*s are called Ayatollah and *Ayatollah al-'Uẓmā* (Grand Ayatollah).
38 As was discussed in the first two chapters any religion, including Islam, can be regarded as comprising two main parts: ontological-epistemological and technological. The first part comprises two short statements: (1) the whole realm

of being has a Lord or Master, and (2) human beings can, in principle, know the Lord or Master of the realm of being. These two short statements, which of course need to be unpacked to reveal their indefinite depth of meaning and information, constitute the main metaphysical and epistemological aspects of religions. The second aspects of all religions are their rituals, legal advice and ethical prescriptions, all of which belong to the realm of technologies, as defined in the text. These 'religious technologies' manifest the general functions of all technologies in a religious context by responding to the believers' non-cognitive needs (e.g. hajj or zakat, which help strengthen social solidarity) and by facilitating (as tools) Muslims' quest for drawing closer to God and knowing Him better.

39 *Qawā'id-Fiqhī*
40 *aḥkām taklīfī*
41 *wujūb*
42 *istiṣḥāb*
43 *ḥormat*
44 *kirāhat*
45 *ibāḥe*
46 *ahkām waḍ'ī*
47 *sharṭiyat*
48 *māne'iyat*
49 *ṣiḥḥat*
50 *fisād*
51 It should be noted that a *faqīh*'s fatwa also applies to him, and thus he should observe the above five categories as well. In this way the *faqīh*, like the engineer, is bound by them.
52 *al-ṭibb al-ruḥānī*
53 *al-ṭibb al-jismānī*
54 *farḍ kifāyah/wājib kifāyī*
55 Nasr Hamed Abu Zayd in his (1990: chap. 3), discusses some of the negative aspects of Ghazzali's epistemic attitude.
56 *masā'il al-fiqh*
57 *ijmā'*
58 *Wasā'il al-Shi'a*
59 Makarem Shirazi (2013) "Fatwa", http://www.khabaronline.ir/detail/303665/culture/religion
60 *ṣalāt al-ẓuhr*
61 *ṣalāt al-'aṣr*
62 *ṣalāt al-maghrib*
63 *ṣalāt al-'ishā'*
64 For the controversy over his fatwa, see www.islamoday.net/bohooth/art-show-86-108130. htm and www.azahera.net/showthread.pht?t=5564. Militant Salafis had accused him of 'innovation'. There were a number of articles against him on their main website, namely, allaahuakbar.net; all of them have been removed. See Esposito (2010) and Rubin (2010).
65 *al-aqallīyāt*
66 For an account of the jurisprudence of Muslim minorities, see Said Fares Hassan (2013).
67 *da'wah* = to call or invite non-Muslims to Islam.
68 I would like to acknowledge that this example was suggested to me by my colleague Dr. Nehad Khanfar.
69 Faḍlullāh
70 *al-iḥtiyāṭ al-wājib*
71 *Ahl al-Kitāb*

72 *ṭāhir*.
73 Mohammad Ali Ismail of the Islamic College brought this issue to my attention and provided me with the example cited in the text.
74 Ḥillī
75 Sāneʿī
76 *al-fuqahāʾ al-muʾassissūn*
77 *majmūʿ fatāwā*
78 *tawḍīḥ al-masāʾil*
79 *al-masāʾil al-mustaḥdithah*
80 I do not mean that ONLY the *fuqahāʾ* and engineers rely on inductive mode of inference and induction; many scientists and non-scientists (e.g. philosophers, theologians, ordinary people) also use this mode. But the point is that they are all mistaken. Induction, as Karl Popper ([1933]1966, [1963]2002) and David Miller (2006a) have argued, is neither valid as a mode of inference nor possible as a method for discovery. The validity of the inductive mode of reasoning hinges on the validity of the so-called 'principle' of the 'uniformity of nature'. But this 'principle' has been arrived at by induction from observed phenomena! In addition, induction cannot be used as a method for developing a 'hypothesis' for our observations of facts, for it is based on the assumption that such observations must be done while the observer is completely free from all prejudices, foreknowledge, prior expectations and so on. But modern epistemologists have shown that 'all observations are theory/hypothesis-laden', and, therefore, it is not possible to observe/collect facts in the absence of prior guiding theories/ hypotheses. I also do not mean that the *fuqahāʾ* and engineers ONLY use the inductive mode of inference. Of course, they also use the deductive mode. In fact, they actually use both modes of inference in tandem. As an example of their reliance on inductive thinking, one can cite the rule of *istiṣḥāb*, according to which the *faqīh* extends his past certainty with regard to something to his present attitude toward it and thus dispels his present doubt about it. In other words, the *faqīh*'s reasoning is based on the assumption that if something had a certain status in the past, then it should be regarded as preserving that status in the present, even if the *faqīh* currently has doubts about it.
81 *istiftāʾ*
82 *ḥukm*
83 This point was brought to my attention by Yaser Mirdamadi.

6 A critical assessment of the method of interpretation of the Quran by the Quran, in the light of Allameh Tabatabaei's *Tafsir al-Mizan*

I Introduction: a historical background

A famous saying by the Prophet Mohammad, cited in various, though basically similar, versions, in both the Shi'i and the Sunni sources, warns believers that "whoever interprets the Quran according to his/her opinion their abode will be hell"[1] or "whoever interprets the Quran according to his/her opinion attributes falsehood to God"[2] or "whoever says something concerning the content of the Quran based upon his/her opinion their abode will be hell".[3] These statements, and others like them, have had a great and lasting impact on Muslims and their approach to the Quran.

In the whole history of Islam and with regard to the above proclamations by the Prophet and similar sayings which were stated/narrated by the Shi'i Imams two related phenomena and two related intellectual trends can be observed. The first phenomenon pertains to the serious efforts of Muslim exegetes of the Quran to make sure that what they are doing does not fall into the category of 'opinion-based interpretation of the Quran'.[4] The second phenomenon is the use of this label, i.e. 'opinion-based interpretation of the Quran', as a powerful weapon in doctrinal wars: scholars would accuse their rivals of committing the sin of interpreting the Quran according to their personal opinions and whims.

The combined result of these two phenomena can be observed even by a cursory glance at the history of Quranic exegesis. Such an investigation reveals that since the appearance of the first exegeses many centuries ago until the most recent commentaries on the Quran in our time the exegetes have done their best to demonstrate, in a loud and clear voice, that their approaches have nothing to do with the disreputable 'opinion-based interpretation of the Quran'. However, due to the diversity of approaches to the Quran and the existence of rivalry between the exegetes, who have subscribed to differing exegetical approaches, the emphases made by the proponent of various approaches such as philosophical, theological, scientific and mystical, as to the conformity of their approaches to the canons of true Islamic teachings, have, more often than not, fallen on deaf ears and gone unheeded.

As for the two intellectual trends, the first one is characterised by a complete rejection of any form of understanding of the verses of the Quran which goes against the 'apparent' meanings of the verses themselves or against the 'apparent' meaning of those authenticated *ahadith*[5] of the Prophet (or Imams, in the case of the Shi'i Islam) that shed light on the verses whose 'apparent' meaning may not be clear ("Tafsir bi al-ra'y", *Encyclopaedia of the Quran*). Jalal al-Din Suyuti (1445–1505), quoting Abu al-Hasan al-Mawardi (972–1058), states that a group of puritan and extremely pious people[6] were of the view that any kind of deviation from the strictly 'apparent' meanings of the verses, even if there are sets of evidence to corroborate a sort of enlightened opinion about them, is forbidden (Suyuti, *al-Itqan*, vol. 2, cited in "tafsir bi al-ra'y", *Encyclopaedia of the Quran*).

Among the followers of the companions of the Prophet[7] the likes of Saeed ibn Mosayyib[8] (637–715) and Salim ibn Abdullah[9] (d.724), who were among the seven famous faqih of Madina, and Ubeydah Salmani[10] (d.693) who was among close followers of Imam Ali, were in favour of the above approach ("tafsir bi al-ra'y", *Encyclopaedia of the Quran*). Also the Akhbaris[11] among the Shi'i Muslims and the Zahiris[12] among the Sunni Muslims subscribe to the above view. The Akhbaris, in particular, maintain that all verses must be understood in terms of authentic *ahadith* of the Prophet and Imams.

The second intellectual trend has been set by scores of eminent Shi'i and Sunni commentators on the Quran who have tried to further explain the Prophetic hadith of the "opinion-based interpretation of the Quran" and shed further light on its richer network of meaning.

Mohammad ibn Jarir Tabari[13] (839–922) in his *Jami' al-Bayan fi Tafsir Ay al-Quran* suggests that the 'opinion-based interpretation of the Quran' happens when the exegetes attribute something to the Quran, or interpret the Quran, without clear reference to the other verses of the Quran or *ahadith* of the Prophet. Such a procedure, according to Tabari, is based on commentator's conjectures and therefore is haram[14] (forbidden) (Tabari, 2001: vol. 1, cited in "Tafsir bi al-ra'y", *Encyclopaedia of the Quran*).

Having clarified his understanding of the meaning of the 'opinion-based interpretation of the Quran', Tabari goes on to develop an approach to the Quran which is regarded as a type of the method of interpretation of the Quran by the Quran (Tizabi, 2013). For Tabari a proper method of interpretation of the Quran by the Quran includes the following: the correct meaning of the Quranic terms; explanation and identification of the referents of Quranic referring assertions;[15] the correct Quranic pronunciations,[16] the specific contexts and circumstances in which certain verses were revealed;[17] a comparison, adjustment and modification of seemingly incompatible *ahadith* related to the Quranic verses, in the light of verses; 'expansion of the meaning of compact and succinct verses';[18] and restriction of 'the range of applicability of the absolute verses of the Quran'[19] (Tizabi, 2013: 65).

Muhammad ibn Qasim Anbari[20] (855–940), the Iraqi exegete and grammarian, maintained that the Prophetic hadith of the 'opinion-based

interpretation of the Quran' is applicable to someone who is fully aware that what he is attributing to the Quran is not true. Moreover, if someone says something about the Quran which he has not learnt it from the previous imams of the four Sunni schools of *fiqh* then even if his opinion is on the right track, his whole approach will be on the wrong path ("Tafsir bi al-ra'y", *Encyclopaedia of the Quran*).

Raghib Isfahani (d.1108) was of the view that if a commentator masters the following ten disciplines and techniques, namely, Arabic lexicons,[21] etymology,[22] syntax,[23] various types of recitations, narrations,[24] *ahadith* (*sonan*), *usul al-fiqh*, *fiqh*, theology (*kalam*) and God's endowment,[25] he will no longer be in danger of interpreting the Quran according to his/her opinion ("Tafsir bi al-ra'y", *Encyclopaedia of the Quran*).

Abu Abdullah al-Qurtubi[26] (1214–1273), the author of *Tafsir al-Qurtubi*, was of the view that the 'opinion-based interpretation of the Quran' was either applied to one who interprets the Quran according to his own wishes or the one who knew nothing of the sciences of the Quran ("Tafsir bi al-ra'y", *Encyclopaedia of the Quran*).

Muhammad Tahir ibn Ashur (1879–1973), the Tunisian scholar, gives five explanations for the 'opinion-based interpretation of the Quran' (Ibn 'Ashur (1984) quoted in "Tafsir bi al-ra'y", *Encyclopaedia of the Quran*). (1) Opinion[27] is any claim about the Quran without mastery of the Arabic language and the objectives of sharia'; (2) the 'opinion-based interpretation of the Quran' will be the case when the exegete interprets the Quran without proper reflection and full understanding of all aspects of the verses in question; (3) it will also be case when the exegete interprets the Quran according to his sectarian tendencies; (4) another case for the 'opinion-based interpretation of the Quran' is when the exegete interprets the Quran according to what can be understood from apparent meanings of the Quranic terms and their referents thinking that these are the intended and real meanings; and (5) the Prophetic hadith is an admonition to the exegete that he/she should be pious and careful and reflect upon the verses of the Quran in a sensible way and refrain from reaching hasty conclusions.

Among the Shi'i scholars Sheikh Mofid (948–1022) maintains that the 'opinion-based interpretation of the Quran' applies to the cases when the exegete interprets the Quran according to his own wishes, or based his views on parroting other people's views without reflection and deliberation ("Tafsir bi al-ra'y", *Encyclopaedia of the Quran*).

II Reliance of Muslim scholars on the method of interpretation of the Quran by the Quran

Many Muslim scholars, both Shi'i and Sunni, from the classic as well as the modern periods, have stated that they have used the method of the interpretation of the Quran by the Quran in their commentaries on the Quran. For

example, among the Sunni commentators, Mohammad ibn Jarir Tabari, as was suggested earlier, claims that he has used this method in his tafsir. And on the other side of the spectrum of exegetes[28] and interpreters, Ibn Arabi (560–638/1165–1240) also identifies his scholarly method as the interpretation of the Quran by the Quran. Ibn Arabi says, "Everything of which we speak in our meetings and in our writings comes from the Quran and its treasures," (Zamir, 2011, quoted from Chodkiewicz, 1993: 20), and he was adamant that God gave him "the key to understanding it and taking aid from it" (Ibn 'Arabi, 1972–1991: vol. III, 334.32 quoted in Chittick, 2005: p. 124, cited in Zamir, 2011).

Ibn Kathir (1300–1373) in his *Tafsir al-Quran al-Azim*[29] states that the method of the interpretation of the Quran by the Quran is the best method of interpretation.

And in Modern times the likes of Muhammad Abduh (1849–1905) in his *Al-Minar*, Ahmad Mostafa Al-Maraghi (1881–1945) in his *Tafsir Al-Maraghi* and Abdolkarim Khatib (1967) in his *Tafsir al-Qurani li al-Quran* maintained that their approach to the Quran is consonant with the method of interpretation of the Quran by the Quran.

Among the Shi'i commentators, Sheikh Tusi (995–1067) and Sheikh Tabarsi (1073–1154) of the classic period and Ayatollah Seyyed Mahmud Taleqani (1911–1979) in his *Partovi az Quran*, Seyyed Mohammad Hossein Fadlulah (1935–2010) in his *Min Vahy al-Quran*[30] and Ayatollah Javadi Amoli (1933–) in his *Tasnim* have suggested that they have used the method of the interpretation of the Quran by the Quran.

III Allameh Tabatabaei's method of interpretation of the Quran by the Quran

Seyyed Mohammad Hossein Tabatabaei, fondly known as Allameh Tabatabaei[31] (1903–1981) was one of the great Muslim scholars of the twentieth century. His mastery of different branches of what is known as the 'classic Islamic Sciences' including, Philosophy, *kalam* (Islamic Theology), *fiqh* (Islamic Jurisprudence), *usul al-fiqh* (Methods and Methodology for Studying *fiqh*), *akhlaq* (ethics), *irfan* (mysticism), the 'science' of hadith (sayings and deeds of the Prophet and the Shi'i Imams) and tafsir (the Interpretation of the Quran) had earned him the nickname Allameh (polymath).[32]

On many of the above subjects he has published scholarly books some of which run into many volumes.[33] Despite being a fully-fledged *mujtahid* (an expert in *fiqh* and shariah law) and a high-ranking Ayatollah, he never sought to become a *Marja'-e Taqlid* (a religious authority who explains the religious duties of the faithful by issuing fatwas on religious issues) and did not publish a *Risalah amaliyeh*[34] (a handbook which contains a *Marja'-e Taqlid's* fatwas).

Following his studies in Najaf seminary in Iraq for some twelve years (1925–1937), Tabatabaei eventually moved to the Qom seminary where

he remained until the end of his life. He dedicated his time in Qom to, mostly (though not exclusively) teaching of, and writing on, philosophy, *irfan*, ethics and *tafsir*. However, despite his, more or less, unparalleled level of scholarship in almost all branches of the 'classic Islamic Sciences' and his knowledge of disciplines, which were no longer in use in seminaries, such as geo-centric astronomical system developed by Muslim astronomers of the classic period and with which only few of his contemporary fellow seminarians could claim a minimum level of familiarity, his talents and abilities were not properly appreciated in Qom. This was due to the fact that he deliberately refrained from concentrating his efforts on teaching *fiqh* and *usul al-fiqh*. The following autobiographical remark is self-explanatory in this respect:

> When I came to Qom, I weighed the teaching programme of the religious institution against the needs of Islamic society. I found it to be deficient in a number of respects and considered it my duty to remedy the situation. The most important deficiencies in the syllabus concerned the exegesis of the Quran and the rational sciences.[35] I therefore began teaching *tafsir* and philosophy. In the atmosphere prevailing at the time, *tafsir* was not regarded as a science requiring precision of thought and investigation, and to engage in it was thought unworthy of persons capable of scholarship in the fields of *fiqh* and usul.
> (Cited in Algar, 2006: 9, quoted from Bid-e Hindi (1989: 49)

In 1953 he published, in collaboration with his closest disciple, Morteza Motahhari (1921–1979), an important book entitled *The Principles and the Method of the Philosophy of Realism* which was a critical assessment of the philosophical aspects of Marxism by means of the machinery of the Islamic philosophy (Tabatabaei and Motahhari,1953).

Allameh Tabatabaei is famed not only because of his philosophical knowledge but perhaps more importantly for his extended commentary on the Quran, *Tafsir al-Mizan*, in twenty volumes in Arabic which was completed in 1972 (Tabatabaei, 1973; Tabatabaei, 1964–2004).[36] This book which can be regarded as Allameh's *magnum opus* is an encyclopaedia of '*classic Islamic Sciences*'. This is because it contains various philosophical, theological, historical, mystical, *usuli* (*usul*-based) and *hadithi* (hadith-based) discussions. However, as the author makes clear, his intention is not to interpret the Quran by means of philosophical, scientific, mystical and other types of approaches to the Quran, which he regards as belonging to the category of external approaches and considers them among the approaches which cannot fully capture the essence of the Quranic teachings.

In his introduction to *Tafsir al-Mizan* and also in his short monograph, *Quran in Islam* (Tabatabaei, 1974), while criticising the types of approaches to the interpretation of the Quran which he deems to be either inadequate or misguided, Allameh Tabatabaei explicates his own approach to the Quran

which he identifies as an approach in the general genre of Interpretation of the Quran by the Quran.

Before embarking on the task of explicating his own particular approach to the Quran, Allameh begins by emphasising a point about the ubiquity of the efforts "to explain the meanings of the verses of the Quran and to discover their objectives and references" among Muslim scholars from the time of the revelation onward (Tabatabaei, 1964–2004: 7). He then provides a brief account of the development of various approaches to the understanding of the Quran. But prior to presenting his classification of various groups of the Quranic exegetes, Allameh makes it clear that he treats the approach adopted (in his view) by the Shi'i Imams and the close family of the Prophet (*Ahl al-Bayt*) separately. He indicates that the approach of this latter group of exegetes is the interpretation of the Quran by the Quran *par excellence* (Tabatabaei, 1964–2004: 12 and 19).

According to Allameh, the first group (*tabaqah*)[37] of the Quranic exegetes were the companions of the Prophet, such as ibn Abbas (619–687) and Abdullah Omar (614–693). The approach of this group of exegetes was restricted to some discussions of the literary aspects of the verses of the Quran and the contexts of their revelation, a limited use of some verses for explaining some other verses, and few cases of explaining the verses of the Quran concerning the Quranic stories, knowledge of the beginning of the creation, the end of it and the resurrection, and such like, by making use of Prophetic *ahadith* (Tabatabaei, 1964–2004: 8).

The second group of exegetes were among the followers of the companions (*tab'in*)[38] like Mojahid ibn Jabr (d.722), Qatade al-Sadusi (d.735) and Abdul-Rahman al-Kufi (aka Soddi (b.744). These exegetes did not add much to the approach of their predecessors to the Quran. Their only difference was that they made more use of *ahadith* in comparison to their predecessors. But unfortunately, in doing so, they opened the gate for the introduction of false and fabricated *ahadith* (Tabatabaei, 1964–2004: 8).

Allameh then moves on to briefly explain the impact of the coming to power of the Umayyad (661–750) and the Abbasid (750–1258) dynasties. According to Allameh these dynasties deliberately encouraged the emergence of various new theological, philosophical and mystical (*irfani*), and purely hadith-based approaches to the Quran. In doing so, these dynasties, Allameh argues, paved the way for further discord among Muslims with regard to basics of their belief system (Tabatabaei, 1964–2004: 8).

In Allameh's view each and every one of the above approaches presents a distorted image of the Quran and its contents. The advocates of the purely hadith-based approaches restricted themselves to what had been narrated by the companions of the Prophet and their followers. For them the task of the exegetes was to faithfully report what had been narrated by the companions and what had been added to them, by way of explanation, by their immediate followers. This group of exegetes were not interested in further

exploring the content of the narrations transmitted by the companions and their immediate successors. Moreover, they would not make any claim with regard to those verses for which there were no hadith. In the case of any example of such verses they would simply state that

> Nothing can be said about this verse, since neither its terms have such apparent meanings that would render discussion and reflection about its meaning [i.e. the meaning of the verse] redundant, nor we have any narration which could shed light on its meaning. Therefore, we must stop speculating and should say that all, and not only those verses whose meanings we could not understand, are from God.
> (Tabatabaei, 1964–2004: 9)

But this group of exegetes, in Allameh's view, have gone wrong for the following reasons: in the first place, not only the Quran has not undermined the authority of reason, it is also not wise to do so. This is because the very validity of the Quran and its authenticity, as the words of God, can only be proven by means of reason. Moreover, the Quran has nowhere established authority for the words of the companions and their immediate followers and others like them. The Almighty has introduced His Quran as an illumination and an explanation for everything. Then how could what itself is light be in need of something else to illuminate it? (Tabatabaei, 1964–2004: 9–10)

   With regard to the second group of the exegetes, namely, the theologians, Allameh maintains that they are also guilty of imposing their own views on the Quran. According to Allameh, the theologians interpret Quranic verses in certain ways to conform to their beliefs and if a verse is not compatible with one of their beliefs they appeal to the method of *ta'vil*. That is to say, they impose a particular reading or gloss upon the verse in question to make it to conform with their other beliefs (Tabatabaei, 1964–2004, vol. 1: 10). Allameh suggests that we should name this type of exegetical discussion adaptation (*tatbiq*)[39] and not interpretation (*tafsir*). This is because,

> when the mind of an individual is influenced by certain theories, it is as if he wears coloured glasses and he sees the Quran with the same colour [of the stained glasses] and wants to impose his own theory upon the Quran and adapt it to the Quran. Therefore, we should call it adaptation. Of course, there is a difference between when a man of knowledge, while thinking about some verses, asks himself: 'let me see what the Quran says?' and when he says, 'with what meaning should I match this verse?' In the first case, where he wants to know what does the Quran say, he must temporarily forget all his knowledge and scientific theories and rely on no scientific theory. But in the second case, he has let his theories to interfere in the problem, and even further than that he begins

his discussion on the basis of those theories. It is clear that this type of discussion is not a discussion of the meaning of the verse itself.

(Tabatabaei, 1964–2004: 10)

The philosophers too, Allameh further argues, just like the theologians, imposed their views on the Quran and did their best to adapt their theories to the Quran. The same is also true of the mystics and the Sufis. In Allameh's view, the mystics and the Sufis, as well as those philosophers who subscribe to the school of illumination (*ishraq*), applied the same method of adaptation to the Quran with the following difference. While the philosophers relied on theories which they had developed through rational reasoning, the mystics and the Sufis and the *ishraqis* used theories which were based on their inner, personal experiences. This latter group, contrary to the rational philosophers, because of their attention to the esoteric, and their disregard for the exoteric aspects of life and reality, paved the way for all sorts of outlandish readings of the Quran and transgressed all boundaries in this respect. This group of exegetes have gone so far along the path of imposing their own views on the Quran that they apply *hesab*-e *jommal*[40] [a type of 'science of letters' or numerology: the discipline whereby each letter of the alphabet is accorded numerical value] to the Quran and divide the Quranic terms and verses into luminous and dark ones and then impose whatever they like upon these verses (Tabatabaei, 1964–2004, vol. 1: 11).

The last group of exegetes, whose approach Allameh Tabatabaei criticises, is the group who try to understand the Quran in the light of the scientific theories of the day. From what Allameh says about the advocates of this approach it is clear that he identifies this group, in their modern incarnation, with those who subscribe to positivistic and physicalistic models of science:

In recent times a new school in *tafsir* has appeared which is this: a number of people who regard themselves to be Muslim, due to their dealing with natural sciences (whose foundation is sense experience and empirical testing), and also due to contemplation about social problems (whose foundation is empirical testing and statistics), have developed a positivistic outlook or have inclined towards pragmatism (a doctrine which says only those perceptions and understandings are worthwhile which are conducive to practice and action, the type of actions which are useful for people's material needs, the needs which the deterministic patterns of people's life-styles shape them). It is this scientism that some Muslims have embraced and, as a result of this, have argued that: religious teachings cannot be contrary to science.

(Tabatabaei, 1964–2004, vol. 1: 12)

Having spelled out his criticisms of the misguided approaches to the Quran, Allameh Tabatabaei moves on to explain his own approach to the Quran. He develops his views in the form of a deductive argument:

1   The Quran, as it introduces itself, is "guidance for all people",[41] "a clear light",[42] "explaining everything".[43]

2   If something is itself light and guidance, it is not in need of receiving
    light and guidance from other sources and being explained by other
    things.
    _ _ _ _ _ _ -
    Therefore, the Quran is not in need of clarification by other sources.

To further consolidate his main argument, Allameh Tabatabaei provides
further explanations which are devised to rebut possible objections to his
main argument. For example, he argues that

> Among all the verses of the Quran . . . we do not find even one verse in
> whose meaning and content there is an obscurity and complexity which
> makes the mind of the reader confused in understanding its meaning.
> And how it could be otherwise? Since the Quran is the most eloquent
> text in Arabic and the most basic condition for such an eloquence is the
> absence of any obscurity and complexity as to its meaning. And even
> those verses which are among the *motashabihat*[44] [i.e. whose meanings
> refer to a number of possibilities], such as the abrogated verses or their
> ilk, are quite clear in their conceptual content, and their meaning ambi-
> guities are due to the fact that we do not know their intended meanings,
> and not that their apparent meanings are unknown.
>
> (Tabatabaei, 1964–2004, vol, 1: 14)

In Allameh's view the differences among people over the exact meaning
of the Quranic terms is not due to the terms' intended meanings but their
extensions: people have considered different referents for those terms. But
Allameh explains that the process of naming things is informed by the func-
tions those things serve for us and not their apparent forms and shapes.
Thus, for example, the name 'weapon' was once used to identify slings, and
swords and spears and daggers and nowadays it is applied to other things.
The criterion for the applicability of a name is the existence of the original
purpose and function the name had been coined to capture. The original
forms or shapes of the original extensions or referents of those names, how-
ever, are not important (Tabatabaei, 1964–2004, vol. 1: 14–16).

   In the light of the above discussion, Allameh Tabatabaei concludes that
there are two ways to understand the Quran by means of theoretical discus-
sions. The first one is,

> in understanding a problem to which the Quran has referred, we begin
> a scientific or philosophical discussion and pursue our exploration until
> the truth of the matter becomes clear to us, then we say that, 'the verse
> says the same'. This approach, though acceptable for scientific and
> theoretical discussions, is not the one that the Quran agrees with. The
> second one is, that to understand the problem and identify the objective
> of the verse, we seek assistance from other verses similar to the verse in
> question. Then if we say that science too says the same it is fine. This

is an approach which can be called *tafsir* (interpretation). The Quran itself endorses it. . . .

<div style="text-align: right;">(Tabatabaei, 1964–2004, vol. 1: 17–18)</div>

In his Introduction to *Al-Mizan*, Allameh also refers to three further, rather important, issues concerning his own approach to the Quran. One is the way the Prophet and the Shi'i Imams have used in interpreting the Quran and the other pertains to the fact that the Quran, as the Prophet and the Shi'i Imams have emphasised, has a surface meaning as well as a deep, non-apparent, meaning. And the third issue, which is closely related to the second one, is the issue of verses whose meanings appear to be ambiguous (*ayat-e motashabeh*) in contrast to the verses whose meanings are quite clear.[45] He deals with the first two issues in the Introduction *Al-Mizan* and the last one in his discussion of the third Sura (chapter) of the Quran, namely the *Al-e 'Imrān* chapter.

Citing a famous hadith, known as Hadith al-Thaqalayn (two weighty or precious things), agreed upon by both the Sunni and the Shi'i Muslims which states, "I leave among you two weighty things, which if you strictly adhere to, you shall never go astray after my departure – The Book of Allah and my progeny,[46] my close family (*Ahl-e Bayt*) – and they will never separate from each other until they reach me in Heaven at the Pool (of al-Kawthar)",[47] Allameh stresses that

> The approach of this Prophet and these Imams (pbut) in teaching and interpreting the Quran, as it can be gleaned from their *ahadith* related to the *tafsir*, is the same as the approach we explained here. We shall soon discuss those *ahadith* in the course of our discussions based on narratives and *ahadith*. The reader will then see that no hadith expert will come across even one hadith in the whole corpus of *ahadith* in which either the messenger of God or the Imams of his close family (*Ahl al-Bayt*) have made use of any scientific or theoretical argument or any scientific hypothesis to interpret any verse of the Quran.
>
> <div style="text-align: right;">(Tababatabei, 1964–2004, vol. 1: 19)</div>

In discussing of the surface meaning and the deep meaning of the verses of the Quran, Allameh makes use of *Tafsir Ayyashi*[48] and argues that the Quran:

> Is a book which has an outward/ apparent aspect and an inward/hidden aspect. The outward/apparent aspect is all wisdom, and the inward/hidden aspect all knowledge; the outward/apparent aspect is exquisite and subtle, and the inward/hidden aspect is deep and profound. The Quran has significations and signs, and its significations have further significations.
>
> <div style="text-align: right;">(Tabatabaei, 1964–2004, vol. 1: 19)[49]</div>

In his discussion of the verses 7–9 of the third chapter of the Quran, Allameh Tabatabaei deals with the issue of the verses whose meanings appear to be ambiguous and in need of disambiguation and the verses whose meanings are clear. The Quran uses the two Arabic terms, *motashabihat* and *mohkamat*,[50] to refer, respectively, to these two categories of Quranic verses. According to Allameh, the ambiguity of the first category of the Quranic verses disappears when they are referred to the second category of verses whose meanings are clear and not in need of disambiguation. Allameh gives the following two examples. The verse "(Allah) Most Gracious is firmly established on the throne" (5:20) is ambiguous in that readers cannot fully comprehend it. But when they refer to the verse "There is nothing whatever like unto Him. . . ." (11:42) it becomes clear that God's being established on the throne has no resemblance to man's sitting on the throne. Similarly, when readers come across the verse "Looking towards their Lord" (23:75) they may think that God, like material things, can be seen. But when they read the verse "No vision can grasp Him, but His grasp is over all vision: He is above all comprehension, yet is acquainted with all things" (103:6) they realise that 'seeing God' has no resemblance to seeing material things (Tababatabei, *Al-Mizan*, Online).

Having briefly explained Allameh Tabatabaei's method of the interpretation of the Quran by the Quran, we can now turn to a critical assessment of this method.

IV Is there such a thing as the interpretation of the Quran by the Quran?

The thesis, or if you like the conjecture, which I intend to develop in this section and then apply it to the case of *Al-Mizan*, may appear somewhat radical and controversial especially in the light of the fact that it may be seen, on the face of it, to clash with some authentic *ahadith* about the Quran. My thesis is that the phrase 'the interpretation of the Quran by the Quran' either refers to something rather commonsensical and not particularly deep and informative or to an impossible task.

It seems to be an accepted fact that almost all coherent texts, which discuss certain themes and are not deliberately succinct and compact or in the form of precis, follow the pattern of further explaining the claims/ideas/arguments introduced in their earlier sections/chapters at greater length in their subsequent sections/chapters. This is a well-known literary device for which there is even a term in the discipline of rhetoric (*ilm-e badi'*), namely, *ijmalu-t tafsil*.[51] If the 'interpretation of the Quran by the Quran' means just this commonsensical view, then it can be said that it does not say much. Moreover, it certainly is not a unique or distinctive feature of the Quran.

Allameh Tabatabaei, however, seems to be suggesting that the thesis of the 'interpretation of the Quran by the Quran' is not a trite idea. It seems in Allameh's view, as we have already seen, for one to be able to apply the

method of 'the interpretation of the Quran by the Quran' to the Quran and to know what does the Quran say, one "must temporarily forget all one's knowledge and scientific theories and rely on no scientific theory" (Taba-tabaei, 1964–2004, vol. 1: 10). In other words, it seems in Allameh's view a necessary, though of course not a sufficient, condition for an exegete to successfully use the method of interpretation of the Quran by the Quran is to, temporarily, get rid of all his fore-knowledge, prior conceptions, presuppositions, prejudices and biases. Such an exegete then must approach the Quran and let the Quran guide him/her.

Such an epistemic attitude towards research has a long history of thought and its roots, in modern times, could be traced back to Francis Bacon (1561–1626) the great propagandist of modern science (Dijksterhuis, 1961; Losee, 2001, Agassi, 1975). Bacon, who was a champion of an inductivist approach to scientific investigation and a promoter of a positivist image of science, maintained that for scientists to be able to discover the secrets of nature they must free themselves of all their prejudices, fore-knowledge, preconceptions, presuppositions etc. They must then go to nature and let nature guides them.[52]

But this approach, as Karl Popper and other critical rationalists, following in his footsteps, have shown is futile and indeed impossible to apply (Popper, [1933] 1968; [1963] 2002; Miller, 2006a). A mind free from all presuppositions and fore-knowledge and preconceptions, is no longer capable of getting involved in any problem-oriented inquiry; it is like a blank slate and cannot do its main tasks of choosing problems and assessing the proposed solutions (Popper, 1994: ch. 1). Bacon's and his followers' insistence on cleansing the mind from all prejudices and biases and foreknowledge stems from a concern for guaranteeing the 'objectivity' of knowledge claim. But their approach to the issue of 'objectivity of knowledge claims' and their understanding of this concept was misguided. Due to the influence of the 'Baconian project for the advancement of knowledge' this misguided conception of objectivity which was adopted by Bacon's heirs, namely the positivists and logical positivists philosophers, have had a great impact on all subsequent intellectual endeavours. Those scholars who have been in agreement the positivists' understanding of the notion of 'objectivity' have upheld it while their opponents have rejected it and have claimed that the aim of knowledge pursuit is not to achieve 'objectivity' but to attain 'subjective understanding' through empathy with human subjects. But as critical rationalists have argued, both of the above approached have been on the wrong track (Popper, 1994, ch. 7). Objectivity of knowledge claims, properly understood, amounts to 'public accessibility and public assessability' of such claims (Paya, 2011a).

As critical rationalists and some other groups of philosophers have shown, all observations, all fact-finding and information-gathering activities (including reading and studying texts) are theory-laden (Popper [1933] 1968; Hanson, 1958; Kuhn, 1970). In the absence of prior guiding theories,

which help us to anticipate reality (whether natural, social, textual or even supra-natural), no choice of problems and no understanding is possible (Popper, 1994, ch. 1).

We approach reality, whether natural, supra-natural, social or textual (including the Quran and *ahadith*), and make sense of it in the light of our prior theories/conjectures which, collectively, provide us with our background knowledge. These theories/conjectures also help us to identify 'problems' in reality for further exploration. All Quranic interpretations, just like all other types of interpretations of various aspects of reality (in the extended sense of the term), are therefore guided and informed by our theories/conjectures.[53] Of course, as critical rationalists explain, our lived experiences in dealing with various aspects of reality play an important role in helping us to develop our theories. But this is another story and should be discussed elsewhere.[54]

The above has far reaching consequences for our understanding of the Quran and its interpretation. One such consequence is the following: if all observations (in the extended sense of the term which covers data and information gathering and collection of evidence) are theory-laden, then it becomes clear that there is no such a thing as literal reading of the Quran or any other text, including *ahadith*, for that matter. The mistake of those who think that they only follow the 'apparent meaning' of the Quran (or other texts) or they only stick to a literal understanding of the Quran (or other texts) is exactly like the mistake of the positivists who were of the view that there are such things as 'brute or naked facts', i.e. facts which we understand in the absence of any prior theory or interpretation. But as critical rationalists and some other philosophers have argued, if we want to 'see' any aspect of reality (which includes, among other things, reading texts, e.g. the Quran) as a meaningful phenomenon, and not simply in terms of the impact of certain sensory stimuli on our retina, to which our brains cannot attach meaning and cannot process at the level of conscious awareness and understanding, then we must be equipped with theories (whether rich or poor in their theoretical depth) which would connect us to a potential 'network of meaning' of the phenomenon in question or would help us to create such a network.

The following examples should, I hope, shed further light on this issue and on the notion of the 'network of meaning of a phenomenon'. Suppose some explorers present a 'laptop' to the inhabitants of a very remote tribe in the Amazon rainforest who have never been in touch with anyone outside their own tribe. Although these tribesmen 'see' the thing the explorers present to them, they do not 'see it as a laptop'. There is a distinction between 'seeing' and 'seeing as' (Wittgenstein, [1953] 2009: 193–229). Only those who share, at least part of, the network of meaning which makes a laptop a laptop and sets it apart from say, a car or a TV set can 'see the laptop *as* a laptop'. The same is true for a copy of the Quran which is presented to the same tribesmen. If we assume they have not yet developed the technology

of writing and producing paper, then they 'see' a thing but they do not 'see it as' the Quran.

The richer people's background theories with regard to certain aspects of reality, and the larger their share of the networks of meaning attached to the aspects of reality in question, the 'deeper' their understanding of those aspects can be. Networks of meaning of any phenomenon or entity are dynamic entities which may change from person to person and culture to culture. What identifies these 'networks' as networks of certain entities/ phenomena is that each of them provides meanings for various aspects/features/functions, etc. of the entities/phenomena in question, only those who share (at least parts of) the network of meaning of a certain phenomenon or entity can enter into meaningful dialogues with regard to the phenomenon or entity in question. Any other individual who wants to join such dialogues needs to acquire a knowledge of the networks of meaning in question.

People's knowledge of networks of meanings of different entities differ. This difference would manifest itself in the level of familiarity of individuals with various aspects of the entities in question whose network of meanings they differentially share. For example, Allameh Tabatabaei's understanding of the Quran is far richer than the understanding a five-year-old Muslim or a Muslim who is not an expert in the Quranic Studies, or a non-Muslim who has not studied Islam or the Quran.

For the tribesmen of the Amazon rainforest, the text of the Quran appears as strings of black symbols on a white surface (although even this level of theoretical understanding may not be available to the tribesmen in question). For a young Arab school boy who can read Arabic 'the literal meaning' of the text of the Quran is different from 'the literal meaning' of the same text for an Arab-speaking individual who has obtained his BSc in say, chemical engineering but not Arabic literature, and the understanding of these two individuals of the 'literal meaning' of the text differs from the understanding of a Bedouin Arab of the time of the Prophet. While all three have a different understanding of the 'literal meaning' of the text from the understanding of a highly erudite expert in modern and classic Arabic.

What has been dubbed the 'literal or apparent meaning' of a text is therefore a misnomer. We 'see and interpret' the signs and the symbols on the paper in the light of our prior theories. All observations are theory-laden and in the absence of proper theories, we just receive sensory information without being able to make sense of them. Differences in the depth of the theories people subscribe to result in differences in the way they 'see' things or understand the 'apparent or literal meaning' of texts (including the text of the Quran).

The thesis that 'there is no such a thing as literal meaning' can be further elaborated by making use of what Allameh Tabatabaei himself presents as his 'philosophy of language', i.e. his theory as to how meanings become attached to terms. Allameh maintains that the meanings of terms are

determined according to the roles their referents serve in responding to our needs. The meanings of the terms thus constructed remain the same, even if the form and shape of their referents change, provided the needs which gave rise to them in the first place, remain in place (Tabatabaei, 1964–2004, vol. 1: 14–17). Allameh, as we have already seen, discusses the example of 'weapon' which was mentioned above. He also discusses the example of 'lamp' and mentions, in passing, a number of other artefacts.

With regard to the above theory of language and meaning acquisition, it should be noted that since all artefacts and technologies, as was discussed in Chapter 1, either respond to our non-cognitive needs or facilitate, as mere tools, our cognitive and knowledge pursuits, and since all artefacts/ technologies are individuated by means of the functions we have attributed to/built into them (for example the functions of a refrigerator are different from the functions of a either a pen or a bicycle) and more importantly, since we can add to or remove from functions of the artefacts/technologies we have invented[55] then from the above it follows that what is dubbed 'the literal or apparent meaning' for any term, is in fact, a set of many potential meanings which varies from individual to individual and with respect to the functions each individual conceive for/attributes to the referents of the term in question.

While the above discussion was about terms which have material/physical referents, and are identified as technological products, an augmented form of the same argument can be applied to all entities to which we attach meaning according to the Ayatollah's theory of language.[56]

In the course of developing his theory of meaning-ascription, Allameh Tabatabaei, referring to the differences among users with regard to the meanings they attach to same terms, observes, "Therefore, this difference is not due to the senses or intensions of terms, but due to their referents. [Followers of] each school of thought or ideology have considered certain references for the Quranic terms and sentences which followers of other schools of thought and ideologies do not accept. One group has understood of the referents of the terms one thing, others have understood other things" (Tabatabaei, 1964–2004, vol. 1: 14). Also, as we have seen above, in developing the same theory, Allameh goes on to state, "And even those verses which are among the verses whose meanings refer to a number of possibilities,[57] such as the abrogated verses or their ilk, are quite clear in their conceptual content, and their meaning possibilities are due to the fact that we do not know their intended meanings, and not that their apparent meanings are unknown" (Tabatabaei, 1964–2004, vol. 1: 14).

But the 'intended' meaning is determined by people's prior theories and since it is a fact that these theories are not identical, it follows that it would be inevitable for people to understand even 'the apparent and literal' meanings of the terms in different ways. Any attempt for bringing unity to this diversity of understandings can only be made by means of yet another theory: a

theory which should prove to be superior (i.e. more explanatory and better unificatory in comparison) to the theories to which people subscribe.

