

RELIGION, HISTORICISM, AND AGENCY: A RESPONSE TO GUTAS, IQBAL, AND REISMAN

David J. Brewer

This article is a response to a fifteen year old debate between Dimitri Gutas, Muzaffar Iqbal, and David Reisman over the historical agency of the Islamic tradition in relation to the development of the natural sciences. Gutas initiated the debate by arguing that religious traditions are neither monolithic nor reified and, thus, cannot have agency in advancing or impeding scientific activity. Iqbal responded by defending an essentialist conception of Islam, one that then received sharp criticism from Reisman. Here, I attempt to provide a more balanced position, particularly between Gutas and Iqbal. While I agree with Gutas' historicist approach to the study of religious traditions, I draw on MacIntyre to maintain that historical traditions can, indeed, have historical agency insofar as we understand them not as reified entities, but as a form of historically-conditioned debate among adherents, participants who engage in dialectical debate over shared epistemological sources and who serve as actors in the world. In response to Iqbal, I argue that historical criticism does not have to be a threat to Islam if it is viewed as being directed at human epistemological claims about revelation, not at the ontological givens of revelation, itself, which can be taken to be timeless and unchanging. I attempt to demonstrate this by looking at the historical debates that arose among the Umma over the succession of the Prophet.

Keywords: Islam and Science; Islamic Scientific Tradition; Islamic philosophy of science; Science and Religion; *qudra*; al-Ghazālī; Dimitri Gutas; David Reisman; Muzaffar Iqbal; Alasdair MacIntyre.

1. Introduction

In 2003, Dimitri Gutas contented that the expression “Islam and science” “is a

David Brewer is an adjunct professor at Underwood University; email: davebrewer.2011@gmail.com.

Islamic Sciences, Vol. 15 (Summer 2017) No. 1
ISSN 1929-9435 (Print); ISSN 1929-9443 (Online)

© 2017 by the Center for Islamic Sciences

false statement of the problem.¹ His principal argument was that in relation to science Islam has no “historical agency.” He suggested that it is, rather, better to think in terms of specific Islamic societies and the ideologies governing the use (or non-use) of the various sciences. His article elicited a short-lived debate. First, Muzaffar Iqbal responded, in the same issue, challenging Gutas’s denial of an essential Islam. This response was then criticized by David C. Reisman in the subsequent issue for failing to respect the differences between faith-based and secular approaches to the study of the history of religions. While Reisman’s article is critical of Iqbal, it gives little attention to the claims that Gutas makes regarding the agency of Islam as a religious tradition or his critique of the religious as a heuristic lens for discussing issues of religion and science. It is primarily on these points that I wish to respond. While I agree with Gutas that Islam is neither monolithic nor normative, I question whether or not this means that Islam, as a religious tradition, cannot have causal agency. If religious traditions are understood as historically conditioned movements of thought and debate among adherents, is it possible to argue that those debates extend to multiple domains of enquiry, including religion and the natural sciences?

This article, then, is divided into two sections, the first addressing Gutas’s central arguments, the second Iqbal’s. I begin in Section 2 by arguing that while it is true that religious traditions are not monolithic, this does not preclude them from having historical agency, nor does it preclude the use of religion as a viable category for engaging the topic of Islam and science. In Section 3, I address Iqbal’s insistence that the Islamic tradition stands above historical criticism because, at its core, it is metaphysical and, thus, meta-historical. I argue that while the divine, ontologically speaking, transcends history, divine revelation always takes place within history. More importantly, our epistemological reflections on revelation are always historically conditioned, thus, always open to historical criticism. I will attempt to show that the historically conditioned nature of Islam is evidenced by the very history of the tradition itself, from one of its earliest theological crises. Overall, my objective in this article is to provide some nuance to the discussion—Gutas is right to call for greater academic rigor in discussing religion and the natural sciences, but wrong to preclude religion as a pertinent category to the discussion; Iqbal is right in wanting to preserve divine transcendence, but mistaken in assuming that epistemic reflection on divine revelation eludes historical criticism.