Real examples from the field of Quranic Studies sheds further light on the above point. There are many terms and verses in the Quran whose meanings have not been 'apparent' even for the learned members of the Muslim community, and even the companions of the Prophet. The following cases are just two examples which highlight the above point. As Suyuti has stated, the Caliph Omar ibn Khattab, was asked about the meaning of the term "*Abb*" in the verse 31:80, and he stated that he did not know its meaning (Suyuti, 2003: vol. 15, 251–2). Similarly, it had been narrated from Ibn Abbas that he did not know the meaning of the term "*fātir*"[58] in the verse 35:1 until two Bedouin Arabs brought their dispute over the ownership of a newly dug well to him. Then Ibn Abbas heard one of them telling the other one, "*ana fatartuha*",[59] and by that he meant he had begun digging it (Zamakhashari, 2009: 879). From then on, the exegetes and commentators of the Quran have used term such as 'originator/creator' as a translation for the Quranic term "*fatir*".

Another important point to be considered with regard to the Allameh's theory of interpretation of the Quran by the Quran, is the following. Since all our theories are nothing but conjectures constructed by us in response to the problems presented to us by reality; problems in terms of challenges to our existing theories which help us to understand and anticipate reality, a very important corollary of the above is that all our interpretations and tafasir (pl. of *tafsir*) of the Quran are nothing but *the 'opinion-based interpretation of the Quran'*. Our opinions, or '*ra'ys*', are nothing but the conjectures we constantly construct to account for the newly emerged problems presented to us by reality (including the problems presented to us by the Quran when we approach it with our preconceived ideas and theories).[60] As was explained above, in the absence of these preconceived theories, our mind cannot make sense of reality in whatever form or shape it is presented to us.

The above argument, however, apparently, gives rise to a serious problem: if what was said above is true, then how we can reconcile it with the Prophetic hadith that "whoever interprets the Quran according to his/her opinion their abode will be hell"?

My argument is that the Prophetic hadith with regard to the '*opinion-based interpretation of the Quran*' has been misunderstood and misinterpreted by the majority of the exegetes. In fact, as I shall argue below, a more accurate reading of the Prophetic hadith shows that it provides researchers with a very important, indeed vital, methodological advice. The Prophetic saying chimes well with one of the most fundamental methodological instructions of Critical Rationalism, namely, the absolute importance of 'intellectual honesty' for the growth of knowledge about reality. The notion of 'intellectual honesty' highlights the close connection between ethics and morality and successful pursuit of knowledge about reality. Intellectual honesty means that researchers, in whatever field of research, including the exegetes of the Quran, must refrain from

deliberately misleading their targeted audiences (including their readers, their interlocutors, their fellow researchers or the community at large) with regard to the nature of the knowledge claims they are making and the conjectures they are producing as solutions to various problems which are of interest to readers, fellow researchers and the members of the community at large. This in turn means the following, among other things: researchers must not formulate their claims in ways that make them immune from critical assessment. Their ideas must be presented in ways which would make it easy for those who are exposed to them to easily spot and identify possible mistakes or shortcomings which may have been inadvertently incorporated into them. Any attempt to talk or write in ways which keep the claims in question immune from critical assessment would be tantamount to intellectual dishonesty.

In the light of the above, it can be argued that what the Prophet meant by the '*opinion-based interpretation of the Quran*' is captured by the notion of 'intellectual honesty'. This is because, as was discussed earlier, whatever knowledge claim one makes about whatever aspect of reality (including the Quran) is nothing but one's opinion or conjecture. However, as long as one's opinions or conjectures are stated in ways which would allow others to easily assess them in a critical manner and find their defects (if any) then the researcher who has introduced those ideas has observed the canons of intellectual honesty. However, if a researcher deliberately tries to mislead his/her readers or to obscure his/her claims so that their possible defects/shortcomings/faults cannot be detected, then he/she has committed 'intellectual dishonesty' whose result may be to present falsehood instead of truth to the readers or others who will be exposed to those views.

Another point about Allameh Tabatabaei's approach to the Quran is that although his approach is, in a sense, 'problem-oriented', it seems he is of the view that the problems the exegetes are interested in should be suggested to the exegete by the Quran itself. For example, as we saw in the previous section, in expounding the contrast between the two opposing approaches to the Quran, namely, the one to which, according to him, the majority of commentators subscribe, and the one upheld by him, he had noted that: "in understanding a problem to which the Quran has referred, we begin a scientific or philosophical discussion and pursue our exploration until the truth of the matter becomes clear to us" (Tabatabaei, 1964–2004, vol. 1: 17). However, as was discussed in Chapter 2, this approach to 'problem-orientedness' is misguided. Problems are introduced by the inquirers/exegetes (in the case of understanding the Quran) themselves. Problems become 'problems' when our prior expectations of the reality we are encountering with (whether natural, supra-natural, social or textual) are shattered by the reality in question (Popper, 1994, Miller, 2006b). This also applies to the third way in which we can learn from the Quran, i.e. the Quran as a potential source for suggesting problems in the realm of 'human condition'. Here the Quran can only help those who approach it with a prepared mind, i.e. with prior expectations.

V Critical assessment of some authors' views of Allameh's method of interpretation of the Quran by the Quran

A number of authors, mostly based in Iran, have discussed Allameh Tabatabaei's method of interpretation of the Quran by the Quran.[61] It seems almost all (if not all) of these authors are in agreement with the Allameh's approach and have tried to defend Allameh's views and further explicate them.

   The majority of the Persian papers on the Allameh's method, which I have come across, endorse Allameh's conviction that his method is the best and most effective method for interpreting the Quran. The only exception which I have found is a paper by Kamran Izadi Mobarakeh (Izadi Mubarakeh, 2006), who is an assistant Professor at Imam Sadiq University in Tehran. In his paper, entitled "Reflections on the Degree of Efficiency of the Method of Interpretation of the Quran by the Quran", Izadi Mubarakeh notes that a number of objections could be raised against the claim that the Quran is its own best interpreter. He has made the following arguments, among others, to demonstrate his points:

1   There are verses in the Quran in which the Quran introduces itself as a weighty discourse whose profound depth can only be understood by those whom the Quran identifies as "*moṭaharūn*" (the purified) (The Quran, 56:79; Izadi Mubarakeh, 2006: 20).
2   Only the infallibles (i.e. the prophet and his close family) know all those verses which can be used to interpret other verses. This task, i.e. interpreting the Quranic verses by means some of the other verses, is, on many occasions, beyond the power of the fallible exegetes. A case in point is Imam Javad's reference to the verse 72:18 with regard to the punishment applicable to thieves. This verse, on the face of it, talks about the places of worship (*masajid*) and has nothing to do with punishment of criminals. Prior to Imam's Javad's fatwa, all other *moftis* and *fuqaha* had referred to other verses such as 5:6 or 4:43 to formulate their fatwas concerning the punishment for thieves. These verses refer to the act of ablution (*wudu*)[62] (quoted in Izadi Mubarakeh, 2006: 21, from *Tafsir* by Ayyashi, 1960).
3   Even some of the companions of the Prophet were, on occasions, incapable of understanding the meaning of some of the Quranic verses or terms. A case in point was Adi ibn Hatam[63] who could not understand the meaning of the verse 187:2, where the verse talks about distinguishing between the white and the black threads (quoted in Izadi Mubarakeh, 2006: 21, from *Sahih*[64] *Muslim*).
4   In the method of interpretation of the Quran by the Quran it is always the interpreter/exegete who accomplishes the task of interpretation. And since in this method no techniques for identifying similar verses has ever been introduced, then how can one claim that the interpreter can find the correct interpretation of any verse? (Izadi Mubarakeh, 2006: 22)

5   There are verses in the Quran which have been used only once, whether with regard to their wordings or their meaning. In such cases and also in cases where the meaning of similar verses, for those verses which do have some matching verses, do not shed useful light on the meaning of the verses in question, the method of interpretation of the Quran by the Quran can be of little help (Izadi Mubarakeh, 2006: 23).

6   Allameh, in his method of interpretation of the Quran by the Quran, has suggested that with regard to three topics, namely, verses which introduce various aspects of the sharia law, verses which talk about Quranic stories and verses which describe the situations in the day of judgement and resurrection, the exegetes must make use of *ahadith* of the Prophet and Imams (Izadi Mubarakeh, 2006: 24). The point is that if making use of these extra sources does not undermine the status of the Quran as 'the light and explicator of everything', then the same should be applicable to other verses.

Many of the objections made by Izadi Muarakeh seems to be sound and on the right track. However, after exposing some of the shortcomings of Allameh's method, he suggests that to remedy the possible shortcomings of this method Quranic exegetes must make use of validated and authenticated *ahadith*.

However, it seems Izadi Mubarakeh has thought that *ahadith*, assuming that their authentication can be achieved in a satisfactory manner, can be understood in a straightforward manner and without the need for interpretation. This conception is, of course, incorrect. As we have discussed above nothing can be understood in the absence of interpretation. Therefore, while *ahadith* could be regarded as sources of extra information for exegetes, making proper use of them is as much dependent on the art of interpretation as making sense of the verses of the Quran.

Apart from the Persian papers on Allameh's method, the present author has come across only one English paper, namely a recent paper by Ehteshami and Rizvi (2016), which takes a critical stand towards Allameh's method. Although the approach of the authors of this paper is very different from the approach of the present author, there is, nevertheless, a good deal of common grounds in the arguments of their paper and the arguments presented in this chapter.

Having said this, I should also point out that the two authors have made some claims, among their otherwise sensible arguments, which seem to be inaccurate. For example, they suggest that Allameh had followed a literal reading of the Quran (Ehteshami & Rizvi, 2016: 444). But this is not accurate. Allameh's method is not literal. With regard to the literal meaning of the text, as we have already discussed, what Allameh claims is that while the apparent, surface, meaning of the verses is accessible to those who know Arabic, it is not the case that the literal meaning is all there is in the Quran.

In fact, the authors themselves admit the same point later in their papers. They write,

> Hence, Ṭabāṭabāʾī draws the conclusion that this prophetic hadith [i.e. the one about interpreting the Quran according to one's own opinion] does not prohibit the interpretation of the Qurʾan *per se*, but rather warns against certain manners of interpretation, which, according to Ṭabāṭabāʾī, seeks to interpret the Qurʾan 'independently' and without paying sufficient attention to what the Qurʾan says about itself. Ṭabāṭabāʾī tells us that what separates divine speech from human speech is the meaning and application in each case. Thus, he says, we must be careful not to understand the divine word in the same way in which we understand the word of man in our daily interactions.
>
> (Ehteshami & Rizvi, 2016: 457)

Elsewhere in the their paper, the authors accuse Allameh Tabatabaei of pursuing the goal of achieving 'an elusive objectivity' They write,

> Ṭabāṭabāʾī's *tafsir/taṭbīq distinction* is based on the idea that one can approach the Qurʾan free from presuppositions of any kind (by forgetting 'every preconceived idea') . . . in Ṭabāṭabāʾī's view, a 'good' exegete seeks to 'explain' the Qurʾan without trying to impose or derive any specific ideas from it – a quest for an elusive objectivity.
>
> (Ehteshami & Rizvi, 2016: 453)

While Allameh's view concerning a presuppositionless approach to the Quran is, as we have already discussed, not tenable, his suggestion that a good exegete should not try to impose any specific idea on the Quran or derive any specific idea from it is quite sound.[65] Committing either of the above two acts would amount to a violation of the Prophetic 'methodological' admonition.[66]

  In another part of their paper, the authors suggest that Allameh's argument that 'the meaning of the Qurʾan is manifest to the experts' is 'linguistic in that it starts from a premise about the language of the Qurʾan' (Ehteshami & Rizvi, 2016: 455). But this argument, regardless of its validity or otherwise, is not a linguistic argument, it is epistemological, since it refers to the manifestness of the meaning of the verses of the Quran. Linguistic arguments do not deal with the availability/undersatndibility or otherwise of meanings, they deal with 'meaning entailments'.

  In developing their critiques of Allameh's method, the authors make the following comment:

> It may be asked why, if no verse or passage in the Qurʾan is enigmatic or obscure, Ṭabāṭabāʾī perceives the need to compile twenty volumes on a manifest text that is free from ambiguity and other linguistic difficulties.
>
> (Ehteshami & Rizvi, 2016: 459)

Apparently the above 'critique' is the result of not paying due attention, on the part of the two authors, to the difference between the 'prima facie'[67] meaning of a text with considerable 'logical depth'[68] and its rich network of meaning which consists of indefinitely different meanings.

It seems not making the above distinction has led the authors to question Allameh's use of *ahadith*. They ask, rather rhetorically, "What does the Hadith add to one's understanding?" (Ehteshami & Rizvi, 2016: 466). The answer is, from Allameh's point of view, it may not add anything in the understanding of the prima facie meaning of the verses (though even here the prima facie meaning of the verses for an expert in *ahadith* is different from the prima facie meaning of those same verses for someone who knows little about *ahadith*). The main function of *ahadith*, for Allameh is, shedding further light on the potential meanings embedded in the network of meaning of the verses of the Quran.

The authors' very last critical comment on Allameh's method also seems to be in need of further qualification. While the authors have correctly noted that any act of interpretation amounts to a 'mediation between the reader and the Qur'an' (Ehteshami & Rizvi, 2016: 470), they go on to complain that Allameh's method is an esoteric method in disguise and as such a 'hindrance' to understanding the true meaning of the Quran: "But the fact of his intervention also constitutes an obstacle to an unhindered reading of the text. Esotericism thus still masquerades as a naïve hermeneutics before the text" (Ehteshami & Rizvi, 2016: 470). But given the fact that all readings of texts are theory laden, then to ascertain whether Allameh's esotericism is naïve and a hindrance to understanding the text, requires an objective assessment of his *magnum opus*. But this has not been the focus of the paper of the two authors. As such, therefore, their last remarks seem to have been made without sufficient warrant and argument. But even if one, for the sake of argument, concurs with the authors' claim as to the existence of an esoteric strand in *Al-Mizan*, from here one cannot conclude that *Al-Mizan* is devoid of rich insights concerning an understanding of Quranic verses which can be shown in an objective way to be, for the most part, on the right path.

Notes

1 *Man fassara al-Qur'an bi-ra'yeh falyatabwwa maq'adahu min al-nār* (Ibn Bābewaih, 1993: Vol. 2, 198).
2 Wa *man fassara al-Qur'an bi-ra'yeh faqad iftarā alā Allah al-kidhb* (Horr Ameli, 1988: 190).
3 *Man qāla fi al-Qur'an bi-ra'yeh falyatabwwa maq'adahu min al-nār* (Tabari, 2001: Vol. 1, 71–73).
4 *Tafsīr bi al-ra'y*
5 *aḥādith*.
6 *ahl al-Tawarru'*
7 *Tābi'ān*
8 Saeed ibn Moṣayyib
9 Sālim ibn 'Abdullāh
10 'Ubeydah Salmāni

11 Akhbārīs. The Oxford Dictionary of Islam (online) has the following entry on Akhbaris: Twelfth-century Twelver Shii school of thought in Iran. Stressed the literal interpretation of the Quran and hadith of both Muhammad and the Twelve Imams as a source of religious authority. Restricted the authority of individual scholars for interpretation, declared ijtihad (independent reasoning) an unsound and unnecessary innovation, and denied the role of the mujtahid (practitioner of ijtihad) in guiding Shii society. Saw the role of ulama as a matter of reviewing fundamental sources for answers to problems, rather than developing new solutions. Became the dominant school in intellectual studies in Shii holy cities. Engaged in major debate with Usulis, who accorded greater authority to mujtahids and interpretation of law according to individual reasoning. (The Oxford Dictionary of Islam (online version): www.oxfordreference.com/view/10.1093/oi/authority.20110803095358912 (28 March 2017).

12 *Ẓāhirīs*. *The Encyclopaedia of Islam* (Vol. XI, 2002, 394) has the following entry on *Ẓāhirīs* or *Al-Ẓāhiriyya*: "A theologico-juridical school in mediaeval Islam which may be situated, among *madhhabs* as a whole, 'at the furthest limit of orthodoxy.'" It is, furthermore, the only school that owes its existence and its name to a principle of law, *Ẓāhirī* in this case. Thus, it relies exclusively on the literal (*ẓāhir*) sense of the Qur'an and of Tradition, rejecting *ra'y*, but also *qiyās* [analogical reasoning], although the latter is retained by al-Shafi'ī (d. 204/820) who is regularly cited as the point of departure of *Ẓāhirī* methodology. In other words, *Ẓāhirism* "accepts only the facts clearly revealed by sensible, rational and linguistic intuitions, controlled and corroborated by Qur'anic revelation".

13 Jarīr Ṭabarī
14 ḥarām
15 *khaṭābāt*
16 Qirā'āt
17 *asbāb al-nuzūl*
18 *tafṣil al-mojmalāt*
19 *taqyīd al-iṭlāq*
20 Qāsim Anbārī
21 *loghāt*
22 *ishtiqāq*
23 *naḥv*
24 *akhbār*
25 *muhebat*
26 Abu 'Abdullah al-Qurṭubī
27 Ra'y
28 mofasserīn
29 *Tafsir al-Quran al-'aẓim*
30 *Min Vaḥy al-Qur'ān*
31 Also Ṭabāṭabā'ī
32 For biographical information on ʿAllāmeh Tabatabaei, see Tehrani (2011), Algar (2006).
33 For a bibliography of the works produced by ʿAllāmeh Tabatabaei, see Shoari Nezhad (1994), Nuri (2006), Mahjur (online)
34 *Risalah 'amaliyeh*
35 *'ulum-e 'aqlī*
36 Tabatabaei (1964–2004) refers to the Persian translation of *Al-Mizan*. References in the text are made to the Persian translation of the book.
37 *ṭabaqah*
38 *tābe'in*
39 *taṭbiq*
40 *ḥesāb*-e *jommal*
41 *hodan li al-'ālamin*, The Quran 3:96.
42 *mobinā*

43 *tibyānan li kull al-shay'*. The Quran, 16:89.
44 *motashābihāt*. The Quran, 4:174.
45 Āyāton Moḥkmāt
46 '*itratī*
47 This hadith has been narrated in various forms in the Sunni sources. While the above version (or versions close to it) appears in some sources, in some other sources in place of "'*itratī* (my progeny), my *Ahl al-Bayt* (close family)" the term *sunnatī* (my tradition) is used. There are some other versions of the hadith in the Sunni sources in which adherence has only been demanded to the Quran, and as for the family of the Prophet, the following admonition has been repeated three times: "I remind you, in the name of Allah, about my Ahl al-Bayt."
48 *Tafsir 'Ayyāshī*
49 In Section V, I use the term 'prima facie meaning' as a better alternative to terms like 'apparent meaning' or 'literal meaning'.
50 *motashābihāt* and *moḥkamāt*
51 *ijmālu-t tafṣīl*. The Dehkhuda Persian dictionary gives the following definition for it: "[*Ijmālu-t tafṣīl*] is the name of a technique in '*ilm-e badi*' whereby they first introduce something in a summary or precis form and then expand it."
52 Bacon writes in his 'Epistola ad Fulgentium' (written in autumn 1625), "For man is nature's agent and interpreter; he does and understands only as much as he has observed of the order of Nature in work or by inference; he does not know and cannot do more. No strength exists that can interrupt or break the chain of causes; and nature is conquered only by obedience" (Quoted in Jardine, & Silverthorne 2000, Vol. 7: 532).
53 Ses Chapter 2.
54 Rich personal experiences make one's 'World$_2$' (i.e. the world of one's personal cognitive and emotive spheres) richer. The richer one's world$_2$, the greater chances of one's fruitful exploration of world$_1$ (the universe) and world$_3$ (the abode of all publicly accessible products of human intellect. For a critical rationalist view on the way we develop knowledge about reality see Popper (1994, ch. 1).
55 Of course, within a realm of possibilities. Thus, for example while chair can be used as a weapon, it cannot be used as a proper car.
56 Allameh Tabtabae's theory of language has some similarities with the later Wittgenstein's theory of language according to which the meaning of a term consists of its use (Wittgenstein, [(1953) 2009)]). But this theory suffers from serious shortcomings. For a brief critical assessment of Wittgenstein's theory see Grayling (2007).
57 *motashābihāt*
58 *fāṭir*
59 *ana faṭartuhā*
60 See Chapter 2.
61 See, for example, Ghazanfari (2004), Qurbani, and Najjar-zadegan (2012), Heidari, and Yadullah-pur (2012).
62 *wuḍu*
63 'Adi ibn Ḥatam
64 *Ṣaḥīḥ*
65 This is despite the fact that, as I have argued earlier in the text, Allameh himself does not seem to always abide by this sound methodological advice.
66 See Section IV above.
67 Prima facie meaning of a text is the meaning each reader understands when he/she encounters a text. It should be noted that the 'prima facie' meaning may be different from individuals to individuals due to their different background knowledge (which amounts to differences in their guiding theories) and different 'problem situations' which results in their focusing on various aspects of the text with different degrees of emphasis.
68 For the notion of 'logical depth' see Chapter 2.

7 The disenchantment of reason

An anti-rational trend in modern Shi'i thought – the *Tafkikis*

I Introduction: a short history

Anti-rational or non-rational trends, tendencies and approaches form a spectrum on the one end of which all those tendencies/trends can be placed that reject reason and uphold intuition and personal experiences and on the other end all those tendencies/trends that reject reason and insist upon the validity of a literal understanding or of the apparent meaning of texts or phenomena.[1] In between these two ends many other, more types of anti/non rational trends/approaches can be located.

Anti/non rational trends/tendencies/approaches, in the sense explained above, appeared in Islamic civilisation soon after the consolidation of the new religion in the Arabian Peninsula. Although the Quran and the Sunnah of the Prophet (and the Imams, in the case of the Shi'i Islam)[2] lay great emphasis on the importance of reason, it is a historical fact that not all Muslims modelled their forms of life according to the rational ideals introduced in the Islamic teachings. Non-rational and anti-rational tendencies and trends, such as gnostic and literalist approaches, can be observed among Muslims from the early days of Islam. The companions of the Soffa,[3] early mystics, the Khawarij[4] and some other early *Kalam*-inspired trends such as Murji'a (Murji'ites)[5] were among the first examples of non-rational or anti-rational trends in Islamic thought (Ibn Ishaq, 1982; Balnkinship, 2008; Watt, 1998). The *Ash'arites* and the *Akhbaris* are examples of such tendencies in classic and pre-modern Islamic thought (Fakhry, 1993; Gleave, 2007). Traditionists, subscribers to post-modern intellectual ideas among contemporary Muslims, and modern day fundamentalists in all their diverse manifestations, including Al-Qaeda, Da'ish and Boko Haram, are representatives of such trends in our time (Choueiri, 2010; Sidahmed & Ehteshami, 1996; Byman, 2015; Comolli, 2016). All the above groups, despite great diversities in their outlooks, have something in common: they either do not acknowledge the authority or validity of any universal norms of rationality, or maintain that there are other authorities higher than universal norms of rationality, or claim that their own model of rationality is superior to all other possible models of rationality.

The *Tafikik* School of thought is a relatively modern trend whose beginning goes back to the late nineteenth and early twentieth centuries. However, the *Tafkikis* themselves trace the genealogy of their school back to the beginning of Islam. For example, Mohammad Reza Hakimi, who coined the very term 'the School of *Tafkik*',[6] writes,

> [A]lthough the terms '*Tafkik*' and 'the *Tafkiki* School' are new the idea of '*Tafkik*' is old and goes back to the beginning of Islam. It comprises the belief that the truths about religion and the correct knowledge of it are the ones stated in the Quran and have been taught by the Prophet and afterwards by his appointed successors, who have inherited his knowledge. These truths and knowledge all correspond to reality and are superior to whatever is told by others, even other Divine religions. They are not in need of any other system of thought and are self-sufficient, capable of providing answers to all the cognitive needs of human-kind.
>
> (Hakimi, 2014, 186–7)

However, according to the *Tafkikis*, despite the availability of the teachings and the approach of the School of *Tafkik*, due to the emergence of other intellectual trends which were at odds with the teachings of the *Tafkiki* School, the need for active and explicit promotion of this School and its ideas and ideals has gained a greater degree of urgency in recent centuries.

The first promoter of the school of *Tafkik* in modern times was Seyyed Musa Zar-Abadi[7] (1877–1934) from Qazvin (in Iran) who was well-versed in many of the traditional Islamic disciplines including *fiqh* (Islamic jurisprudence) and *usul-e fiqh*, philosophy, *kalam* (theology) and ethics. He penned some treatises in these fields. These were mostly commentaries on some of the important and better-known books written by the past masters in some of the above fields. Among Zar-Abadi's better-known works, his commentary on *Kefayah al-Usul*[8] of Akhund Mulla Kazem Khorasani[9] (1839–1911), and his commentary on Sa'd al-Din Taftāzani (1322–1390)'s famous book in rhetoric, *al-Motavval*, are worth-mentioning. Zar-Abadi was also interested in the politics of his time and was, initially, a supporter of Iran's Constitutional movement (1900–1911) and even produced a short pamphlet in its praise. However, later on he turned against this movement and became one of its vocal critics. He was also an adept practitioner of occult sciences[10] (Hakimi, 2014, 193–7).

Seyyed Musa trained a number of students who in turn became prominent *Tafkiki* personalities in their own right. I shall briefly introduce some of these disciples. However, due to space limitations, I need to restrict myself to only a small number of *Tafkikis* and will leave many of their important representatives out.

Among the first generation of *Tafkikis* in modern times perhaps the most important figure, who is regarded by some as the founding father of the

school in its new manifestation (Vakili, 2013: 16), is Mirza Mahdi Isfahani (1885–1945). Mirza was born in Isfahan but spent his formative years in Najaf and studied under grand masters of *fiqh* and *usul-e fiqh*[11] such as Akhund Mulla Kazem Khorasani, Seyyed Mohammad Kazem Yazdi (?–1918) and Mohammad Hossein Nai'ni (1859–1936). Following an eighteen-year period of study of the official religious subjects in the seminary of Najaf, at the end of which his expertise as an accomplished mujtahid was acknowledged by his teachers, Mirza Mahdi spent seven years in pursuit of spiritual self-discipline by means of special procedures and exercises such as self-reflection (*moraqibah*) and also other ascetic, religious and ethical practices. During this period, he saw the occult Imam in a vision.[12] This experience changed Mirza Mahdi's future plan of life. He has recounted his experience in the following way:

> In my dream I saw myself in a chamber in one of Najaf's seminaries. I was given a large piece of paper . . . across one side of the paper it was written in naskhi script[13]: 'acquiring knowledge by other ways than ours [i.e. the way shown by *Ahl al-Bayt*][14] is tantamount to denying them [i.e. the *Ahl al-Bayt*]. . . . On the back of the paper, on the bottom left corner, was written lengthwise in naskhi: 'God has appointed me and I am Hujjat ibn al-Hassan'.
>
> (Vakili, 2013: 21)

Having narrated his vision, Mirza goes on to add, "My circumstances and state underwent a gradual change after this vision" (Vakili, 2013: 21).

At the end of his seven-year period of spiritual preparation, Mirza Mahdi moved to Mashhad where he remained for the rest of his life. In the next twenty-five years, until his death, Mirza Mahdi played a dual role in Mashhad. On the one hand, he, in the capacity of a traditional scholar, presented classes in *usul-e fiqh* and in fiqh. His classes in *usul-e fiqh*, which were held in the madressa (seminary) of Parizad, were in particular very popular since, as one of the best disciples of Nai'ni, he was the only scholar in Mashhad who could introduce seminary students to Nai'ni's novel approaches to *usul-e fiqh*. On the other hand, in the capacity of a preacher and a theologian, he began a series of lectures on doctrinal issues from a Tafkiki point of view. These classes were open to all and in them he would introduce his audiences, who were a mixture of the general public and seminary students, to the basic tenets of the School of Tafkik (Vakili, 2013).

The seminary of Mashhad which consisted of many madrassas had an uneasy relationship with Reza Shah, the founder of the Pahlavi dynasty (1925–1979). Reza Shah, who had come to power following a Palace coup d'état against the last Shah of the Qajar dynasty, Ahmad Shah (Hunter, 2014), was pursuing an aggressive policy of modernisation/westernisation. When, in 1935, he enforced his plan for the compulsory removal of women's hijabs, the students in the seminary of Mashhad made strong

protestations to which Reza Shah responded with an iron fist; security forces raided the Goharshad mosque and killed and wounded a very large number of the protesters (Dossier, Document No. 422). As a result of this massacre, the seminary of Mashhad was closed and all teachings and learning activities were stopped.

Six years later, in 1941, when Reza Shah was forced to abdicate and was sent into exile in the island of Mauritius by the Allied High Command, the Mashhad seminary was re-opened and Mirza Mahdi resumed his teachings. This time however he made a radical change in his seminary activities. Instead of concentrating on teaching of fiqh and usul, as he was doing in the past, he shifted his attention to his doctrinal teachings (namely, principles of Tafkiki thought) which he started to deliver in a new madrassa, the madrassa of Navvab. He continued his usuli (usul-based) teaching at the madrassa of Parizad, but on a much reduced scale. However, in the last years of his life he stopped teaching these two subjects altogether (Vakili, 2013: 24).

Mirza Mahdi has written a number of books with a view to elaborating his Tafkiki views. Among these titles, *Ma'aref al-Quran*[15] (the knowledge embedded in the Quran), which is his most extensive published *Tafkiki* work, is worth mentioning. His other important book, which contains a brief, though critical, comparison between his own mature views and a number of philosophical and mystical doctrines, is entitled *Abvab al-Hoda*[16] (the gates of guidance). Some of his students have produced manuscripts on various topics (including *usul-e fiqh*, doctrinal teachings – and the understanding of the Quran) all based on his teachings in his classes. However, these and some other manuscripts, produced by Mirza Mahdi himself, have remained unpublished (Vakili, 2013: 30; Hakimi, 2014: 226).

Mohammad Reza Hakimi has produced a list containing the names of twenty-six of Mirza Mahdi's better known disciples. Many of these disciples, who are regarded as the second generation of *Tafkikis*, have become influential scholars, preachers, educationalists and activists and have played important roles in promoting *Tafkiki* ideas (Hakimi, 2014: 224–5).

Perhaps the most important *Tafkiki* scholar among the disciples of Mirza Mahdi was Sheikh Mujtaba Qazvini[17] (1900–1966) who was also a disciple of Seyyed Musa Zar-Abadi. Seyyed Musa was also Sheikh Mujtaba's brother-in-law. In the literature of *Tafkikis* Sheikh Mujtaba Qazvini and his two teachers are usually regarded as the founding fathers of the school of *Tafkik* (Hakimi, 2014, 45). Sheikh Mujtaba, like his teachers, combined the teaching of *fiqh* and *usul-e fiqh* with the introducing of students to the tenets of the *Tafkiki* approach. Like his brother-in-law he was also teaching philosophy. But his approach to philosophy unlike his brother-in-law's was based on a critical exposition of the defects of philosophical doctrines. He wrote many manuscripts on various religious topics. But his most important published work was a five-volume theological treatise based on Quranic teachings, entitled *Bayan al-Furqan* in Persian (Hakimi, 2014: 247; Vakili, 2013: 34).

Among the best disciples of Mirza Mahdi, Haj Sheikh Hashem Qazvini (Khorasani) (1891–1960) deserves special mention. Haj Sheikh Hashem had studied peripatetic philosophy under Seyyed Musa Zar-Abadi and advanced levels of *fiqh* and *usul-e fiqh* in Qazvin under some of the local scholars before travelling to Isfahan and spent a six-year sojourn in this city to advance his understanding of Islamic sciences. On his return to Qazvin, Haj Sheikh Hashem decided to travel to Mashhad and benefit from the classes of the great scholars who were teaching in this city. In Mashhad he attended the classes of Ayatollah Hossein Qumi, Ayatollah Mirza Mahdi Isfahani, and Ayatollah Mirza Mohammad Aqazadeh Khorasani, the son of Akhund Mulla Kazem Khorasani. The two latter teachers confirmed his status as a mujtahid.[18] This confirmation was further endorsed by the grand Ayatollah Seyyed Hasan Isfahani.

Although Haj Sheikh Hashem was very close to Mirza Mahdi, some writers maintain that he cannot be regarded as a member of the School of Tafkik, while others consider him as one of the main personalities of the Tafkiki movement (Vakili, 2013: 37–9; Hakimi, 2014: 281–3).

Another famous member of the close circle of the disciples of Mirza Mahdi was Sheikh Mamhmud Halabi[19] (1900–1998). Sheikh Mahmud published a compilation of the teachings of Mirza Mahdi in *usul-e fiqh*, doctrinal principles and understanding the Quran. This book, which is entitled *Taqrirat* (endorsed accounts/reports), was seen by Mirza Mahdi himself before its publication and received his endorsement. Following the massacre at the Goharshad Mosque in 1935, Halabi left Mashhad and spent eight years in a small village near Nishabur (Vakili, 2013: 32). In the last years of Reza Shah's reign he returned to Mashhad, but did not pursue formal seminary education. Instead he entered into the realm of political activities and used his skilful art of oratory in support of the movement of Prime Minster Mohammad Mossaddiq in nationalising the Iranian oil industry. After the Anglo-American Coup d'état of 1953, in which the democratically elected Dr Mossaddiq was removed from power and the Shah who had fled to exile in Rome was restored to the throne, Halabi decided to leave the arena of politics and dedicate his energy to the promotion of *Tafkiki* ideas in an organised and novel manner. As one of his biographers has pointed out, "After the 1953 Coup d'état, Halabi moved to Tehran and dedicated himself to launching a highly disciplined, quietist lay organization known as Anjoman-e Hojjatiya. The primary objective of this voluntary association was to meet the polemical challenge of the Bahai faith and the perceived danger of its aggressive missionary activity in Persia. Halabi characterized the mission of Hojjatiya as 'the scientific defence of Islam'" (Sadri, 2003, 582).

A classmate of Halabi's who was also a well-known *Tafkiki* figure of the second generation of Tafkikis was Mirza Hasan-Ali Morvarid, better known as Ayatollah Morvarid (1911–2004). Morvarid at the age of thirteen attended Mirza Mahdi's classes and continued his studies with his teacher

to the advanced levels of *fiqh* and *usul-e fiqh*. He also mastered doctrinal studies in line with the teachings of the School of Tafkik. While studying with Mirza Mahdi, Morvarid, as was and is customary in religious seminaries, attended the classes of some of other eminent scholars. After the death of Mirza Mahdi, Morvarid moved to the city of Qom to study under the Grand Ayatollah Brujerdi. On his return to Mashhad, Morvarid began his own classes in *fiqh* as well as the *Tafkikis*' interpretation of doctrinal topics. Later in life he published *Tanbihat Hawl al-Mabda wa al-Ma'ad*[20] (Remarks concerning the Beginning and Return (Resurrection)) which was based on the views of Mirza Mahdi (Khorasani, 2009).

A close friend of Morvarid and one of the other influential members of the Tafkiki School was Mirza Javad Aqa Tehrani (1904–1989) who entered into the inner circle of Mirza Mahdi's disciples in the last ten years of the life of his teacher. Like the other close students of Mirza Mahdi, he studied *usul*-e *fiqh*, *fiqh* and *ma'aref* (doctrinal teachings according the *Tafkiki* interpretation). Mirza Javad Aqa, who was elevated to the rank of Ayatollah (presumably after the Islamic revolution), was very attentive to the welfare of the less well-off social classes. This attitude was also reflected in his scholarly oeuvre: most of the titles published by Mirza Javad were directed towards the general public rather than the tiny clique of experts. In this genre he wrote a critique of Marxism, a critique of Sufism, and two books on doctrinal issues and ethics from an Islamic point of view – all based on the Tafkiki teachings (Hakimi, 2014: 304–8; Vakili, 2013: 35–6).

Among the third generation of the *Tafkiki* scholars perhaps the two best-known figures are Ostad Mohammad Reza Hakimi (1935–) and Ayatollah Seyyed Jafar Seyyedan (1934–).

Hakimi studied under some of the important figures of the second generation of *Tafkikis*, including Sheykh Mujtaba Qazvini, whom he reverently calls, *Sheikh-e Ostad* (the great teacher), and Haj Sheikh Hashem Qazvini. At the young age of 23, Hakimi obtained permission to narrate the Shi'i *ahadith*[21] from the great Shi'i scholar of hadith, Sheikh Aqa Bozorg Tehrani (1876–1969) one of the disciples of Mohammad Hossein Nai'ni. Following the completion of the customary three levels of seminary studies, namely the introductory (*moqaddamat*),[22] the intermediate (*sath*)[23] and the advanced (*khārej*) levels, in the Madrassa of Navvab at Mashhad seminary, Hakimi decided to continue his professional life as a writer and researcher rather than as a traditional seminary teacher. His talent in poetry and literature (both Persian and Arabic) put him in contact with a large number of intellectuals, religious and secular. Hakimi is a prolific writer and has produced many works in a number of areas. These areas could be divided into the following six categories.

First, doctrinal topics from a *Tafkiki* point of view and clarification of different aspects of the school of *Tafkik*. Second, topics and works which introduce the *ahadith* narrated by the Shi'i Imams. Here, his encyclopaedic work, *Al-Hayat*[24] (the life) which is a twelve-volume collection of *ahadith*

(written in collaboration with his two brothers) deserves special mention. Recently the twelfth and the last volume of this grand work has been completed and published. Thus all the volumes of this collection of *ahadith* have been made available to the public (Dalil-e Maa, 2016). Another area in which he has produced many titles is the biography of great Shi'i scholars. A fourth area of his interest concerns discussions about various aspects of Islam and the role of Islamic teachings with regard to society, politics, culture, and history. He has also written many essays on various topics from historical themes to literary issues, to reviews of books, and to topical subjects. His collection of Persian and Arabic poetry constitutes the sixth area of his intellectual interest (Nad-Alizadeh, 2011).

Seyyed Jaffar Seyyedan, like Mohammad Reza Hakimi, completed his religious studies in Mashhad seminary under some of the well-known students of Mirza Mahdi Isfahani including Haj Sheikh Mojtaba Qazvini and Haj Sheikh Hashem Qazvini. Like Hakimi he has studied fiqh, usul and philosophy. He has written many books and treatises on theological and doctrinal issues from a Tafkiki point of view. In contrast to Hakimi, Seyyedan has continued his career as a teacher and scholar in Mashhad seminary and at present is engaged in teaching a commentary on the Quran and also theological (*Kalam*-based = *kalami*) topics (Official site of Ayatollah Seyyedan, accessed 16 April 2016).

II The main tenets of Tafkiki thought

The *Tafkikis*' approach is informed by an epistemological framework whose main aspects can be introduced briefly as follows:

- The *Tafkikis* maintain that Muslims' understanding of God's message has been distorted due to the mixing of the Divine message with philosophical and mystical teachings. The objective of the *Tafkikis* is to cleanse the Divine message from all the impurities added to it and to understand and present it in its pure form. They believe the only way to achieve this aim is to make use of the teachings of the Prophet Mohammad, his daughter Fatima and the twelve Shi'i Imams, who are collectively known as the fourteen infallibles.
- According to Mohammad Reza Hakimi, in the Tafkikis' view what is called '*ma'aref*' (sig. *ma'refat*) or understanding of truths is knowledge of (mostly though not exclusively) all doctrinal issues, including, the beginning (*mabda'*) and the end (also known as 'return' or 'resurrection' = *ma'ad*);[25] the Prophethood; *Velayat* (guardianship);[26] the reality of being, angels, worship, happiness and death; the stages of death, the state of *barzakh* (purgatory), the final destination of man's existential journey and the ultimate rationale of creation (Hakimi, 2014: p. 48). Hakimi writes,

  > When we say the correct knowledge (*ilm-e sahih*)[27] should only be obtained from the Quran and the infallibles, what we mean by *ilm*

(knowledge), is mostly the knowledge of *Tawheed*[28] (monotheism) and what is to be known about 'the truths concerning the beginning and the end', and the true nature and states of things and the hidden aspects of what there is and of all entities. And [by *ilm* we do not mean] man-made technologies and techniques and empirical data. Of course, even with respect to these things, if we have received something from the Quran or the infallibles, then truths about these things, in the first instance, reside in that received wisdom. (Hakimi, 2014: pp. 188)

- *Ma'aref*, in the above sense, are divided into two general types: pure and mixed. Pure *ma'aref*, in turn, are sub-divided into three different types: pure Quranic *ma'aref*, pure philosophical *ma'aref* and pure mystical (*irfan*-oriented = *irfani*) *ma'aref*. Mixed *ma'aref* are sub-divided into many more types which cover all possible combinations of the Quranic, philosophical, mystical and theological (*kalami*) *ma'aref*, including the following:

  Mixed Quranic-philosophical *ma'aref;*
  Mixed Quranic-Mystical *ma'aref;*
  Mixed Quranic-theological (*kalami*) *ma'aref;*
  Mixed philosophical-mystical *ma'aref*

  > Mixed peripatetic (*mashshaei*)[29]-mystical *ma'aref*
  > Mixed illuminastionist (*ishraqi*)[30]-mystical *ma'aref;*
  > Mixed Neo-platonic-mystical *ma'aref;*

  Mixed philosophical-mystical-Quranic *ma'aref*. (Hakimi, 2014: pp. 48–9)

  Etc.

- To acquire true knowledge of the Divine teachings one needs guidance and instructions from true and genuine teachers. It is not possible for ordinary mortals to achieve a sound understanding of God unless through God's true representatives on earth, namely, God's messengers and authorised agents/vicegerents (*Usia*).[31]
- Reason, on its own, and lived experiences, on their own, are not enough to provide pure knowledge of the Divine. Such knowledge can be obtained only through revelation. Had the more knowledgeable among people followed the message of revelation, true knowledge would have been made available ages ago and there would have been no trace of mixed and incomplete types of knowledge based on reason or intuition (ibid. 50–1).
- For *Tafkikis* only what they call 'the autonomous religious reason' (*aql-e khud boniad-e dini*)[32] is capable of comprehending the profound wisdom of the teachings of the Quran and ahadith. Although no explanation has been offered in the way of clarifying as to just

what this 'reason' consist of (i.e. determining its 'whatness'), it seems that the main characteristic of it is that it only and exclusively relies on revelation as its source of inspiration and the source for acquiring knowledge. This 'reason' is the only reason which can extract the *ma'aref* from the verses of the Quran and the *ahadith*. It is not contaminated by any philosophical, scientific, mystical or other types of approach to knowledge (Hakimi, 2011: 9–11; 2014: 122–124).