2. The Heuristic Lens of the Religious and the Agency of Religious Traditions

1. Dimitri Gutas, “Islam and Science: A False Statement of the Problem,” *Islam & Science*, Vol. 1 (December 2003) No. 2, 215.

There are two principal reasons underlying Gutas' argument that the category "Islam and science" constitutes a mis-framing of the problem. First, he argues that there is no such thing as an essential, reified "Islam" that can be seen as a historical agent. Second, though closely related, he maintains that it is better to think of Islam, not as a monolithic religion, but as the "specific ideology of a particular, historically determined society."² Consequently, it is Islam in its various ideological forms, or as an instrument of various ideologies, that constitutes the locus of historical agency, not Islam, itself. The problem to consider in a publication such as this one, then, is not "Islam and science," *per se*, but "the sciences in Islamic societies."³ Only then, Gutas argues, can research proceed along historical lines.

As David C. Reisman notes in his later response, Gutas' point is largely methodological and unproblematic, the careful delineation of terms, categories, and methods that any scholar should bring to their discipline.⁴ It is true that a more accurate description of the problem would entail the longer utterance: "the natural sciences in relationship to Islamic belief as it is historically instantiated in particular Islamic societies at particular times," for which the pithy title "Islam and Science" is merely shorthand. Yet, there seems to be something more than concern for methodology underlying Gutas' critique. Even Reisman, who is largely sympathetic to Gutas' argument, is at a loss to account for the urgency of Gutas' article.

None of this is spectacularly revolutionary in scope, methodology or conclusion. We must assume that Gutas' point lies in the very reiteration of this general scholarly approach to the history of Islamic intellectual trends and scientific developments. That he labels as false the theory that there is a causal relation between Islam, monolithically assumed, and science, largely ill-defined, gives us good reason to believe that error in scope or methodology of the question is what Gutas wishes to highlight. This appears to be entirely reasonable and indeed is precisely what historians do; they question one another's hypotheses, methodological assumptions, and interpretive conclusions.⁵

If Gutas' argument is merely repetition of an accepted methodological point, then why reiterate it, and why with such gusto? More pointedly, why does his argument seem aimed less at helping the project proceed with greater

2. *Ibid.*, 218.

3. *Ibid.*, 219.

4. David C. Reisman "An Unfortunate Response: Iqbal on Gutas," *Islam & Science* Vol 2 (Summer 2004) No. 1, 63-73.

5. Reisman, "An Unfortunate Response," 65.

clarity, than it does with calling the entire project into question?⁶

Here, I want to challenge two underlying assumptions of Gutas' argument, one for each of the two main supporting reasons noted above. Beginning with his second reason first, why does the category of ideology enjoy a more privileged position than that of religious belief? On this point, Gutas seems particularly critical. While he is perfectly comfortable assenting to the agency of local, socio-political factors and to the instrumentality of particular ideologies, he is critical of the agency of religious belief and of larger religious traditions, in this case, Islam. As Gutas, himself, states: "the problem is not religious or confessional, but historical, political and social; and once 'Islam' as a heuristic and historically productive category is removed...then research can proceed along historical lines without the distorting effects of the assumption of an essentialized and reified 'Islam.'"⁷ Underlying his methodological argument is an inherent bias against confessional or religious belief. Why do the categories of ideology, history, social context, and political motivation provide the only heuristic lenses through which to understand the development of the sciences in the Islamic tradition? Indeed, one could easily raise similar questions about these categories that Gutas raises concerning religion. Wherein lies the causal agency of ideology, of history, of political belief? Why are these categories presumed to have more causal efficacy than religious belief?