- It is possible to acquire knowledge about reality without embracing prior assumptions. Thinking, in the absence of all suppositions, i.e. where one is like a *tabula rasa* or blank slate, is not impossible (Hakimi, 2014: 17–18, 67–68).
- Apparent and literal meaning should be given priority over all types of interpretation. This is a principle which reason endorses (Hakimi, 2011: 9–10; 2004: 58–9).
- Interpretation (*ta'wil*)[33] is a distorting process and therefore must be avoided (Hakimi, 2014: 18). Hakimi maintains that all acts of *ta'wil* amount to a distortion of the original meaning (Hakimi, 2014: 70). He says, "A scientific approach to investigation requires that the view of each thinker to be assessed as it is. It should not be interpreted and one ought not to put one's own words into the mouth of the other" (Hakimi, 2014, 69). The *Tafkikis* differentiate between *ta'wil* and the use of literary devices such as referential metaphor and imagery (*majaz-e isnadi*)[34] (Hakimi, 2008: 33; 2014)
- Divine teachings, as presented in the Quran, can be understood directly and without any distortion (Hakimi, 2014: 18, 69–73).
- Rational arguments (obtained by means of theoretical reason) are always defective. They must be rejected if they disagree with authentic ahadith. The only trustworthy reasoning is the one which presents itself as a self-evident proof (Hakimi, 2014: 34).
- The *Tafkikis*' claim that their approach is not identical with the *Akhbari* approach in that the *Tafkiki* scholars use the tool of *usul-e fiqh* whereas the *Akhbaris* are against the use of the tool of reason and the practice of *fuqaha* who act as *marjae' taqlid* for the faithful[35] (Hakimi, 2014: 41).
- It is possible to exactly and accurately demarcate the boundaries of various types of knowledge (Hakimi, 2014: 68).
- The *Tafkiki* type of knowledge is pure and uncontaminated by any other type of knowledge (Hakimi, 2014: 69; 2011: 2004).
- The *Tafkiki* School is exclusivist: the only way to reach the truth is through the Imams or the infallibles (Hakimi, 2014: 103).

Having briefly introduced the main tenets of the School of *Tafkik*, we are now in a position to critically assess the strengths and weaknesses of the *Tafkikis*' epistemic claims.

III Is *Tafkik* a viable epistemological approach?

There is no doubt that the central claim of the School of *Tafkik*, namely, the need to acquire pure and uncontaminated knowledge about God and reality and the possibility of achieving this goal, is a very powerful message which has great appeal for many of the faithful. In fact, the *Tafkikis* introduce the main aim of their School in a way that makes adherence to it and following it diligently a religious duty for the believers.

Hakimi, for example, having argued that many great minds, including great Muslim scholars, have been busy producing mixed types of knowledge, poses the following rather rhetorical question:

> What caused Muslim scholars to decline from developing a pure Quranic School of *ma'aref*? Why did they not follow the example of great *fuqaha* who produced a pure Islamic *fiqhi* (*fiqh*-based) School through books such as *Sharaye' al-Islam*[36] which has not borrowed anything from other legal systems?
>
> (Hakimi, 2014: 68)

He then goes on to emphasise,

> Our aim is to separate different Schools and approaches and understandings, and separate the pure from the impure and look at various aspects of each separately. In particular, with respect to Muhammadan revelation and Quranic truth (which have opened up a new door of knowledge to mankind, a door that had not been opened before the revelation of the Quran), we intend to argue that the unique and exalted opportunity of having knowledge of these truths belongs only to the carriers of this revelation, i.e. the *Ahl al-Bayt*. We would want to understand the great and unprecedented teachings of this book in a pure and unmixed way. Why? [Because] the right to do so is something which is proven from the viewpoint of science, [and the need for undertaking this task is] indubitable from the viewpoint of reason, and [the task itself is] obligatory from the viewpoint of *shar'* [i.e. religious teachings].
>
> (Hakimi, 2014: 68)

The above theme is repeated elsewhere in his works. For example, in his *Makatb-e Tafkik*, following a brief account of the historical and intellectual development of 'Islamic philosophy' and 'Islamic mysticism' in which Hakimi develops his views concerning what he takes to be the encroachment of the method of *ta'wil* (interpretation) in the works of Muslim scholars, he, once again, stresses the point about the responsibility of Muslim scholars to promote the *Tafkiki* approach:

> It can be readily sensed that a huge responsibility has emerged in the epistemological history of Islamic thought and culture, a responsibility

that reason also highly endorses and emphasises. This responsibility, in a nutshell, is to enforce the act of separation [of various *ma'aref*]. That is to say, it is necessary that in every period, some learned and capable scholars, take stand against the onslaught of mixing up ideas, eclecticism, and interpretivism, and try to purify the Quranic *ma'aref* and Divine truths, and revelation-based sciences. And as a 'necessary scientific elaboration', a 'rational-religious responsibility', and an 'epistemic service to the history of mankind', . . . defend the boundaries [of belief and doctrines].

(Hakimi, 2014: 74)

The combination of a call to arms against all 'impure' ideas and claims to knowledge, plus an assurance of the possibility, indeed inevitability, of success in such an endeavour, has given the School of *Tafkik* a great deal of appeal as well as a considerable power of persuasion in the eyes of believers. The fact however, is that this School suffers from serious internal inconsistencies and as such cannot produce a viable approach to present-day epistemological problems. In what follows I shall try to briefly touch upon some of these defects.

Although the defects which are discernible in the School of *Tafkik* are inter-related and comprise a network of interconnected nodes and links, perhaps the single most important node in this network is the view of the School concerning the process of interpretation. *Tafkikis*, as we have seen above, maintain that all acts of interpretation amount to *ta'wil* which, according to them, is tantamount to distortion and contamination of the original meaning. But one of the teachings of modern epistemology, especially as explained by the critical rationalists, is that 'all observations are theory-laden'. Popper, who originated this idea, wrote,

[O]bservations, and even more so observation statements and statements of experimental results, are always *interpretations* of the facts observed; that they are *interpretations in the light of theories*.

(Popper, [1933]1968: 107, note 3, emphasis in the original, quoted in Hands, 2001: 93)

Theory-ladenness of observations makes any claim concerning a pure understanding of any fact, phenomenon, idea, statement, knowledge-claim etc. untenable. Of course, the idea of getting access to things in their purest form has a great deal of appeal and always tempts people to try their hand at it. Many years ago around the mid-1980s, while I was doing my postgraduate studies in the history and philosophy of science at the then Chelsea College of the University of London (it merged with the King's College of University of London a few years later), my tutor, Professor Heinz Post, narrated the following true story in one of his weekly philosophy of science seminars. He mentioned a colleague of his who was an eminent chemistry Professor and had been working, tirelessly, on a long-life project whose aim was to

produce a sample of absolutely pure water. Professor Post explained that if his friend had not been obsessed with his objective, he could have realised that water, being a very powerful solvent, would dissolve tiny layers of *any* container into which it is poured. Professor Post then went on to make a more general point. He noted that had his friend had a better philosophical understanding he would have realised that in this world nothing is pure and everything is mixed with other things. In this world even ideas cannot be absolutely pure. All ideas, even those which apparently are novel and 'pure', carry with them traces and influences of other ideas. This world is the world or interaction among things and as such nothing can be developed in a vacuum, isolated from all other things.

The very notion of acquiring a pure understanding of the teachings of Islam, however, is closely linked to another aspect of the *Tafkiki* thought, namely, the idea of the possibility of cleansing the mind of all background and prior knowledge, all prejudices, all biases, and in short, all those elements which could affect acquiring pure '*ma'aref*'. Of course the *Tafkikis* themselves go much further than just talking about the mere *possibility* of acquiring pure *ma'aref*. They claim that they are already in possession of such knowledge, a knowledge that they further claim they have obtained by applying a method introduced by the infallible Imams. This method, so the *Tafkikis* claim, can be acquired by those who follow the instructions of the School of *Tafkik* (Hakimi, 2014: 51–3).

The demand for cleansing the mind of all preconceptions and approaching the subject-matter of study with a mind free from all interfering factors as a pre-condition for acquiring pure knowledge, is a tempting idea which has had many adherents and supporters in the history of thought. A famous case in point is Francis Bacon (1561–1626), the champion of promoting a new approach towards acquiring knowledge free from the shackles of Aristotelianism. In his *New Organon* which is his manifesto for his project to introduce a new method for acquiring genuine knowledge about reality, Bacon emphasises, among other things, that

> [W]e reject (in an inquiry into nature) all that hasty human reasoning, based on preconceptions [anticipations], which abstracts from things carelessly and more quickly than it should, as a vague, unstable procedure, badly devised.
>
> (Bacon, 1620/2000: 13)

Bacon's approach is succinctly summarised by Popper in his *Conjectures and Refutations*. According to Popper, Bacon's response to the question "How can we prepare ourselves to read the book of Nature properly or truly?" was

> [B]y purging our minds of all anticipations or conjectures or guesses or prejudices. There are various things to be done in order so to purge our

minds. We have to get rid of all sorts of 'idols', or generally held false beliefs; for these distort our observations.

<div align="right">(Popper, [1963] 2002: 19)</div>

However, the thesis of the theory laden-ness of observation deals a fatal blow to the idea of the possibility of approaching the subject-matters of inquiry with a mind cleansed of all presuppositions. In his discussion of acquiring knowledge, Hakimi argues that if the views of the inquirer are influenced by ideas and thoughts from schools other that the school of the Imams, those impurities would strongly affect not only the data and information which the inquirer obtains in the course of acquiring knowledge, but also the very nature of his knowledge and even the very process of discovering knowledge. This, in turn, would lead to differences of methods and eventually differences of views (Hakimi, 2014: passim).

   However, the idea that to acquire knowledge one should get rid of ALL external influences, is neither possible nor desirable, as critical rationalists argued long ago. It is not possible, since, as Popper has argued,

> The *tabula rasa* theory is absurd: at every stage of the evolution of life and of the development of an organism, we have to assume the existence of some knowledge in the form of dispositions and expectations. Accordingly, *the growth of all knowledge consists in the modification of previous knowledge* – either its alteration or its large-scale rejection. Knowledge never begins from nothing, but always from some background knowledge – knowledge which at the moment is taken for granted – together with some difficulties, some problems.
>
> <div align="right">(Popper, 1979: 71, italics in original, quoted in
Currie & Musgrave, 1985: 75)</div>

All our knowledge-garnering activities begin with problems. Indeed, in a very important sense, "All life is problem-solving" (Popper, 2002). Problems present themselves to us when our expectations of reality, based on our background knowledge, are shattered. In the light of new problems, we have to come up with new models of reality. Such models will be in the shape of conjectures about possible solutions for the problems on hand (Popper, 1994; Miller, 1994, 2006a).

   Cleansing one's mind of all prior knowledge is also not desirable since we cannot think or even have personal, existential experiences in a vacuum and in the absence of our past experiences and background knowledge. Interestingly enough, Hakimi himself acknowledges the impact of one's background knowledge and past experiences on one's existential experiences. But he mistakenly diagnoses the sources of such influences in the impurities of one's thoughts and suggests a way, based on the *Tafkikis*' teachings, for getting rid of them.

Hakimi's mistaken view concerning the possibility of thinking or having existential experiences in a vacuum, i.e. experiences not affected by any contextual particularity, has led him to criticise some Sunni mystics for reporting of visions in their mystical experiences in which some of the three righteous caliphs had appeared to be superior to Imam Ali (the fourth righteous caliph). Hakimi has taken this to be evidence of the impurity of the belief system and knowledge reservoir of these mystics (Hakimi, 2014: 52).

The fact that our background knowledge may negatively influence the outcome of our quest for knowledge should not unduly alarm us. In the first place, as was stated above, since it is not possible for us to think in a vacuum, we must expect some sort of influence from our background knowledge, our upbringing, our lived experiences, the environment and culture to which we belong, etc. But, no matter how much such internal and external factors taint the views we obtain as knowledge about reality, at the end of the day, ALL knowledge claims must be submitted to the tribune of critical assessment in the public arena. Such claims should be assessed either by rational means or empirical means or both, as the case may be. Public accessibility and public assessability of knowledge claims guarantee their objectivity (Paya, 2011a). In this way, errors in knowledge claims can be exposed.

But the issue of personal, existential or mystical experience needs to be further looked into in order to avoid drawing the wrong conclusions. In all existential or mystical experiences an existential union takes place between the knower and the known. In this state of union, which can only be described metaphorically, for reasons which will be clear shortly, the knower experiences a process of becoming (*sayrorat*),[37] i.e. he becomes part of a process of existential unification. He goes through unknown phases of change while the experience is in progress. In this state of union between the knower and the known there is no room for 'understanding', 'consciousness', 'self-awareness' and cognizance. All such concepts belong to the realm of epistemology in which there is always a distance between the knower and the known. While the experience is going on, there is no 'self' to be aware of himself as the 'knower'. There is just one unified entity which is undergoing the process of becoming. That unified entity does not bear the identity of either the knower or the known. It is a state of becoming in a certain way whose characteristics are unique to the knower and the known and the particular occasion of the union in question.[38]

It should be noted that such experiences of unification between the knower and the known need not to be of a mystical nature. Even more mundane existential experiences, such as the intense sensation of burning when the content of a hot cup of tea accidentally pours on one's hand or foot, produce the same effect: during the transient period in which the experience is in progress the subject is not in a state of epistemic self-awareness; he is fully absorbed with the object of the experience and is unified with it. In such a transient state he is not in a position to describe his experience. Only when

the experience comes to an end he will be able to reconstruct his experience with the help of his memory, language and concepts.[39]

This same process happens in all other types of intense personal, mystical experiences. In all such cases, the subject is momentarily transported from the plain of self-awareness to a mysterious psychological state in which there is no self and no self-awareness; it is a state of becoming. It is only when the existential experience comes to an end that the mystic or experiencer or the knower can reflect back and by means of his memory, concepts and language produce a 'reconstruction' of his lived experience. The crucial point is that ALL such reconstructions, even when the experiencer is the Prophet himself, always bear upon themselves all the hallmarks of the time and place (the particularities) of the experiencer. Moreover, as was suggested above, each one of such experiences, is unique. This means that no existential experience can be repeated even by the experiencer/knower in question. Whatever the subject experiences afterwards will be another unique experience. Innumerable accounts of personal and mystical experiences narrated by people throughout the history of thought and across almost all cultures and traditions corroborate the conjectural explanation suggested above and shed light on them (Dupré, 1987; Shear, 1994; Brainard, 1996; James [1902] 1985).

Hakimi admits that the particularities of time and space influence the way inquirers view reality, but he claims that it is possible to transcend such limitations and acquire pure knowledge: "In a Quranic society, all knowledge and *ma'aref* (i.e. knowledge according to *Tafkikis*) are also Quranic and pure. The Quran is *the* book and the teacher of the book is the infallible Imam, i.e., the one who has knowledge of *all* aspects of the Quran and who is the implementer of all its aspects. He suffers from neither ignorance, nor frailty, nor need, nor backwardness" (Hakimi, 2014: 59, emphasis added).

The snag with the above claim is that it is just that, i.e. 'a claim', without any argument to further explain it. Hakimi's approach can be best described as 'the philosophy of "I am telling you"'. It resembles, to some extent, the phenomenological approach of Heidegger, in that it is mostly descriptive and there is not much in the form of argument to explain the claims which are made (Marion, 1998).

It is worth re-emphasizing a point made above, namely, that all experiences, including mystical experiences, are context-sensitive. They take place at specific times and locations. This means that no-one, not even the greatest mystics, not even the Prophet and the Imams, can have experiences which are entirely devoid of all particularities of their time and place. The story of the Ascension of the Prophet Muhammad as narrated by Abu al-Hasan al-Basri[40] and recorded by Ibn Ishaq is a case in point. According to al-Basri the Prophet has recounted his night journey in the following way:

> One night I had slept in the chamber of the *Kaba'* and was fast asleep. Suddenly Gabriel, peace be upon him, entered and put his foot on me.

I sat on the ground and looked around but saw no one. I returned to my place and once again went to sleep. Gabriel came back and put his foot on me and I woke up once again but saw no one. Once more I went back and lay down in my place and went to sleep. Gabriel came for the third time. He put his foot on me, and once again I woke up. Gabriel, peace be upon him, took my arm and helped me to stand up and said, 'come'. So I went out of the Mosque with him, as I came to the door of the mosque, I saw Buraq, smaller than a mule, larger than a donkey. It had two wings with whose feathers it would keep stroking its own legs and with each step that it would take it would travel as far as eyes could see, and it would carve the ground with its hooves. Gabriel, peace be upon him, told me, to mount. . . . I mounted on it and Gabriel, peace be upon him, came with me and Buraq would carry me until it took me to *Bayt al-Maqdis*.

(Ibn Ishaq, 1982: 392–3)

The point to be noted here is that apart from the specific places, namely, the Kaba and *Bayt al-Maqdis*, the mode of transport which the Prophet has identified for his night journey is also harmonious with the context of his life in the seventh century. A modern day experience of thaumaturgical transportation (*tayy al-ard*)[41] may be envisioned in terms of a completely different mode of transportation. The presence of particular contexts is, as was stated earlier, a hallmark of all personal experiences. As was suggested above, even a cursory look at the testimonies of all those who have narrated their religious or mystical experiences provide clear corroboration for the conjecture that all such experiences are context-sensitive (James, [1902] 1985).

That mystical or existential experiences cannot be completely devoid of all particularities, can easily be corroborated by the simple fact that if such experiences had been devoid of particularities, then either no reconstruction of the mystical experiences could have been possible, or they could only be reconstructed in ways which were totally devoid of any useful information.

The School of *Tafkik*, despite all the disclaimers issued by its proponents, resembles the Akhabri School in that it subscribes to the view that the Quran cannot be directly accessed and it can only be understood through the *ahadith* of the infallibles. For example, Hakimi writes,

In the hadith of 'Ghadir',[42] which according to . . . Tabari (d. 310/922) had been narrated by 72 different Sunni narrators, . . . the Prophet says: "no one but the one whose hand I have taken [i.e. Ali ibn Abi Talib] can interpret the Qur'an for you . . . also in the hadith of 'I am the city of knowledge and Ali is its gate' . . . and many more ahadith, the Prophet has reminded Muslims of the knowledgeability of Ali and the Shi'i Imams, including in the frequently quoted hadith of 'Thaqalain' he has stated that: "do not teach them, since they are more knowledgeable than you". This part of the hadith of 'Thaqalain'

informs us that when it comes to the interpretation of the Qur'an and teachings of religious rulings, we must not move ahead of them [i.e. the Imams] and must not regard our own knowledge as the yardstick and the bench mark, and this is a self-evident point.

<div style="text-align: right">(Hakimi, 2008: 25–26)</div>

Although a moderate *Tafkiki* such as Hakimi does not claim that philosophy and mysticism are completely worthless and emphasises that the School of *Tafkik* is not a School of *ta'til*[43] [lit. suspension or shutting down], the basic epistemological axioms of this School turn epistemological pursuits into an enterprise which, on the one hand as was discussed above, is not conducive to acquiring genuine knowledge about either the external reality or the teachings of the Quran and *ahadith*. And on the other, it encourages an exclusivist attitude according to which only those who fulfil certain conditions, which are not amenable to public scrutiny, could be given access to what the *Tafikikis* call *ma'aref* (knowledge).

In a series of eleven 'letters' published from 1991 to 1994 and addressed mostly to the younger students of the religious seminaries (Hakimi, 1991–1994), and also in his *Maktab-e Tafkik* Hakimi, having emphasised that the infallibles are the only true interpreters of the Quran, goes on to suggest that in their absence, those who fully internalise and incorporate the teachings and the values introduced by the School of *Tafkik* can act as the deputies of the infallibles and carry out the task of introducing the truth of the Quran to the faithful. However, since there is hardly any objective criterion by which the claims of the *Tafkikis* could be judged, in the end, only those the *Tafkikis* themselves identify as fellow *Tafkikis*, could be regarded as such. To highlight the above, it suffices to look into just one epistemic claim made by *Tafkikis* and the way they deal with it: the *Tafkikis*, as stated earlier, maintain that it is not only possible and highly desirable to clearly demarcate the boundaries of various kinds of knowledge, it is indeed a religious duty to do so. However, when it comes to the question of who is qualified enough to carry out this task the answer is the true *Tafkikis*, i.e. those individuals that the *Tafkikis* themselves identify as *Tafkikis*.

IV Some of the non-epistemic consequences of the *Tafkiki* approach and one or two further epistemic consequences

The *Tafkiki* approach which lays emphasis on following the instructions of the infallibles by self-purified individuals who have overcome their prior background knowledge and preconceptions suffers from further epistemic and non-epistemic defects. In this section I mostly, though not exclusively, deal with some of the non-epistemic consequences of the *Tafkiki* School.

One such consequence is as follows: it seems in *Tafkiki* thought not much attention is paid to the significance of institutions and collective activities and collective reason for the development of knowledge. Moreover, the *Tafkikis*'

preoccupation with the causes which, in their view, introduced alien ideas to Islamic culture and obscured the teachings of the infallibles, seems to have made them less interested in the arguments introduced by those ideas, than in the external causes which have facilitated their emergence.

The *Tafkiki* School traces back the genealogy of its approach to the very beginning of Islam and claims that Tafkiki movement is identical with Islam itself. Hakimi writes,

> It deserves to be mentioned here that although the names '*Tafkik*' and 'the School of *Tafkik*' are new but the reality of the *Tafkik* is old and goes back to the beginning of Islam. That is to say, [the reality of Tafkik is] the belief that the truths of the genuine religion and valid knowledge are that which are stated in the Quran and have been taught by the Prophet and his appointed successors – who are the carriers of his knowledge. . . . Thus the reality of the *Tafkik* is something equivalent with Islam and its manifestations, namely, the Quran and hadith, the book and the tradition, the *Ma'aref* of the Quran and the teachings of *Ahl-e bayt*. In short whatever can be obtained from the two precious legacies of the Prophet, without any borrowing from anyone or any school of thought. This and nothing else. This is what is entailed by independent Islamic and Quranic knowledge or understanding.
>
> (Hakimi, 2014: 186–7)

Such an emphasis on the genealogy of the School is, in the first place, ironic. This is because, elsewhere, Hakimi criticises other Schools of thought for tracing their genealogies to respectable origins in order to attain credibility in the eyes of the public (Hakimi, 2014, 73). But, more importantly, such emphasis renders the Tafkiki approach vulnerable to the so-called 'genealogical fallacy' according to which the origin of ideas plays an important role in shaping their content. In other words, those who commit such a fallacy shift the burden of assessment from a present set of ideas to the origin of those ideas. To put it another way, subscribers to this fallacy use the following pattern of argumentation: x is valuable because its origin was valuable. But the origin of ideas and their present contents are entirely different constructs. Ideas must be assessed on the merit of their own contents and not their lineage.[44]

Concentrating on the origin of ideas, which goes hand in hand with upholding cause-based approaches as against reason-based approaches, could further lead to a number of undesirable outcomes including an emphasis on the intentions of actors rather than paying attention to the consequences of their actions (Hakimi, 2014, 91), and a confusion between epistemological and socio-political truths with regard to the intellectual developments in the history of Islamic thought. Epistemological truths can be investigated by looking into the internal arguments and reasoning, whereas the truths about socio-political factors can be examined by looking into the external causes.

One of the results of such a confusion is subscription to some sort of 'conspiracy theory'. Such a fate, it seems, has befallen the Tafkiki School with regard to the ways in which they try to explain the introduction of philosophical and mystical ideas into the world of Islam. According to Hakimi such intellectual developments were the result of conspiracies by the-powers-that-be to side-line Imamat.[45] In his long list of possible topics for research which he regards to be necessary for establishing the validity of the *Tafkiki* approach, he claims, among other things, that Mu'āwiyeh and his successors not only embarked on constructing a large number of fabricated *ahadith* to confuse Muslims with regard to the rights and status of Imam Ali and his family, deploying an army of paid preachers to propagate false views about the *Ahl-e Bayt*, and destroying and suppressing evidence concerning the rights of the Shi'i Imams, but also were involved in an elaborate scheme for promoting an interpretive approach to the Quran which relies on an individual's personal opinion (*maktab-e ra'y dar tafsir Quran*). They also encouraged the introduction of various theological (*kalami*) topics to engage Muslims in doctrinal disputes and thus turn their attention away from the *realpolitik* practised by the Umayyad.

According to Hakimi the process of introducing alien ideas, including philosophical and mystical doctrines and topics, continued with the coming to power of the Abbasids. All these activities, according to Hakimi, were parts of an elaborate and well-planned 'cultural onslaught' to distort the true message of Islam (Hakimi, 2014: 87–99). For example, he implies that the translation of the medical books of the Nestorian Christians was for the purpose of undermining the authority of the Quran and the Imams (Hakimi, 2014: 98).

Some of the topics suggested by Hakimi for further research in the history of Islam are self-explanatory with regard to the above points:

Section 4- The Advent of Islam

>   **4–5-** Beginning of great struggles
>   **4–6-** Transformation of military struggles into cultural struggles
>
>>   **4–6-a-** By the agency of the Jews and Christians
>>   **4–6-b-** By the agency of the elites of the *jahili*[46] period

Section 5- Death of the Prophet and 'the Great Elimination'

>   . . .

Section 7- The caliphate in Damascus and planning for the complete elimination of the Imamat (Part 1)

>   **7–6-** The cultural policy of the Umyyad (cultural onslaught -part 1)
>   **7–6-a-** Prevention of narration of ahadith on Imamat
>   **7–6-b-** Large-scale fabrication of ahadith on Khilafat
>   **7–6-c-** Promotion of the interpretive approach to the Quran . . .

7–6-c-1- Emergence of opinionated interpretation (tafsir-e be ra'y)
7–6-c-2- Introduction of Israiliyat (Jewish thought) in tafsir
7–6-c-3- Introduction of Nasraniyat (Christian thought) in tafsir

Section 8- The caliphate in Damascus and planning for the complete elimination of the Imamat (Part II)

8–2- Mu'āwiyeh support of Jewish and Christian theologians

8–3- Paying attention to the knowledge produced in antiquity (*'ulum-e awai'l*) in order to respond to the intellectual and scientific needs of the Muslim community (ummah) and eliminating the need of referring to the trustee and custodian of the Quran (*Qayym-e Quran*)

8–4- Introducing hot doctrinal issues among Muslims:

8–4-a- To avert their attention from political issues and exploring the issue of the 'the sovereignty of Haq)

8–4-b- To avert their attention from the truth of the Quran and the need to refer to the true interpreters of the Quran

8–4-c- Promotion of impure Quranic understanding

Section 11- The caliphate in Baghdad and planning for the complete elimination of the Imamat (Part I)

11–2- Large scale massacres of the followers of Ali and his family

11–5- Producing a new political philosophy for the unjust caliphate as a rival to the Quranic philosophy of the Imamat of the infallible Imams.

Section 12- The caliphate in Baghdad and planning for the complete elimination of the Imamat (Part II)

12–1- Relentless continuation of the translation of alien books and the transfer of Greek science into the land of Islam

12–2- The cultural policy of the Abbasid (cultural onslaught- part 2)

12–2-a- Giving a free hand to agents of alien cultures in order to consolidate their domination over all intellectual and cultural aspects of Muslims

12–2-c- Introducing a wide range of linguistic, syntactical, semantical and interpretive issues into the discussions on and studies of the Quran in order to keep Muslims away from paying attention to the genuine Quranic sciences and the truthful teachers of the Quran

12–2-e- Promotion of Sufism and court Sufis (or Sufis who were apolitical and with ascetic tendencies) in contrast to the School of the *Ahl-e Bayt* which was socially-committed and politically engaged.

Section 13- Historical Studies- Non-Textual

13–10- Promotion of the history of other nations in order to obscure the braveries of the early Muslims

There is no doubt that both the Umayyad and the Abbasid were the enemies of the Shi'a Imams and were not in favour of the political empowerment the followers of *Ahl-e Bayt* and that they were doing whatever they could to keep them away from power, including distortion of historical facts and the fabrication of alleged historical truths. But to claim that all that happened in the history of Islam and all the ideas emerged in the history of Muslim thought have been the result of the conspiracies of the Umayyad and the Abbasid and other enemies of the *Ahl-e Bayt*, as suggested in the list introduced by Hakimi, is to assume supra-human power for these enemies. And since for at least some of the items in the above list, simpler and more straightforward explanations can be offered, rationality dictates that we adopt the explanation which is simpler and less cumbersome and involved. For example, the development of philosophical thought among Muslims was not entirely the result of conspiracies on the part of the powers-that-be to take Muslims away from the Quran; while conspirators were, no doubt, trying to push their own agenda, there is also no doubt that Muslims needed sophisticated theoretical and intellectual tools to defend their own belief system against the challenges of non-Muslim scholars. To this end they needed to equip themselves with the latest theoretical tools available in the marketplace of ideas.

The Tafkiki School in its opposition to philosophical, speculative and mystical approaches to knowledge goes as far as endorsing some sort of positivistic approaches to the Quran. Hakimi writes,

> One of the main reasons for the failure of Muslims in the arena of science was that although the Quran is a book about scientific and empirical knowledge and repeatedly admonishes Muslims to 'go and explore', and 'observe', because of the contamination of Muslim minds with philosophical and rhetorical issues, the Quran lost its effectiveness for Muslims. And Muslims instead of understanding external reality and acquiring empirical knowledge, limited themselves to dealing with subjective concepts and terminologies and as a result a great many outstanding talents were utterly wasted. To the extent that even after the travel of man to space there were still some Muslims who maintained that such reports were false since according to the classic philosophy any change (tearing/penetration and repairing, *kharq va iltiyam*) in the supra-lunar sphere was impossible.
>
> (Hakimi, 2002: 14)

Hakimi then goes on to emphasise "the cosmology which the Imams have introduced, if analysed correctly, is very different from Ptolemaic cosmology and is far more advanced than the present-day cosmology" (ibid). To substantiate his claim, he refers to Seyyed Hebat al-Din Shareshtani's *al-Hay'at wa al-Islam* (Astronomy and Islam) (1910) which is an apologetic

text with a positivistic outlook whose pious author tries to reconcile the Shi'i ahadith with the astronomical knowledge of his day. But such positivistic approaches, as many have noted, do more harm than good for the cause of defending religious teachings (Khorramshahi, 1985)

The School of Tafkik is against epistemic-pluralism. But such an epistemic attitude, as the epistemologists have argued, makes intellectual and cultural ecosystems impoverished and hampers the growth of knowledge (Popper, 1994; Paya, 2016b).

The *Tafkikis* claim that the only way to reach the truth is through the Imams is against the idea of God's beneficence. It also could, even contrary to the wishes of the proponents of the School, pave the way for violence in the social and political arena. Elitist and exclusivist approaches, inevitably, tend to be justificationist and justificationism does not leave much room for constructive dialogues in which the interlocutors respect the verdict of critical reason. In the absence of the possibility for constructive dialogues the only way which remains for conflict resolution would be to resort to violence (Paya, 2016b, 2002a, 2002b; Popper, 1994).

V Conclusion

The appeal of the School of *Tafkik* among believers, is to a large extent, due to the simplicity and clarity as well as the emotional power of its core message: just as the Prophet Moses needed a Khidr[47] to guide him and rescue him from the transgressions of his own imperfect ways reasoning, Muslims too need guides to help them understand the true teachings of Islam. The best, and most trusted guides, are the Prophet and the Shi'i Imams. Fallible thinkers and scholars, no matter how knowledgeable they may be, cannot match the knowledge of the infallibles who receive guidance directly from God. However, the epistemic claims of the School of *Tafkik* are untenable since it fails to make the basic distinction between the actual content of message, in this case the Quran and the genuine *ahadith*, and believers' understandings of the message in question. The former can only be accessed through the models which we construct to grasp their content in a conjectural manner. Even if the Prophet and Imams were alive today and could talk to us directly, each one of us could only understand them by means of our reconstructions of their utterances. And the degree of representativeness of such reconstructions would differ from individual to individual as a result of differences in our background knowledge and interpretive abilities. Since we, in the arena of epistemology, do not have direct access to the content of the messages of the Quran or *ahadith* or the utterances of the infallibles if they were in conversation with us, whatever School of thought which rejects the possibility of getting closer to truer representations of reality, and insist upon the superiority of apparent meanings, renders the task of understanding reality (in this case the true message of Islamic teachings) impossible.

Notes

 1 It may be stated that to classify literalism as anti-rational is not correct. The objector may argue that why a view that claims that God exists, that He communicated to us and that He took care to say clearly what He meant, should be regarded as anti-rational. Rationality is characterised by a number of criteria, chief amongst them, avoidance of committing contradiction in thoughts (and by implication in action), Subscription to aim-oriented activities, and above all openness to critical discussion and critical assessment and rejection of dogmatism. Literalists, may uphold the first two general criteria of rationality, but they do not endorse its most crucial criterion, namely, subscribing to critical attitude. They dogmatically regard their own understanding of the 'literal' meaning of the Quran, as the only correct understanding and do not tolerate any dissent in this respect. But literalism, is not only anti-rational, but also, as was discussed in Chapter 6, is untenable. This is because, there is not, and cannot be, a strictly 'literal reading' of the Quran: all readings of Islam are theory-laden.
 2 The term '*sunnah*' (lit. tradition) refers to the collection of the Prophet's sayings and deeds of the Prophet (and Imams in the case of the Shi' Muslims) as well as the cases in which the Prophet (Imams) has (have) endorsed what others have done before them.
 3 Ṣoffa. The title 'the companion of the soffa' (*aṣḥāb al-ṣoffa*) was the name given to a number of companions of the Prophet who, as a result of extreme poverty and lack of shelter, lived in the porch (soffa) of his mosque in Medina.
 4 Kawārij (lit. dissenters) were a group of group of radical Muslims who revolted against Ali, the fourth Righteous Caliph, in the course of his war against the rebel Mu'awiyah, who under the pretext of avenging the murder of the third Caliph, Uthman, intended to undermine Ali's authority and usurp both the political and religious authority. Khawarij forced Ali to accept arbitration with Mu'awiyeh. But when they realised that Mu'awiyeh's representative had deceived Ali's representative who, ironically Khawarij themselves had imposed upon Ali despite Ali's explicit objections, claimed that no arbitration or judgement except by God is valid and insisted that all of those who had been involved in the process of arbitration must repent since they had acted against God's will. Khawarij were following a strict literalist reading of Islam and were very harsh in their treatment of whoever they would consider not to be an observant Muslim.
 5 Murji'a were theologically opposed to Khawarij's views. They maintained that Muslims should not pass judgement on their fellow Muslims as non-believers no matter how non-Islamic their conducts may be. It is only God who will decide their fate in the hereafter.
 6 Hakimi states that the title of a book by his *Tafkiki* master, Sheikh Mujtaba Qazvini, namely, *Bayan al-Furqan* has inspired him to introduce the term 'Maktab-e Tafkik' (Hakimi, 2014, 160). The term 'tafkik' literally means 'separation'. Followers of the school of tafkik (tafkikis) want to separate what they regard as 'pure' knowledge from impure knowledge.
 7 Seyyed Musā Zar Ābādī
 8 *Kefāyah al-Uṣul*
 9 Akhund Mullā Kāẓem Khorāsānī
10 "The "occult" sciences, *al-ʿulūm al-khāfiyya*, include sciences such as *ʿilm al-firāsa* (physiognomy), *qiyāfa* (tracking), *ʿiyāfa* (myomancy), *kīmīyāʾ* (alchemy), *ʿilm aḥkām al-nujūm* (astrology), *ruqya*, *taʿwīdh* (spells and incantations), *taʿbīr al-ruʾyā* (oneiromancy) and various forms of *siḥr* (magic)."
11 In Arabic: *usul al-fiqh*
12 According to the Shi'a Muslims the twelfth Imam of the Shi'a, al-Mahdi (Hujjat ibn al-Hassan) – son of Imam Hassan al-Askari (846–874) – has gone into

occultation, as part of God's plan to preserve him from his enemies, and will re-appear when God wills so to restore justice, peace and prosperity on earth. See Jassim Hussain (2014).

13 Naskhi is a specific calligraphic style for writing in the Arabic alphabet.

14 *Ahl al-Bayt*, literary means members of the household. In the Islamic tradition, especially amongst the Shi'a Muslims, it signifies the Prophet Muhammad's immediate family, namely, his daughter (Fatemeh), his son-in-law (Ali), his two grandsons (Hassan and Hossein).

15 *Ma'āref al-Qur'ān*

16 *Abvāb al-Hodā*

17 Sheikh Mujtabā Qazvinī

18 A mujtahid is a senior faqih (expert in Islamic jurisprudence) who is capable of determining the requirements of *Sharia* laws and issue religious fatwas (edicts) with regard to the responsibilities of the faithful vis-à-vis those laws.

19 Sheikh Mamḥmūd Ḥalabī

20 *Tanbīhāt Ḥawl al-Mabda' wa al-Ma'ād*

21 As a result of generation of fake *ahadith* (plural of *hadith*), Muslim scholars imposed stringent conditions on those who intended to study the discipline of hadith and become experts in distinguishing authentic *ahadith* from the fake ones and establish themselves as authorities for transmitting and narrating *aha-dith*. Such scholars needed to obtain written permission from those who had already been identified of the authorities in the field of hadith studies.

22 *moqaddamāt*

23 *saṭh*

24 *Al-Ḥayat*

25 *ma'ād*

26 *Velāyat*

27 *'ilm-e ṣaḥiḥ*

28 *Tawḥeed*

29 *mashshāeī*

30 *ishrāqī*

31 *Uṣiā'*. These authorised vicegerents, according to Hakimi, are the *Ahl al-Bayt and the* Shi'a Imams.

32 *'aql-e khud boniād-e dīnī*

33 *ta'wīl*

34 *majāz-e isnādī*

35 *marje' taqlīd* is a mujtahid (see note 8 above) whose edicts concerning religious responsibilities of the faithful are followed by his followers. According to the Shi'a fiqh, each adult Shi'a Muslim must either be a mujtahid, i.e. capable of determining his/her own religious duties with regard to *Sharia* laws, or must fol-low the edicts issued by the best mujtahid, from among existing mujtahids). Each adult Shi'a Muslim has a responsibility to find out who is the most competent mujtahid of his/her time and choose him as his/her *marjae' taqlid*.

36 *Sharāye' al-Islam*

37 *ṣayrorat*

38 It should be emphasised, in passing, that the experiences of unification with the object of inquiry need not present an encounter with a genuine object of inquiry. There are many instances of such 'unifications', in which the situation is not as the knower (subsequently) thinks it to have been. There are, for example, reports of mystical experiences involving encounters with things which we have every reason to suppose do not, in fact, exist. The following example is illuminating in this respect. Ayatollah Seyyed Jamal al-Din Golpaigani (1878–1957), a great Shia mystic of the twentieth century, had reported that in one of his spiritual experi-ences he had found himself to be in a garden in which there was a round pool

and some naked girls were sitting around the pool and were chanting a song. The lyric of the song was based on some sort question and answer with God. The girls were objecting to God that why He had destroyed all those people whose names are recorded in the Quran. Ayatollah Golpaigani says that I approached the pool but decided to leave the garden after circling the pool once. However, one of Ayatollah's best students, who was a master mystic himself, in a book published decades after the passing away of his master, has explained that the experience of his master has not been a genuine spiritual one (Hosseini Tehrani, n.d.:146–7).

39 It may be said at this juncture, as an objection to what has been stated in the text, that there are ways for assessing people's experience of pain as they are experiencing it. One such mechanism is for examples the McGill Pain questionnaire file:///C:/Users/Jeremy/Downloads/McGill%20Pain%20Questionnaire%20(1). pdf which is used to ask patients to describe the character of the pain that they are experiencing, as a diagnostic and triage tool. But such mechanisms do not contradict the account explained in the text. This is because, even if the patient are asked to respond to the pain stimuli which they experience, there is *always* an epistemic distance between the period in which the subject (the patient) is in an existential state of experiencing (during which there is no room for self-consciousness or consciousness about consciousness) and the period in which the subject (the patient) is consciously trying to gather his/her thoughts and give an accurate account of his/her experience in response to the questions asked in the questionnaire.

40 Abu al-Ḥasan al-Baṣrī

41 *ṭayy al-arḍ*

42 Ghadīr

43 *taʿṭil*

44 Once again one may, by way of objection, state that in hadith studies paying attention to the lineage of transmitters of ahadith is of utmost importance. But the lineage of transmitters is entirely different from the lineage of the ideas they transmit. Those ideas ought to be assess according to the claim they make.

45 Here Hakimi is alluding to the issue of succession in the early history of Islam and the fact that the twelve Imams of the Shiʿa Muslims, i.e. Ali and his elven male descendants, who, according the Shiʿas belief, were supposed to succeed the Prophet, were prevented from taking up their appointed positions due to the role played by the Umayyad and Abbasid caliphs.

46 *jāhilī*

47 Khiḍr, whom Muslims regard as a pious servant of God, whom God endowed with wisdom and long life, in mystical literature is the symbol of a spiritual guide. Although the Quran does not mention Khiḍr by name, in some of ahadith there are references to him. In the Quran (18: 65–82) Moses asks Khiḍr to teach him wisdom. Khiḍr does so by demonstrating the limits of Moses knowledge to him through a number of encounters with various people. See Emmanuel Singh (2005).

8   Islamic philosophy
Past, present and future

I Introduction

In his discussion of the 'Myth of the Framework', Popper argues that while the views of the proponents of the 'myth', 'contains a kernel of truth' in that 'discussion among participants who do not share a common framework may be *difficult*' (Popper, 1994: 35, italics in original), it is, as Popper emphasises, by no means impossible. He then goes on to make the following important claim which is directly related to the topic of this chapter. Popper rejects the views of those who maintain that discussion between adherents of different intellectual frameworks will never be fruitful:

> Against this I shall defend the directly opposite thesis: that a discussion between people who share many views is unlikely to be fruitful, even though it may be pleasant; while a discussion between vastly different frameworks can be extremely fruitful . . . I think that we may say of a discussion that it was the more fruitful the more the participants were able to learn from it. And this means: the more interesting questions and difficult questions they were asked, the more new answers they were introduced to think of, the more they were shaken in their opinions, and the more they could see things differently after the discussion – in short, the more their intellectual horizons were extended.
>
> (Popper, 1994: 35–6)

In this chapter I intend to apply Popper's conjecture to the case of Islamic philosophy which emerged, partly as a response to the possibilities latent in the Quran and in the elaborations made by the Prophet and some great Muslim personalities such as the Prophet's son-in-law, Ali, of the Divine message; and partly as the result of an encounter between Islam, and a variety of non-religious cultures or cultures inspired by other religious doctrines different from Islam.

I begin by discussing the role which was played by early *Kalam* (theology) in introducing substantive food for thought for the earliest Muslim philosophers. Next, I focus on the influence of the Greek rational culture on

the fate of the nascent Islamic philosophy. I then continue my exploration concerning further evolutions of Islamic philosophy within the ecosystem of wider Islamic culture and with respect to the challenges posed to it by rival intellectual frameworks developed by theologians (*mutakllimun*),[1] jurists (*fuqaha*) and mystics (*urafa*).[2]

This exploration takes us on a journey from the classic period of Islamic civilisation (the ninth to thirteenth century CE) when earlier generations of Muslim philosophers were trying to develop a distinct philosophical framework fit for its religious culture. In this period Muslim philosophers entered into a virtual dialogue with their Greek and Hellenic counterparts whose views they had studied through translations made mostly by Christian priests and Jewish and Zoroastrian scholars (Fakhry, 1993; Sharif, 1963 and 1966; Walzer, 1950; Nasr & Leaman, 1996).

The next stop in our intellectual journey will be in Isfahan and Shiraz from the fifteenth to seventeenth century where two philosophical schools, named after the two cities, elevated philosophical investigations within Islamic civilisation to a new height. In view of many commentators, these two schools represent purely indigenous philosophical developments in the land of Islam. The founding fathers of these schools and their followers and exegetes, contrary to the earlier generations of Muslim philosophers, were not much interested in philosophical dialogue with their non-Muslim counterparts, past or present. Their dialogue was mostly with their fellow Muslims.

In the last leg of our journey, I follow the developments since the nineteenth century and in the wake of an eventful encounter between a powerful west and an Islamic civilisation which had its heydays behind it. I shall discuss some of the more influential philosophical approaches introduced by Muslim philosophers in response to challenges posed by modernity.

The conclusion of my exploration is a resounding corroboration of Popper's thesis. Islamic philosophy, and on a larger scale Islamic culture, both greatly benefitted from their 'discussions' and 'dialogues' with other cultures and other frameworks especially the more rational ones. Consonant with Popper's conjecture, I argue that, in all those periods when Muslim scholars were deprived of intellectual challenges from ideas and views which belonged to other cultures, their dialogue amongst themselves turned more and more introverted and became less and less engaged with issues outside a strictly religious and theosophical framework.[3]

Two last explanatory notes before I begin my exploration.

First: I use the term 'Islamic philosophy' in a neutral way, meaning philosophical doctrines produced by thinkers who happen to be either Muslim or living in Muslim countries or both. This term can be used interchangeably with a similar term, Muslim philosophy, throughout this chapter.

Second: To encapsulate a 1300-year history in the space of a short chapter necessarily involves radical selections and a great deal of omission. For

the purpose of the present chapter, in view of the fact that the history of the earlier developments of Islamic philosophy is well documented, I have shifted the focus of my attention on more recent developments especially developments in the twentieth century and the first decade of the twenty-first century. However, even here I have had no choice but to be, at once, very brief and extremely selective in my treatment of various philosophers and their achievements.

II Islamic philosophy-the beginning: coming out of the shadow of theology (*Kalam*)

Popper, whose conjecture concerning the fruitfulness of dialogue among diverse frameworks I use as a yardstick in this chapter, discusses, in a yet another important paper entitled 'The Rationality of Scientific Revolutions', (Popper, 1994: 1–32) a very important thesis concerning the growth of knowledge. According to Popper, all organisms learn through the mechanism of adaptation which in turn consists of a dual mechanism of instruction and selection, and constitutes a method of trial and error (Popper, 1994: 3).

The crucial point about this evolutionary/adaptive model is that instructions always come from within organisms. But selections and error elimination always come from without, from the environment. The environment also, by means of posing various challenges to the organism in question, introduces 'problems' for it. It is the organism's proposed 'solutions' (i.e. its responses to the challenges introduced by the environment) which will be assessed by the environment. If the 'solutions' are on the right track, the organism's adaptive ability gets enhanced. If they are not, the proposed solutions will be rejected. This means that the organism has not been successful in its bid to adapt to the environment. Such an outcome could be costly for the organism.

'The organism' in question, to which the above evolutionary model is applied, can be a biological or a culturally and socially constructed entity such as a scientific theory or an intellectual tradition (Popper, 1994: 3). While, for biological organisms, the environment will be their natural surroundings, for intellectual traditions other traditions and cultures play, at least to some extent, the role of the 'environment'.

Applying Popper's insight to the case of the emergence of philosophical traditions in Islamic civilisation, it is not difficult to see that instructions concerning the importance of rational thinking and making use of the power of the intellect are something which can be found in the main sources of Islamic civilisation, namely the Quran and the tradition of the Prophet and (in the case of the Shi'i Islam) also the traditions of Shi'i Imams.

There are many verses in the Quran in which Muslims are instructed to use their reason as their guide in exploring reality, studying natural phenomena, understanding various aspects of reality, and enriching their knowledge

of God. The Quran has also reserved some of its harshest admonitions for those who do not use their intellects:

> Have they not pondered upon themselves? Allah created not the heavens and the earth, and that which is between them, save with truth and for a destined end. But truly many of mankind are disbelievers in the meeting with their Lord [at the Resurrection].
>
> (30:8)

> Have they not seen how We lead the water to the barren land and therewith bring forth crops whereof their cattle eat, and they themselves? Will they not then see?
>
> (32:27)

> And He lays abomination upon those who have no understanding [do not use their faculty of reasoning].
>
> (10:100)

Similarly, plenty of the sayings quoted from the Prophet and Imams (in the case of the Shi'i Islam) are about the importance of reason and intellect and knowledge for living according to the Islamic standards. In this sense, it can be argued that with respect to the question concerning the origin of rational approaches (in the extended sense of the term, 'rational') in Islamic civilisation, as against purely faith-based attitude of blind acceptance, one needs not to look further than the Quran itself and the main Islamic teachings (Motahhari, 2017; Nasr, 1996; Sharif, 1963; Campanini, 2009). These internal resources, however, as we shall see later, were further enriched, when Muslims embarked on a mission of digesting and incorporating into their own internal resources, the wisdoms of other cultures.

As for the challenges, perhaps the first intellectual challenges presented themselves to the early Muslims in the shape of political disputes concerning the issue of the succession of the Prophet who died in 632. The question which demanded a satisfactory answer was how Allah would want the believers to go about the task of choosing a political authority. In their efforts to respond to this question, early Muslims were divided along different doctrinal lines; Sunnis, Shi'as, Kharijites and Murji'ites (Murji'a) were among the first sects which appeared in the newly established Muslim society.[4]

The above-mentioned political question soon gave rise to troubling theological questions concerning the standards which would demarcate a true believer and would determine the after-life station of those who would fall short of (some of) those standards. Out of these disputes and in the second half of the first century Hijri (the Islamic calendar; seventh century Christian calendar) the first abstract problem, which was a bridge between theological issues and genuine philosophical problems, emerged. The problem

in question was the dilemma of free will and pre-destination (*qadar*) which, naturally in the context of a religious culture, was related to the issues of Divine justice and Divine power (Motahhari, 1973; Wolfson, 1976; Sharif, 1963: Book Three, Part 1, X & XI, 199–243; van Ess, [1998] 2006).

Two rival schools of *Kalam* (theology), namely the Ash'arites and the Mu'tazilites, were developed in response to the above problem. The Ash'arites maintained that God's omnipotence means that He directly intervenes in all aspects of the whole realm of being including what is related to human beings in their life in this world and in the hereafter. A direct corollary of this position was that man had no free will. The Mu'tazilites, on the other hand, argued for man's free will. They maintained that God has endowed human beings with the power of intellect, which they regarded as man's inner prophet. Man, according to the Mu'tazilites, is free to choose his path and station in life. Of course, in the hereafter he will be judged according to the choices he has made in this life. It is for this reason that man should use the power of his intellect as wisely and as extensively as possible. For the Mu'tazilites justice was an objective value: even God's deeds could and should be judged against such an objective criterion. The Ash'arites would not accept such a thesis. In their view this would mean limiting God's power. To preserve God's omnipotence, they developed an alternative theory of justice and argued that justice is tantamount to whatever God does (Motahhari, 1973: 24, 2017: ch. 2; Goldziher, 1981: ch. 3; Khadduri, 1984: ch. 3).

For almost two centuries and before the emergence of systematic philosophical approaches amongst Muslims in the ninth century CE, it was the *Mutakallimun* (theologians) who were dealing with issues which were philosophical in nature. Early Muslim theologians, however, were not in favour of imported philosophical ideas. In particular, they were against Greek philosophical thoughts. They even rejected Aristotelian logic since they regarded it to be, like Aristotelian philosophy, anti-religious knowledge. In place of Aristotelian logic they developed a rudimentary, and to some extent faulty system of logic. The following quotation from Ibn Khaldun's *Muqadimah* (Introduction) (written in 1377) provides an informative account concerning the Mukallimun's attitude towards logic. We should bear in mind that Ibn Khaldun was writing at a time when the Ash'arites had established their school as the official theological doctrine in the world of Sunni Islam:

> Thus, [al-Ash'ari's] approach was perfected and became one of the best speculative disciplines and religious sciences. However, the forms of its arguments are, at times, not technically perfect, because the scholars [of al-Ash'ari's time] were simple and the science of logic which probes arguments and examines syllogisms had not yet made its appearance in Islam. Even if some of it had existed, the theologians would not have used it, because it was so closely related to the philosophical sciences,

which are altogether different from the beliefs of religious law and were, therefore, avoided by them.

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(Ibn Khaldun, [1377] 1967: 51, footnotes suppressed;
quoted in, Masumi Hamedani,1988:198–199)

</div>

But later generations of theologians (*Mutkallimun*) realised that without logic they would not be able to avoid committing mistakes such as the fallacy of affirming the consequent which Abu Bakr al-Baqillani, one of the most prominent Asha'ri theologians, had committed. They adopted Aristotelian logic and applied it to theological as well as philosophical arguments. This approach gradually paved the way for a closer relationship between *Kalam* and philosophy (Masumi Hamadani, 1981: 204; Motahhari, 2017: ch. 2).

As Ibn Khaldun reports [in his *Muqadimah*],

> After that, the science of logic spread in Islam. People studied it. They made a distinction between it and the philosophical sciences, in that (they stated that) logic was merely a norm and yardstick for arguments and served to probe the arguments of the (philosophical sciences) as well as (those of) all other (disciplines). (Scholars,) then, studied the basic premises the earlier theologians had established. They refuted most of them with the help of arguments leading them to (a different opinion). . . . This approach differed in its technical terminology from the older one. It was called "the school of recent scholars". Their approach often included refutation of the philosophers where the (opinions of the) latter differed from the articles of faith. The first (scholar) to write in accordance with the (new) theological approach was al-Ghazzali. He was followed by the imam Ibn al-Khatib [Fakhr Razi]. A large number of scholars followed in their steps and adhered to their tradition. The later scholars [however], were very intent upon meddling with philosophical works. The subjects of the two disciplines (theology and philosophy) were thus confused by them. They thought that there was one and the same (subject) in both disciplines, because the problems of each discipline were similar.

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(Ibn Khaldun [1377] 1967: 52)

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What Ibn Khaldun is suggesting, as some scholars have pointed out, is that Islamic *Kalam* after a period of remaining alien to Islamic philosophy gradually came closer to it until it somewhat merged with it. From the time of Ghazzali (Algazel, d. 1111), who first wrote a masterpiece which explained the intentions of the philosophers (Ghazzali, [1094] 1961) and tried to expose their incoherence by writing yet another epoch-making work (Ghazzali, [1095] 2002), and Fakhr Razi (d. 1209), who obtained the nickname, the leader of the sceptics (*Imam al-Moshakkekin*), onward, *Kalam* came to

resemble very closely philosophy. Islamic philosophy, which emerged in an intellectually hostile environment in which the theologians (*Mutakallimun*), the mystics (*urafa*) and the jurists (*fuqaha*) were against it, also tended to pay more and more attention to theological and mystical issues and took a cautious approach towards the fiqh (Masumi Hamadani, 1981; Shihadeh, 2005; Watt, 1985).

III The emergence of Islamic philosophy – the era of philosopher-scientist/philosopher-technologist

Translation of scientific, mathematical, technological, cultural and philosophical achievements of ancient civilisations like the Greeks, the Indians and the Persians into Arabic, provided the educated Muslims of the classic period of Islam (ninth-thirteenth CE) with a rich intellectual heritage (O'Leary, 1949; Peter, 1968; Gutas, 1988; Kraemer, 1992). They soon managed to digest and internalise what they had learnt through these sources and embarked on developing new synthetic systems which were novel innovations informed by their newly-gained knowledge through translated materials and in tune with the teachings of their religion (Nasr, 1968 and 1976; Sabra, 1987 and 1996; Reisman & Opwis, 2006).

All great Muslim philosophers of the classic period were not only first-rate thinkers with regard to abstract philosophical topics, they were also excellent natural scientists or master technologists (usually in fields such as medicine or chemistry or logic and linguistics). This trend was so prevalent that the Quranic term, Hakim, which means 'wise or endowed with wisdom', and is one of God's names, soon came to refer to philosophers who became regarded as wise individuals who were capable of curing people from their intellectual/spiritual ills as well as illnesses in their bodies (Nasr, 1996b: 21–26; Motahhari, 2017; Barkhah, n.d. 752–760).

Even a quick glance at the fields of expertise of Muslim philosophers of the classic period, reveals the extent to which these scholars had combined philosophical thinking with other disciplines. For example, al-Kindi (d. 873), the first Muslim philosopher, was also an astronomer, a physicist, a mathematician and a cryptographer; Farabi (Alpharabius d. 951) who was known as *Mu'alim al-thani* (the second teacher after Aristotle who was regarded as the first teacher) was a logician, philosopher, chemist, psychologist, physicist, political philosopher and musicologist; Abu Rayhan Biruni (Alberonius d. 1048) was an astronomer, historian, botanist, pharmacologist, geologist, philosopher, mathematician and geographer; Ibn Sina (Avicenna, d. 1037) was a logician, philosopher, physician, chemist, geologist, psychologist, astronomer and philosopher of science; Ibn Rushd (Averroës, d. 1198) was a philosopher, physician, physicist, astronomer and psychologist; Nasir al-Din Tusi (d. 1274) was an astronomer, physicist, chemist, mathematician and logician. Other great figures in Islamic civilisation

during its classic period were similarly polymaths and experts in a variety of disciplines (Sharif, 1963; Nasr & Leaman, 1996, Nasr, 1968, 1976; Gillispie, 1980; Hogendijk & Sabra, 2003).

Scientific exchanges between Muslim philosophers and thinkers in this period testify to the extent and diversity of the areas of their expertise (Daiber, 1991: 636–9). A case in point is the correspondence between Abu Rayhan Biruni and Ibn Sina over a number of philosophical, physical and cosmological issues. Abu Rayhan put eighteen questions to ibn Sina, ten of which were related to various issues in Aristotle's De Caelo (*al-Sama' wa'l-'Alam*) (Nasr and Mohaghegh, 1995; Berjak, 2005). This correspondence, which in the words of a contemporary Muslim philosopher 'marks one of the highlights of Islamic intellectual history and in fact medieval natural philosophy and science in general' (Nasr & Mohaghegh, 2003: Introduction), could be compared with Newton-Clark and Leibniz correspondence (Alexander, 1956).

In his letters, Abu Rayhan "criticizes the reasons given by Aristotle for denying levity or gravity to the celestial spheres and the Aristotelian notion of circular motion as being an innate property of the heavenly bodies. . . . [He] rejects Aristotle's reasoning for his assertion that if the heavens were to be elliptical rather than spherical, a vacuum would be created, . . . and that the motion of the heavens begins from the right side and from the east. . . . [And] also asks how it is that Aristotle considered the element fire to be spherical . . . [and asks] about the transformation of elements into each other, and the natural tendency of the four elements in their upward and downward movements" (transformation of elements). In his other questions he discusses theories of vision, the fact that the northern and southern hemispheres of the earth are inhabited differently, and how two opposite squares in a square divided into four can be tangential. There are further questions about the vacuum, the nature of heat and the burning of bodies by radiation reflecting off a flask full of water. In this context he also asks "if things expand upon heating and contract upon cooling, why does a flask filled with water break when water freezes in it? And that why does ice float on water?" (Berjak, 2005).

Ibn Sina in his replies tries to defend Aristotle's position. Both masters demonstrate that they are well familiar with not only the philosophy of their time but also the physics of the day. A point worth mentioning here is that they both make use of empirical and logical arguments, including the two important arguments of *reductio ad absurdum and modus tollens.*

Being at home with respect to both philosophy and sciences of the day had enabled Muslim philosophers to apply their power of intellects to a wide variety of real problems in different intellectual and practical fields. The achievements of Muslim philosophers and scholars were so impressive that some commentators have rightly termed the classic period of Islamic philosophy the 'Renaissance of Islam' (Mez [1922] 1927, quoted in Kraemer, 1992).

Muslim philosophers in this period welcomed acquiring knowledge from all sources. Al-Kindi for example, in his *Fi al-Falsafa al-Ula* (On First Philosophy), writes,

> We ought not to be ashamed of appreciating the truth and of acquiring it wherever it comes from, even if it comes from races distant and nations different from us. For the seeker of truth nothing takes precedence over the truth, and there is no disparagement of the truth, nor belittling either of him who speaks it or of him who conveys it. [The status of] no one is diminished by the truth; rather does the truth ennoble all.
>
> (al-Kindi, 1974: 58 quoted in Kraemr, 1992: 149)

This was, of course, in complete agreement with famous sayings attributed to the Prophet emphasising the importance of seeking knowledge, such as, 'There is no one who goes out of his house in order to seek knowledge, but the angels lower their wings in approval of his action', and 'seeking knowledge is an ordinance obligatory upon every Muslim' (ibn Majah, 226 & 224). Muslim philosophers developed an approach to learning which can be dubbed 'religious humanism'. It was based on the idea of cultivating individuals through teaching them various sciences and good habits so that they acquire a personal quality which is called *adab*, a concept very close to the Greek notion of *paideia* (the ideal of Greek culture and education) (Moosa, 2005; Jaeger, 1946). According to these philosophers the path to true education (*adab-e haqiqi*) was only through philosophy (i.e. rational deliberation). Ibn Miskawayh (932–1030), a philosopher from Rey and a chancery official at the Buyid court, in his *Tahdhib al-Akhlaq* (the Refinement of Character) and *Javidan Kherad* (Perennial Philosophy), places *adab-e haqiqi* higher than *adab-e shar'i* (religious education). According to him and other philosophers, it was only through the former path, that the objectives of the latter could be fulfilled and salvation could be achieved (Kraemer, 1992: 151; Goodman, 2003).

The outcome of the intellectual efforts of Muslim philosophers and scholars in the Golden age of Islam (ninth – twelfth CE) was not only greatly beneficial to the flourishing of Islamic civilisation but also provided European scholars with a rich reservoir of fresh ideas (Saliba, 2007; Nasr, 1968; Hogendijk & Sabra, 2003). These ideas played a significant role in bringing about the European Renaissance. In the words of one Western scholar,

> Although there is not a single aspect of European growth in which the decisive influence of Islamic culture is not traceable, nowhere is it so clear and momentous as in the genesis of that power which constitutes the paramount distinctive force of the modern world, and the supreme source of its victory – natural sciences and scientific spirit. . . . The debt of our science to that of the Muslims does not consist in startling

discoveries of revolutionary theories; science owes a great deal more to Muslim culture, it owes its existence. The ancient world was . . . pre-scientific. The astronomy and mathematics of the Greeks were a foreign importation never thoroughly acclimatized in Greek culture. The Greeks systematized, generalized, and theorized, but the patient ways of investigation, the accumulation of positive knowledge, the minute methods of science, detailed and prolonged observation and experimental inquiry were altogether alien to the Greek temperament. Only in Hellenistic Alexandria was any approach to scientific work conducted in the ancient world. What we call science arose in Europe as a result of new spirit of inquiry, of new methods of investigation, of the method of experiment, observation, and measurement, of the development of mathematics in a form unknown to the Greeks. That spirit and those methods were introduced into the European world by Muslims.

(Briffault, 1928: 190–1, quoted in Sharif, 1966: 1355–56)

Many of the works of Muslim scholars, philosophers, scientists and theologians were translated into Latin. Their counterparts in Europe greatly benefitted from the fruits of the intellectual labour of their colleagues in the Muslim world. The works of philosophers such as al-Kindi, Farabi, Ibn Sina and Ibn Rushd were eagerly studied by European scholars and their ideas were incorporated in the works produced by these scholars. In the assimilation of Islamic thought, as Charles Burnett has observed, several stages can be observed:

First, there was an interest in Neoplatonic cosmology and psychology in the latter half of the twelfth century, which fostered the translation of texts by al-Kindi, al-Farabi, the Ikhwan al-Safa' and, especially, Avicenna (Ibn Sina). Second, the desire to understand Aristotle's philosophy resulted in the translation of the commentaries and epitomes of Averroes (Ibn Rushd) in the second quarter of the thirteenth century. . . . [Third] in the late fifteenth century, a renewed interest in the ancient texts led scholars to search out the most accurate interpretations of these texts, . . . [for this] they turned for new translations or retranslations of Avicenna and, in particular, Averroes. From the early sixteenth century, Arabic philosophical texts were again translated directly into Latin, Arabic speakers began to collaborate with Christian scholars and the foundations for the teaching of Arabic were being laid.

(Burnett, 1998)

But while the Latin west was benefiting from the views of Muslim thinkers and foundations for the Renaissance were gradually being laid, a dynamism of a different type was at work in the land of Islam. I deal with this development in the next part of this chapter.[5]

IV Decline of the scientific spirit in Islamic civilisation

Despite all the emphasis in the Quran and the Sunna of the Prophet and Imams (in the case of Shiʿi Islam) on the importance of acquiring and developing knowledge, the scientific and philosophical spirit in Islamic civilisation took a nose-dive and experienced a gradual decline from the twelfth century onwards. However, the seeds for this decline had already been sowed in the soil of Islamic intellectual life when in the middle of the ninth century al-Mutawkkil (d. 861) became caliph. He put in motion a programme of purging the rational theologians, the Muʿtazalites, and supporting their literalist rivals, the Ashʿarites. Philosophers like Kindi, who were at the receiving end of Mutawakkil's anti-rationality campaign and his policy of repression, also suffered a reversal of their personal fortune (Fakhry, 1993: 68). Given Mutawkkil's role in the promotion of orthodoxy and of dogmatic approaches to theology, it is somewhat amusing to read the following entry in Wikipedia:

> Al-Mutawakkil ʿAlā Allāh Jaʿfar ibn al-Muʿtasim . . . (March 822–11 December 861) was an Abbasid caliph who reigned in Samarra from 847 until 861. He succeeded his brother al-Wāthiq and is known for putting an end to the Mihna "ordeal", the Inquisition-like attempt by his predecessors to impose a single Mu'tazili version of Islam.
>
> (Wikipedia, 31/1/13)

The dominance of the Ashʿari thought provided grist for the mills of those who maintained that Islam is a self-sufficient system in every respect, including knowledge production. The gradual but consistent and continuous ascendency of *fuqaha* (jurists), *urafa* (mystics) and *mutikallimun* (theologians) of Ashʿari persuasion, helped to create an intellectual environment in which rational thinking and scientific pursuits were regarded as either non-Islamic or not suitable for the believers and alien to the spirit of Islam. The following story about Abu Rayhan Biruni nicely shows the attitude of the clerics and theologians towards science and scientists. Abu Rayhan, the story goes, 'was accused by a contemporary divine of heresy when he used the Byzantine (solar) calendar for an instrument he had invented for determining the times of the prayers. Al-Biruni retorted by saying, "the Byzantines also partake of bread. Will you now promulgate a religious sanction against bread?" ' (Abdus-Salam, 1990: 197).

By the time of the great Persian Ashʿari jurist, Sufi-saint, and mutikallim, Abu Hamed Mohammad Ghazzali, orthodoxy was firmly in place in all parts of Muslim lands in which one of the four Sunni schools of fiqh (jurisprudence) was being practiced. Ghazzali, who was for some years the head of the largest university (Nizamiyeh)[6] in Baghdad, in his capacity as a defender and promoter of orthodoxy produced a number of extremely influential books which were hugely influential in the intellectual eco-system of both

the Sunni and the Shiʿa worlds. Although, his influence on the latter's views was indirect. In his *Tahafut al-Falasifa* he argued against many of the main doctrines of the Mashsha'i (Peripatetic) philosophers in their own terms. At the end of this long, important and carefully argued book, Ghazzali, on the very last page of the book which was entitled, 'Conclusion', suddenly put on his other hat as a *faqih* and in the space of just one page, issued a fateful fatwa (religious edict) against philosophers and philosophy. He wrote,

> If someone says: "You have explained the doctrines of these [philosophers]; do you then say conclusively that they are infidels and that the killing of those who uphold their beliefs is obligatory?" we say: Pronouncing them infidels is necessary in three questions. One of them is the question of the world's pre-eternity and their statement that all substances are pre-eternal. The second is their statement that God's knowledge does not encompass the temporal particulars among individual [existents]. The third is their denial of the resurrection of bodies and their assembly at the day of judgment.
>
> (Ghazzali, [1095] 2002: 226)

He went on to suggest that there are seventeen other doctrines, including 'Their argument against God's attributes, Their argument that it is impossible that something should share a genus with God, Their argument that God is pure existence with no quiddity' which makes philosopher guilty of the lesser charge of heresy (*bidʿah*) (Ghazzali, [1095] 2002: 226).

Having declared philosophy as an unsuitable subject for study in the ecosystem of Islamic culture, Ghazzali, in his magnum opus, *Ihya al-Ulum al-Din*[7] (the Revival of Islamic Sciences), which is a forty-volume encyclopaedia of the Islamic sciences of his day, introduced a new classification of the sciences. He divided the sciences into two general groups, religious and non-religious. And he made it clear that only the first group has intrinsic value. Religious sciences are those which 'have been acquired from the prophets and are not arrived at either by reason, like arithmetic, or by experimentation, like medicine, or by hearing, like language' (Ghazzali, (n.d.): 30). Non-religious sciences 'are divided into praiseworthy (*mahmoud*),[8] blameworthy (*madhmum*),[9] and permissible (*mubah*)'.[10] Using another set of fiqhi (juristic) terminology, Ghazzali suggested that sciences, from another point of view, are further divided into two categories. One, whose study is compulsory for all Muslims (*frad ʿayn or wajib ʿayni*).[11] The other, which is *fard kifayah*[12] or *wajib kifa'i*,[13] which covers all those sciences whose study becomes compulsory if no one in the Islamic society studies them. But if at least one individual studies them, then religious obligation will be lifted from others (Ghazzali, (n.d.): Book 1, 30–8). Ghazzali then went on to explain that among the non-religious praiseworthy sciences there are some whose acquisition is *fard kifayah* (conditionally obligatory) and he singled out medicine and arithmetic as two prime examples of those type

of sciences which are indispensable for the welfare of this world (Ghazzali, (n.d.): Book 1, 30–8).

After defining fiqh (jurisprudence) as another type of science whose acquisition is conditionally obligatory, he raised the following question in the form of a dialogue with his reader:

> If you should say, "why have you regarded medicine and jurisprudence in the same way when medicine pertains to the affairs of this world, namely the welfare of the body, while upon jurisprudence depends the welfare of religion . . .?" then know that . . . in fact the two sciences differ. Jurisprudence is superior to medicine on three counts; first because it is religious knowledge and unlike medicine, which is not religious knowledge, jurisprudence is derived from prophecy; second, it is superior to medicine because no one of those who are treading the road to the hereafter can do without it, neither the healthy nor ailing; while on the other hand only the sick, who are a minority, need medicine; thirdly, because jurisprudence is akin to the science of the road of hereafter . . .
>
> (Ghazzali, (n.d.): Book 1, 39)

Immediately after the above he makes it clear to the reader that 'whenever the science of the road to the hereafter is compared with jurisprudence the superiority of the former is evident' (Ghazzali, (n.d.): Book 1, 39).

Ghazzali's classification of sciences was wholeheartedly accepted by both the Sunni and the Shiʿa Muslims. The latter produced a Shiʿatised version of Ghazzali's book under the title of *Mahajja al-Bida fi Tahdhib al-Ihya*[14] (the clear path in refining the book of *Ihya al-Ulum*) (Kashani, c. [1640] 2008).

The tendency to place religious sciences on a higher plane than non-religious sciences was further amplified in the works of Muslim mystics (*urfa*) and Sufis. In their teachings, non-religious sciences were regarded as tools and instruments whose purpose was to help Muslims in this life to dedicate themselves to the study of truly worthwhile sciences. The story of an alleged meeting between Ibn Sina and Abu Saʿid Abu al-Khayr (d. 1049), the great Persian mystic, is very illuminating in this context. According to one version of the story whose authenticity cannot be corroborated, the two great scholars upon their first encounter remained in private conversation for three consecutive days, only takings breaks to perform their daily prayers and to have some sustenance. After the meeting, disciples of Ibn Sina asked him how he had found the mystic. Ibn Sina, reportedly, had replied that whatever he knew the mystic also knew not through philosophical arguments but by means of his mystical visions. Devotees of Abu Saʿid asked their master how he had found the philosopher. Abu Saʿid had replied, wherever he had gone in his mystical journeys he had seen the philosopher, in the shape of blind man who was trying to find his way by means of his stick of reason (Abadi, 1959: vol. 1, 613).

To better appreciate the intellectual changes that took place between the tenth and twelfth centuries from Farabi to Ghazzali, it would be useful to briefly compare Farabi's classification of sciences with that of Ghazzali's. In his *Ihsa al-Ulum*[15] (The Enumeration of Sciences), Farabi classified all known branches of knowledge of his time under five headings:

> I. [The] Science of language (syntax, grammar, pronunciation and speech, poetry); II. Logic (including oratory [rhetoric] and the study of poetry); III. The preliminary sciences (1. Arithmetic: practical and theoretical, 2. Geometry: practical and theoretical, 3. Optics, 4. [The] Science of the heavens: Astrology; Astronomy, 5. Music: practical and theoretical, 6. [The] Science of weights, 7. The science of tool-making); IV. Physics (sciences of nature) and Metaphysics (the science concerned with the Divine and the principles of things); V. [The] Sciences of Society (1. Politics, 2. Jurisprudence (law or fiqh), 3. Theology (dialectics or *Kalam* [apologetics]). (Nasr, 1968: 60–2, with some revision based on the original Arabic text) (Farabi, 1996: 15–16)[16]

In the above table there is no mention of *irfan* (mysticism). For Farabi the most important sciences are metaphysics and physics. Philosophers, and not mystics or jurists or theologians, are held in the highest esteem and compared with the prophets. *Fiqh* and *kalam* are regarded as practical sciences.

Another factor which was instrumental in the eclipse of rational trends in Muslim countries was the closing of the door of ijtihad among the Sunni Muslims which dealt another severe blow to the spirit of critical thinking in Islam. As Joseph Schacht has observed,

> By the beginning of the fourth century of the *hijra* (about 900 CE), . . . the point had been reached when the scholars of all schools [of *fiqh*] felt that all essential questions had been thoroughly discussed and finally settled, and a consensus gradually established itself to the effect that from that time onward no one might be deemed to have the necessary qualifications for independent reasoning in law, and that all future activity would have to be confined to the explanation, application, and, at the most, interpretation of the doctrine as it had been laid down once and for all. This 'closing of the door of *ijtihad*', as it was called, amounted to the demand for *taklid* [emulation], a term which had originally denoted the kind of reference to Companions of the Prophet that had been customary in the ancient schools of law, and which now, came to mean the unquestioning acceptance of the doctrines of established schools and authorities.
>
> (Schacht, 1984: 71–2, quoted in Hallaq. 1984: 5)[17]

To the above intellectual trends, social and political upheavals in Muslim countries should be added. The decline of the Buyid dynasty (934–1055)

which was the prime-mover behind what Kraemer has dubbed 'the Renaissance of Islam' and the restoration of the orthodoxy by the Saljuqs (1016–1307), the animosity between the Abbasid dynasty (750–1258) in Baghdad and the Fatimid dynasty (909–1171) in Egypt, the Crusades (1095 and 1291), the invasion of the Moghuls, Hulago Khan (1218–1265) and later Taymour (Tamerlane, 1336–1405) all helped the creation of an environment which was not amenable to free and critical thinking.

The collective result of all the above factors was that philosophy as a discipline and a tradition died a sudden death among the Sunni Muslims on the Eastern flank of Islamic civilisation. Philosophical thinking, however, did not die away among Muslims. It followed two different paths in the eastern and western parts of Muslim lands. In Spain, Muslim philosophers such as Ibn Bajjah (Avempass, 1095–1143), Ibn Tufayl (1105–1185) and Ibn Rushd continued the Mashsha'i (peripatetic) tradition (Fakhry, 1993: ch. 9).

Ibn Rushd achieved fame among European scholars as master commentator on Aristotle's works. He also established himself as a first rank philosopher by producing a philosophical defence of his fellow-philosophers against Ghazzali's powerful criticisms (Ibn Rushd, [c. 1180] 1964),[18] and further developing earlier theories of intellect, by suggesting a new model in which individuals' acquired knowledge after unification with the active intellect would lose their identities and instead would collaborate in creating a collective pool of knowledge and ideas. This view somewhat resembles Popper's notion of World$_3$ (Gatherer, 1998).[19] However, with the collapse of Muslim dynasties in Spain in the late fifteenth century, the development of Islamic philosophy in Sunni Islam came to an end and the philosophical spirit vanished from its eco-system.

Even the heroic efforts of Ibn Rushd to show the compatibility between reason and religion could not save philosophy and rational thinking from its fate (Ibn Rushd, 1921). The advocates of the orthodox reading of Islam would only endorse the application of reason strictly within the limits of religion alone. And even here, only a literal interpretation of religion was allowed. The victory of *Ahl Hadith* (the literalist transmitters of the tradition of the Prophet) meant that even the Quran could only be studied in the light of a literal or at most analogical understanding of the sayings and deeds of the Prophet.

Philosophy, however, survived in the Shi'i Islam. It is to this development that we now turn.

V From a predominantly rational mode of philosophising to the development of novel systems of theosophy

A closer look at the development of philosophical thought in Islam from its early stages onward reveals that the relationship between philosophy, *kalam* (theology) and *irfan* (mysticism) has not been unambiguous and their boundaries have not been clear-cut. Such a study makes it clear that *kalam*

and *Irfan* have always had some sort of influence on rational approaches to philosophising and philosophers have always been acutely aware of the need to address the concerns of not only *mutikallimun* (theologians) and *urafa* (mystics), but also *fuqaha* (jurists). Exceptions to this rule have remained in a small minority.

Almost all of the first rank thinkers who contributed to the development of the intellectual heritage of Islamic civilisation were devout Muslims. This trait, amongst other things and as far as Muslim philosophers were concerned, meant that although they were bolder in their intellectual investigations than their theologian counterparts, nevertheless, they did not seem to be willing to go as far as to reject Islamic doctrines. Even someone like Muhammad ibn Zakariya Razi (Rhazes d. 925) who had critical views about prophets and prophecy was a God-fearing Muslim and a respected personality amongst his contemporaries and subsequent generations of Muslims. Some contemporary scholars in the West have appreciated this point and have noted that Razi 'far from being a heretic; . . . was simply an individualistic thinker, merely anti-establishment or anti-orthodox' (Plessner, 1971, quoted in Kraemer, 1984: n.120, 160).

Religious outlook of these philosophers and thinkers had impacted upon their views. Many of these philosophers had developed ideas which were compatible with their religious beliefs. For example, al-Kindi, the first proper Muslim philosopher, using neo-Platonic ideas, had argued for a creator God and had rejected the Aristotelian notion of the Prime Mover. He had also developed arguments against creation ex nihilo and also in defence of the possibility of the occurrence of miracles (Nasr & Leaman, 1996).

Likewise, Farabi, while placing philosophers on the highest rung of the intellectual ladder, and equating them with prophets, developed an argument for the existence of God based on the difference between a necessary being that is self-subsistent and contingent beings which are dependent upon the necessary being. This is the third form of the cosmological argument. The earlier two forms, as formulated by Aristotle, were based on the ideas of motion and potentiality (Sharif, 1963; Akbarian, 2008).

Ibn Sina, who is undoubtedly the greatest peripatetic philosopher in Islamic philosophy and more than any other Muslim philosopher has emphasised the importance of the intellectual exploration of reality, was proud that for the first time he had been able to develop a completely novel argument for the existence of God. He dubbed this argument, 'Burhan-e Siddiqin = the argument of the righteous'. The novelty of this argument lies in the fact that contrary to other arguments for the existence of God, like the cosmological argument or the argument from design whose starting points are the existence of contingent beings from which they argue for the need to posit a necessary or wise being, it concentrates on the notion of existence itself and demonstrates that this very notion, without any need to make use of the notion of contingent beings, suffices to prove the existence of God as a necessary being (Ibn Sina, 1957: vol. 3,

66; Meyer, 2001; Akbarian, 2008).[20] Ibn Sina goes even further than this in taking care of the religious sensitivities of his time; in his discussion of the vexed issue of resurrection he states that rationally he can only establish the resurrection of humankind souls but not their bodies; but then he goes on to emphasise that bodily resurrection is warranted by shar' (religion) and "there is no way to demonstrate bodily resurrection save through the way of shari'a [religious (Quranic) teachings] and assent to Prophetic sayings" (Ibn Sina, 1986: 326).

The last great Muslim polymath philosopher of the Golden age of Islam, namely, Khwaja Muhammad ibn Muhammad ibn Hasan Tusi, better known as Nasir al-Din Tusi, while producing scientific and philosophical doctrines, also assumed the mantle of a proper theologian and penned a number of important theological books. In fact, his *Tajrid al-I'tiqad* (Simplifying the Articles of Faith) has been regarded as one of the most important Shi'a theological books, on which both Shi'i and Sunni theologians have written commentaries (Tusi, n.d.).

Mystical and Sufi tendencies were also discernible in the works of almost all Muslim philosophers of the classic period of Islam. In this respect it is worth noting in passing that Pythagoras and his mystical school were received more warmly than Thales and his school by Muslim scholars of the classic period and in particular by *Ikhwan al-Safa*[21] (the Brethren of Purity) who were one of the major forces behind the Renaissance of Islam in ninth-tenth centuries.[22] Muslim scholars were familiar with the pre-Socratic thinkers like Thales, Anaxagoras, Empedocles, Pythagoras, and Democritus, Heraclitus and Parmenides. However, Empedocles and Pythagoras received more attention. Muslims believed that Empedocles had received instruction in wisdom from Luqman, the legendary sage mentioned in the Quran (Fakhry, 1993: 19) while the latter had been taught by Solomon. As Fakhry has observed, 'many of Pythagoras' moral aphorisms are given in the Arabic anthologies' (Fakhry, 1993: 19). Osman Baker has noted that in the classic period of Islamic civilisation,

> In contrast to Peripatetic philosopher-scientists who emphasize logic and demonstration, the Hermetic-Pythagorean scientists and philosophers, who also played an important role in Islamic science, adopted a methodological approach that is based primarily upon a metaphysical and symbolic interpretation of things. This is the kind of approach used for example by Jabir ibn Hayyan in alchemy and by the Ikhwan al-Safa in the various mathematical sciences.
>
> (Baker, 1996: 942–3)

Immediately after the above observation, Osman adds another remark which, though he does not develop it further, is directly relevant to the topic under discussion in this chapter. He says, "Certain elements of this method [the metaphysical and symbolic interpretation of things] are also to

be found in the scientific methodology of those scientists who are usually identify with Peripatetic school such as Ibn Sina" (Baker, 1996: 943).

The case of Ibn Sina is of particular importance. Ibn Sina, the Persian philosopher, is, as pointed out before, undoubtedly the greatest peripatetic philosopher in Islamic philosophy and his encyclopaedic philosophical work, al-Shifa is a paragon of rational thinking. Yet despite all his penchant for rational approach, later in his life and in his later works, he laid down the foundations of an intellectual legacy whose hallmark was an emphasis on mystical methods of acquiring wisdom in contrast to rational methods of acquiring knowledge.[23] Ibn Sina's later philosophy, known as *al-Hikmat al-Mashreqiyah*[24] (The Eastern Philosophy) turned into the dominant trend of thought among subsequent generations of Muslim philosophers.[25]

In turning away from his peripatetic phase towards his new philosophy, Ibn Sina made a move, which though mostly symbolic and formalistic, proved to be very influential: in his *Danishnama-ye 'ala'i*, which was the first encyclopaedia of philosophy written in Persian in the Islamic era he, for the first time in the history of Muslim intellectual thought, began his discussion with the section on metaphysics (*ilahiyat*)[26] and from there proceeded to natural philosophy (*tabi'iyat*).[27] This was in sharp contrast to the way Aristotle and many Muslim authors, including Ibn Sina in his other works on philosophy, organised the chapters of their books; they would all start with a chapter on natural philosophy (physics) and then move on to metaphysics. Ibn Sina's innovation was emulated by subsequent generations of Muslim philosophers. As Nasr has observed, "Later Safavid and Qajar authors, among them Sadr al-Din Shirazi, Mulla Muhsin Fayd [Kashani], and Hajj Mulla Hadi Sabzavari, have followed the precedent of the *Danishnamah*" (Nasr, 1993: 187, n. 26).