This is not merely academic. There are clear historical instances where religious commitments particular to the Islamic tradition were influential in shaping the development of the sciences in Islam. One of the clearest examples comes from one of the very historical contexts that Gutas, himself, identifies—the great translation movement of the 9th century. It is clear that the process of translating Indian, Persian, and Greek sources into Arabic was governed largely by religious commitments. Many have noted that this was a process of Islamization, whereby Islamic scholars (the *mutakallimūn*) were seeking to integrate foreign philosophical, scientific, and metaphysical sources without abandoning what was central to Islamic belief and practice, even if that which was "central" was open for debate. This was a complex process of appropriation, involving difficult questions over what should be accepted, rejected, critiqued, or even transmuted through translation,⁸ and those

6. It's telling that Gutas drops out of the conversation altogether after the publication of his article!

7. Gutas, *Islam & Science*, 219.

8. See Muzaffar Iqbal, *Islam and Science* (Gower House, Croft Road, Aldershot, Hampshire, UK: Ashgate Publishing Limited and Burlington, VT: Ashgate Publishing Company, 2002).

challenges lay largely along confessional lines. Even at the level of translation, the problem was more than linguistic; it was theological. Shuckri Abed argues that the Islamic tradition was seeking to guard against adopting concepts so foreign to its language and tradition that an entirely *new* language had to be constructed,⁹ for to do so would have been to undermine existing theological commitments already present in the tradition's language.

Take for example the issue of *qudra*, God's power. Questions concerning divine and human agency had developed much earlier for the *mutakallimūn* during the early Umayyad period (661-750). The central theological concern was over the dual Qur'ānic commitments to God's total sovereignty, on the one hand, and human sinfulness, on the other. The Khārījites and Mu'tazilites wanted to preserve God's absolute power, while also maintaining human free will. The Mu'tazilites, in particular, argued that it would be unjust of God to hold humans responsible for sin if they had no causal power to choose otherwise. The Ash'arites, by contrast, argued that it would be unjust for God *not to determine* the will of humans. While these schools of *kalām* were divided over their respective interpretations of the Qur'ān and of divine *qudra*, they were each committed, in their own way, to preserving God's total sovereignty. This theological commitment, however, was substantially called into question during the great translation movement by the Greek metaphysical commitment to *necessarianism*. This peripatetic principle entailed two precepts that were antithetical the Qur'ānic belief: first, that the creation of the world was necessitated by God's sufficient causation, thus co-eternal with God; second that there is a necessary connection between causes and their effects. Both entailments threatened to shift causal power away from God to the natural order, undermining the distinctly theological commitment to God's absolute power that each school of *kalām* was seeking to preserve.

It was Abū Ḥāmid Muḥammad b. Muḥammad al-Ghazālī (450-505/1058-1111), the Sufī mystic and philosophical theologian (theosopher), who successfully argued against necessarianism while, at the same time, preserving much of the peripatetic tradition.¹⁰ Indeed, one of al-Ghazālī's greatest contributions, according to Montgomery Watt, was in showing that most of the disciplines associated with Hellenic philosophy were, in fact, neutral to Islamic

9. Shukri B. Abed, "Language," *Routledge History of World Philosophies Vol 1: History of Islamic Philosophy*, eds. Seyyed Hossein Nasr and Oliver Leaman (London, UK and New York, NY: Routledge, 1996).

10. See Al-Ghazālī, *The Incoherence of the Philosophers: A Parallel English-Arabic Text*, trans. and annot. Michael E. Marmura (Provo, UT: Brigham Young University Press, 2000).

belief. In so doing he “made it possible for at least the more rationally-minded theologians to accept much of their content,” including Aristotelian logic and some metaphysical conceptions, save for those he refutes in *The Incoherence of the Philosophers*.¹¹ What is important to see in this brief recounting of the problem of *qudra* during the early development of Islamic science is that the early *mutakallimūn* were influenced by distinctly *theological* commitments derived from the Qur’ān. In order to understand the motivations of the early translators, the *mutakallimūn*, and the major theological and philosophical contributors—al-Kindī (185-873/801-873), al-Fārābī (258-339/870-950), Ibn Sīnā (370-428/980-1037), and al-Ghazālī—one must understand not only their ideological and political commitments, but their religious commitments as well. Religious belief, then, is a necessary, if not sufficient, heuristic for interpreting historical issues of science and religion as they developed in and across Islamic societies.

Notice that I am not presuming a monolithic interpretation of religious belief. As I have noted, there were various schools of *mutakallimūn* with divergent theories of *qudra* derived from differing theological interpretations of the Qur’ān. This does not mean, however, that ideology alone was at issue. Confessional commitments were undeniably at stake, and it would be hard to deny the agency of these religious beliefs on the development of Islam and the various sciences that they were seeking to integrate. The question, then, is how? How does a religious tradition provide a source of agency? This leads to my critique of Gutas’ first challenge: that religious traditions have no causal agency because they are not monolithic. Here I want to argue that religious traditions can, in fact, exhibit causal agency, at least as much as, and in the same sense as, ideology, history, or socio-political context. For, once again, a similar set of questions to those that Gutas raises against theological belief could also be raised in respect to the very categories that he takes for granted: How does history exhibit causal agency? Or ideology? Or social context?

I believe part of the problem is that the nouns “religion” and “tradition,” along with their various exemplars—Islam, Christianity, Judaism, Buddhism—compel us to search for some *thing* in the world, some entity that exhibits direct causal agency the way any other “thing” would do. Of course, Gutas does not make this flat-footed mistake outright, but the specter of the problem is raised even by his asking the question of causal agency in the first place. Philosophers have filled countless pages trying to solve questions of causation and agency when it comes to concrete entities in the world. It

11. W. Montgomery Watt, *Islamic Philosophy and Theology: An Extended Survey* (Edinburgh, UK: Edinburgh University Press, 1985) 90.

becomes vastly more problematic when talking of something as indefinite as a tradition. Gutas' critique of the "monolithic" or "reified" tradition underscores the point, assuming that if there were some *essential, concrete* thing underlying a tradition, then it would have more potential for casual agency. Why? Because it has more thingness? To be clear, I do not disagree with Gutas in his critique of an essentialist view of religion. It is true, as Gutas states, that traditions are not irreducible entities that can be "precisely defined and taken to be [an] agent of all change"¹² in a given society, but this is only to say that the word "tradition" does not apply to some thing, some entity. Happily, I do not think we have to commit ourselves to essentialism or to thingness in order to talk about the effectiveness or agency of traditions—religious or otherwise.

Here, I draw on the work of Alasdair MacIntyre, a philosopher whose work is relevant to the discussion of traditions precisely because he argues that all rational thought and action is tradition-dependent. While his work has focused on ethical traditions, I contend that it applies equally well to religious traditions. MacIntyre is as aware as Gutas is of the need for careful historicism. Where MacIntyre succeeds over Gutas is in recognizing that all of these heuristic lenses—ideology, history, social context, ethics, religious belief—take place within the context of some larger tradition. All rationality is constituted by and constitutive of historical traditions of enquiry. In *Whose Justice? Which Rationality?*, MacIntyre defines tradition as follows:

[It] is an argument extended through time in which certain fundamental agreements are defined and redefined in terms of two kinds of conflict: those with critics and enemies external to the tradition who reject all or at least key parts of those fundamental agreements, and those internal, interpretative debates through which the meaning and rationale of the fundamental agreements come to be expressed and by whose progress a tradition is constituted.¹³

A tradition, then, is defined in large measure by its ongoing debates—both those among adherents of a shared tradition and those with adherents of rival and competing traditions. In the case of the former, dialectical debate centers around shared authoritative texts and voices, standards of rationality, conceptions of the good and the ultimate, notions of practical reasoning and justice, and how to apply those principles of reasoning in various and ever-changing contexts. In the latter case, debate centers not only on divergent standards of rationality, but also on divergent histories—the different ways in

12. Gutas, *Islam & Science*, 216.

13. Alasdair MacIntyre, *Whose Justice? Which Rationality?* (Notre Dame, Indiana: University of Notre Dame, 1988) 12.

which these traditions arrive at their particular accounts of rationality.

In sum, these are debates precisely over what it means to be a particular tradition, both in respect to a given tradition's standards of rationality (e.g., orthodox vs. heterodox, or even heresy) and in contradistinction to those of other traditions (e.g., Islam over Christianity, Christianity over Judaism). Insofar as individuals and communities—albeit from different times and places, different cultural contexts and ethnic backgrounds, and even different languages—continue to debate over the application of the same standards of rationality, they constitute the same ongoing, historical tradition; while the opposite is equally true: insofar as communities cease to remain in debate over shared standards and shared formative texts and voices, they no longer constitute an ongoing tradition of enquiry.