The unwanted consequence of this seemingly innocent change was an unfortunate influence on the further development of philosophy: later generations of philosophers and theologians, by and large, paid less and less attention to the study of natural philosophy. Instead, as we shall see below, most of them channelled their energies into developing theosophical doctrines and systems of theosophy. The section on natural sciences and physics (*tabi'iyat*) in subsequent books on philosophy remained almost the same as it was at the time of Ibn Sina or thereabouts. Few centuries after the renunciation of peripatetic philosophy by Ibn Sina, many of the philosophers and theologians had no competence in further developing the natural sciences. Apart from a few exceptions, most of the rest, at best, could only explicate the achievements of their predecessors to their students, and at worst, did not have a good grasp of the issues discussed in the sections on *tabi'iyat*. Nevertheless, out of reverence for the past masters, they would dutifully reproduce these sections, now regarded as relics, in their own books on philosophy and *kalam* (Masumi Hamadani, 1981: 262).

The main characteristic of Ibn Sina's new school, *al-Hikmat al-Mashreqiyah*, was its emphasis on the power of intuition and mystical experiences, as

against rational thinking, as the most effective tool for exploring reality and acquiring knowledge about it.[28]

Al-Hikmat al-Mashreqiyah was further developed into a comprehensive philosophical system by another great Persian philosopher, Shahab/ Shihab al-Din Suhrawardi (1158–1191), the founder of *Maktab-e Ishraq* (the School of Illumination) who was killed at the tender age of 38 on the basis of a fatwa (edict) of the orthodox jurists in Syria.[29] Suhrawardi's system was a novel synthesis of various trends of thought, including Platonic and neo-Platonic ideas, doctrines from the wisdom of ancient Persian sages (*Hukamaye Pahlavi*), doctrines extracted from the Quran and the teachings of the Prophet. Suhrawardi also introduced a whole set of new vocabularies into the discourse of Islamic philosophy. The central theme in his philosophy was the notion of light which, to some extent, represented the concept of *wujud* (being) in the earlier philosophies. God, for example, was *Nur al-Anwar* (Light of Lights) (Suhrawardi, 1993, 1986).

In his captivating works both in Persian and Arabic, Suhrawardi narrated an epic story on a metaphysical plane whose main hero was man who had fallen from the realm of light into the realm of darkness and was longing to get back to his origin. Suhrawardi's philosophical system was, in a sense, a somewhat rational reconstruction of various stages of this existential journey and an explanation of its cosmic scale and stages. The grand metaphysical plot of the story is an augmented neo-Platonic system: the whole realm of being is divided into three or four sub-realms which are sandwiched between the extreme poles of the Light of Lights, whose place in the geographical plane of this cosmic map is above and top, and darkness, which represents *hyle* (matter) or mere potentiality and therefore nothingness, at the bottom or down. Suhrawardi writes,

> The Essence of the First Absolute Light [i.e. the Light of Lights], God, gives constant illumination, whereby it is manifested and it brings all things into existence, giving life to them by its rays. Everything in the world is derived from the Light of His essence. . . .
> (Suhrawardi, 1950: 79, quoted in Masr, 1964: 69)

> Know that the number of worlds according to people of wisdom is three. One is called the world of intellect (*'ālam-e 'aqal*) . . . and one is called the world of soul ((*'ālam-e nafs*) . . . and the other is called the world of body (*'ālam-e jism*).
> (Suhrawardi, 1993: 95 and 65, quoted in Dakani, 1998: 112)

And he writes elsewhere,

> I have correct experiences [which inform me that] the number of worlds is four. The world of dominant lights (*'ālam-e anwār-e qāhirha*) (i.e. intellects), the world of regent lights (*'ālam-e anwār-e mudabbirha*) (i.e.

souls), the world of purgatories (*'ālam-e barāzkh*) (i.e. the spheres and the elements), the world of darkened suspended images (*'ālam-e suwar-e mo'allaq-e zulmāni*).[30]

<div style="text-align: right">

(Suhrawardi, 1993: 232 and 254,
quoted in Dakani, 1998: 112)

</div>

Man can obtain salvation by God's grace and through the assistance of the active intellect, which is identified as the archangel Gabriel, and also the spiritual masters (*pirs or ulia*)[31] which the earth is never without. Suhrawardi had a profound influence on almost all the subsequent generations of Muslim philosophers.

From Suhrawardi onward, Islamic philosophy, in a systematic fashion, dedicated all its attention to theosophical issues, i.e. issues related to understanding God and His manifestations, by means of rational argumentation, intuition and mystical experiences. It took as its main sources of exploration and investigation the holy Quran and the teachings of the Prophet and the Shi'i Imams.

The result of a full-fledged promotion of a religious outlook in this new ecosystem in which the notions of *wali* (friend, Guardian. pl. *ulia*) and *wilayat* (friendship, guardianship) had prominent places was, as far as philosophy was concerned, the emergence of two extremely sophisticated intellectual schools, which introduced some of the finest systems of theosophy. These two schools are known as the School of Isfahan and the School of Shiraz. However, before discussing some of the main achievements of these schools, I need to say a few words about the views of a highly influential mystic whose ideas played some important role in the subsequent development of Islamic theosophy. The personality in question is Muhi al-Din al-Arabi,[32] better known as Ibn Arabi.

Ibn Arabi (1165–1240), born in Moorish Spain, is one of the greatest Muslim Sufi masters and mystics.[33] In fact the only other mystic whose standing, fame and influence is equal to, if not slightly greater than, that of Ibn Arabi is Jalal al-Din Muhammad Balkhi (1207–1273), known in the West as Rumi. While many common themes can be found in the ideas of the two grand Sufi masters, many significant differences could also be discerned between their views and approaches.[34]

Generally speaking, Sufis and mystics played two important roles in the intellectual life of Muslims. On the one hand, they introduced a badly needed element of tolerance and open-mindedness towards other cultures, religions, doctrines, traditions, and practices; and that in an environment which was dominated by a literalist and orthodox approach to the religious creed. On the other hand however, they, in a fashion not dissimilar to present-day post-modern writers, opened up the floodgates to all sorts of unbounded interpretations and unbridled flights of fancy. The end result was further weakening of rational approaches which were caught between the rock of the dogmatism of the orthodoxy and the hard place of the relativism of Sufism.

Ibn Arabi was a master story-teller and a prolific writer. His *magnum opus*, *al-Futuhat al-Makkiyah*[35] (The Mekkiyan Revelations) runs into many volumes (Ibn Arabi, 1972–91). Through his powerful writings he gave further credence to a cultural tradition which became prevalent in almost all fields of scholarly investigations in Islamic lands. The tradition in question was confirming one's knowledge claims not by resorting to rational argumentation but by citing one's visions and personal experiences. Ibn Arabi was very adept in this art of confirmation of knowledge claims. He begins both of his masterpieces, *al-Futuhat* and *Fusus al-Hikam*[36] (the Gems of Wisdom) by narrating two dreams which he attests to being genuine and truthful visions (*al-roya al-sadiqa*).[37] According to Ibn Arabi, in the course of these two visions, the Prophet revealed to him the contents of the two books referred to above. With this ingenious stratagem, Ibn Arabi outwitted all of his would-be detractors not only during his own time but throughout the centuries afterwards. With few exceptions, almost all subsequent scholars, whether Sunni or Shi'a, did their best to justify even the most exaggerated claims of Ibn Arabi, since apparently whatever is stated in Ibn Arabi's books is the Prophet's wisdom and has got nothing to do with Ibn Arabi. It seems one of the important factors which made Ibn Arabi's views, despite his Sunni background, appealing to his Shi'i followers was his great emphasis on the significant role of the *ulia'* (Spiritual Guardians, Sufi Saints) in the great scheme of things. In his writings, he placed *ulia'* on a higher plane than even the prophets,[38] claiming that the former are concerned about unveiling truth whereas the latter concentrate on promoting the message and are not much concerned about disclosing truth (Ibn Arabi, 2006: 78). Ayatollah Khomeini's theory of *wilayat al-faqih* (the Guardianship of jurists) is among many Shi'i doctrines influenced by Ibn Arabi (Knysh, 1992).

The intellectual trend towards combining mystical, gnostic, and illuminationist insights with Quranic and Prophetic teachings and rational thinking reached its zenith, as was stated above, in two influential philosophical Schools with distinct Shi'i flavour, namely the School of Isfahan and the School of Shiraz. The emergence of both of these Schools was greatly facilitated, if not made possible in the first place, because of the coming to power of the Safavid dynasty in Persia (1501–1736). The fact that Safavid belonged to a Sufi order which traced its lineage as well as its name to the great Sufi-saint, Sheikh Safi al-Din Ardibili (1252–1334) (Nasr, 1966b: 905), provides some explanation for their support of the two philosophical Schools which flourished during their reign, and for the general theosophical orientation of these schools.[39]

VI Schools of Isfahan and Shiraz

The founder of the School of Isfahan was Muhammad Baqir Damad (d. 1631), better known as Mir Damad. His difficult style of writing and his novel neologisms earned him a reputation not dissimilar to what is ascribed to Hegel in the West. He became known as the Third Teacher (*Mu'allim*

al-thalith) after Aristotle and Farabi. Many popular anecdotes about his complex philosophical system were in circulation even during his own lifetime. According to one such story after his death the two angels, *nakir* and *monkar* who, according to popular Muslim beliefs, are in charge of interrogating deceased souls to ascertain whether they should be handed over to the angels of mercy or the angles of punishment, went to him and asked him about his deeds and his beliefs. Mir Damad's philosophical replies were so baffling that the poor angels could not make head or tail of them. In desperation, they went to God and asked Him about this strange individual. God told them they had better leave him alone since the philosopher during his lifetime had said things which even God could not comprehend![40]

Mir Damad's main project was to develop a system of philosophy based on the wisdom revealed by God to the prophets, known as the Yamani wisdom (*Hikmat-e Yamani*)[41] in contrast to the rationalistic philosophy of the Greeks (Nasr, 1966b: 915). The name of Mir Damad's system was apparently inspired by a Prophetic hadith (tradition), namely, '*al-Imanu al-Yamani va al-Hikmatu al-Yamaniyatu*' (The true faith is the Yamani faith and the true wisdom is the Yamani wisdom) (Mostafavi, 2007: 22). Moreover, Yaman (Yemen) also has mystical connotations in gnostic literature in that it symbolises the *mashriqi* (i.e. the oriental as well as the illuminated) side of the world and 'is therefore the source of divine illumination in contrast to the Occident, which is the source of Peripatetic [rationalistic] philosophy' (Nasr, 1966b: 915).

Following the precedent set by Ibn Sina in his *al-Hikmat al-Mashreqiyah*, Mir Damad, in his major philosophical writings such as *Qabasat*[42] and *Jadhawat*[43] relegated discussions of logic and themes in natural philosophy to the last chapters and began his discussions with issues concerning the notion of Being and its attributes following by chapters on the appeal to the Quran and the tradition of the Prophet and the Shi'i Imams to shed light on the intricacies of philosophical issues.

In the dispute among Muslim philosophers concerning the status of existence (*wujud*) and quiddity (*mahiyyat*) in the grand scheme of things, Mir Damad argued against Ibn Sina (in his Peripatetic phase) by endorsing the principality of quiddity (*mahiyyat*) and the accidental nature of existence (*wujud*). Among his philosophical innovations, the notion of *huduth-e dahri*[44] (a temporal createdness/coming into being/origination/emergence) which he contrasts with two other notions, namely, *huduth-e zamani* (temporal createdness or coming into being) and *huduth-e dhati* (essential createdness or originatation) deserves to be mentioned (Rahman, 1980). He maintained that all entities, apart from God, i.e. all contingent beings, have an unchanging existence in a realm which is called *dahr* (aeon). God is outside of this realm, his existence is *sarmadi* (without beginning and end). According to Mir Damad, all temporal beings in any moment of their existence have a *dahri* counterpart. *Dahr* acts as a cosmic memory in which whatever is in God's mind has a copy (Rahman, 1980; Mostafavi, 2007; Nasr, 1966b).

Mir Damad's rationale behind postulating this realm was his view that the notion of emanation, which had been devised in order to solve the problem of the existence of eternal yet contingent entities, could not do justice to God's unique position in the whole realm of being by placing Him over and above all other entities which were totally dependent upon Him. According to Mir Damad, in the theory of essential contingency, each contingent being before coming into being and in respect to its essence alone is neither existent nor non-existent. This indifference of contingent entities towards non-existence, in Mir Damad's view, means that they are not absolutely non-existent and this is enough to imply that they enjoy some sort of existence, even before coming into the realm of being. By contrasting absolute non-existence with the *dahri* existence, Mir Damad, tried to argue that nothing but God deserves to be regarded as existent (Rahman, 1980; Mostafavi, 2007, Behbahani, 1970).

Mir Damad's theory of *huduth-e dahri* was not further developed by his successors, despite the fact that Mir Damad was able to provide solutions for a number of philosophical as well as theological issues including the problem of 'createdness of time', 'rejection of the Platonic realm of Ideas', the issue of God's foreknowledge and the changes He effects in the grand design of things (naskh va bada') (Behbahani, 1970: 55–58).

The trend of emphasising the significance of *ishraqi*, illuminationist and esoteric approaches to philosophy in contrast to more rational approaches, and giving priority to religious sciences in contrast to natural philosophy, was further emphasised by another prominent member of the school of Isfahan, Sheikh Bahaei', who was among the clerics migrated from Lebanon to Iran.[45] Sheikh Bahaei', a close friend and colleague of Mir Damad, was a true polymath in the tradition of philosophers of the Golden age of Islam; he was the foremost theologian and jurist of his time, an accomplished mathematician and astronomer who had published a widely-read treatise on algebra, *Khulasah fi al-Hisab*,[46] and several treatises on astronomy, a knowledgeable physicist, a skilful poet, an adept Quranic commentator and a capable architect (Nasr, 1996b: 910). And yet, despite being well-versed in the natural sciences and also in mathematics and technology, in his poems which were critical reflections on his own life and achievements, poems, which were very influential due to their simple and powerful language, he openly and explicitly condemned not only rational philosophy but also all other sciences as mere waste of time, distractions from coming to know God, and obstacles in the way of gnostic experiences. In his Nan and Halwa (Bread and Halva [Sweet]) he says (and I quote just a few lines),

> Formal science is nothing but altercation;
> It results in neither intoxication nor contemplation
> . . .
> There is no science but the Quranic Commentary and hadith;
> The rest is the deception of the perverse Satan.
> The mysteries will never become known to thee;

If thou hast for student a hundred Fakhr-i Razi.
. . .
How long wilt thou teach the wisdom of the Greeks?
Learn also the wisdom of those who have faith.
. . .
How long wilt thou lick the bowl of Avicenna?
Illuminate thy heart with resplendent lights. (Sheikh Bahaei', quoted in Nasr, 1963: 911–2)

Islamic philosophy in the tradition of combining gnostic, religious and rational strands, reached its apex in the teachings of Sadruddin Mohammad Shirazi (1571–1640), better known as Akhund Mulla Sadra and also as Sadr Al-Muti'allihin (the foremost amongst the theosophists).[47] Mulla Sadra was contemporaneous with Descartes and was as influential a philosopher in Islamic culture as was Descartes in the context of European thought. However, the approaches of these two intellectual giants were poles apart. Whereas Descartes was well-versed in philosophy, theology, physics, mathematics and had a deep and lasting effect on the development of medicine, despite the fact that he was not a physician (Lindboom, 1978), Mulla Sadra dedicated his whole intellectual energy to the development of perhaps the finest theosophical system ever introduced within the ecosystem of Islamic culture. He, like his predecessors in the gnostic tradition, maintained that the only worthwhile knowledge is theosophy. He explicitly criticised Ibn Sina for wasting his time composing works on mathematics and medicine (Nasr, 1963: 935).

Mulla Sadra's exquisite system, in which rational thinking was combined with esoteric approaches and applied to the teachings of the Quran and the tradition of the Prophet and the Shi'i Imams, came to be known as *Al-Hikmat al-Muta'aliyah*[48] (The Transcendent Theosophy). It seems the use of the term *Hikamt*, with its rich connotations in the Quran and the tradition of the Prophet and Imams, was chosen deliberately by the founders of the two Schools of Isfahan and Shiraz to name their respective philosophical systems in a bid to quell the concerns of the orthodox *fuqaha* who wielded a great deal of power, especially during the Safavid period.

Al-Hikmat al-Muta'aliyah (or as pronounced in Persian: *Hikmat-e Muta'aliyah*) is rich with novel ideas and brimming with interesting arguments and fecund metaphors. It has long been established as the received wisdom and official philosophical doctrine, or to borrow a not very accurate term from Thomas Kuhn (1970), the dominant theosophical paradigm, in all of those Muslim seminaries in which philosophy is being taught.

The road to success was not as easy for Mulla Sadra as it was for his teacher, Mir Damad, who was a respected figure at the court of Safavid kings. In fact, under pressure from the more orthodox *ulama* (clerics) and *fuqaha* (jurists), Mulla Sadra was forced to spend fifteen years in self-exile in a small village, Kahak, near the city of Qom, before being able to return

to Shiraz and establish his School there at a seminary which is still up and running today (Nasr, 1978: 35–8). It should be noted that some decades before Mulla Sadra other philosophers from Shiraz, such as Sadr al-Din Mohammad Dashtaki (1425–1564) and his son Ghyiath al-Din Mansur Shirazi (d. 1542), had established a school of philosophy also known as the School of Shiraz. Mulla Sadra discussed their views in some of his works (Corbin, 1962: 335–7).

Like Suhrawardi and Mir Damad before him, Mulla Sadra presented a complete metaphysical system which provides explanations for every aspect of reality, whether God, angels, man, the afterlife, the day of judgement and so on. His system however, in contradistinction to the systems developed by his two eminent predecessors, was based on the notion of the existential primacy (*Taqaddum Rutbi*) of being (*wujud*) over quiddity (*mahiyyat*) or the principality (i.e. reality) of being and accidentally (non-reality) of quiddity (Kamal, 2006; Burrell, 2013).

In constructing his own system, he tried to combine the best aspects of the views introduced by previous sages, whether the Presocratic or neo-Platonic or Peripatetic or *Ishraqi* philosophers, the wisdom of Sufis and mystics like Ibn Arabi, and the arguments of the theologians, and the teachings of the Quran and the tradition of the Prophet and the Imams, in order to create a coherent theosophical system, while exposing, in a rational manner, the shortcomings of the views of his eminent predecessors.[49]

In the realistic outlook of Mulla Sadra the whole realm of being consists of just one reality, namely God. All other things are His manifestations and therefore have no genuine reality on their own. God is the only necessary being; all the rest are contingent entities. For this particular type of contingency Mulla Sadra has coined a new term, *imkan-e faqri*[50] (contingency due to existential dependence) which was different from the common notion of contingency, namely, *imkan-e mahuwi*, contingency related to the quiddity or essence, which was used by previous philosophers (Mulla Sadra, 2003; Motahhari, 2003).

The general picture of Mulla Sadra's worldview was somewhat like the model presented by the neo-Platonists, though with many more added details and extra layers and structures plus a much more pronounced emphasis on the dual principle of 'unity in diversity and diversity in unity' and 'primacy of being over quiddities'.

God, as the only genuine, self-subsistent being is the cause of all causes. But causes and effects are not different in essence: an effect is just an aspect of its cause. Moreover, since from unity only unity can issue forth, God's first emanation or manifestation can only be a simple and unified being. This being is referred to by various names, including, the 'supreme intellect', 'the first emanation', and also *haqiqat-e Muhammadiyah* (the reality of Muhammad). While the first two terms were common among philosophers of neo-Platonic tendency, this last description was an invention of Muslim mystics (Mulla Sadra, 2003).

Mulla Sadra introduced many novel themes and theories into Islamic philosophy and provided convincing solutions for many outstanding problems in not only the field of philosophy but also those of theology and mysticism. Apart from his doctrine of the unity and existential primacy of existence (*isalat al-wujud*),[51] other doctrines such as the theory of substantial motion (*al-harakat al-jawhariyyah*); God's knowledge (including His knowledge of particulars); a general theory of knowledge; a novel theory concerning human soul; a theory concerning time as the fourth dimension in material beings (though of course not in the sense discussed by Einstein); the theory of bodily resurrection; and rejection of the theory of reincarnation should be included in the long list of his achievements. The close harmonies which exist amongst various aspects of Mulla Sadra's philosophical system have made his system a powerful intellectual tool (Mulla Sadra, 2003; Soroush, 1999).

I cannot here do justice to Mulla Sadra's numerous and rich achievements. Perhaps a few words concerning his theory of Substantial Motion will provide a flavour of his approach. For Mulla Sadra, the primacy and principality of existence, means, among other things, that each entity has a personal or individual identity. Existence ought to be contrasted with non-existence. The more perfect an entity the richer its existence, in the sense that it is less contaminated with non-existence, is less dependent upon other beings, has less potentiality and possess more actuality. For non-material entities, their imperfection manifests itself in their absolute dependence upon God for their existence. But in the sub-lunar realm which is the abode of material entities, imperfection obtains as an added feature. Here, the degrees of actuality and potentiality determine the degree of perfection of a particular entity with regard to its particular identity.

In this context, change means turning potentiality into actuality. Mulla Sadra argues that individual beings in the sub-lunar realm have their own distinct identities and are experiencing, on a continuous basis, the process of the actualisation of their potentialities. This process, first and foremost, happens in an individual's existential substance and as a result changes in other categories such as quantity (*kamm*), quality (*kaif*) and place (*makan*) will be effected. Time is also a dimension which displays the above sequence of continuous and seamless turning of potentiality into actuality. The human soul is at the beginning just a mere potentiality; under favourable circumstances, it gradually emerges as a result of the interaction of the body of the newly conceived embryo with the environment. The process of actualisation of the potentials embedded in the soul continues until the last moment at which the individual is alive and active. Since both the body and the soul have many different potentials, actualising particular aspects of such potentials becomes a matter of interaction between the individual and his environment. At the end of one's life in this world, one's soul leaves one's body and, depending on the degree of perfection it has achieved while still in this world, it enters the realm of purgatory or higher up in the chain of being (Mulla Sadra, 2003).[52]

In the period after the death of Mulla Sadra until the twentieth century, Islamic philosophy has mostly been a footnote to the Sadraeian system. Grand masters like Mulla Muhsin Fayd Kashani (d. 1680), 'Abd al Razzaq Lahiji (d. 1662), Qadi Said Qomi (d. 1691), Mulla Ali Mudarris Zunuzi (1889), Mulla Ali Nuri (1830), Jahangir Khan Qashqaei (1827) and many more have, by and large, been busy explicating the intricacies of *Hikmat al-Muti'alliyah* and further developing its latent capacities and potentials. Apart from small steps made within the Sadraeian paradigm to better clarify this or that point or re-present or re-formulate this or that argument by improved versions, the only noteworthy development, which was only significant due to its pedagogical novelty, was the efforts of Mulla Hadi Sabzevari (1797–1873), a nineteenth century philosopher, to represent the whole of Sadra's system in term of easy-to-remember poems. His *Manzumeh* (or collections of poems) became the standard textbook in all Persian-speaking seminaries for teaching Sadra's philosophy (Nasr, 2006; Motahhari, 1987).

It is worth emphasising that parallel with the development of Sadraeian system which was the representative of rational approach among Muslim scholars, anti-rational movements and schools were also on the rise. Ironically the founder of one such movement, Sheikh Ahmad Ahsaei (d. 1826) (the founder of Sheikhi movement) had produced an authoritative commentary on Mulla Sadra's Asfar (Nasr, 1966a: 950). Another influential figure was Mohammad Amin Astarabadi, the founder of Akhbari School in fiqh which advocates a literalist approach to fiqh and Islamic teachings. Mulla Sadra's son-in-law, Muhsin Fayd was among the main promoters of this school (Gleave, 2007).

Another interesting, though aborted development, was the efforts of an enlightened Qajar prince, Badi' al-Mulk Mirza, to introduce the views of Immanuel Kant to two grand masters of Islamic philosophy, Mulla Ali Mudarris Zunuzi and Mirza Ali Akbar Mudarris Yazdi (d.1935) and to encourage them to respond to the challenges of the German philosopher by using the machinery of Islamic (mostly Sadraeian) philosophy. 'There is however, little evidence to show that any real dialogue and meeting of minds took place on this occasion. What caused the discussion on Kant's view to come close to some sort of 'dialogue of the deaf' was that, on the one hand, the prince was not competently familiar with Kant's views. And on the other, the masters, perhaps understandably, had stuck to their traditional canons and were not prepared to venture out of their intimate paradigm' (Paya & Shahi, 2010).

VII Islamic philosophy in Iran in the twentieth century

In the early decades of the twentieth century, Iranian left-wing intellectuals, like their counterparts in other parts of the world who were inspired by the Bolshevik revolution in Russia, embarked on an ideological crusade to

promote various aspects of Marxism-Leninism and in particular Dialectical Materialism in Iran. These efforts received a great boost in 1941 with the formation of the Soviet backed Tudeh party.

In reply to this ideological onslaught, one of the greatest masters of Islamic philosophy in modern times, Allameh Seyyed Mohammad Hossein Tabatabaei (1904–1981), decided to expose the shortcomings of Marxist ideology by critically assessing its philosophical doctrines. In the mid-1950s, Allameh began teaching a course of philosophy to a selected group of clerics chosen from among his best students. This course, based on twice-weekly sessions, lasted for about three years. During this period many philosophical aspects of Marxism and Dialectical Materialism were discussed. Allameh's lecture notes were edited and heavily annotated by his best disciple, Ayatollah Morteza Motahhari (1920–1979), himself a renowned philosopher in the tradition of Islamic Philosophy, and was published in five volumes, under the general title of *The Principles and Method of the Philosophy of Realism* (Tabatabaei & Motahhari, 1953).

This book, whose content I am going to briefly, though critically, discuss in this section, marked a watershed, though unfortunately not a turning point, in the long-standing tradition of Islamic philosophy. It was a watershed in the sense that after centuries of looking inwards, Muslim philosophers applied their talents and also the machinery of Islamic philosophy to a problem outside the usual set of theosophical problems. It did not however turn into a turning-point, in that it remained, more or less, a one-off project. It did not give rise to the systematic application of Islamic philosophy to other newly-emerged issues in the Islamic communities. Of some notable exceptions I'll make a quick mention later on.

The Principles and Method of the Philosophy of Realism ([1953] 2007) consists of fourteen 'articles' each dealing with one important philosophical topic. The two Ayatollahs, Tabatabaei and Motahhari did a thorough job in exposing the epistemological shortcomings of Marxism and dialectical materialism. For example, they argued that Marxists' theory of knowledge leads to relativism and therefore fails to provide universal knowledge of reality. Dialectical materialism is also problematic in that accepting only one contradiction leads to an untenable epistemic position in which all sorts of bizarre claims can be made and there will be no way to examine them.

The book also for the first time, in the history of Islamic philosophy, and almost two decades before David Lewis' *Convention: A Philosophical Study* (1969), and four decades before John Searle's *Construction of Social Reality* (1995) discussed the idea of knowledge about *'etebariyat* (i.e. conventions and socially constructed realities) whose function is to respond to man's non-cognitive needs, as against his cognitive needs which are taken care of by science/knowledge. Allameh Tabatabaei introduced a highly original and detailed account of the structure of knowledge of conventions of all sorts.

He divided the *'etebariyat* into pre-social and post-social. The first group were, in Searle's parlance, products of individual volitive intentionalities, whereas the second group were products of collective volitive intentionalities. Under the first group Allameh Tabatabaei introduced notions such as *wubjub* (necessity), *hosn va qobh* (goodness and badness), *intikhab-e akhaff va as-hal*[53] (the principle of the least effort), *asl-e istikhdam va ijtima'*[54] (the principle of exploitation and living in society), *asl-e mota-bi'at-e ilm*[55] (the principle of following the guidance of knowledge). Under the second group Allameh included *asl-e melk* (the principle of ownership), *kalam* (language), *asl-e riyasat* (the principle of headship), *amr va nahy* (commanding and forbidding). Each of the above general categories is divided into a number of sub-categories. Allameh following a detailed explanation of each category, discussed the relationship between our knowledge of *'etebariyat* and the entities constructed by them (Tabatabaei & Motahhari, 1953).

He also discussed the famous argument concerning the impossibility of deriving an 'ought' from an 'is' first introduced by Hume. However, there is no evidence to suggest that Allameh was aware of Hume's argument. In the context of Islamic philosophy, he seems to be the first philosopher who has discussed this issue.

The aim of Allameh Tabatabaei was to refute the epistemic doctrines of Marxists who presented their views as 'scientific' and objective and did not seem to be aware of the fact that by linking individuals' knowledge of reality to their social classes, their theory of knowledge loses all its objective credibility.[56] He thus exposed the Marxists' fallacy of presenting socially constructed entities and the knowledge thereof as absolute and indubitable truth about material reality.

However, Allameh did not limit his criticism only to Marxists' doctrines; he also challenged the approaches of *fuqaha* (Muslim Jurists) who, according to Allameh, had not differentiated between the normative status of the views they had discussed in their legal discussions and factual claims about reality.

Allameh Tabatabee and Ayatollah Motahhari developed their arguments from within a somewhat modified and expanded Sadraeian framework. Nevertheless, despite all its innovative and trailblazing aspects, *The Principles and Method of the Philosophy of Realism* suffered from a number of shortcomings which have been inherent in the traditional Islamic philosophy since its inception. The three principal shortcomings of this system, as a whole, are as follows:

- Adherence to self-evident truths as the justificatory basis of all knowledge claims;
- Strong emphasis on attainment of certainty as the end goal of epistemic pursuits; and
- Insistence on the so-called *ilm-e huduri*[57] (knowledge by presence) as the ultimate and most valuable type of knowledge.

However, subscription to the above three theses, as I briefly argue here, prevents Islamic philosophy from ridding itself from the shackles of a dogmatic outlook. For example, the insistence of Muslim philosophers on basing their philosophies on the foundation of self-evident truth and seeking justification for their knowledge claims by resorting to this notion has made their systems vulnerable to all sorts of criticisms levelled at the validity of self-evident notions and the process of justification (Miller, 2007, 2012).

Moreover, it seems Muslim philosophers, in their pursuit of achieving certainty, have fallen into the trap of a serious category mistake: they have mistakenly upheld the notion of *ilm-e huduri* 'knowledge by presence' as an epistemic notion. This notion is also referred to as the outcome of a process known as *ittihad-e 'aqil va ma'qul*[58] (the unity between the intellect and the intelligible) or *ittihad-e 'alim va ma'lum*[59] (the unity between the knower and the known). This process and its end result refer to existential experiences and not an epistemic state in which we use language and concepts to reconstruct our lived experiences.

However, of the three theses introduced above, perhaps the second one, i.e. an emphasis on attaining certainty, is the most important one. It seems such an emphasis on the role of certainty and its place in philosophical investigations is not unrelated to religious teachings in which the strength of believers' faith is gauged by the degree of their certainty in their belief in God and in the truth of Islamic teachings. The notion of certainty, *yaqin*, is also emphasised in many of the Quranic verses. To make things even more complicated, the Quran introduces three different notions of *yaqin*, which imply a hierarchy, or various degrees, of certainty. These are known as *ilm al-yaqin*[60] (lit. the knowledge of certainty = certainty due to acquired knowledge), *'ain al-yaqin* (lit. the eye of certainty = certainty obtained through a direct encounter/ direct 'observable' evidence), and *haq al-yaqin* (lit. the truth of certainty = absolute, indubitable certainty).[61] Now it seems these degrees of certainty are contrasted to epistemic concepts such as *shakk* (doubt), zann[62] which is translated as 'surmise' and 'conjecture', and *wahm* (phantasm).

Perhaps prior to the introduction of the views of critical rationalists such as Karl Popper and David Miller, almost all Muslim scholars, were, and the majority of them still are, of the view that certainty is not an epistemic state, in fact, its highest state; and failing to obtain it implies not only a serious defect in one's epistemological approach but more worryingly a weakness in one's faith in God. It seems that the majority of Muslim scholars, including most, if not all, Muslim philosophers, have never considered the argument that certainty is not an epistemic state but a psychological one, and that knowledge can be attained by means of constructing conjectures and projecting them onto reality and allowing reality (including in the shape of critical discussions) to expose their shortcomings. Among the few possible exceptions to this rule which I can mention here, one is Adib Pishawari

(1882–1971), a student of Hajj Mulla Hadi Sabzevari, who in the following quatrain seems to come close to a critical rationalist position:

> Whatever you have seen in the books,
> Or have heard from knowledgeable people;
> Is nothing but some myths concerning reality; However,
> Reality is infinite and the number of our myths is always limited.

The other is Abu al-'Ala Ma'rri (973–1058) the blind poet-philosopher well known for his scepticism. He is reported to have said, "*Amma al-Yaqin, Fala Yaqin. Innama Aqsi' al-Ijtihadi an Azannu wa Ahdasa*" (Concerning certainty, there is none. For my part, my utmost epistemic endeavour is directed towards making conjectures and hunches).

Apart from general understanding of the meaning of the concept of *yaqin* in the context of Islamic culture and its value and worth in the eyes of Muslims, it seems Muslim philosophers, who have always been accused by their fellow theologians, jurists and mystics, of introducing ideas and views which are alien to genuine Islamic teachings, have been extra careful to emphasise the importance of *yaqin* and also the fact that their philosophical systems are capable of achieving it.

However, the emphasis of various schools of Islamic philosophy on their ability to attain certainty as the end goal of their epistemic pursuit has not helped the position of these schools in the eyes of their opponents. These opponents, each in their own way, maintain that certainty can be obtained with much more effectiveness and greater ease through their own approaches rather than moving along the torturous path of incomprehensible philosophical reasoning.

The literalists, of different types and orientations among both the Sunnis and the Shi'as, represent one such group of opponents of philosophy. They claim that certainty can be attained by closely following the sharia law. The second group, of which there is also a large variety, are the Sufis/Mystics who advocate mystical practices, in place of rational arguments, as the best way of acquiring certainty.

The literal and the mystical approaches, despite all their apparent differences, share a common epistemic attitude: they both, each in its own way, belittle rational approaches and maintain that the truths of faith cannot be attained by it. But when reason is pushed out of the scene, the stage is set for all sorts of non-rational, irrational and anti-rational behaviours. I conjecture that the failure of Muslim philosophers with regard to the above three theses has played a major role in paving the way for the emergence of extremists (like jihadists) in the midst of Muslims.

Going back to our story of the evolution of Islamic philosophy in the twentieth century, some of the few noteworthy developments concerning the application of the machinery of Islamic philosophy to meet modern

intellectual challenges and therefore preparing the ground for further progress of Islamic philosophy in new directions which I can report are the efforts of Ayatollah Motahhari, Ayatollah Ha'eri Yazdi and Ayatollah Misbah Yazdi (all three among Allameh Tabatabaei's better-known disciples), and Ayatollah Seyyed Muhammad Baqir Sadr in Iraq (who could also be regarded as one of Allameh's (indirect) disciples).[63]

Of the four figures named above, the approaches of Motahhari and Sadr to these challenges were very different from those of Ha'eri and Misbah. Motahhari, as a philosopher with strong religious inclinations, did his best, until his assassination in the early days after the victory of the Islamic revolution, to provide a rational response to the challenges posed mostly by new generations of Marxist writers and activists in Iran. He also tried to respond to the challenges posed by the arguments of philosophers such as Sartre or Russell whose views on family life, which were being promoted by secular intellectuals in Iran, were not in line with Islamic morals. During his relatively short life, apart from many specialised works which were concerned with the elucidation of various aspects of traditional (i.e. Sadraeian) philosophy, he produced many books in response to various intellectual challenges introduced through imported ideas. In books such as *Man and His Destiny, Divine Justice, Women's Rights in Islam, Reasons and Causes of Inclination towards Materialism and Atheism, A Critique of Marxism* and many others he tried to respond, in a rational fashion, to challenges introduced by modern ideas. His rational approach was informed by philosophical-cum-theological reasoning. In the last years of his life he came to the conclusion that for Islamic philosophy to undergo a genuine revival it was of utmost importance that epistemological issues, which had always remained under the shadow of theosophical topics, had to be taken seriously. He embarked on a project of producing an epistemological system based on the insights of Islamic philosophy.

However, despite dedicating a great deal of time and energy to this project, he was reluctant to publish anything on this subject. He did not feel that he knew enough about modern epistemological developments to be able to critically assess them. His unfamiliarity with Western languages limited his sources to only Persian and Arabic translations of the Western philosophy, added to his frustration. Moreover, at the time, modern epistemological developments, especially in the Anglo-Saxon (Analytic) tradition, were absent from the curricula of the country's universities and there were not competent philosophers who could provide him with an in-depth understanding of these developments in his own language. In the autumn of 1978 Ayatollah Motahhari accompanied Allameh Tabatabaei in the latter's trip to the UK for medical treatment. Apparently during his short stay and in discussion with some Iranian PhD students he had got a chance to get a general idea of some of the latest philosophical developments in the West. Almost immediately after his return to Tehran he asked me to visit him at his home where I used to go each weekend along with few others to receive private

lessons in Islamic philosophy. I vividly remember the meeting because it coincided with the very day the Shah left Iran for the last time. In that meeting he strongly urged me to travel to the UK to do a PhD in the philosophy of science! It seems he had come to the conclusion that to develop a sound approach towards modern epistemologies, one needed to have first-hand knowledge of the philosophy of science and its related fields.

In contrast to Ayatollah Motahhari, Ayatollah Misbah, who is at present the Director of an influential right-wing conservative academic institute in Qom, took a more openly apologetic approach towards foreign 'isms'. In his various works he, in the good old tradition of apologists, tried to show that traditional Islamic views, including the Sadraeian system are, by far, superior to all imported 'isms'.

Ayatollah Ha'eri Yazdi, who, in those days, was the only Ayatollah with two doctoral degrees in philosophy from the universities of Tehran and Toronto, was trying to combine his *usli*[64] approaches with his Sadraeian upbringing in dealing with the challenges posed to the traditional doctrines of Islamic philosophy due to modern epistemic developments since Kant's Copernican Revolution. His arguments, however, remained firmly within the framework of traditional Islamic philosophy and despite the novelty of his approach, failed to address modern challenges in a fruitful manner.

Ayatollah Sadr, who was executed along with his sister by the Baath regime in Baghdad, reportedly by Saddam Hussein's direct order in April 1980, was, like Ayatollah Motahhari, concerned about developing a proper philosophical response to the challenges presented by Marxism and other foreign ideologies or philosophical systems. Like Ayatollah Motahhari, he also maintained that the intellectual facilities available in Islamic culture could help researchers to develop systems of thought which are free from the defects of Western philosophical schools.

In 1977, and in a trailblazing and influential book, *al-Ussus al-Mantaqiyah li'l Istiqra'*[65] (The Logical Foundations of Induction) he took upon himself to develop an epistemological system based on the resources available in the Islamic intellectual milieu in order to suggest a solution to the vexed problem of induction (Sadr, [1977] 1982). The title of the book was however, a misnomer, since the author had no intention of providing logical foundations for induction and maintained that no such foundation can be found.

In developing his novel and critical assessment of the problem of induction, Ayatollah Sadr, on the one hand, relied on the Arabic translation of Bertrand Russell's Human Knowledge (1948), and on the other, made use of his detailed knowledge of *usul al-fiqh* and of Islamic philosophy.[66] He criticised Aristotle's and also Mashsha'i (peripatetic) philosophers' proposed solution to the problem of induction, arguing that the principle of the uniformity of nature, or its variances used by Aristotelians to justify induction, is not self-evident. Indeed, it relies on induction.

Ayatollah Sadr then criticised Hume's and Mill's arguments. He rejected Hume's claim that causality cannot be established by empirical evidence and also rejected his pessimism concerning the impossibility of finding a solution for the problem of induction. As for Mill's view, he noted that while Mill was right in thinking that causality can be established by inductive means, he was wrong in linking the validity of inductive generalisation to causality (Sadr, [1977] 1982: 69–81; Soroush, 1983: 24–5).

Having explained the failure of some of the well-known approaches to the problem of induction, Ayatollah Sadr introduced his own epistemological approach which he maintained could solve the problem once and for all. Ayatollah had dubbed his novel theory *Al-Nazariyah al-Tawalud al-Dhati fi al-Ma'refat al-Bashariyah*[67](The Theory of Inherent Proliferation in Human Knowledge) (Sadr, [1977] 1982: 123–131).

This novel theory is based on two pillars, namely, particular notions of certainty and a particular interpretation of probability developed in the light of an *usuli* concept (i.e. a concept used in the discipline of *usul*). According to Ayatollah Sadr there are three types of certainties, namely: logical certainty, inherent (subject-based) certainty (*al-yaqin al-dhati*) and objective certainty (*al-yaqin al-mawdu'i*). Logical certainty pertains to the necessary relations between the conclusion of a valid syllogism and its premises and also necessary relations between subjects and predicates of tautologies. Inherent certainty refers to a subjective, psychological type of certainty. But the last type of certainty is achieved on the basis of the accumulation of external evidence and the strength of this evidence (Sadr, [1977] 1982: 321–334; Soroush, 1983: 25–6).

As for his particular interpretation of the probability he introduced a model in which a well-known notion from *usul al-fiqh*, namely, *al-ilm al-ijmali*,[68] which literally means un-detailed knowledge, was carefully crafted with some aspects of the classic (Laplacian) and the Frequency (von Mises) theories of probability without (so the Ayatollah argued) incorporating their weaknesses. The Ayatollah defined *al-ilm al-ijmali* in the context of his own theory of probability as 'certain knowledge about an unidentified member of a certain set' (Sadr, [1977] 1982: 271–292).

The Theory of Inherent Proliferation in Human Knowledge which is in itself extremely interesting since it shows how a traditional mujtahid and philosopher is grappling with an immensely important philosophical issue, boils down to the following claims, for each of which the author provides detailed arguments (Sadr, [1977] 1982: 381–433):

1   One begins one's knowledge pursuit about a particular subject-matter on the basis of a degree of *al-ilm al-ijmali* about it. This is our opening hunch or conjecture. Some sort of relation of entailment exists among various parts of one's subjective knowledge, which is the realm of subjective certainty. This knowledge can be expanded in a piecemeal manner by means of a gradual increase in one's degree of rational belief;

2   One's degree of rational belief concerning a particular subject matter, based on *al-ilm al-ijmali* about that subject-matter, can be increased by the application of induction. In this stage, due to accumulation of relevant evidence, one's objective certainty concerning the subject matter under study also increases. This stage is called the stage of the objective proliferation of knowledge (*al-tawalud al-mawdu'i*);

3   In the last stage, which is called the stage of inherent proliferation of knowledge (*al-tawalud al-dhati*) increase in the degree of probability and in the objective certainty combined with certain rules of entailment (which are not logical) described by Ayatollah Sadr in detail leads to the transformation of our initial conjecture into inherent (subject-based) certainty (*al-yqain al-dhati*) concerning the subject-matter of our research.

Ayatollah's Sadr's new subjective theory of induction, of course, as some Muslim philosophers have argued, like all other suggested solutions for this problem, fails to achieve its goal (Soroush, 1983: 31–42). Nevertheless, his bold efforts in developing, perhaps for the first time in the modern history of Islamic philosophy, a novel approach which radically enlarges the horizon of traditional thinking, is worthy of praise.

Apart from the projects cited above which had taken, to varying degrees a problem-oriented approach in response to newly-emerged challenges, the majority of activities in the field of Islamic philosophy, whether in seminaries or universities, were directed towards transmission and exposition of the views of the past masters. Among the better-known expositors of Islamic philosophy in the second half of the twentieth century and the first decade of twenty-first century one should name the late Seyyed Jalal ad-Din Ashtiyani of whom I say few words later, Ayatollah Javadi Amoli in Qom who is the best student of Allameh Tabatabaei and has trained many seminary students in the Sadrraean tradition, and Professor Ibahim Dinani at the University of Tehran who has published, among many other titles, a three-volume work cataloguing and explicating philosophical principles used by all Muslim philosophers (Dinani, 1986).

In contrast to the rarity of the initiatives which make use of the resources of Islamic philosophy in a problem-oriented way to develop novel solutions for modern issues, efforts concerning the introducing of the heritage of Muslim philosophers, including publication of the works of the past masters, whether in the original or in translations (including English translations) and explicatory books/papers on the views of the past masters, have thrived in the past fifty years. In such efforts scholars and academic centres outside of Islamic lands have played a significant role. The following examples are just few cases in point. During the 1970s, Henri Corbin, with the support of L'Iran et la France Institut, and in collaboration with Seyyed Jalal al-Din Ashtiyani, and some of other Iranian philosophers, foremost amongst them, Seyyed Hossein Nasr, launched a project whose aim was to introduce later

philosophical developments in Iran, especially the achievements of the two schools of Isfahan and Shiraz, to the world outside of Iran. Corbin and his colleagues published a series of books entitled *Selections from the Works of Iranian Divine Philosophers, from the time of Mir Damad and Mir Fendereski until the Present* (Ashtiyani, et al., 1971). A similar project was pursued by Mehdi Mohahqqiq at the Institute of Islamic Studies which was jointly run by Tehran University and the University of McGill in Canada. Among the publications of this Institute Toshihiko Izutsu's translation of Haji Sabzavari's *Manzumeh* is worth mentioning. Sabzavari's *Manzumeh* is unique in the sense that it is the only complete exposition of Mulla Sadra's philosophy which is compiled in the shape of memorable poems rather than the usual prose form. For this reason it has been the main textbook for teaching Sadraeian philosophy in Seminaries since the later nineteenth century.

With regard to the promotion of Islamic philosophy Seyyed Hossein Nasr should get a particular mention not only as one of the best expositors of this philosophy, especially its *al-Hikmat al-Mashirqiyah* strand, but also perhaps as one its most dedicated promoters in a global, and not only Islamwide, arena. He has published individually and in collaboration with other Iranian and non-Iranian scholars, many papers, books and anthologies on Islamic philosophy and Muslim philosophers in Persian, English, French and Arabic. He has also translated many of the works of Muslim philosophers into, mostly, English.

I do not venture to name other scholars (especially Western scholars) who have been instrumental in developing studies about Islamic philosophy and translating many of the works of Muslim philosophers into European languages. Even citing the names of these scholars with a short introduction of their works would take me beyond the limits of an already lengthy chapter; it requires a tome which would run into hundreds of pages. Instead, I shall say few words about the development of Islamic philosophy in the Arab world.

Despite the fact that philosophy has not been a favourite subject in the larger Muslim world, books of Muslim philosophers, especially of the classic period, have always been in print in countries such as Egypt and Lebanon. Efforts for producing edited versions of the works of Muslim philosophers have also been going on in Arab countries on an almost continuous basis. Ibrahim Madkour and more than him Abd al-Rahman Badawi in Egypt ought to be mentioned as two representatives of the generations of editors of classical philosophical texts. In the western side of the Islamic world much attention has been paid to Ibn Rushd and his views in recent decades. Some Arab intellectuals maintain that Ibn Rushd's ideas could be used as a tool for reviving the rational tradition among the Sunni Muslims. Muhammed Abed al-Jabri is a better-known representative of this trend (Abid al-Jaberi, 1999).

VIII The future of Islamic philosophy

Talking about future trends is always a risky business. Prediction of the future, as we all know, is not possible. I am not, therefore, going to attempt the impossible here. The best I can do is to suggest one or two plausible scenarios for the future development of Islamic philosophy. But before sharing with you my own conclusions from gazing into my imaginary crystal ball, I should like to recount the account of another writer concerning the future of Islamic philosophy, namely, Muhammad Mian Sharif the editor of a two-volume *A History of Muslim Philosophy* (1963 and 1966). In the concluding part of his hefty tome, which runs into almost 1800 pages, Sharif writes (and I am afraid it is a rather long quote),

> It is hazardous to foretell the future of peoples, nations, and cultures. This is particularly true in a world torn asunder by ideological conflicts and constantly under the shadow of total war. As it is, the fate of the whole human race is hanging in the balance and one spark of folly may set the whole world ablaze, thus falsifying all normal conjectures.
>
> However, unless such an all-pervading calamity befall mankind, one could make a guess about the future of Muslim culture and philosophical thought. The trends we have traced in the life of different Muslim countries . . . should give us a fair idea as to what the future may have in store for Muslim thought and culture.
>
> Owing to the developed means of communication, ideas travel easily now-a-days from one place to another, but they always require time to take root in a new soil. The two recent Western philosophies, Existentialism and Logical Positivism, have come to the East, but it will be some time before they penetrate deeply into the Muslim mind. But when they do penetrate the Muslim mind, they are likely to take, to a certain extent, a different shade. . . .
>
> It is very doubtful whether the ideas of a social history prevailing in the West will ever be accepted in the East, especially in the Muslim East. In the concluding remarks of part "E" of the Introduction we delineated the philosophy of history to which our study lends support. There we said that it has a negative as well as a positive aspect. Negatively, it is non-organismic, non-cyclic, and non-linear; and positively, it involves belief in social dynamics, in progress in human society though the ages by rises and falls, in the importance of the role of ethical values in social advances, in the possibility of cultural regeneration, in the environmental obstacles as stimuli to human action, in freedom and purpose as the ultimate sources of change, and in the mechanical determinism as an instrument in divine and human hands. This philosophy is as distinct from the philosophy of history advanced in Europe and the United States as from that which is accepted in the Soviet Union. We consider this philosophy in consonance with the teachings of Islam. We believe,

it is this ideology in which lies the salvation of the world and not in the ideologies hotly defended and followed in the Western world.

For my part, I must say, and no doubt I am benefiting from the wisdom of the experiences of the past few decades since Sharif's book, that I do not subscribe to either a historicist view of history,[69] or a deterministic world-view, or an ideological, as against a philosophical, outlook concerning the future of Islamic philosophy.

In my view, for Islamic philosophy to be able to play an efficient role in tackling real-life issues, it needs to reconnect with science and technology. It should regard science as a genuine companion in its knowledge pursuit, and not a mere means for justificatory purposes. It also needs to realise that 'certainty' does not belong to the realm of knowledge investigation. The spirit of critical and rational thinking, openness to ideas and views developed in other cultures and civilisation, and tolerance which was once strong among Muslim thinkers must be encouraged and enhanced once gain. Its choice of problems should also be considerably augmented and enriched by an attitude of combining abstract thinking with applied reasoning.

As far as the philosophical and cultural milieu in Iran is concerned, I can say, with some degree of optimism, that in recent decades and especially since the Islamic revolution in 1979, a foundation for a radical change in intellectual and philosophical outlooks has gradually been laid in the country. While in the past, the majority of those young people who would study philosophy, whether at seminaries or at universities, were, by and large, not academically well-equipped and not particularly apt for this field, but had opted for it out of necessity and not choice, in the years leading to the revolution and afterwards many talented students with good backgrounds in science, mathematics and engineering enrolled in philosophy courses. The introduction of modern trends of philosophical thought, beyond Existentialism and Logical Positivism, has also opened up new opportunities for philosophy students whether in seminaries or in universities to move out of the sphere of traditional teachings and experience new horizons.

Younger generations of philosophers are gaining confidence to challenge the entrenched norms of 'scholarly behaviour' which would discourage criticisms of one's teachers and professors' philosophical views.

Iranian students of philosophy are becoming more and more aware of the importance of relatively newly-emerged philosophical fields such as applied philosophy. This awareness has helped them to better appreciate the need for adopting problem-oriented approaches in their philosophical endeavours.

The fact that *fuqaha* (jurists), despite enjoying a privileged status, have come under increasing pressure with regard to their monopoly over 'representing' the official face of Islam, has provided further breathing space for the emergence of new, critical trends of thinking in the country.

Another factor which could help the development of a more rational approach to Islamic philosophy in Iran and perhaps those other Muslim

countries, in which philosophy is gradually taking root, is the activities of scholars (especially the Western scholars) outside Islamic countries.

Papers and books produced by these scholars, in a way, set some standards for Muslim philosophers to compare and contrast with which their own level of scholarship. It must be emphasised that in recent years and as a result of strong institutional support for scholarly activities in seminaries in Iran and a similar support for the promotion of religious sciences, the number and quality of scholarly journals and publications which are dedicated to the elucidation of various aspects of Islamic philosophy has receive a considerable boost in Iran.

Given the fact that neither philosophical nor scientific knowledge claims, as against technological techniques and know-how, could be regarded as culture-specific, such a newly developed philosophy, could only be regarded as 'Islamic philosophy' in the sense I explicated at the outset of this chapter, namely, the outcome of intellectual endeavours of individuals who happen to be Muslim or live in Muslim lands or both and make use of, among many other resources, the intellectual machinery developed in Islamic civilisation. This philosophy, provided it upholds its critical and rational approach, could join forces with other schools developed elsewhere in tackling problems which are regarded as challenges for modern men wherever they happen to be and to whatever sources of inspiration they happen to be attached.

Of course the above optimistic trends should not be over-emphasised. There are, as there have always been, anti-rational and anti-philosophical tendencies in Islamic societies in general and in their centres of learning in particular. A case in point, is a relatively new anti-philosophical school, known as *makatb-e tafkik* (lit. the Separationist School) based on the views of Sayyid Musu Zarabadi (d. 1353/1934), Mirza Mahdi Gharavi Isfahani (d. 1365/1946), and Shaykh Mujtaba Qazvini Khurasani (d. 1386/1966). This trend has powerful bases in many traditional seminaries inside and outside Iran and especially in Mashhad. *Tafkikis* strongly oppose philosophy in all its shapes and forms, even in the sanitised form of Mulla Sadra's *Hikmat al-Muta'aliah*. In their view even the Quran should be understood in the light of the teachings of the Shi'a Imams.[70]

Nevertheless, it seems to me that new critical trends, within the general framework of 'Islamic philosophy', are slowly but surely moving towards acquiring the critical mass required for making their presence felt. As for an approximate time-scale for reaching such a threshold, I better not hazard making any guess and end my future gazing here.

Notes

1 *mutakllimūn*
2 *'urafā'*
3 Theosophy, in the context of Islamic philosophy, should not be conflated with the occultism which was introduced in West in the late nineteenth century (Ellwood, 1986). In the context of Islamic philosophy, it refers to a new philosophical

system which whose aim was to produce a coherent synthesis of philosophy, theology, the interpretation of the Quran and the study of Ahadith. The champion of this approach to philosophy was Mulla Sadra (1572–1640) whose ideas will be briefly discussed later on in this chapter.

4 The first two sects gradually turned into the two largest sects in Islam which exist today and each are divided into a number of sub-sects. The latter two sects did not last long, though their ideas are still present in the intellectual ecosystem of Islamic doctrines. Kharijites were advocating a very strict adherence to their own literal reading of shariʿa law and were intolerant and inflexible in imposing their desired order among their own followers and on others who did not agree with them. Murji'ah, on the other hand, were of the view that one should not condemn even the most corrupt and cruel individuals who regard themselves as Muslim; only God can pass judgement on their fate. See Blankinship (2008: pp. 33–54), Fakhry (1993), Goldziher (1981: pp. 67–115).

5 For the role of Muslim thinkers in bringing about the scientific and cultural renaissance in the West see Saliba (2007), Al-Rodhan (2012), Morgan (2008).

6 Niẓamiyeh

7 *Iḥyā al-ʿUlum al-Dīn*

8 *maḥmoud*

9 *madhmūm*

10 *mubaḥ*

11 *fraḍ ʿayn i*

12 *farḍ kifāyah*

13 *wājib kifāʾi*

14 *Maḥajja al-Biḍā fi Tahdhib al-Iḥyā.*

15 *Iḥsa al-ʿUlum*

16 For the English translation of the quotation in the text, I have used Nasr (1968: pp. 60–62) with some revision based on the original Arabic text. See also Fakhry (1993: 115) who, somewhat misleadingly, suggests that Fabari 'classifies them [sciences of his day] under eight headings'.

17 Hallaq tries to reject the view that the gate of *ijtihad* was closed among the Sunni Muslims. However, his arguments actually corroborate the sad historical fact that it was closed.

18 The efficacy and cogency of Ibn Rushd's Arguments against Ghazzali have been disputed by some scholars. See, for example, Muntada (1992).

19 Resemblances between Ibn Rushd's Active Mind and Popper's World$_3$ however, should not be exaggerated. With regard to W_3 Popper points out, "Although man-made, the third world (as I understand the term) is super-human in that its contents are virtual rather than actual objects of thought, and in the sense that only a finite number of the infinity of virtual objects can ever become actual objects of thought. We must beware, however, of interpreting these objects as thoughts of a superhuman consciousness as did, for example, Aristotle, Plotinus, and Hegel" (Popper, 1979: 159, n. 8).

20 *Burhan-e Siddiqin* is perhaps the most famous and most important argument for the existence of God developed by Muslim philosophers. Since Ibn Sina's introduction of this argument, many of the great Muslim philosophers have tried to develop more complete versions of this same argument. These new versions, in the view of their produces, were free from the shortcomings of the previous versions. A twentieth century Iranian philosopher, Mirza Mehdi Ashtiyani, in his commentary on a major philosophy text of the nineteenth century, the Manzumeh of Hajji Sabzevari (Ashtiyani, 1973: 489) has listed nineteen versions of this argument in the works of various Muslim philosophers.

21 Ikhwān al-Ṣafā

22 Popper compares and contrasts the impact of Pythagorean (mystical) and Ionian (Thales) rational schools and their attitude towards open, critical discussion on the subsequent development of knowledge. See his ([1963] 2002, pp. 183–205). For Ikhwan al-Safa and their School see Kraemer (1992) and el-Bizi (2008).

23 Muslim philosophers make a distinction between wisdom, which they regard to be of Divine nature, and knowledge, which is produced by man's cognitive faculty. For a detailed discussion see Nasr (1989).

24 *al-Ḥikmat al-Mashreqiyah*

25 The text of *al-Hikmat al-Mashreqiyah* is mostly lost. In what has remained, assuming its authenticity, Ibn Sina completely renounces his peripatetic phase: "We have been inspired to bring together writings upon the subject matter which has been the source of difference among people disposed to argumentation and not to study it with the eyes of fanaticism, desire, habit, or attachment. We have no fear if we find differences with what the people instructed in Greek books have become familiar with through their own negligence and shortness of understanding. And we have no fear if we reveal to the philosophers something other than what we have written for the common people – the common people who have become enamoured of the Peripatetic philosophers and who think that God has not guided anyone but them or that no one has reached Divine Mercy except them" (Nasr & Aminrazavi, 2008: 321).

26 *ilahiyāt*

27 *ṭabi'iyāt*

28 It is interesting to note in passing that Ibn Sina's great detractor, namely Ghazzali, in his later life, just like Ibn Sina, developed a mystical approach in his books like *Mishkat al-Anwar* (Nich of Lights) (Ghazzali, 1998) in line with Ibn Sina's *al-Hikmat al-Mashreqiyah*.

29 For Suhrawardi's life and work see (Nasr, 1964), Aminrazavi (2003). Aminrazavi argues that the two philosophers adhered to the following hierarchy of knowledge: (1) knowledge by definition; (2) knowledge by sense perception; (3) knowledge through a priori concepts; (4) knowledge by presence; (5) knowledge through direct experience: mysticism.

30 *'ālam-e ṣuwar-e mo'allaq-e ẓulmānī*

31 *'uliā'*

32 Muḥī al-Din al-'Arabī

33 For Ibn Arabi's life and work see Chittick (2005a).

34 For Rumi's life and work see Chittick (2011, 2005b).

35 *al-Futuḥāt al-Makkiyah*

36 *Fuṣuṣ al-Ḥikam*

37 *al-royā al-ṣādiqa*

38 Muslims believe in all the prophets recognised by Christians and Jews.

39 For an informative account of the socio-political, economic and cultural situation in Iran during the Safavid period see The Cambridge History of Iran, edited by Peter Jackson (Cambridge University Press, 1986), Vol. 6.

40 For Mir Damad life and work see Dabashi (1996), Leaman (1985).

41 *Ḥikmat-e Yamānī*

42 *Qabasāt*

43 *Jadhāwāt*

44 *ḥuduth-e dahrī*

45 For Sheikh Bahaei' life and works see Hashemipour (2007), O'Connor and Robertson (2009), Kohlberg (2011).

46 *Khulāṣah fi al-Hisāb*

47 For Mulla Sadra's life, works and philosophy see Nasr (1978), Rahman (1975), Ziai (1996), Kamal (2006).

48 *Al-Ḥikmat al-Muta'aliyah*
49 Mulla Sadra has presented his metaphysical system in its developed form in his magnum opus, *al-Asfar al-Araba'a* (The Four Journeys) (2003).
50 *imkān-e faqrī*
51 *iṣālat al-wujūd*
52 Mulla Sadra's theory of the human soul allows him to offer a novel solution for the vexed issue of mind-body problem. Since the soul emerges from the body and remains in touch with the body until the end of the life of the individual, the usual difficulties which beset a Cartesian model do not affect his model.
53 *intikhāb-e akhaff va as-hal*
54 *aṣl-e istikhdām va ijtimā'*
55 *aṣl-e motā-bi'at-e 'ilm*
56 This point needs further explanation. Marxists typically hold that the perspective of the working class (which they see themselves as articulating) is objectively correct. But of course the mere claim that the outlook of a group is objective does not make it so. To be objective, a claim or an outlook should be able to prove its mettle in the public arena and in the process of being critically assessed. However, Marxism, as many critics (including Popper (1945 and 1957)) have argued, has failed the above crucial test of objectivity.
57 *'ilm-e ḥuḍurī*
58 *ittiḥād-e 'āqil va ma'qūl*
59 *ittiḥād-e 'ālim va ma'lūm*
60 *'ilm al-yaqīn*
61 The Quran, 102: 5 and 7, 56:95, 69:51.
62 *ẓann*
63 For bibliographies of these authors see the catalogue of the Iran's National Library.
64 Usul (Uṣul, lit: principles; or more completely: *al-ilm al-usul*= the discipline of *usul*) is a semantic-hermeneutical machinery which assists *fuqaha* (jurists) in their dealings with semantic entailments of the verses of the Quran and the traditions of the Prophet and Imams. Its relation to fiqh (Islamic jurisprudence) is more or less like the relation of logic to philosophy. It the tools linguists and hermeneutists have developed to discuss the meanings of texts and/or speakers' meanings.
65 *al-Ussus al-Manṭaqiyah li'l Istiqrā'*
66 The first Muslim philosopher who critically and thoroughly discussed Ayatollah Sadr's theory of induction was Abulkarim Soroush: "Mabani Mantiqi Istiqra' az Nazare Ayatollah Sadr" (The Logical Foundations of Induction from Ayatollah Sadr's Point of View), Nashr-e Danesh, vol. 15(1983), pp. 22–43, I have heavily relied on his article in developing this part of the present chapter.
67 *Al-Nazariyah al-Tawalud al-Dhāti fi al-Ma'refat al-Bashariyah*
68 *al-'ilm al-ijmālī*
69 Historicism is the name of various philosophies of history which claim, each in its own way, to have discovered the final destination of history. See Popper ([1945] 2002).
70 See Chapter 7 for an extended discussion of the *Tafkiki school*

9 Doctrinal certainty

A major contributory factor to 'Secular' and 'Religious' violence in the political sphere

I Justificationism: the root cause of all types of conscious (intentional) acts of violence

Conscious or intentional acts of violence against 'the other' are amongst the most regrettable facts of human life. By this type of violence, I mean those acts of violence in which the perpetrator(s) could be held accountable in a court of law for their acts. In the rest of this chapter wherever I use the term violence, I mean this type of 'conscious (intentional) act of violence' unless otherwise specified.

Evidence, corroborating the conjecture which states that acts of violence and atrocities are committed by individuals or groups of individuals against those who differ from them in some respect, is overwhelming. The 'difference' in question could be about the colour of 'the other's' skin, their language, race, gender, age, religion, world view (*weltanschauung*), culture, tradition, rituals, life-styles etc. In the political sphere, many examples of conscious acts of violence in the shape of wars, genocides, ethnic cleansing and their likes could be found throughout the history of mankind in every culture and civilisation.

The recent trial at the UN-backed tribunal of the last remaining two leaders of the Khmer Rouge who had played key parts in the death of 1.7 million people from 1975 to 1979 (Wong, 2014); the slaughter of thousands of Shi'as, Sunnis, Christians, Yezidis, Kurds, Turkmans and other groups by members of the self-styled Islamic Caliphate or Islamic State (also known as the Islamic State of Iraq and Levant – ISIL/ISIS, *Daesh*) who had, until recently, captured vast swathes of territory in Iraq and Syria (Weiss & Hassan, 2016; Stern & Berger, 2016); disproportionate use of force by Israel against civilians in her fight with Hamas in 2014 (Omer, 2014); the heavy-handed tactics of Ferguson city police force directed towards the black protesters who were expressing their anger concerning the killing of an unarmed black teenager (Coy, 2014); the massacre of hundreds of thousands of Tutsis by their Christian Hutu Brethren in 1994 (Mamdani, 2001); brutal incidents of ethnic cleansing in the Balkans in 1990s (Carmichael, 2003); the ultra-nationalist Hindus' attacks on Muslims and demolition of

Babri Masjid in 1992 (Jaffrelot, 1996; Aljazeera, 2009); the forced displacement of tens of thousands Rohingya people in Myanmar (Burma) by their Buddhist neighbours in 2012 (Essa, 2012) and their continuous brutal persecution by Myanmar's army since then (Bluman, 2017); and of course the holocaust and killing of millions of Jews, and also Gypsies and other ethnic groups, by Nazis during the Second World War are just few instances of numerous cases of violence carried out by one group against 'the other'.

To explain the phenomenon of violence against the other various theories have been offered. Some of these theories are based on psychological or cultural approaches, others try to explain violence in terms of agents' rational choice, and still others cite factors such as economic imbalance or social and political injustice to account for the phenomenon of violence in the political arena (Conteh-Morgan, 2004). The following short account introduced by Charles Bellinger in his book, *The Genealogy of Violence* (2001), summarises the views of some authors with regard to the root cause of political violence.[1] Bellinger's list, though by no means exhaustive, gives a flavour of the diversity of the views with respect to this phenomenon. He writes,

> Alice Miller . . . argues that the violent actions of adults can always be traced to violence they suffered as children. Ervin Staub describes how "difficult life conditions" lead social groups to attempt to improve their situation through acts of scapegoating. William Brustein argues that the Nazis gained power because they offered to the German people the promise of economic improvement. . . . Irving Louis Horowitz focuses on the power of the state. . . . Russell Hardin comments on situations such as Bosnia and Rwanda, arguing that the notion of "ancient ethnic hatreds" has no scientific validity; these hatreds have been aroused by ethnic leaders who believe that "pre-emptive" strikes must be launched against other ethnic groups in order to gain an advantage in political manoeuvring. Zygmunt Bauman forcefully argues that the Holocaust should not be seen as a form of primitivism, but as the logical outcome of the Enlightenment idea of social engineering and progress. Carl Jung analyses the "shadow" side of the human psyche, which is projected onto the alien other and attacked. Ernest Becker argues that the mainspring of human behaviour is the fear of death, which leads us to attempt to overcome our mortality by killing a scapegoat that symbolically represents death. René Girard believes that violence functions to create social unanimity at a time of crisis, when the society is on the verge of chaos as a result of the transformation of acquisitive mimesis into conflictual mimesis.

(3–4)

To be sure, each of the above explanatory models, in its own way, sheds some light on the complex phenomenon of political violence. For my part, I should like to suggest an alternative model which may well complement

the already existing models while, it is hoped, shedding further light on the perplexing phenomenon of violence against the other. My proposed model is informed by my philosophical outlook, namely, critical rationalism which was briefly introduced in the Introduction to the book. It also relies on the meta-method of 'situational analysis/situational logic' for assessing specific instances of violence committed in the political arena. Such instances are prompted by considerations concerning political power, in its various forms, and the desire of individuals or groups to eliminate their rivals. My explanation for the phenomenon of violence in the political arena is, I surmise, also applicable to violence in other contexts.

The proposed explanation is as follows. From an epistemological, as well as a moral, point of view, those political actors who regard the doctrines which inform their world views, political actions, moral decisions and social interactions as **justified**, **legitimated**, **validated**, **vindicated**, **well established**, **founded on a solid basis** etc. become susceptible to a particular intellectual attitude. The attitude in question comprises, among other things, a sense of certainty concerning the superiority of one's cherished doctrine in comparison to all other rival doctrines. This attitude could lead/prompt (at least some of) those who embrace it to believe that they are entitled to treat 'the other', i.e. whoever who does not subscribe to their revered doctrines, in whatever way they deem fit.

For example, some 'justificationists' may consider lying to 'the other' is perfectly justified. Plato famously suggested a noble lie to be used to convince the populace of the justness of the rigid class system he had introduced in his *Republic*. He was convinced of the correctness of his system and was therefore ready to resort to lying to sell it to others.[2] Plato's proposed model, however, as Popper has argued, paves the way for totalitarianism (Popper, [1945]1966). Some may display disdain for 'the other' and regard their attitude to be perfectly justified. Others may resort to violence against 'the other' out of the conviction of being 'justifiably' on the right side of 'the law', 'history' or 'destiny'.

The above explanation, I submit, is more fundamental than other explanations which try to explain political violence by means of psychological factors such as fear or hatred of 'the other', rational calculations based on one's understanding of one's self/group interests, cultural (e.g. ideological) considerations and other factors such as socio-political injustice and economic imbalance. The reason for the above can be explained in the following way: while the proposed theories for 'explaining' violence deal with their subject matter at a phenomenological/object level, the model suggested in this chapter tries to explain this phenomenon at a meta-level, i.e. the epistemological attitude of those who commit violence towards the other.[3]

Moreover, the explanation suggested here rejects the claims of those who reduce acts of violence to actors' irrational behaviour. Bellinger, for example, suggests that those who commit large scale acts of violence are insane:

> How can we best understand the root motivations for large-scale political violence, such as the Holocaust and Stalin's purges? In these

> situations, it is clear that the violence is not coordinated with any rational, sane perception of reality by individuals who are stable and morally mature. We are considering extreme cases of psychological and social pathology, where human action has completely fallen off its hinges and become demonic.
>
> (Bellinger, 2001: 3)

As has been explained in Chapter 1 (Introduction), one of the main tenets of the meta-method of 'situational analysis' is that invoking insanity as an explanation should only be regarded as the last resort, after exhausting all possible rational explanations, in explaining actors' behaviour in various situations (Popper, 1994: Ch. 8). From here a partial explanation for what was said earlier about the priority of explanation in terms of 'justificationism' over all other types of explanation of the phenomenon of violence can be better appreciated: most of the considerations listed above, and other considerations similar to them, are external causes. For actor to act 'rationally', he/she must consider various means at his/her disposal and assess various situations which he/she is experiencing. Whatever course of action the actor decides to act upon at the end of his/her deliberation, is the one which in his/her judgment is superior to others, i.e. is 'more justified' than others. In other words, his/her action, in the final analysis, is dependent upon justificationism of one type or another.

The above, rather succinct and somewhat condensed account which singles out 'epistemic justification' as the root cause of all conscious acts of political violence, needs unpacking. Epistemic justification is a cognitive attitude as old as the history of thinking itself. As W. W. Bartley has pointed out, "Western philosophies . . . are justificationist. . . . This was true among the Pythagoreans, and it is just as true today. Such philosophies are concerned with how to justify, verify, confirm, make firmer, strengthen, validate, make certain, show to be certain, make acceptable, probabilify, cause to survive, defend particular contents and positions" (Bartley, 1984, 172). One of the earliest formulations of this position is ascribed to Socrates/Plato. According to Socrates/Plato knowledge is justified true belief (Plato/Cornford, 1935: 202c; Ichikawa & Steup, 2012). Plato's formulation, as a particular philosophical version of the doctrine of epistemic justification, reigned almost unrivalled for nearly two and a half millennia.

In the twentieth century two groups of philosophers challenged it. The first, the critical rationalists, led by Karl Popper, argued that all justificatory approaches are untenable (Popper, [1933] 1968, [1945] 1966, [1963] 2002; Miller, 1994, 2006a; Bartley, 1984). I shall discuss this position later on. The other, in the shape of some counter examples produced by Edmund Gettier (1963) and soon replicated by others (Skyrms, 1967), was basically an attack on the specific formulation of the relationship between justification, truth and belief. This latter trend led to a number of alternative formulations of the justificatory approach. In other words, one of the

results of the presentation of those counter-examples was the introduction of some other definitions for knowledge within the general camp of justificatory approaches by means of producing alternative types of justification for beliefs (Moser, 2002). Thus, for example, some epistemologists suggested that the formula 'knowledge is reliable true belief' better captures our intuitions concerning the relationship between justification, truth and belief (Pollock, 1984), some others introduced the notion of 'warrant' as an alternative to the more customary notions of 'justification' (Plantinga, 1993a, 1993b), while some others proposed that epistemologists would be better off if they fortify the traditional definition of knowledge by introducing the notion of 'defeasibility' and define knowledge as 'Undefeated Justified True Belief' (Lehrer & Paxon, 1969).

For critical rationalists, as was stated in the Introduction, justification, under any guise or by any name, is not possible (Miller, 2007, 2012). Popper has summed up all types of justificatory approaches to knowledge in the following way:

> If we start from our subjective experience of believing, and thus look upon knowledge as a special kind of belief, then we may indeed have to look upon truth – that is, true knowledge – as some even more special kind of belief: as one that is well-founded or justified. This would mean that there should be some more or less effective criterion, if only a partial one, of well-foundedness; some symptom by which to differentiate the experience of a well-founded belief from other experiences of belief. It can be shown that all subjective theories of truth aim at such a criterion: they try to define truth in terms of the sources or origins of our beliefs, or in terms of our operations of verification, or of some set of rules of acceptance, or simply in terms of the quality of our subjective convictions. They all say, more or less, that truth is what we are justified in believing or in accepting, in accordance with certain rules or criteria, of origins or sources of our knowledge, or of reliability, or stability, or biological success, or strength of conviction, or inability to think otherwise.
>
> (Popper, [1963] 2002: 305)[4]

As was suggested above, epistemic justification, of all types, induces a sense of certainty in those who apply it. Justificationists, thus become convinced of the rightness of their 'justified' doctrines. Such conviction could, in turn, induce a sense of self-righteousness and superiority in some justificationists.[5] The combination of these elements could produce a powerful and dangerous intellectual attitude towards all those whom the justificationists regard as holders of unjustified beliefs, doctrines or positions.

If the justificationists in question are of a proselytising bent of mind, then they would think that it is incumbent upon them to promote their own cherished doctrines and protect others, who subscribe to unjustified doctrines, from their mistaken views. Such views, the justificationists assume,

are wrong because they are unjustified. And because such views can produce undesirable consequences if they are put to practice, so the justificationists argue, they must not be allowed to be disseminated. To this end, i.e. to stop the spread of viruses of what the justificationsits regard as false doctrines, the justificationists consider themselves to be entitled to go to any length, including resorting to violence of various types (verbal, physical, psychological). The harsh treatments the dictators and despots inflict upon those who oppose them are cases in point.

Justificationists who resort to violence, almost always dehumanise 'the other' who are unfortunate enough to be at the receiving end of their actions. In justificationists' view, 'the other' – if they fail to see the superiority of the position of the justificationists – are either ignorant, or blind to truth – as defined by the justificationists – or in bad faith. This conclusion could, and usually would, open the gate to a slippery slope towards dehumanisation of 'the other'.

Once the justificationists have managed to dehumanise 'the other' then in their eyes whatever they do to the other, no matter how harsh or inhumane it may be, is fine, as long as they deem it necessary for righting the wrongs of 'the other'. Needless to say, it is the justificationists who set the criteria for establishing wrong and right.

From the above it should be clear that why this explanation is more fundamental than other explanations in terms of psychological, cultural, social, political, economic or intellectual factors. In all these cases, for the actors/ agents to commit conscious act of violence against 'the other', they must first convince themselves that their positions vis-à-vis 'the other' (be they fear, hatred, dislike, anger or their ilk), are 'rationally justified'. What is of key importance here is not so much the substantive reasons that people have for being aggressive, but their epistemological attitude towards it.

To avoid unnecessary misunderstanding, I must emphasise that the above explanation applies mostly to those who are inclined to proselytise and/or disposed to resort to violence. It is not the case that all those who regard themselves to be justified, necessarily commit violence against the other. After all, as the title of the chapter suggests, the feeling of 'certainty' as a result of regarding oneself as 'justified' is one (albeit a major one) contributory factor to conscious act of violence against 'the other'. However, for one to commit conscious act of violence against 'the other', one must be convinced of one's own justified position.

To further explore this point I discuss, in some detail, two real examples of act of violence against 'the other', namely the cases of Khmer Rouge and ISIS.

II Two case studies: Khmer Rouge and ISIS

In her recent book, *Behind the Killing Fields* (2010), Gina Chon, A Korean-American journalist who has managed to interview Nuon Chea, the Khmer Rouge's chief ideologist (also known as 'Brother Number Two' by his

comrades), has presented a shocking account of the mindset of a perpetrator of violence on a very large scale. Her extensive interviews which were carried out for more than 1000 hours over a six-year period are truly revealing.

Nuon Chea, who is now (in 2017) 91 years old, and was finally convicted of crimes against humanity and sentenced to life imprisonment after a long trial of the remaining leaders of the Khmer Rouge, which started in 2008 and concluded in 2016, remained defiant during the interviews and the trial (Agence France-Presse, 2016). He was absolutely certain of the rightness of the Khmer Rouge's policies. The following is one of his typical 'justifications/explanations' as to why he and his colleagues decided to kill and torture countless innocent people:

> After we toppled Lon Nol [the self-proclaimed president of the Khmer Republic and the commander in-chief of the Khmer national Armed Forces] . . . there was crisis because the people were in disorder, the war corrupted many people and the people became bad. So we needed to change society, to clean society. . . . We had to start over.
>
> (Chon, 2010: 13)

Nuon Chea, and his fellow defendant, the 86-year-old Khieu Samphan, the former Cambodia head of state, were both unrepentant in the course of their trial. They never apologised for what they had done. They regarded themselves as innocent actors who had the best interest of their country at heart. In their view those who were killed, tortured or forced to exile were enemies of the Khmer Rouge. Nuon Chea calls them 'worms in the flesh', who 'deserved to be "smashed" or "resolved" ', a euphemism meaning 'killed in Khmer Rouge lingo' (Chon, 2010: 5 & 2).

Brother Number Two, Nuon Chea, was quite candid in his account of the deeds of the Khmer Rouge. In his interview, he openly admitted that his vision was to take Cambodia back to 'Year Zero', i.e. to create a 'society in which the people were clean and pure, not muddied by the dirty habits of the past' (Chon, 2010: 16).

Noun Chea never doubted the rightness of the path he had decided to force the people to follow. He was convinced that the mistake made by the Khmer Rouge, if it can be called a mistake at all, was that

> We probably walked faster than the people wanted. They wanted to eat with their families, not in the cooperatives. . . . Our regime may have been destroyed because we walked too fast and the Great Leap Forward was very fast. We made mistakes, but what we had done is for the nation.
>
> (Chon, 2010: 160)

Such doctrinal certainty, which stems from firm conviction in the justification of one's position, was behind all the cruelties and violence which the

Khmer Rouge perpetrated against their own people. But the sad irony is that Brother Number Two and his colleagues do not think that they have caused great suffering and harm to the people of Cambodia. Nuon Chea flatly refuses any charge of cruelty on their part: "Now all the blame is put on Democratic Kampuchea leaders. But we are not cruel. We are compatriots" (Chon, 2010: 164).

A similar mind-set can be seen among the Jihadists of the self-styled Islamic Caliphate (ISIS/*Daesh*). The ideology to which members of ISIS subscribe is a version of the Wahabi interpretation of Islam, due to Mohammad ibn Abdelwahab (c. 1702–c. 1791) (Algar, 2002). This is a rigid and strict interpretation, which upholds a narrow and literal reading of the main sources of Islamic teaching, namely, the Quran and Ahadith (sayings, acts and endorsements) of the Prophet Mohammad.

In view the Jihadists of ISIS/ISIL all those who do not subscribe to their narrow and dogmatic interpretation of Islamic teachings are *kafir* (nonbelievers). Takfirism, as one commentator has noted,

> [I]s a centuries-old practice of judging someone to be an unbeliever and rendering them an apostate or hypocrite through the most dogmatic of lenses. Those thirsty for power use it to legitimize inequities and delegitimize anyone who disagrees with their authority. Under the framework of takfirism, ISIL justifies an ideological cleansing of Kurds, Yazidis, Shia, Sufis, and anyone else who does not conform to its religious tyranny. ISIL is using takfirism to accomplish its goal of ridding the region of "impure" elements – like Christianity – and symbols – like the shrine of Jonah.
>
> (Al-Marayati, 2014)

The Jihaidsts/Takfiris say, in no uncertain terms, to all those who do not share their views that they must either convert to the sort of Islam preached by ISIS or pay a particular tax (*Jizye/Jizya*) if they are either Jewish or Christian; and if neither of the above two options is applicable to them then they should either be banished or killed. The women of the unbelievers are turned into slaves and are sold as commodities (Al-Arabiya, 2014; Otten, 2017).

The Jihadist/Takfiri ideology draws the line between 'the self' and 'the other' in the sharpest possible way. As the videos of the beheading of innocent people who have been unfortunate enough to be captured by the members of ISIL/ISIS clearly demonstrate, these people have no mercy or tolerance with respect to others (Davies, 2016).

Their ideology and interpretation leaves no room for flexibility in human relations. They are absolutely convinced of the rightness of their views and regard themselves as fully justified in whatever they do.[6] During the few years of occupation of cities in Iraq and Syria, ISIS has committed numerous atrocities, not only against followers of other religions, or even other

sects within Islam, but also against their own powerbase among Sunni Muslims (Zero Censorship, 2016; Mohammad, 2017). However, none of these acts of violence would be considered as religiously, morally, legally wrong by ISIS loyalists since they "Neutralise Guilt To Justify Their Atrocities" (Venard & Nantes, 2016). Out of this act of justification, a sense of certainty about one's being on the right path emerges which emboldens those who acquire it.

III Critical rationalism to the rescue: deliverance from bewitchment of justificationism

Justificationism breeds violence. As long as people consider themselves, the groups to which they belong, and the doctrines to which they subscribe as justified, they will be ready to mete out violence against the non-justified, who are automatically demoted to the position of 'the inferior other' in the eyes of those who regard themselves to be justified and as a result are absolutely certain about the correctness of their stand.

But justificationism, in all its forms, is an untenable epistemic position. And yet it is not only the dominant trend in various approaches to epistemology, and to philosophy in general, but also the reigning attitude among politicians, policy-makers, intellectuals and the populace at large. This is an interesting phenomenon in its own right which needs explanation. It seems justificationism, due to the sense of certainty which it imparts upon its holders, provides some sort of peace of mind for them, puts them at ease, and saves them from the agonising task of constantly being on the lookout to find defects in their views, positions, actions etc.

People try to justify their views, positions, actions etc. by appeal to one or some of the items in the following list: self-evident truth; reliable evidence; the judgements of those who are in a position of authority; revelation and the words of God; consensus of the experts; and testimonies of trustworthy witnesses.

But none of the above categories can be regarded as a 'reason-in-itself' or a 'justification-in-itself' which is not in need of further justification. Every claimed self-evident truth can (and will) be challenged by others; something which appears to be self-evident for some, may not be so for others who belong to some other culture, tradition, group etc. All types of evidence (just like all observations) are theory-laden and therefore cannot be regarded as 'brute or naked facts'. The views of authorities and the consensus of the experts do not carry weight for those who do not recognise their authority or expertise. Moreover, experts, even those who are at the top of their professions, are fallible individuals and therefore cannot claim that their views are absolutely true. The same is true of the testimonies of the trusted witnesses. Revelation and the words of God also need interpretation by fallible individuals and no final interpretation can ever be produced.