At least two aspects of MacIntyre's proposal are relevant to the present discussion. First, MacIntyre's definition of tradition speaks to the true source of causal agency. It is not traditions, *per se*, at least not in some essentialist sense, that are the agents of causation in the world. It is the *adherents* of those traditions and the actions they take in the world as a result of conclusions reached through ongoing dialectical debate and discussion that result in causal change. If we understand the word tradition to mean not some reified thing, but an ongoing process of debate and action taken by participants over various historical and social contexts, then the problem that Gutas raises dissolves itself. It is in this sense that traditions—religious or otherwise—are not radically different from the other heuristic categories that Gutas employs. Political and social ideologies do not have any more causal agency than religious ones; it is the participants in those practices that do.

Second, MacIntyre's account also explains the tension between continuity and difference that is an underlying part of the debate between Gutas and Iqbal. Recall that part of Gutas' argument regarding causal agency hinges on the lack of monolithicity, that in order for a religious tradition such as Islam to have true causal agency it must be monolithic. However, MacIntyre's proposal shifts the debate. The common thread running throughout a tradition is not a static or universal set of beliefs; rather, it is the ongoing historical and dialectical engagement with a particular set of defining documents and individuals that allow for ongoing debate and discussion across various contexts. This does not require agreement; it only requires participation. Insofar as individuals are willing to participate in those interpretative debates over shared standards of rationality, they constitute the same, ongoing historical tradition of enquiry. The Mu'tazilites and the Ash'arites, then, can be considered participants in the same historical, religious tradition despite their substantial differences,

precisely because their disagreements arise from divergent interpretations of *the same basic authoritative sources*—the Qurʾān, the Prophet, certain hadīth literature.

3. Historically Conditioned Nature of Revelation and Epistemology

By now it should be clear that I do not agree with Gutas' assessment of Islam as merely ideological. However, it should also be clear that I do not accept Iqbal's essentialist position either. I agree fundamentally with Gutas' historicist approach to Islam and the natural sciences. I maintain, only, that we cannot dismiss the heuristic lens of the religious when doing so. Religious belief belongs as much to the historical understanding of belief and action as any other category that Gutas identifies. My primary critique of Iqbal is very much in keeping with Gutas' and Reisman's, namely, that he has not taken seriously enough the historicist turn in philosophy, science, and religion. To be fair, my sense is that this will constitute a challenge for the Islamic tradition more broadly. When Iqbal argues that "the central message of the Qurʾān, the heart of Islam, cannot be dissected on a linear timeline because it has never gone through any evolutionary process constrained by historical necessities," he is articulating a central belief of many in the Islamic tradition, namely that Islam has no historical starting point. For many Muslims, Muḥammad represents not so much the start of a new religious tradition as much as the seal, the fulfillment of an unchanging revelation from the beginning of creation. In this sense, Western historicism is thought to undermine not merely particular Islamic beliefs, but rather God's perfect and unchanging revelation, itself. These historical-critical methodologies, then, appear as an affront to God, directly—a form of blasphemy. Hence Iqbal's vexation!

In this section, however, I want to propose a way of holding these two commitments in tension, scholarly historicism and divine revelation. In brief, I want to argue that while God or the divine may be a-historical, divine revelation always takes place within particular historical contexts, and our various interpretations of those revelations are certainly always historically conditioned. Thus, accounts of revelatory experience are always subject to historical critical methodologies, even if the divine originator of the revelation is not. That is to say, it is possible to preserve belief in God's perfect, divine revelation, on the one hand, but acknowledge, on the other, that human interpretation is always historically conditioned.

In order to do so, it is important to distinguish between two aspects of the discussion—ontology and epistemology. On the one hand, ontologically speaking, there is, ostensibly, the world as it is independent of our varied

understandings of it. On the other hand, there is our epistemological language and categories for describing the way things are. The two are not so easily disambiguated. Thomas Kuhn, for example, has argued that data selection is constrained by our scientific paradigms. The development of a paradigm and the discovery of anomalous or novel data often requires new vocabulary, technology, and skill-sets, and these are often developed for the express purpose of discovering that very novelty.¹⁴ What counts as data about the world is always linked to our epistemological categories. Nonetheless, there is a sense, at least in most Western philosophical and theological traditions, that the world is distinct from our knowledge about it. To conflate ontological reality with epistemology is a category mistake. Thus, it is possible to distinguish between ontological, metaphysical reality and our epistemic knowledge about it. The problem is that we can never have unfettered access to that reality; our knowledge of reality—ultimate or otherwise—is always constrained by the epistemological categories at our disposal.

It is on epistemological grounds, then, that Iqbal is mistaken. While it may be the case, ontologically speaking, that “There is a Creator Who has created all things in measure and for a purpose,” that creation “is of two kinds: visible and invisible,” and that “All created things have come into existence for a fixed term, after which everything will return to the Creator Who will examine their worldly existence, and pass a judgment which will lead to an eternal life in the Hereafter;”¹⁵ it is *not* the case, epistemologically speaking, that this “should be obvious to an honest mind.”¹⁶ Beliefs about the world are not self-evident. While Iqbal is critical of a “post-modern narrative” that would deconstruct a religious tradition along historical-critical lines, what Iqbal fails to realize is that the alternative has proven unworkable by the very history of attempts to do so. The project of finding universal principles of reason have resulted not in universally uncontested first principles, but rather in numerous disputed proposals. MacIntyre argues that the evidence of this failure is

contained in the review of the books expounding them in the professional philosophical journals. The book review pages of those journals are the graveyards of constructive academic philosophy, and any doubts as to whether rational consensus might not after all be achievable in modern academic moral philosophy can be put to rest by reading them through

14. Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 3rd ed. (Chicago and London: The University of Chicago Press, 1996, 1962, 1970) 64-65.

15. Muzaffar Iqbal, “Islam and Islam: Responding to a False Approach,” *Islam & Science*, Vol. 1 (December 2003) No. 2, 224.

16. *Ibid.*, 223.

regularly.¹⁷

It is this long history of failure of the enlightenment project that has led scholars such as MacIntyre to conclude that there is no tradition-neutral vantage point from which to stand and assess reality—ultimate reality included.

Iqbal maintains that Islam is not subject to these historical-critical methodologies and limitations because it is a revelation-based tradition, and revelation stands above history. However, this fails to recognize that revelation is always historically conditioned. It is true that revelation seems to straddle the fence between ontology and epistemology. On the one hand, revelation is always an ontological extension of divine reality. Tautologically speaking, it is a *divine* revealing. In this sense, the ontological nature of the divine may remain, in some measure, inscrutable to historical criticism. On the other hand, however, revelation is always historically conditioned. Equally by definition, a revelation is always a disclosure of the divine *in the world* and *in history*. Revelation always occurs to particular persons at particular times in the epistemic language and categories available to those people in their historical circumstances. It is this historically conditioned aspect of revelation and the epistemic claims surrounding it that remains open to historical criticism.

In this sense, Iqbal is right to want to safeguard divine revelation insofar as it is an ontological extension of divine reality. Theoretically, the divine in its transcendent and revelatory mode is not subject to error or historical scrutiny.¹⁸ Human reception, interpretation, and application, however, remain subject to both. It is in this sense, that Iqbal is wrong. Islam may be the recipient of divine revelation; I do not dispute this. However, it is nonetheless a historical tradition, one constituted in human history, even if by means of divine revelation, and involving human rationality, even if in collaboration with divine revelation. The human component is inescapable. The very history of Islam, itself, bears this out. Consider the history of the question of succession and disagreement among the *Umma* following the death of the Prophet. The question of succession—who would succeed the Prophet in leading the Islamic community—constituted, among other things, a theological crisis. This was more than a question of political leadership, although I am sure it was this also. It was a question of the right spiritual path. The split within the *Umma* over ‘Alī and Abū Bakr and, subsequently, over ‘Alī and Mu‘āwiya