Justificationism is therefore untenable and insistence upon it leads to dogmatism, i.e. to the position of upholding views by means of blind faith or irrational commitment (Bartley, 1984). Dogmatism, in its turn (depending on the substance of the views which are held dogmatically), could lead to arrogance and intolerance[7] and instigates violence. For someone who dogmatically upholds a doctrine, i.e. is absolutely certain of the truth of his/her views and justification of his/her position, reasoning and rational arguments that challenge his/her views and position are powerless.

It seems that to develop an effective strategy, within the framework of the above analysis, against violence and the unreasonable use of force in the political arena, one needs to combat dogmatic epistemic attitudes. And since such attitudes stem from this or that type of justificationism, one needs to combat justificationism. Justificationism, as a critical rationalist has observed is like an addiction: "The craving for justification and intellectual security resembles an addiction, even an infantile addiction. The more enthusiastically we try to satisfy it, the more insistent and unsatisfiable it becomes" (Miller, 2007: 6, 1994, Chapter 2, § 3). "We must learn to grow out of it" (Miller, 1994: Chapter 2, § 3, 2007: 6–7).

It is one of the main arguments of this paper that an effective intellectual tool (perhaps the best available so far) for combating all types of justificationism and dogmatism is critical rationalism. Critical rationalism, as was discussed in the Introduction, is a philosophical school, but more than that, it is a form of life. Apart from what has already been discussed there, the following theses introduced by critical rationalism could further assist us against the 'addiction to justifcationism'.

> According to CR [critical rationalism], the initial adoption of a proposition or policy (CR included) is neither dictated by reason nor contrary to it; what is contrary to reason is only the retention of a proposition or policy that does not withstand serious criticism. . . . The important question is not *Why should we be rational?* which calls for justification of the rational attitude, but *What is objectionable (counter-productive, imprudent) about adopting a rational attitude?* The first question appears unanswerable if acceptance is subservient to justification. . . . The second question may be answered (perhaps only with the answer 'nothing') if rationality depends on criticism. . . . [R]eason may legitimately be used to attack the use of reason, and rationalists ought not assume complacently that it will not be successful (though they may hope that it will not be). A continued failure to find fault with critical rationalism does nothing to secure it.
>
> (Miller, 2007: 4)

The message of critical rationalism is rejection of dogmatism and openness to criticism. Critical rationalists emphasise the importance of dialogue and reject the so-called 'Myth of the Framework', the thesis which maintains

that dialogue only between those who belong to the same framework could be useful (Popper, 1994, Ch. 2).

Justificationists, especially if they are inclined to proselytise, in contrast to critical rationalists, are usually intolerant towards other people's views, ideas and opinions. With these people they hardly enter into any dialogue; they 'dictate' their views to them. Justificationsits tend to be willing to enter into dialogue only with those who share their views and subscribe to the same paradigm or doctrinal framework. But even here, they hardly tolerate dissent. They habitually look for confirming evidence which 'supports' their conviction which is based on their own particular interpretation.

Their certainty and conviction about the rightness of their own position, could make them, as was suggested above, susceptible to arrogance, and encourages many of them to attach little significance to rational argumentation. But disrespect for rational engagement makes justificationists prone to the use of non-rational means and methods (including violence) for settling disagreements. This last point will be further explained in the next section.

IV Critical rationalism and epistemic/intellectual humility as powerful tools against political violence

If the above analysis is on the right path, then it can be used to find a way for preventing acts of violence in the political sphere. The antidote to violence, in the light of the above discussions, seems to be 'epistemic humility', or as Popper dubs it, 'intellectual humility' ([1963] 2002: 356).[8] Popper has summarised this attitude in the following statement: "I may be wrong, you may be right, and by an effort, we may get nearer to the truth" (1994: xii). Adopting and internalising the attitude of epistemic humility would mean rejection of the arrogance of justifactionism. One who acknowledges that one's views about reality (including 'the other') could be wrong and the other's views may be right, would not take an arrogant approach to the other.

But unfortunately, another sad fact of the human history is that, 'intellectual humility' is easier said than done. One reason for this seems to be the powerful hold of justificatory approaches of various types and kinds on the minds of people of all creeds and outlooks. The story of Satan and his rebellion against God out of arrogance, as narrated in the Bible and in the Quran, suggests that the hold of justificationism is so powerful that it can even affect God's close angels: Satan was sure that he is superior to man, his conviction, with regard to his position which he considered to be justified, made him arrogant.[9]

Justificationism, as was indicated above, involves blind faith and commitment to some ideas or positions. It may be thought that to get rid of the hold and allure of justificationism one should get rid of *all* commitments and attachments, in a way not dissimilar to what is preached and practised in some Eastern religions such as Hinduism, Buddhism and Yogism. But, as William Bartley has argued, the way these Eastern religions denounce

commitments and attachments is quite different from the way critical rationalists approach the issue of the rejection of blind faith and commitment: "The oriental and the fallibilist [i.e. critical rationalist] also seek detachment for different reasons: the oriental, to attain distance from all models of the world, and thereby to win freedom from illusion, and peace; the fallibilist, in order to further the growth of knowledge, to attain a more adequate model of the universe" (Bartley, 1984: 177).

One can go further than what Bartley has diagnosed concerning the oriental approach. There seems to be a degree of similarity between the approach of the schools such as Buddhism and Hinduism and the teachings of mystics and Sufis. While the former preach detachment from everything as a necessary means for receiving enlightenment (perhaps from a cosmic intelligence), the latter also emphasise detachment from all sorts of commitments in order to make room for the light and love of God to fill one's entire existence. Both reject the claims of reason in favour of the inner light of intuition. Both lay emphasis on inner purification as the most effective means for, as it were, 'seeing the truth'. And yet rejection of reason and stress on the power of inner light alone for guiding people leads to another form of dividing people into 'the self' and 'the other' categories and this division in its turn prepares the ground for discrimination and violence against the other.[10]

The discrimination that can emerge in the context of the Eastern/Oriental way life, pertains to the elitism which is inherent in all teachings that subscribe to some version of the doctrine which Popper dubbed as 'the theory of manifest truth' (Popper, [1933]1968: Introduction, [1963] 2002: Introduction, Ch. 1, Ch. 19, 1994: Ch. 9). The theory of manifest truth is not limited to the Eastern/Oriental way of thinking. It can also be found, albeit in a modified form, in the Western justificationist tradition of the likes of Descartes, Hume and Heidegger (Popper, [1963] 2002, 1994; Wolin, 2004).

The theory of manifest truth is therefore a link which connects two seemingly different anti-critical traditions. It promotes an elitist attitude: only few chosen ones, those who are purer, have a more powerful inner vision, possess greater sensibility, are endowed with higher intellectual power, are in direct communication with God, can hear the messages of 'Being' better than others, and so on, are capable of 'seeing the manifest truth'. This theory also, as was indicated above, could pave the way for the act of violence against those who are less fortunate in seeing 'the manifest truth' as identified by those who regard them as 'the other'.

In place of the doctrine of manifest truth, which is, in fact not a genuine theory of truth but an epistemological theory disguised as a theory of truth,[11] critical rationalism subscribes to the correspondence theory of truth. It also promotes a democratic approach to epistemology and understanding reality. It places a high value, perhaps the highest value, on intellectual and epistemic humility and at the same time emphasises the moral significance of epistemic optimism, which states that despite the fact that our ignorance

is boundless, it is not impossible to constantly improve our knowledge of reality and, with proper effort, to get closer to the truth about reality (Popper, 1994). Our knowledge can be improved upon through constant critical examination of knowledge claims.

In the political sphere, the advice of critical rationalism is that politics, as a technology, like all other technologies has, in principle, two main functions: it responds to our non-cognitive needs, and it facilitates (only as a tool) our cognitive pursuits (Paya, 2012a). The main objective of politics is to manage the affairs of human societies in a way that would, on the one hand, reduce or alleviate people's suffering and on the other, assist them in actualising their positive potentials. The use of the technology of politics, in tandem with the teachings of critical rationalism, including its emphasis on regarding the other as equal to oneself in humanity, and epistemic humility, should result in encouraging actors to refrain from acts of violence against others. In the context of politics, violence should only be resorted to in the service of the main two goals of politics as stated above.

It may be argued that people may resort to violence because they are scared about what they think others might do to them and in *some* cases, this might be a reasonable expectation.[12] So it seems in some cases appeal to violence is endorsed by reason. From a critical rationalist point of view, this may well be the case. For example, it was important to resist ISIS with force of arms or to prevent ethnic cleansing in Bosnia by using fire power. Popper had published a text in which he had asked for intervention in Bosnia. In an interview, which was first published in 1993, Popper discussed his doctrine of 'war on war' (Popper, 1997: 51):

> *In April we published your text arguing for intervention in Bosnia. Have you not changed your mind since then?*
>
> It was certainly no accident that I called then for intervention. And the problem is still the same: we must fight against war. The essence of the idea of 'war on war' can already be found in Kant, in his 'Perpetual Peace' essay . . . . Of course, it lends itself to many paradoxes and is often used in questionable ways, but it is essentially a very serious idea.
>
> *How is the 'war on war' principle to be applied?*
>
> The Second World War was from the beginning conceived as precisely that: a war on war. The period stretching from the First to the Second World War showed the extent to which peace had actually depended on the responsibilities of governments. Neville Chamberlain clearly assumed the task of appeasing Nazi Germany, and saw it as his main responsibility to make concessions in the name of peace. That is exactly how he saw his task. And so he helped Hitler for a long time, when he was already far advanced in strengthening Nazi rule.

Many decades before the war in Bosnia, Popper had discussed the important notion of 'intolerance towards intolerance' which gives rise to the paradox of tolerance:

> Unlimited tolerance must lead to the disappearance of tolerance. If we extend unlimited tolerance even to those who are intolerant, if we are not prepared to defend a tolerant society against the onslaught of the intolerant, then the tolerant will be destroyed, and tolerance with them. – In this formulation, I do not imply, for instance, that we should always suppress the utterance of intolerant philosophies; as long as we can counter them by rational argument and keep them in check by public opinion, suppression would certainly be most unwise. But we should claim the *right* to suppress them if necessary even by force; for it may easily turn out that they are not prepared to meet us on the level of rational argument, but begin by denouncing all arguments: they may forbid their followers to listen to rational argument, because it is deceptive, and teach them to answer arguments by the use of their fists or pistols. We should therefore claim, in the name of tolerance, the right not to tolerate the intolerant. We should claim that any movement preaching intolerance places itself outside the law. and we should consider incitement to intolerance and persecution as criminal, in the same way as we should consider incitement to murder, or to kidnapping, or to the revival of the slave trade, as criminal.
>
> (Popper [1945] 1968: 406)

Now, in both cases, like all other cases in which decisions need to be taken, the advice of critical rationalism is to embrace the rational process of decision making. This simply means critically assessing the available options in the light of the evidence (which is used to challenge each suggested solution for the cases in hand). Any other approach, including justificatory approaches, could lead to the harmful use of violence.

V Postmodernism and other relativist approaches add fuel to the flames of political violence

Postmodernism was promoted as the harbinger of tolerance and pluralism. Burbules, for example, in defence of a postmodern way of thinking, in contrast to modernist ways, argues that

> This different way of thinking about rationality provides the guidance and structure needed for coherent thought in epistemic, practical and moral matters without proclaiming the existence of transcendental and universal standards that are problematic from a postmodern point of view. . . . [It is consistent with] the postmodern view that is rooted in *doubt* rather than *denial*. It asks, sceptically, what follows socially and

politically from advocating a formal universal standard of rationality to which people must be expected to conform; it asks who is silenced, who is intimidated, who is excluded when this only defines the standards of credible discourse; it holds in suspense an allegiance to any particular mode of thought, when the entire historical and cultural record urges us in the direction of pluralism and tolerance and diversity in these matters.

(Burbules, 1995: 84–5 quoted in Fernandez-Balboa, 1997: 214)

However, as I shall try to explain below, the claim of postmodern thinkers concerning the compatibility of postmodernism with tolerance and pluralism is misguided. A postmodern way of thinking, while on a superficial level, introduces ideas which, in principle, promote tolerance and pluralism, on a more substantive level, prepares the ground for political violence. The reason for this unfortunate outcome is that while postmodernism has correctly noted that scepticism and doubt should be adopted with respect to all knowledge claims, it has mistakenly embraced relativism as a way to avoid offending the sensibilities of subscribers to different world-views, traditions, cultures, paradigms and conceptual frameworks. Relativism, as we shall see below, falls into the category of justificatory approaches. And such approaches, as we have already discussed, are the philosophical/epistemological root cause of all forms of conscious acts (intentional) of political violence.

The points suggested above need further explanation. Postmodernism, as Burbules has correctly observed, embraces 'doubt' or scepticism. But relativism, due to its subscription to justificationism, could fall into the trap of epistemic certainty. It therefore seems we are faced with some sort of inconsistency: how can a sceptical approach uphold epistemic certainty?

To answer this question we need to take a closer look at relativism and scepticism. Gerald Vision has made a distinction between three types of epistemic relativism, namely conceptual relativism, cognitive relativism, which in his terminology is relativism about standards of 'justification' and rationality, and veramental relativism which is relativism about truth (Vision, 1988: 49). He proposes the following patterns for the above three types of relativism. There are two patterns for the veramental relativism. The first pattern, used here to identify conceptual relativism, is actually applicable to all types of relativism:

(I)   Conceptual relativism

The main characteristic of this type of relativism is that it flags aspiration: where the non-relativist would say something is X, the relativist requires that this be flagged (though perhaps only implicitly) by saying something is X *for* A, where A represents a group, culture, society, historical epoch, or perhaps even the human race.

(II) Veramental Relativism (First Pattern)

  1 Under the authority of certain social norms (a civilization, a community, an historic period, a culture and so on) there are *objective* standards for the truth or falsity of statements.
  2 Cutting across social norms, disagreements about the truth of particular statements arise from differences of standards in the divergent norms.
  3 There is no universally obligatory standard of truth to determine which of the competing standards of evaluation is correct.

(III) Cognitive Relativism

  1 Under the authority of certain social norms and so on, there are objective standards for justifying beliefs (/statements).
  2 Cutting across social norms, there are disagreements between members of distinct communities about (a) what counts as a justification, or (b) whether certain beliefs (/statements) are justified.
  3 There is no universally obligatory standard of justification or rationality to settle disagreements of these sorts.

(IV) Veramental Relativism (Second Pattern)

  1 Within, and *only* within, a certain set of norms and so on, it is possible to have concepts of truth and falsity.
  2 Those who do not accept the norms in question cannot understand what the norm-relative concepts express.
  3 Therefore, people with distinct norms and so on, have at best distinct concepts of truth and falsity, for which there can be no superior regulating concept.

From the above it is clear that relativists are against the idea of absolute truth. But such a rejection has far-reaching consequence. As Berger & Zijderveld (2009: 117) have argued, Relativism in rejection of absolute truth has normative consequences: "It would argue the 'narrative' of the rapist is no less valid than the 'narrative' of his victim."

  But while relativists are against the notion of 'absolute truth' they, as was explained above, uphold the notion of 'localised truth', i.e. truth within the confines of the 'social norms' they subscribe to. Moreover, within such confines they also subscribe to justificationist approaches to knowledge: they maintain that what they regard to be true is justifiably so. Relativists are against the existence of universal standards of justification, but they have no qualms about the existence of local standards of justification relative to certain social norms. The embracing of justificationism paves the way for relativists to also embrace certitude with regard to their own 'justifed position'. Berger and Zijderveld (2009: 48) have succinctly put this point thus: "In every relativist there is a fanatic to come out in absolute certitude."

From Vision's classification of varieties of relativism it is clear that some relativists are also against the existence of a universal set of rules (a universal system of logic) for assessing the validity of knowledge claims. A well-known case in point of this group of relativists is the Edinburgh School of the Sociology of Knowledge. One of the claims of this School is that systems of logic are culturally relative and there is no universal system of logic (Bloor, 1976, Ch. 7). One of the founding members of this School, David Bloor, uses the case of the Azande Tribe whom the British anthropologist, Evans-Prichard had studied and had concluded that the way they conceptualise reality and assess the validity of knowledge is different from ours (Evans-Pritchard, 1937), to argue for the relativity of systems of logic. Bloor discusses a case described by Evans-Pritchard concerning the way the Azande determine whether a man is a witch or not. Bloor quotes Evans-Pritchard where he says that something which appears to be a logical contradiction to us is not so for the Azande and concludes that the Azande uses a different system of logic (Bloor, 1976: 123–5).[13] But rejection of the existence of a universal system of logic has far-reaching implications including an important consequence for our discussion of the root cause of violence. I shall discuss this point below in the context of my comments on postmodernism and its endorsement of scepticism.

While relativism rejects the idea of absolute truth, scepticism challenges the possibility of absolute, justified, certain knowledge. Now at this juncture it is important to explain an important point which, if misunderstood, may cause confusion. It was stated earlier that critical rationalism is against dogmatism and in favour of epistemic humility. The implication of these two positions is that critical rationalism too embraces some sort of scepticism. However, this scepticism should not be conflated with the one promoted by radical sceptics. For them, no knowledge about reality is attainable, whereas for critical rationalism only 'justified knowledge' as promoted by justificationists is unattainable. Critical rationalism also differs from relativism in that it maintains that truth, in the sense of correspondence of knowledge claims with reality, is of utmost importance: in its absence, no genuine and sustainable growth of knowledge would be possible.

Postmodernism, which subscribes to both scepticism and relativism, puts itself in an awkward position. Postmodernism embracing of relativism has three devastating consequences. First, as David Miller, quoting Barnes, (2006a: 152) has pointed out, "It spirals into something like 'a circularity where nothing has meaning'." Second, it is forced to adopt a position in which rational discussion is impossible: the interlocutors will not be able to settle their disputes by means of relying on a common notion of truth. Moreover, they are not able to use common evaluative means. But third, and more importantly for our purpose in this chapter, because of its tacit endorsement of justificationism through its subscription to relativism, it is prone to resort to violence when it comes to settling disputes with those who are not part of their epistemic community. The reason for this is

clear: for relativists, there are no universal truth and no universal rules of assessing the validity of claims; no universal system of logic. Therefore, if they develop some dispute with someone who does not subscribe to the 'social norm' they subscribe to, and therefore neither upholds the truth they do, nor endorses their 'system of logic', then the only way open to them to resolve their differences with their disputants would be to use force to impose their own views upon them. Other means for peaceful dispute-resolution like discussion, negotiation, and dialogue, is not open to them, since all such means are predicated upon the possibility of finding common grounds among interlocutors. But relativism, which insists upon the incommensurability of rival views and paradigms, rejects this possibility on an a priori fashion.

VI Conclusion

Political violence is a complex phenomenon. Various scholars have tried to explain this phenomenon by introducing a variety of theories. The fact that none of these theories has been able to act as a general guideline for making sense of the phenomenon of political violence has caused some authors to draw pessimistic conclusions concerning the very possibility of finding explanatory theories which are also general enough to inform our exploration of the phenomenon of violence in different contexts. The following is an example of such pessimistic views concerning the phenomenon of political violence:

> [T]he search for a general theory of political violence, or even for theories limited in time and circumstance, although pursued with great vigour, has not been successful. More work might yield results, but it seems likely that the difficulties of identifying the key parameters, defining them in a universally acceptable way, quantifying them, extracting them from real life, determining their interaction, dealing with the complexity of the real world and building hypothetical models from them, will prove insuperable in practice.
>
> (Addison, 2002: 36)

I do not share the pessimism of the above author. I also do not subscribe to his view with regard to substantial differences between natural sciences and social and human sciences, which he discusses in the rest of his paper. For my part, I have tried to propose a model for explaining the phenomenon of political violence (and indeed all other conscious [intentional], as against unconscious [un-intentional], acts of violence) at a basic level. The proposed model, I hope, could complement other models suggested by other authors.

The main argument for the proposed model is that those actors who regard themselves, and the doctrines to which they subscribe, as justified are likely to resort to violence against those whom they regard to be subscribing to unjustified or unjustifiable doctrines. Justificatory approaches shut down

channels of rational thinking and boost psychological senses of certainty and superiority over others.

A general way to combat the ills of justificationism is to promote epistemic humility and in this respect, critical rationalism seems to provide an effective rational means for defeating the hubris, arrogance and doctrinal certainty caused by justificationism.

Notes

1 By this term, I mean the type of violence used in the political arena. The following historical case provides an example of the type of violence to which the term 'political violence' refers. It is reported that Harun al-Rashid, the Abbasid caliph once, in conversation with his son al-Ma'mun who was his heir to the throne, told him, "By God, if you challenge my rule, I shall cut off your head, this is because politics is barren [and merciless]" (Sadooq, [c. 10th] 1974). My Thanks to Dr Saeed Shehabi for drawing my attention to this historical story.

2 It may be objected that there was something more specific involved in the case of Plato's noble lie: that he thought that, while his ideas were correct and were in the interests of the city, they could not be understood by ordinary citizens. The short answer to this objection is as follows: this is of course exactly the problem with 'justificationism' – one regards one as justified, and one considers others as not being able to appreciate one's position, one therefore resorts to the policy of 'ends justifies the means'. My thanks to Jeremy Shearmur for bringing to my attention the objection to my account of Plato's noble lie.

3 This point was suggested to me by Jeremy Shearmur.

4 Realist philosophers argue that all theories which claim to offer some sort of 'criterion' for truth, are epistemological theories disguised as theories of truth. There is no universally and comprehensively valid 'criterion' for truth; there is only one comprehensive 'definition' of truth, i.e. correspondence of knowledge claim with reality. See Vision (1988).

5 I should hasten to add, lest it give rise to some sort of misunderstanding, that justificationists may be fallibilist, but this does not preclude them from embracing the psychological certainty that their justificationism imparts to them. Their fallibilism only, as it were, 'kicks in' when the reasons they had developed to 'prove' that they were 'justified' was shown to be incorrect. It is in such a case that their sense of certainty will (temporarily and until they find another better 'justification') disappear. My thanks to Jeremy Shearmur for bringing this point to my attention.

6 The propaganda material presented by ISIS since their emergence provides plenty evidence with regard to point made in the text, namely that they have considered themselves to be the 'representative of God' on earth and therefore as 'justified' in their actions. For a detailed discussion of how ISIS used 'religious justification' for committing its atrocities see Cheterian (2015).

7 Tolerance (though not arrogance) is a qualified virtue. One ought not tolerate the behaviour of someone who is intolerant and threatens one with his/her behaviour (See Popper, 1963: 357).

8 In the course of research for the present paper I came across the following title: *Learned Ignorance: Intellectual Humility among Jews, Christians, and Muslims* (Heft. et al., 2001). Most of the papers in this anthology are about 'intellectual humility' from the viewpoints of the three Abrahamic religions.

9 Satan's epistemic attitude (meta-level theory) should not be conflated with his substantive (object-level) attitude towards man.

10 Of course, it does not mean that it necessarily leads people towards committing violence against other people. If one's first-order (object-level) theory about others is based on rejecting them as equal in humanity (or in other respects) with oneself, then one is more prone to resort to violence against others.

11 Many of the theories of truth, such as pragmatism, coherentism, redundancy, . . . are in fact, epistemological theories; they epistemologies truth. See Vision (1988).

12 I am thankful to Jeremy Shearmur for bringing this point to my attention.

13 Many philosophers have argued that Bloor's arguments for the relativity of systems of logic do not hold water. See for example (Triplett, 1988; Slezak, 1994).

10 Islam, Christianity and Judaism

Can they ever live peacefully together?

I Introduction

The cognitive landscape of modern man seems to be radically different from that of his predecessors. Phrases like 'from the closed world to the infinite universe',[1] 'paradigm shifts',[2] 'changes in the epistemé',[3] 'incommensurable world-views'[4] and their ilk are all devised to capture and represent the very idea of radical developments in man's conceptual schemes. According to popular jargon, we are now living in an 'information age' (Castells, [1996] 2000) in which the so-called "information explosion" or "information revolution" is shaping every aspect of our lives in ways which our forefathers could have not even dreamt of.

What are the consequences of such upheavals for religious belief systems? Does the emergence of a multitude of new and diverse ideas – along with sophisticated new technologies which help disseminate them – herald the beginning of a process of gradual weakening and eventual disappearance of the world established religions, especially the family of the Abrahamic faiths? Are we going to witness, in the third millennium, the spread of numerous local and parochial new and varied religious cults which will satisfy the spiritual needs of their relatively small number of members? Or will it be the case that the *zeitgeist* will appear as a rather aggressive anti-religious attitude amongst the citizens of the global village of tomorrow?

Whatever patterns that might emerge in the belief-ecosystems of the decades ahead, there is no doubt that the Abrahamic religions cannot isolate themselves from the changing climate which is now encompassing all intellectual ambiences in all corners of the world. The main question now facing Islam, Christianity and Judaism is, no doubt, the question of survival: how can each of these major monotheistic religions weather the incoming storm and come out of it with the least possible damage? Or better still, how can they turn the storm into their own advantage and get the most from it?

II Religion, science and secularism

Religious belief systems have never been without their discontents. There have always been people who have not been satisfied with the teachings

of the established religious schools. These people have mounted various attacks, on occasions even very effective ones, on the doctrines of these religions. Perhaps the most ingenious of all amongst these attacks has been the one which Moses Maimonides indicates in his *Guide for the Perplexed* ([1190] 1963). He reports, in his book, "that there existed in the Middle Ages a school of unbelievers who tried to show that there is no room for religious belief or religious faith, and their proof was based on the claim that there is no limit on reason" (Agassi, 1975: 471), that is to say, all questions can be handled by reason and all problems can be solved by its power.

With the advent of the modern sciences in the aftermath of the Renaissance, a new trend, which has persisted up until the present time in various forms and with varying degrees of emphasis, gained prominence: many unbelievers have tried to present the empirical sciences as the sole representative of reason and use them to force religious beliefs out of the scene.[5] Of course, in the past the faithful had always tried to counter this move by various stratagems. Thus, for example, Bishop Berkeley tried to challenge the truth claims of Newtonian mechanics by introducing an instrumentalistic interpretation of its findings (Berkeley, [1720] 1951). The same strategy was used with great subtlety by the French physicist Pierre Duhem (a devoted Catholic) in the late nineteenth century and early twentieth century (Duhem, [1906] 1962).

Apart from this sort of reasoned opposition to the claims of the empirical sciences, there have also been non-rational or irrational reactions, of which the Romanticism of the eighteenth and nineteenth centuries is a well-known representative.[6] However, in the twentieth century, and as a result of a number of intellectual and social factors, it has been made clear that reason is not unlimited and that therefore there is room for religion. Amongst the factors which helped to bring about such a change of opinion, one should mention the efforts of the philosophers of science, as well as other scholars, who have shown the epistemic and methodological limitations of modern science.[7] Moreover, the introduction of new fundamental scientific theories, which have managed to replace the Newtonian world-view with its materialistic-deterministic undertone with a new scientific image of the reality, have also played a significant role in, on the one hand, the humbling of modern science, and on the other, making room for non-scientific images of reality to be heard not with an attitude of utter incredulity but a sensible and healthy scepticism.[8]

These developments, alongside the efforts of modern theologians to introduce new interpretations of religious beliefs, have all helped to create a new intellectual environment in which science and religion, by and large, appear to be partners rather than rivals.[9] One, of course, should not conclude from here that one cannot find, amongst scientists as well as non-scientists, those who would still regard science as the paradigm of rationality and would urge the public to reject established religions in favour of a creed based on a scientific understanding of the world.[10]

However, it can be claimed that in the intellectual environment of the late twentieth, and early twenty-first centuries, science and religion have, to some extent, reached a new understanding concerning their respective spheres of activity and possible areas of cooperation (Re Manning & Byrne, 2013; McGrath, 2010).

The change in the relation of religion and science is certainly a welcome one; however, it does not mean that religions are now free from the requirements of continuous critical self-assessment and adjustment of the interpretations of their doctrines and teachings to make them fit for the religious sensibilities of the third millennium.

On the one hand, as the sad reality of fanatical and extremist interpretations of religion has painfully made it clear, the power of religious conviction can be used in the service of most horrible world-views and to justify most heinous crimes against fellow human beings. On the other, there are many anti-religious secularists[11] who may not subscribe to the ideology of 'scientism' and may not regard a materialistic/physicalistic interpretation of natural sciences as the paradigm of rationality, and yet insist on rejecting all references to religion and Divine faith, and emphasise the necessity of replacing them altogether with man-made constructs. In view of these secularists, the interaction of speaking and acting citizens within a worldly public sphere is primary and would override all other competing foundational principles (Keane, 1988a).[12]

Interestingly enough, while many anti-religious secularists are using variants of the argument Maimonides had referred to, a new trend of thought has emerged in the past few decades which is challenging all the known models of rationality. It now seems that in the wake of the so-called postmodernist trend, the authenticity as well as the relevance of both science and the established religions are being strongly challenged. Apparently, while anti-religious secularists were trying to uphold the power of reason against faith, postmodernists are rejecting reason too in favour of a supreme principle, namely, 'anything goes'.[13]

For postmodern writers, notions like 'truth' which both scientists and religious people regard as highly valuable, are reduced to a mere construct of local language-games. Thus for instance, Zygmunt Bauman, a postmodern sociologist, says,

> It is this new cultural experience . . . which has been distilled in the postmodern view of the world as a self-controlling and self-propelling process, determined by nothing but its own momentum, subject to no overall plan . . . the postmodern perspective reveals the world as composed of an infinite number of meaning-generating agencies, all relatively self-sustained and autonomous, all subject to their own respective logics and armed with their own facilities of truth validation.
>
> (Bauman, 1988: p. 799)

Likewise, the notion of 'the sacred' which is central for the religious beliefs seems to have been given fresh meanings' in the postmodernist literature. In an article on the topic of how contemporary thinkers are returning to ideas of the sacred, a female theologian at King's College, Cambridge has pointed out that

> There was already a well-established conjunction of the feminist and the mystical or sacred in the work of several postmodern thinkers, notably those who associated the question of woman with the psychoanalytic challenge to an implicitly masculine, and fixed, model of subjectivity. . . . In the writings of both Irigaray and Kristeva, woman becomes a sign that points beyond the end of a masculine subjectivity shaped by patriarchy, and also beyond the end of philosophy, to a knowledge which is experiential rather than cerebral. . . . [T]hese feminist theorists [also] point to the necessary redefinition of the holy which is implied in postmodernism. Irigaray asks: "isn't God the name and place which permits the appearance of a new epoch of history?"
>
> (Berry, 1990: p. 7)

The notion of 'reality' too has not remained immune from the onslaught of postmodern writers. Both religious quests and scientific endeavours are based on the notion of an 'objective reality' which is not dependent on *our* languages, conceptual schemes or conventions. Yet, this very notion is what postmodern writers are vehemently opposed to. Some years ago Paul Feyerabend, whose ideas were in some respects a forerunner of today's postmodern theories, declared that

> We no longer assume an objective world that remains unaffected by our epistemic activities, except when moving within the confines of a particular point of view. We concede that our epistemic activities may have a decisive influence upon the most sordid piece of cosmological furniture —they may make gods disappear and replace them by heap of atoms in empty space.
>
> (Feyerabend, 1978: p. 70)

More recently, Joseph Rouse, a writer on the philosophy of science and postmodernism, has reiterated Feyerabend's views in the following way:

> The idea that there is a "natural world" for natural science to be about, entirely distinct from the ways human beings as knowers and agents interact with it, must be . . . abandoned.
>
> (Rouse, 1996: p. 66)

And Jonathan Smith, a theologian who advocates the application of postmodern methodology to the comparative study of religion emphasises the

point about the socially constructed nature of reality. He maintains that comparison is the product of the scholar's mind and that it is an illusion to think that the process of comparison somehow latches on to any form of reality. In his view,

> comparison tells us how things might be . . . 'redescribed'. . . . Comparison provides the means by which we 'revision' phenomena as *our* data to share our theoretical problems.
>
> (Smith, 1990: p. 52)

What makes the recent theoretical challenge for the Abrahamic religions more powerful is the combination of two factors. On the one hand, anti-religious secularists are trying to use new variants of the argument from the limitlessness of reason to argue against religious interpretations of reality. On the other, phenomena like globalisation, the communication revolution and mass migration, have radically changed the make-up of traditional societies: traditional societies, almost everywhere, are no longer homogenous and are fast moving towards becoming pluralistic and multicultural environments in which various forms of life and value systems are present side-by-side. In such an environment and under the banner of giving proper credit to the contributions of cultures and communities whose achievements have been neglected or undervalued, a rampant relativism is gaining ground and attracting a large number of followers. New social and intellectual fashions, such as cults of physical fitness, alternative therapies, New Age mysticisms and counter cultures which are now flourishing in almost all societies, mostly rely on different variants of relativistic approaches and arguments (Hanegraaff, 1995).

The problem for Abrahamic religions, of course, is not just confined to theoretical matters. Modern societies are facing with all sorts of undesirable problems. Problems such as vandalism, violent crime, wide-spread drug addiction, family breakdown, neglect and abuse of children, worship of mammon, a widening of the gap between the haves and the have nots, are pushing evermore increasing number of hapless individuals towards the poverty trap and causing, among other things, erosion of trust amongst citizens of all societies and not just few isolated societies mainly in the western hemisphere. Dr George Carey, the Archbishop of Canterbury from 1991 to 2002, has summed up the concern of many societies on the face of the globe when he stressed that in present situation, "We are losing the art of judging right from wrong. . . . We are in danger of becoming a shallow society" (Carey, 1996: p. 14).

III Abrahamic tradition: peaceful coexistence of destructive animosity?

The question that urgently needs to be answered by the followers of the Abrahamic faiths is how these established religions can positively contribute

to the creation of a better world; a world which consists of genuinely pluralistic and multicultural societies which are fairly cohesive, equitable and stable and free from the ills of modern times. This point needs further elaboration to avoid possible misunderstanding. It is true that according to *some* readings of religious teachings, religions are more concerned about the fate of the faithful in the hereafter rather than this world. But it seems the above readings are not shared by the majority of religious people and cannot be regarded as the mainstream religious thought. It seems most religious people are equally concerned about the wellbeing of fellow human beings in this world as well as their own salvation in the hereafter.

But even assuming that the above interpretation is on the right track, still the question that posed above does not admit of a simple answer. To find ways to combat the ill effects of modernity while encouraging people who subscribe to different world-views and value systems (even when they share more or less similar visions about the plight of other human beings) to coexist peacefully is not an easy task.

Nevertheless, it does not appear to be too far-fetched to suggest that a collective approach towards these problems would stand a better chance of success than individual initiatives. It seems that a constructive relation and close cooperation between the three Abrahamic traditions could only be to their mutual benefit and is therefore extremely desirable.

Yet, despite the desirability of closer ties, when it comes to forging good relations, the Abrahamic religions, at least on the face of it, do not appear to be very good at tolerating each other. One can easily list many trouble spots in the world in which Muslims, Christians and Jews have been or are at each other's throats. The tragedies in Bosnia, East Timor, Palestine, Iraq, Syria, Sudan, Nigeria, Central African Republic are, at least to some (if not a large) extent, the product of religious intolerance amongst the followers of the three Abrahamic faiths.[14]

To be sure, instances of animosity between the 'People of the Book' as the Holy Quran would call them,[15] are not just limited to these shocking tragedies. In many countries, where Muslims or Christians or Jews are regarded as minorities, their situation is far from satisfactory: many of them, to varying degrees, are routinely experiencing harassment, abuses and violation of their basic rights. While in America the Jews enjoy a relatively friendly environment, in Christian Europe today, antisemitism is far from dead. In both continents Islamophobia too is unfortunately rife. Amidst widespread discrimination against Muslims in both America and the Europe, powerful image makers like Hollywood add insult to injury by depicting Muslims as negative characters and villains.[16] Christians are also not immune from this type of animosity. Edward Said, the Palestinian-American writer, and a Christian, who in 1992 after forty-five years in exile decided to visit his homeland, has given a vivid account of the unfriendly treatment he received from the Israeli authorities and the lamentable situation of Muslims and Christians who live under the Israelis rule.[17]

The history of the hostilities between the 'People of the Book', of course, goes back many centuries. However, this does not mean that throughout this long history Muslims, Christians and Jews have never been able to live together and show a degree of tolerance towards each other. On the contrary, as a large body of historical evidence suggests – and as many historians and scholars have pointed out in the past – the followers of the three established faiths, despite all their differences, have shown, to reasonable degrees, tolerance and civility in dealing with one another. But moreover, the cases of close relationships and strong bounds of friendship between them have not been a rare commodity. For instance, William Dalrymple in his study of the Christian Middle East, *From the Holy Mountain*,[18] describes how Muslims and Christians lived peacefully together in places like Syria for many centuries. He names a church at Seidanaya, where Muslim men and women, to this day, pray together with Christians. He also reported how devout Christians sacrifice sheep at the shrine of a Muslim saint in the ruins of the old Byzantine city of Cyrrhus, north-west of Aleppo.[19]

To be sure, one can cite many more episodes of peaceful coexistence or at least reasonable working relationships between the 'People of the Book'.[20] However, the snag seems to be that at a doctrinal level the prospect for a peaceful coexistence is not very promising. As Bernard Lewis has argued, the notion of 'otherness' may prove to be a major stumbling block in the way of a meaningful cooperation between the followers of (at least some of) these three faiths (Lewis, 1994). This notion of 'otherness' of course is mostly based on doctrinal differences.

For Muslims, Christianity and Judaism were incomplete versions of the Final Truth which was revealed by Islam.[21] In this respect Muslims did not regard the Christians and the Jews as 'the other'. In fact, the very notion of the 'People of the Book' reminds Muslims that the followers of the three Abrahamic faiths are members of the same family or household. However, apparently the same does not exactly apply to Christianity and Judaism. According to Lewis (1994), for Jews, salvation is attainable for non-Jews, albeit to a lesser degree, provided that they practice monotheism and morality. With regard to Muslims, as Lewis has noted, "much medieval Jewish theological and legal writing is concerned with the question whether Christians and Muslims qualify under these headings. It was universally agreed among Jewish scholars that Islam is a monotheistic religion, but the often misunderstood doctrine of Trinity caused some problems to Jewish theologians" (Lewis, 1994: 175).

For Christians the accommodation of the claims of Muslims and Jews was somewhat more difficult. "They retained and reinterpreted the Hebrew Bible, which they called the Old Testament, and added a New Testament to it. The Christian churches maintained that God's covenant with the Jews was taken over and Israel was replaced by the 'true Israel', *Verus Israel* which is the Church" (Lewis, 1994: 177). As for Islam, some Christian theologians

could not accept its authenticity, since they maintained that Christianity was, so to speak, the end of the process of revelation.[22]

There is no doubt that there are still many of the followers of these three Abrahamic traditions that would not endorse anything short of an exclusivist interpretation of their faith. However, as was pointed out at the beginning of the present chapter, the cognitive landscape of modern man has changed drastically since medieval times and especially in the course of the twentieth and twenty-first centuries. Great personalities from among the human race have argued against dogmatic attitudes and have shown that there are no secure foundations for our knowledge. It has become clear that each of us view reality from a particular standpoint and therefore, like those who were inspecting an elephant in a dark house with the palm of their hands, each of us can (at most) claim a limited and partial understanding of reality.

IV Conclusion

The realisation of the fact that the whole and final truth is not within the reach of any mortal soul (save those lucky few to whom God has chosen to impart such knowledge directly)[23] and that we have no other option but to strive towards truth via a long process of interpretation and re-interpretation (trials and errors, conjectures and refutations), has had a humbling effect on many individuals in their epistemological quest.

If, as Otto Neurath once said, we are all in the same epistemic boat (Neurath, 1921), then it makes sense to enter into meaningful dialogues with others. This, of course, requires a willingness on our part to learn from others and regard them as potential sources of reasonable information. It also takes the attitude that Karl Popper always emphasised, namely that, "I may be wrong and you may be right, and by an effort, we may get nearer to the truth" (Popper, [1945] 2002: p. 225, 1994: xii).

Adopting this approach should not prove difficult for the followers of the Abrahamic faiths, since the notion of 'emancipation through knowledge', and 'spiritual freedom' is a common thread in these three traditions.

The above points should help to drive home a rather trivial point, namely, for the adherents of the three Abrahamic religions, there is much to be gained and almost nothing to lose in entering a constructive dialogue with each other and embarking on projects aimed at closer cooperation and stronger ties.

The very fact that in their past history Muslims, Christians and Jews have managed, on occasions, to sustain such a dialogue, is an encouraging indication for the possibility of re-launching this project on an even larger scale. However, for these attempts to be successful (or at least not to fail at the outset), some conditions must be fulfilled. One such condition, which is necessary though not sufficient, is the need for taking a critical, non-dogmatic attitude on the part of all the participants. This critical attitude amounts to

the recognition that any claim to knowledge or truth is fallible, limited and not final, and therefore needs to be subjected to critical examination.

In the early decades of the third millennium, Islam, Christianity and Judaism are faced with an all-important choice with far-reaching consequences. These three Abrahamic faiths, with their long common history and large common heritage, can either choose to work together and prepare the ground for a peaceful and fruitful coexistence by starting a constructive dialogue; or, they can move along the road to violence and hostility with dire consequences for the whole of humanity.

Let us hope and pray that the People of the Book will use the wisdom of their great prophets and saints and opt for that solution which can bring about peace and prosperity for all mankind.

Notes

1 Cf. Alexander Koyré's book (1957) with the same title in which the French historian of science has discussed, among other things, the cultural impact of the overthrowing of the Ptolemaic system and the acceptance of the Copernican system.
2 The notion of 'paradigm' was popularised by Thomas Kuhn in his (1970).
3 The concept of 'epistemé' was introduced by Michel Fcault in his ([1969] 1970).
4 Paul Feyerabend has been mostly responsible for this expression. See for example his (1975).
5 It needs to be emphasised here that the point discussed in the text is not meant to be an account of the development of modern science in general. As is well-known many of the great architects of modern science were deeply religious individuals. The point which has been highlighted in the texts concerns the fact that while during the middle ages scientific ideas were, by and large, compatible with the official religious views, in modern times official religious doctrines could no longer impose their world-views on scientists as the only valid world-views.
6 For a critique of the Romantic movement see Bertrand Russell (1974).
7 The literature on this subject has grown considerably in recent years. For a source which provides a useful account of the debates until late 1970s see Fredrick Suppe. (1977). For other more recent surveys of the developments concerning the theories of science see R. Boyd, et al. (1991), Kurd and Psillos (2013). For limits of reason according to our best current knowledge, see Yanofsky (2016).
8 The theory of relativity and the quantum theory along with their new variants such the theory of quantum gravity or string theory have, among other things, helped to bring about a new central metaphor for understanding the universe. For the Newtonian theory the central metaphor was a machine, which once built would no longer require its maker. In this view of the world there is hardly any role for God. In modern theories, by contrast, the central metaphor is that of a symphony, whose composer though not identical with his work, cannot be separated from it. His presence is 'visible' in every bit of his work. The new picture of the world in modern science and its bearing on religious belief has been discussed in a large number of recent publications. Moreover, in the light of modern developments in science, scientists have moved away from a mechanistic-deterministic picture of reality in which, as Laplace (1814) had claimed, for anyone who knew the initial conditions of this deterministic system and the forces acting upon it, it was possible to determine all future states of the system. Modern scientists have

acknowledged that reality is far more mysterious and complex for simplified models to capture it. See, for example, Fennema and Paul (1990), Davies (1992, 1983).

 9 A case in point is a recent survey published in the journal *Nature* concerning the strength of religious beliefs amongst the working scientists. See Larson and Witham (1997). The point stated in the text should not be taken as an endorsement of all types of theological claims with regard to science. In fact, some of the works produced by religiously-motivated writers in defending religion against science exhibit, in Lakatos's parlance (1970: 18), a degenerative problem-shift which serve to discredit the claims of religion or at the very least do not help the cause of religion. For a fair-minded and objective assessment of some the best efforts of modern theologians in defending religion against science see Shearmur (2010).

10 A vocal representative of this trend is the British zoologist Richard Dawkins. He has spelled out his views in many books. See for example his (1996 and 2006). Dawkins is perhaps the best representative of this trend.

11 I use the term 'secular' as synonymous with the term 'rational'. Now, just as there are 'rationalists' who may be religious, anti-religious or neutral towards religion, secularists, too, present a variety of attitudes towards religion. But see also the next note.

12 For a detailed assessment of the views expressed by varieties of secular writers and thinkers see Charles Taylor (1995 and 2007).

13 This particular 'motto' was coined by Paul Feyerabend in 1970s (see Feyerabend 1975: vii). Feyerabend could be regarded as the forerunner of the postmodernists who appeared a decade later. For critical assessments of postmodern views of science and religion see Koertge. (1998), Groothuis (2009).

14 Sadly, animosity between followers of various religions is not limited to the three Abrahamic religions; killing and expulsion of the Rohingya Muslims in Myanmar by their Buddhist fellow countrymen is just one example of the larger dimension of the problem of bad blood among followers of various religions. For the plight of Rohingya Muslims see Ibrahim (2016).

15 In the Quran, the term 'People of the Book' has been used to denote Christians and Jews. However, since Islam also is a revealed religion which belongs to the same family, the same term could be used for denoting Muslims. Moreover, the Quran states that the true religion is the one in which the ideal of 'submission to God's will' has been actualised (The Quran, 3:19). This statement is general and can be applied to any religion which subscribes to the above ideal.

16 Of course, the above does not mean that one should turn a blind eye to, or underestimate, the impact of act of terrorism by those who claim to be acting on the basis of their faith. Nevertheless, the history of presenting Muslims in a bad light in Western media and literature goes much further back than the cases in the past few decades. The late Edward Said in his book, *Covering Islam: How the Media and the Experts Determine How We See the Rest of the World* (1997), discusses some the cases of gross misrepresentation of Islam and Muslim by Western media.

17 Edward Said's account of his journey to visit his fatherland was published in three consecutive issues of *The Observer*, 1 November – 15 November 1992.

18 William Dalrymple, *From the Holy Mountain*, London: Flamingo, 1998.

19 As for the origin of this ritual Dalrymple explains that he was told that a Syrian Christian girl, struck down by some apparently incurable sickness, had had a dream telling her to visit the shrine of the Muslim saint. She had done so, spent the night in the shrine and the next day had been healed. A sheep covered with

flowers and ribbons like the Old Testament scapegoat was being slaughtered as an offering (Dalrymple, 1998: p. 169). The ancient church in which Muslims pray alongside the Christians is a place which, according to the legends, was founded in the early sixth century, after the Byzantine emperor Justinian "chased a stag on the top of a hill during a hunting expedition. Just as Justinian was about to draw his bow, the stag changed into the Virgin Mary", who commanded him to build a convent on the top of the rock (Dalrymple, 1998: p. 186).

20 For an informative account of the relationship between Muslims and Jews see Meddeb and Stora (2013).

21 From a Muslim perspective, the other faiths had the truth revealed to them, but they then corrupted it. The messages they had received contained the truth which was about their own situations. But also see the next note and the point made in the text in relation to it.

22 Indeed, for Christians, traditionally, Islam was pretty much like the Mormons – i.e. a group who claimed what, in their view, was a bogus revelation. In addition, because, in the case of Islam, there was a denial of what, to Christians, was traditionally a key aspect of their faith – the divine character of Jesus.

23 These lucky few of course, will have difficulty in relating their knowledge to others. Others could not have direct access to their knowledge, but could only comprehend it through (a never-ending) process of piecemeal, partial and fallible interpretations.

11 The shape of the coming global civil society

Suggestions for a possible Islamic perspective

I Belief-ecosystems and the identity crisis in the Muslim world

From a cultural point of view, human beings are, in the final analysis, what they believe and think. Therefore, it will not be too wide of the mark, for the sake of the arguments of the present chapter, to identify the 'identity', either of individuals or communities, with their belief systems or intentionalities. Belief systems are not fixed and rigid entities. On the contrary, like living organisms, they are constantly changing and evolving in response to the changing situations in the intellectual and physical environments surrounding them. We can somewhat loosely liken individuals' belief-systems to Popper's world$_2$, and the intellectual and physical environments with which they interact to his world$_3$ and world$_1$ respectively. Communities' belief-systems, which can be regarded as collective belief-systems or collective intentionalities, on the other hand, are part of world$_3$.

I shall also use the term 'belief-ecosystems' to denote sets of communities' belief-systems which are somewhat related to each other. Belief-eco-systems, like natural-ecosystems, are shaped by interaction between the entities which constitute them and the environment which encompasses them. Islamic civilisation can be regarded as a geographically vast and historically old belief-ecosystem. Within the context of this belief-ecosystem one can discern many varied and diverse belief-systems. Each of these systems has taken shape in response to factors (internal and external) that have influenced the Islamic belief-ecosystem since its inception one and half millennia ago. The emergence of Shi'ism and Sunnism as well as other less comprehensive religious (denominational) groups, the rise of various schools of thought and intellectual disciplines, e.g. mysticism (*irfan*), philosophy, theology (*kalam*), jurisprudence (*fiqh*) and the appearance of myriad forms of folk-cultures throughout Muslim lands, can all be attributed to this process of identity-formation. The responses of Muslims to the changes in their belief-ecosystem can be classified into three general categories, namely, revolutionary transformations and conversions of a gestalt-shift type, evolutionary adaptations and adjustments and attempts to preserve the status quo.

These categories, either separately or simultaneously, can be traced in various historical periods in different parts of the Islamic world. Belief-ecosystems, as remarked above, are constantly transforming under pressures from internal and external factors, including social, economic, political, environmental, scientific, technological and cultural. However, although changes in the belief-ecosystems are happening all the time, it is not the case that each of these changes constitutes an identity crisis. Identity crises are defined in terms of the threats perceived by the individuals or the communities in question; the threats which these individuals or communities consider to be detrimental to their existing belief systems. In other words, and to use modern terminology, belief-ecosystems are of the type of complex systems known as 'robust yet fragile' (RYF) (Doyle, et al., 2005). Such systems can tolerate many drastic changes and yet are vulnerable to some particular changes that happen along their fault lines. Identity crisis is one of the major Achilles' heels for belief-ecosystems.

The Islamic belief-ecosystem has undergone various changes in its long history. However, none of those changes were regarded by subscribers to this ecosystem as constituting an identity crisis for this belief-ecosystem. External military invasions, internal political cataclysms, environmental catastrophes and the like did not create a widespread sense of identity crisis amongst the inhabitants of Islamic lands in previous centuries.[1] It is only since the encounter of Muslim societies with modern Western civilisation in the late eighteenth and early nineteenth century that the symptoms of an acute and comprehensive identity crisis in the Islamic belief-ecosystem have become evident.

As a result of this encounter, among other things, a large number of new intellectual elements were (and still are being) introduced into the traditional belief systems which, in the past, were in a state of quasi-equilibrium within the Islamic belief-ecosystem. The intrusion of these new elements has disturbed the quasi-stability of the ecosystem. It has changed both the geometry and the dynamics of the traditional belief systems within the Islamic belief-ecosystem: the arrangements of the constituting parts of these belief systems and the forms of their interaction have undergone profound changes. In other words, the contact between Islamic societies and the West in modern times has put into motion a long and ongoing process of co-evolution. Each of these two vast entities, i.e. Muslim and Western societies, in response to the impact made by the other is changing, each in ways in tune with its own capacities and resources.[2]

This ongoing process, so far, has resulted in many socio-economic and political upheavals in Muslim societies. In Iran alone, during the twentieth century, and within the span of few decades, two major revolutions, the Constitutional revolution (1906) and the Islamic revolution (1979), have taken place in direct response to the flow of new elements which penetrated the traditional fabric of Iranian society (Koury & MacDonald, 1987). In Turkey a newly-emerged republic replaced the Ottoman empire (Shaw & Shaw, 1976 and 1977). In the Middle East a number of new Arab states

were born (Hourani, et al., 1993). Similarly, other parts of the Muslim world experienced a variety of patterns of change (Hefner, 2010).

Throughout Muslim lands, during the past two and a half centuries, many political regimes have been toppled, many new political parties and movements have appeared on the scene, countless new institutions and new forms of life have come into being, and a large variety of new ideas have made their debut. Many, if not all, of these changes, have been unprecedented and collectively they have exposed Muslims to a large variety of experiences, many of which painful and unpleasant. In a nutshell, the encounter with the West has given rise to the phenomenon of 'identity-crisis' in Muslim societies which, in turn, has shaken the robust-yet-fragile complex system of Islamic belief-ecosystem to the core and has resulted in deep structural changes in Muslim countries.

A sure sign of the identity crisis is the appearance of soul-searching questions concerning the very fundamentals of the belief system. In the context of traditional Islamic societies, many questions which, prior to their encounter with the West, were simply taken for granted, gained a large degree of importance and urgency. People who used to take Islam as a perfect guide to life, were now forced to ask difficult and upsetting questions such as: "Who or what is a Muslim?", "Are Muslims, as the Holy Quran points out, really the chosen nation amongst all other nations?",[3] "Is Islam capable of offering efficient solutions to modern-day problems facing Islamic communities?", "Is Islam really the best religion and superior to all other systems of belief",[4] "Is the apparent weakness of Muslim communities in comparison to Western societies a result of deep defects within the Islamic belief systems, or is it due to the defects in the approaches and attitudes of Muslims?", or is it a consequence of Western imperialism? "Is there such a thing as pure Islam?", "If so, then whose version of Islam is the genuine article?"

These questions and their ilk have been recurring themes in almost all Muslim societies since the late eighteenth and the early nineteenth centuries. In fact, one can map out the history of Muslim societies in the past two and a half centuries according to the efforts on the part of Muslims to answer these questions.

Ikhwan al-Muslimin in Egypt, Jama'at-i Islami in Pakistan, both the Constitutional and the Islamic revolutions in Iran, the Taliban in Afghanistan, Al-Qeda in Saudi Arabia and other countries, Daesh in Syria and Iraq, Boko Haram in Nigeria, The Gulen Movement and the Justice and Development party in Turkey, various feminist movements in Muslim countries and among Muslims who live in the West, the Muslim Intellectual Movement in Iran and many other socio-political phenomena in Muslim lands and among Muslim communities all-over the world are all examples of relentless efforts on the part of Muslims to provide answers to the above and many more serious and disturbing questions which have emerged in the Islamic Belief-ecosystem, all challenging the very foundations of this system.

Despite all these efforts, which have taken many different shapes and forms, in the first decade of the twenty-first century these questions have still not found satisfactory solutions. This lack of success has further deepened an already deep crisis.

However, although no satisfactory solution so far has been found, and while any claim for a quick fix should be regarded as foolhardy, it is not the case that in Muslim lands all is doom and gloom. A closer look at the history of Islamic communities in the past two and a half centuries would reveal that, as a result of the process of co-evolution suggested above, Muslims have passed through various phases of intellectual maturation and sophistication, from disbelief and puzzlement in the early stages of their encounter with the West, to a state of suspension of disbelief, and from there to the phase of focusing on the problems and trying to get a clear understanding of the issues at hand. At present, it seems, at least in some parts of Muslim lands, Muslims have entered the phase of critical assessment of the situation and are, at long last, proposing solutions which are more realistic and competent than ever. Those who are involved in this latest phase of activities have equipped themselves with a good level of theoretical knowledge necessary for a comprehensive appraisal of different alternatives and for proposing new models.

During this latest period of change, a number of major epistemological points are gradually gaining credibility amongst ever increasing portions of the Muslim population especially within the younger, more educated generations. It is, for example, gradually being accepted that the search for final solutions, magic wands and panaceas, which would resolve all the difficulties once and for all, is futile. The desire for building utopias on earth is gradually giving way to the more realistic approaches of piecemeal social engineering. Learning from one's own mistakes and from the mistakes and/or achievements of others, Muslim or non-Muslim, is also gaining respect in many quarters in Muslim societies. Perhaps, most important of all, people are slowly coming to terms with the fact that just one unique and absolutely valid interpretation of Islam is not within the reach of mortal souls; and rival interpretations, which may all appear to be equally valid, could be entertained by various groups or individuals, though this sort of epistemological pluralism need not result in a rampant relativism.

Interestingly enough, in the course of this process of co-evolution, many factors which were initially deemed to solely produce grave and undesirable consequences for the integrity of the Islamic belief systems, have been also shown to have beneficial effects in bringing about changes towards further enrichment of these systems. The opening of printing houses and publication of newspapers, the introduction of modern methods of education and the appearance of political parties were among the factors which made considerable impact on the outlook of Muslims in the past two and a half centuries. In our times, factors like globalisation, advances in communication technology and the information explosion and continued political crises, such as the Arab-Israeli conflict and recent political upheavals in

the Muslim world, including the unforeseen consequences of what popularly became known as 'Arab Spring' (Davis, 2016), are similarly exerting enormous pressures on existing belief systems within the Islamic belief ecosystem. Under such pressures, these belief systems should either adapt or face losing their appeal in the eyes of the faithful.

II Identity crisis in the Muslim world and the role of civil societies

Of particular interest is one emergent, or better to say, re-emerging factor which seems to be capable of playing a positive role in resolving, or at least alleviating, the identity crisis in Muslim communities. This re-emerging factor is the discourse of 'civil society' which has made a remarkable comeback in the West in recent decades[5] and is gradually gaining grounds in Muslim countries.[6] In the past few years, an impressively large number of papers and books on the subject of 'civil society' have been published in various Islamic countries and several conferences and seminars have also been convened by universities, research centres or governmental bodies in these countries to discuss different aspects of the subject.

In a fashion more or less comparable to what has happened in the West, the notion of 'civil society' has received a mixed reaction amongst Muslim intellectuals and/or scholars, statesmen and political activists. In the West, there are those who ardently advocate civil society. However, there are others who would voice concern about this model. Thus, for example, whereas Ernest Gellner (1994) has praised it as an ideal whose reappearance should be heartily welcomed, John Gray (1995), who used to defend such a model, now argues that a more pluralistic approach, with some resemblance to the pluralism propounded by Alasdair MacIntyre (1984, 1988), though not identical with it, should be developed.[7]

In the context of the Islamic belief-ecosystem too, there are those who argue that this notion is quite incompatible with Islamic views (Larijani, 1997). The ruling classes in many Muslim countries have turned against the activities of civil societies and NGO's in their respective countries in recent years (Najjar, 2017; Gahramanova, 2017). Nevertheless, despite these oppositions, there are many, among activists as well as academics in Muslim countries, who support the activities of civil societies (Harmsen, 2008; Mitsuo, et al., 2001). Many of the supporters of civil society are in favour of *Islamic* models of civil society (Nadri Abyaneh, 1997). But there are also those who are of the view that the notion of a 'civil society' is ideology-neutral (Mohammadi, 1996).

To adjudicate between these seemingly discordant positions, we have to impose a rather restrictive condition. The critical dialogue concerning the status of civil society within the boundaries of Islamic belief-ecosystem could most successfully be held with those interlocutors who subscribe to some interpretations of Islam which would endorse and uphold the essential

right of reason in pursuing real life problems.[8] I shall call these interpretations, the 'rational' readings of Islam, for want of a better word. With regard to these interpretations it could be asked, is civil society realisable in an Islamic environment? And if so, is it desirable?

It is the argument of this chapter that the 'rational' approaches to Islam will benefit from some bona fide model of civil society, provided that they remain open to rational criticism and appraisal. It will be further argued that while there is no incompatibility between the notion of civil society and Islamic doctrines, the concept of an Islamic civil society needs to be handled with care; otherwise it may give rise to undesired consequences. It is one of the arguments of the present chapter that properly constructed indigenous models of civil society (developed by Muslim thinkers for Muslim societies) could play significant roles not only in resolving the identity crisis in the Muslim lands but also in helping Muslims to participate in the creation of effective global civil societies.

However, to begin, we should make it clear what we mean by a bona fide model of civil society. Adopting, as well as adapting, a working definition suggested by Cohen and Arato (1992: 8), I would regard civil society as a sphere which stands between the state on the one hand and economy on the other. This sphere, in its turn, is composed of the family, voluntary associations, social movements and forms of public communication and self-mobilisation. Civil society, in this sense, is institutionalised and generalised through laws and rights. However, in this model, civil society is not identified with all social life outside the administrative state and economic process in the narrow sense. Thus, for example, according to this working definition, political organisations, political parties and parliaments, as well as organisations of production and distribution of goods, like firms, cooperatives and partnerships, are not part of civil society per se. The political and economic role of civil society is not directly related to the control or conquest of political and/or economic power but to the generation of influence through the life of democratic associations and unconstrained discussions in the cultural public sphere.[9]

The argument against the compatibility of civil society with Islam has appeared in two distinct forms. On the one hand, there are those writers, usually Western Orientalists, and occasionally their Oriental followers, who, following Max Weber (1958), would claim that, contrary to the ways in which Western cities have developed, the structure of Islamic societies has not been amenable to the emergence of civil societies. B.S. Turner (1984: 68), in an influential study, has thus summarised the two main steps in this line of argument:

> The first [step] is to make a dichotomous contrast between the static history and structure of Islamic societies and the evolutionary character of occidental Christian culture. . . . The second [step] . . . is to provide a list of causes which explain the stationariness of Islamdom (*sic.*). The

list typically includes the absence of private property, the general presence of slavery and the prominence of despotic government. . . . These features . . . can be summarised by the observation that oriental social formation possessed an overdeveloped state without an equivalent 'civil society'.

However, as a number of researchers have shown, the above argument is based on an oversimplified picture of the life in Islamic societies and cities, from which many essential aspects are omitted. For example, it has been shown that in many Islamic cities, Muslim professional guilds and urban corporations had actually created embryonic civil societies. Louis Massignion (1935: 962), for instance, has observed that

> There was not a single town, from Central Asia to Mesopotamia, which did not have its *ayyarun*.[10] They seem to be more closely linked with the local bourgeoisie in support of a native prince. Sometimes the bourgeoisie relied on them in resisting the authorities. In the majority of towns which had no charta [*shorteh* = police force] they formed an indispensable local militia, upon whom the race of the city relied.

Bernard Lewis, in a more critical vein, having compared the similarities and the differences between Muslim and Western European urban groupings, has endorsed the independent nature and social function of the Islamic guilds:

> Unlike the European guilds, which were basically a public service, recognised, privileged and administered by public authorities, seigniorial, municipal or royal, the Islamic guild was a spontaneous development from below, created not in response to a state need but to the social requirements of the labouring masses themselves.
>
> (Lewis, 1937: 35–6)[11]

Apart from the *charta* and the Islamic guild (*sinf*),[12] a number of other institutions also emerged in the course of the evolution of Islamic Civilisation. These institutions could be regarded as the precursors to the modern institutions of civil society (Paya, 2004).

Whereas some orientalists have based their argument against the compatibility of the models of civil society and Islam on the so-called 'stationariness of Islamdom', some Muslim writers have argued against the thesis of compatibility from a doctrinal point of view. According to these writers, who, by and large, advocate a traditional approach to Islam, civil society is a product of the liberal philosophical tradition and this tradition is inherently at odds with Islamic ideas and ideals. S. Larijani, the present Head of Iran's judiciary, is amongst the advocates of this view. In a paper entitled "Religion and

Civil Society," he has spelled out the main argument of this group of writers in the following way:

> In a nutshell, civil society and liberalism are twin brothers, and one of the main theses of liberalism, and therefore of civil society, is the neutrality of the state. This is not consistent with pure Islamic doctrines unless one is so infatuated with liberalism that one does not care about such an inconsistency, and that is another matter.
>
> Contrary to the views of a number of myopic intellectuals, liberalism is not only incompatible with the fundamentals of religious belief in general, and with Islamic thought in particular, but also poses grave philosophical problems for the individual. A necessary consequence of the liberal doctrine is that every immoral law, provided that it is endorsed by all and sundry, is then enactable and it is the duty of the state to pave the way for its implementation. This is because the state has no criterion for distinguishing wrong and right. Its only obligation is to safeguard the [people's] liberties. If people decided that abortion or a homosexual life style should be allowed, then the state must follow suit and modify its laws to accommodate these demands . . .
>
> Such ideas are not only untenable from an Islamic point of view, because among other things, Islam does not endorse moral pluralism, but are also faced with irresolvable philosophical difficulties.
>
> (Larijani, 1997: 211–226)

A critical assessment of arguments of traditional Muslim writers takes us beyond the scope of the present chapter. However, suffice it to say that the development of the models of civil society has not been a prerogative of the liberal thinkers in its narrow sense. Hegel, Marx, as well as subsequent Socialist and Marxist writers, have also made significant contributions in this field (Keane, 1998b; Hall, 1995).[13] Moreover, to equate laissez-aller, or unconstrained freedom, with liberalism is to refute the actual history of ideas.

It seems that the main objection of traditionalist Muslim writers to the notion of civil society is that such a society, which they regard to be a product of liberalism, would pave the way for moral and social decadence (Larijani, 1997).[14] Though one could sympathise with the concerns of those Muslims who are critical of some permissive lifestyles in liberal societies, one should not, as some of these writers seem to have done, conflate permissiveness with the principle of freedom which is central for all liberal approaches.[15] While the former could lead to moral relativism and an 'anything goes' attitude in moral life, many of the liberal philosophers in the West and also the liberal-minded Muslim writers are among the foremost critics of moral relativism.[16] Karl Popper, for example, many years ago, in 1961, in the addenda to the second volume of his *The Open Society and Its Enemies*, had stated,

"The main philosophical malady of our time is an intellectual and moral relativism, the latter being at least in part based upon the former" ([1945] 1966: 369).

In the decades after the demise of state-administered Socialism and the discrediting of fully-fledged free-market economy and rampant laissez-faire, many thinkers have striven to develop more refined models of civil society in which the rights and liberties of individuals are reconciled with a partnership between the state and society. In such models, great emphasis has been placed on the importance of morality as a method for conducting the affairs of state and of the individual.[17]

Delicate philosophical distinctions aside, the particular model of civil society, alluded to above, with its strong moral component, would not only provide great assistance to the more 'rational' interpretations of Islam, but it should also prove to be attractive even to traditionalist Muslim writers. In fact, the affinities between a civil society shaped according to the above approaches and the more traditional interpretations of Islam do not end there. One can think of such a society as not just built on a Hobbesian kind of social contract, but as one which also benefits from a moral contract or a covenant.[18] "A society built on social contract", as J. Sacks has observed,

> is maintained by an external force, the monopoly within the state of the justified use of coercive power. A covenant, by contrast, is maintained by an internalised sense of identity, kinship, loyalty, obligation, responsibility and reciprocity. Parties can disengage from a contract when it is no longer to their mutual benefit to continue. A covenant binds them even – perhaps especially – in difficult times. This is because a covenant is not predicated on interests, but instead on loyalty, fidelity, holding together even when things seem to be driving apart.
>
> (Sacks, 1997: 64)

However, while this model of civil society might succeed in mitigating the opposition of more conservative and traditional Muslim writers, it may prompt the discontent of more critically-minded citizens of Muslim communities. It might, for example, be argued against this approach to civil society that to let the moral law to take precedence over the law of the land could lead to dangerous and undesirable consequences. It might also be argued that this model harbours a latent communitarianism, which gives cause for concern to more liberal-minded Muslim intellectuals.

Despite these worries, it seems that a model of civil society in which morality takes a prominent place in regulating the relations between individuals as well as between institutions can still be upheld in the face of the criticisms levelled against it. Thus, for example, for those who are worried that the law of the land might be undermined, one can reiterate H.L.A. Hart's argument (1983: Essay two) that the law of the land is a set of fallible

interpretations by mere mortals and as such is not only profane, but may not even be moral in an ideally desired sense. However, such law has to be made as moral as possible. A new model of civil society which lays emphasis on moral principles can facilitate this process. The law-makers, in a fashion which is not dissimilar to the way science approaches the notion of truth,[19] will be encouraged to constantly revise their laws in ways which strengthen the laws' moral elements.

As for the second objection, it can be argued that, in the proposed model, emphasis is placed on moral norms which can be shared by all members of a diverse society. Such moral norms constitute a set of moral values and principles. This set, given human beings' shared concerns, is of course, not an empty one. Moreover, since rampant value relativism is untenable, the common moral denominator of the society can be further expanded through dialogue and rational discussions (Berlin, 1998).[20]

Within the framework of the proposed model of civil society, citizens can play an active role in producing better interpretations of the laws governing the conduct of the society. Critical debates and constructive discussions amongst the citizens and the authorities would pave the way to constantly producing new and better-balanced laws and implementing them in more effective ways.

Civil society, in the defined sense, can also exert considerable influence with respect to a satisfactory resolution of the so-called identity crisis in Islamic countries. The identity of an individual partly takes shape in his or her society.[21]

However, the regimes and governments in many Islamic countries are despotic or non-democratic. In such countries, there is very limited room for manoeuvre for the individual. As a result, individuals' identities will not have enough chance to flourish and their potentials cannot be fully actualised. In a civil society strengthened with the notion of a moral covenant, values like freedom, equity, solidarity, democracy and the basic human rights can all be realised. Such a civil society can facilitate constructive interaction between different elements of belief systems and, therefore, can assist in producing novel solutions to the so-called crisis of identity.

However, from among various interpretations of Islam within the Islamic belief-ecosystem, only those which I called the 'rational' readings are most amenable towards the above model of civil society. Other interpretations, like the fundamentalist or the traditionalist, tend to be more exclusionist and insist upon drawing rigid boundaries between the 'insiders' and the 'outsiders'. These interpretations are not only in danger of distorting the real message of Islam, which purports to be a universal religion, a world view for humanity at large, but also pose an increasing threat to the stability of Muslim societies. This is because modern Muslim societies are increasingly becoming pluralistic. In such societies, just one form of life cannot be imposed upon all the citizens.

III Islamic civil societies and open societies

Now, if it is granted that there is no incompatibility between Islamic teachings, at least according to the more rational interpretation of Islam, and the notion of civil society as discussed above, it can further be asked whether the prospective civil society in an Islamic society is necessarily value neutral or whether there can be such a thing as Islamic civil society.

Traditionalists, as we have already seen, argue that Islamic civil society is a superfluous or an incongruent concept: we either have Islamic society or civil society. And, since these two societies are based on two different ideologies, they cannot be reconciled (Larijani, 1997). However, some secular Muslim writers also endorse the traditionalists' view on this subject. The following quotation taken from a letter posted on the Internet a few years ago contains one such argument:

> Islamic civil society is an oxymoron. Civil society is a secular construct, which either exists or does not exist. If we accept the idea of an Islamic civil society, then in principle we should also agree to the legitimacy of Christian, Hindu, and Jewish civil societies. But that would be tantamount to celebrating the exclusionist character of societies, an atavistic approach at best.
>
> (Ahmad, 1997)

Indeed, in defence of the above argument, it can be argued that civil society, like the different forms of government and various other institutions and social constructs, which have evolved during the process of maturation of human civilisation, is, in a sense, an instrument and therefore, ideology and value neutral. It is a means to an end and, like all other means, can be used properly or be misused. Therefore, *apparently* it does not make sense to talk of such a thing as an 'Islamic Civil Society'.

The above argument, though on the face of it may appear to be sound, is nonetheless invalid and therefore misleading. It is true that all social constructs can be regarded as instruments or technologies. But as was explained in Chapter 1, contrary to knowledge-claims which aspire to be value-neutral and objective, technologies ought to be user-friendly. It is for this reason that inventors of technologies try to embed in their inventions values which they think may be appealing to the end-users of their products. Moreover, the end-users themselves, more often than not, introduce further changes to the technologies they use to make them even more desirable for themselves. Furthermore, when it comes to the issue of use of technologies, it should be borne in mind that proper use or misuse, are based on judgements which heavily rely on the values of 'users' of technologies.

From the above, the following conclusions would follow. First, one can meaningfully talk of an *Islamic* civil society. Such a technology, is a kind

of civil society which provides all the main functions of any efficient model of civil society anywhere in the world, while carrying with it the values which belong to the Islamic value system. Second, since human beings share many basic needs, not only physical and material but also spiritual (in the very extended sense of this term), more effective machines of civil society could be used by different groups of people who belong to different value systems, with little adjustments. Third, at the level of application, users are usually faced with a fine balancing act between what can be called the 'pragmatics' of the use of the technologies in question, and the values which they cherish.

The idea of an *Islamic* civil society, however, needs further clarification. For example, it can be asked: whose understanding of *Islam* should be used in constructing an *Islamic* model of civil society? Is there just one model of *Islamic* civil society or many? If there can be many of such models, then will they be compatible or incompatible?

Earlier in the chapter, I pointed out that only some of the rational interpretations of Islam are amenable to the idea of civil society. It should also be borne in mind that civil society as a social construct is open to the functions which the collective intentionality of its creators would assign to it. In the context of an Islamic society in which a rational interpretation of Islam is the dominant element of its belief ecosystem, the citizens assign their desired functions to a model of civil society whose broad characteristics were briefly explained above. Such a construct bears the values which the members of this particular form of life assign to it. Some of these values are universal human values and some are more specific to the way of life and tradition of the society in question. However, a necessary condition for the applicability of these extra indigenous values to the model of Islamic civil society is that they must not clash with the universal values already embedded in the model.

It must be emphasised that in an Islamic society in which a rational-critical interpretation of Islam is the dominant element of its belief ecosystem the citizens are open to interactions in a pluralist manner. They are not imprisoned in a particular way of life. On the contrary, for them the Islamic ideals and ideas act as regulative principles, in the Kantian sense, as ideal objectives: objectives which encourage people to do their best to achieve them. Critical and rational Muslims combine their rational interpretations of these principles with their knowledge and experiences of modern times, to create novel syntheses which would better assist them to conduct their personal and collective affairs.

One of such syntheses is a model of civil society along the lines briefly explained in this chapter. Such a model, among other things, could help the 'rational' interpretations of Islam to meet the challenges of identity crisis. The identity crisis, as pointed out above, is nothing but a serious threat to the very existence of belief systems of individuals. And given the intimate relationships between individuals' belief systems and their outlook on a

good life, such threat could also be a threat to the very existence the individuals who subscribe to those belief-systems. In responding to this threat, only those belief systems which are the fittest could survive. And the fittest systems are those which have the highest capacity for adaptability and coping with rapidly changing situations.

It is a known fact in the natural ecosystems that those organisms which make the best use of the resources available within their own ecosystem stand a better chance of survival. By analogy, it can be argued that those belief systems which make the best use of the resources within their own belief ecosystems, i.e. their own 'past traditions', will be in a more advantageous position to ward off the threats to their integrity.[22]

The phrase used above, namely, 'the best use of the resources within their own belief ecosystems' needs to be further explained to avoid possible misunderstanding. The best use of the resources available in any tradition will only be possible if those who want to use the resources in question take a critical attitude towards them. In the absence of such a critical attitude, traditions could cause more harm than good.

An Islamic civil society, along the lines introduced above, could also benefit from the Popperian notion of open society (Popper, [1945] 1966, Shearmur, 1998). In an open society, citizens are expected to take an active part in monitoring the proper functioning the institutions which are in place to manage the affairs of the society. This means that in an open society critical discussions are encouraged and decisions are taken in the light of open debates and on the basis of consensus. All these aspects can be incorporated in a model of Islamic civil society which tries to make use of the power of critical reason and the resources of tradition and the participation of citizens.

IV Global civil society

Within the context of the Islamic ecosystem, there exists a strong tradition with a long history whose main characteristic has always been the great emphasis which it lays on such basic values as freedom, tolerance, equity, responsibility, love and respect for all manifestations of God on earth, i.e. all creatures small and large, animate or inanimate.

It could be argued that, in meeting the challenges facing Muslim communities in the third millennium, those rational interpretations of Islam which could manage to combine the best elements of their own past tradition with the most effective modern constructs, such as a model of civil society more or less similar to what is briefly described here, are better placed to weather the storm which is blowing over Islamic lands.

Within the boundaries of a society which is based on such a combined approach, the ideal of the siblinghood of humanity will be pursued. Such an ideal was stated almost 700 years ago by the great Persian poet and sage

Sa'di of Shiraz, whose words of wisdom grace the entrance to the Hall of Nations in New York:

> Of one Essence is the Human race;
> Thusly has Creation put the Base;
> One Limb impacted is sufficient,
> For all Others to feel the Mace.

This is an ideal, like truth, which we can strive towards. It is of course an operative ideal, not an unrealistic utopian dream. To move towards it, the notions of responsibility, freedom, equity and pluralism need to be disseminated. Fortunately, all these elements, which are part and parcel of a bona fide model of civil society, are also indigenous ingredients of some of the traditions within the Islamic belief ecosystem.[23]

Such a model of civil society could hopefully help Muslims to overcome the identity crisis they are faced with at present. But, more than this, since many of the values embedded in such a model are universal values which are easily identifiable by all people across the globe, it could also assist Muslims to participate meaningfully in the creation of international organisations, and in particular global civil societies, whose aim is to promote peace, curb aggression, encourage social development and foster prosperity. Of course, as Paul Kennedy has pointed out in the context of his discussion of the creation of the United Nations, for every voice favouring global cooperation there will be another, warning against the erosion of national sovereignty or destruction of local values and traditions. It is in this context that a model of Islamic civil society, which tries to reconcile Islamic sensitivities with universal values and concerns, could prove its mettle (Kennedy, 2006).

Notes

1 This, of course, does not mean that during that long period one could not find cases of individuals or small groups of people who have experienced such a crisis.
2 Recent examples of this process of co-evolution can be seen in the ways in which Western societies respond to the increasing number of Muslims who have chosen to live in the West, or the response of Western societies to the threat from radical groups like Al-Qaeda and Daesh. For a brief account of the notion of co-evolution in biology and the social sphere see Kauffman (1995).
3 "Ye are the best of peoples, evolved for mankind, enjoining what is right, forbidding what is wrong, and believing in God . . . " (The Quran, 3:110). All translations of the verses of the Quran in this chapter are from Abdullah Yusuf Ali's translation, available at tanzil.net.
4 "You are the best nation ever brought forth to men, bidding to honour, and forbidding dishonour, and believing in God" (The Quran, 3: 110). "If anyone desires a religion other than Islam, never will it be accepted of him; and in the hereafter he will be in the ranks of those who have lost" (The Quran, 3: 85).
5 For example, Cohen and Arato who have written one the best books on the subject of civil society have rightly emphasised that: "We are convinced that

the recent re-emergence of the 'discourse of civil society' is at the heart of a sea change in contemporary political culture." (1992: 3)

6 See for example: Al-Azmeh (1993), Schwedler (1995), Norton (1995); Glasius (2004).

7 For a critical assessment of Gray's intellectual development see Shearmur (2007).

8 The relation between reason and religion within the Islamic belief-ecosystem is a vexed and complicated one. Taking a cursory glance at the history of Islam, it can be seen that Muslims have adopted three different attitudes towards the use of reason and the rational attitude. Some have regarded it as a dangerous enemy of belief. Others have emphasised the compatibility of reason and religion. And a third group have urged going beyond the realm of reason and into the realm of direct and immediate religious experience.

9 The working definition introduced in the text can be compared with the following definition due to Gellner (1994: 5, quoted in Shearmur, 1998): "Civil Society is that set of diverse non-governmental institutions which is strong enough to counterbalance the state and, while not preventing the state from fulfilling its role of keeper of the peace and arbitrator between major interests, can nevertheless prevent it from dominating and atomizing the rest of society."

10 *'ayyārūn*

11 Other researchers, emphasising the historical importance of these embryonic civil societies within the context of Islamic cities and Muslim communities, have gone further to show that, while from a doctrinal point of view, there has been no restriction on the flourishing of civil society in past Islamic communities, other historical and environmental factors have hampered their development. For one such defence of the notion of urban autonomy and civil society in Islamic cities, see: Ebrahimi (1994).

12 *ṣinf*

13 Jeremy Shearmur in his unpublished paper on civil society (1998) has noted that while Adam Smith in his model of civil society, "stressed the significance of the division of labour and of the freedom for the individual to move, and to make decisions for himself", Hegel offered a model which was "more interventionist than Smith's . . . [and] provided the basis of a kind of liberal corporatism" in the following sense, "from within the division of labour itself there sprang new collective identities, and guild-like organizations, through which people were also represented in the apparatus of the state on a functional basis". Marx was against the Smithian and Hegelian models of civil society. For him, "Only when civil society was socialized, would people be able to live a truly human life".

14 Similar views can be found in the works of M.T. Misbah Yazdi, a professor of philosophy at Qom seminary, who is, by far, one of the most ardent proponents of this position. For a clear and concise statement of his position see: Misbah Yazdi, M.T. Islam vs. Liberalism // Iran. Vol. IV, No. 966. 8.

15 Liberalism is not just one unified school of thought. There are many different types of liberalism. John Gray's *Liberalisms* (1989) discusses a variety of approaches to liberalisms. It is important to note that these different approaches, despite many differences with each other, share a common core of principles and values. Freedom is among these core principles. This means that the connection between these various approaches to freedom is not mere a 'family resemblance'.

16 For a critique of moral relativism in the shape of some models of moral particularism as suggested by philosophers like Jonathan Dancy (2006), see Paya (2008).

17 For a Socialist version of such refined models of civil society see: Keane (1998b), Cohen and A. Arato (1992). These authors have based their model on the views of J. Habermas. Karl Popper has tried to combine the aspirations of Liberalism

with some of the ideals of Socialism. See: Popper (1997) Jeremy Shearmur, (1996), has discussed Popper's brand of Liberalism. Among modern liberal writers, Isaiah Berlin, too, has tried to develop a version of Liberalism in which the rights and liberties of the individual and the social responsibilities of the state could be reconciled. John Gray has called Berlin's model 'agonistic Liberalism' and has discussed it in his (1993 and 1994).

18 Kant, too, was of the view that governments are obliged to keep their contract with their citizens, and this contract is moral, not political. See: Reiss (1991).

19 For the notion of approximation to truth, see Popper ([1963] 2002).

20 To further increase the chances of finding common grounds on which consensus could be achieved with regard to public policies, an idea which Popper had suggested in his paper, "Public and Private Values" ([c.1946] 2008), could be adopted by those who subscribe to the proposed model. Popper has suggested that in the formulation of such policies, policy makers should concentrate on cases of, in Popper's parlance, 'concrete evil' such as 'starvation, pain, humiliation, injustice, exploitation' and 'positive goods' such as 'health, wealth, happiness, and so on'. (Popper, 2008: 119; see also Shearmur, 2009: 340).

   The ethics-based dialogical approach explained in the text which is anti-moral relativism is particularly important in the context of the debates concerning certain 'forms of life or lifestyles' which may not be acceptable to Muslims but are now legalised in many Western countries. In confronting such cases, it is highly likely that the majority of the citizens in Muslim countries endorse laws and legislations that uphold interpretations of Islamic values not in favour of the 'newly legalised lifestyles'. However, as for Muslims who live in Western countries in which such lifestyles are practised, while these Muslims are expected to respect the laws of the land, they need not to shy away from expressing, in reasoned ways, their moral disagreement with moral choices concerning the lifestyles in question.

21 This of course should not be interpreted as implying a deterministic notion of identity. On the contrary, it can be argued that, while external factors such as race, gender, language, geography and history all play a role in shaping one's identity, the openness of the universe and the indeterminacy of the evolutionary process plus the role of man's free will would render deterministic and fatalistic models of identity untenable. Cf., Popper ([1982] 1988), Popper and Eccles. (1977).

22 For a discussion of the importance of the 'tradition' and the rational approach towards it, see: Popper ([1963] 2002: Ch. 4).

23 One of the best representatives of Islamic mystical thought is Jalal al-Din Mohammad (aka Rumi). Many of his views can be usefully put into practice within the large project of responding to the identity crisis. See: Rumi (Nicholson 1926–1940; 1994); Rumi (Arberry, 1968;1994). One modern Muslim thinker who has made use of Rumi's thought in producing viable answers to the identity crisis is Soroush (2000).

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