17. MacIntyre, *Whose Justice? Which Rationality?*, 334.

18. Notice, however, that even that is an epistemological claim subject to debate!

I during the Umayyad dynasty was a split over what constituted the correct interpretation of God's revealed text. If ever there were a clear example of the tension between ontological revelation and epistemological interpretation, it is this.¹⁹ It is this human aspect of historically conditioned discernment that always remains subject to historical criticism. This does not mean that revelation, itself, is necessarily in question; it is human understanding that is principally under scrutiny. In its best light, historical criticism is a tool, a means of moving toward a clearer understanding of the way things are, recognizing that human judgment is imperfect. This cuts both ways. On the one hand, Gutas and Reisman are right to hold Iqbal accountable to historicist criteria. When engaging in discussion of the history or philosophy of religion, especially in scholarly contexts with participants outside one's own tradition, one cannot presume assent to tradition-specific claims. This is best reserved for confessional contexts. However, Iqbal is also right in his assumption that insofar as his claims about revelation are true, they are indeed reflective of the way things are. While this last statement requires a lengthier discussion of truth that space does not permit in this article, it is safe to say, as MacIntyre does, that insofar as something is true, it is true for all times and places.²⁰

4. Conclusion

In this article, I have attempted to provide balance to the debate initiated by Gutas.

I began by questioning Gutas' contention that the original title of this publication, *Islam and Science*, constitutes a mischaracterization of the actual problem. I did so by addressing the two main parts of his argument—first, that religious traditions cannot exhibit historical agency because they are not monolithic; second, that the category of the religious is not a helpful heuristic for the discussion of science and religion. In respect to the first, I argued that religious traditions have agency insofar as the adherents of that tradition have agency. It is the process of dialectical debate and discussion over shared formative texts and voices on the part of engaged participants that constitutes both the cohesiveness and the agency of a tradition, religious or otherwise. In

19. For more details on this see, Heinz Halm, *Shi'ism*, 2nd ed., trans. Janet Watson and Marian Hill (New York, NY: Columbia University Press, 2004) 6; Liyakat N. Takim, *The Heirs of the Prophet: Charisma and Religious Authority in Shi'ite Islam* (Albany, NY: State of University of New York Press, 2006) 3-4; and Patricia Crone and Martin Hinds, *God's Caliph: Religious Authority in the first centuries of Islam*, (Cambridge: Cambridge University Press, 1986) 4

20. MacIntyre, *Whose Justice? Which Rationality?* 363.

terms of cohesion, insofar as adherents of a tradition continue to engage in debate and application of the same formative sources, they constitute the same ongoing tradition of enquiry, regardless of time or place. In this way, even agreement is not a prerequisite for cohesion; only engagement. Adherents will continue to debate over the interpretation and application of shared texts, but insofar as they remain engaged in those defining debates over shared sources, they constitute the same ongoing historical tradition of enquiry. Agency, then, results from the actions taken on the part of participants as a result of that engagement. In response to Gutas' second point, I began by questioning the underlying bias that favors categories such as ideology, history, and socio-political context over religion. I then pointed to a specific historical example from the Islamic tradition where the category of the religious was unmistakably a factor in the development of the natural sciences in Islam. I concluded that the category of religion is a necessary, though not sufficient, heuristic lens—that while there are certainly other dimensions to the discussion that Gutas is right to point out, we cannot ignore the category of religion either.

In response to Iqbal, I tried to strike a balance between the ontological and the epistemological aspects of the discussion, a distinction that I do not presume to suggest is unfamiliar to the participants in this debate. I only mean to state them explicitly for the purpose of clarity. On the one hand, there is the ontological nature of the way things are. Either there is a God, or there is not; either that God has revealed Godself, or not; either there has been a revelation to the prophet Muḥammad, or there has not; and either that revelation is a part of an ongoing revelation from the beginning of creation, or it is not. Insofar as these are ontologically the case, they are so independent of our epistemic claims about them. Iqbal is right to want to defend this. However, ontology can never be separated fully from our epistemic claims about it. More precisely, we can never escape our own tradition-dependent language and categories so as to have unhindered access to ontological reality, even (or perhaps, especially) when it comes to ultimate reality. Our claims about the nature of ultimate reality, even if they are supposedly inspired by revelation, remain open to historical critical scrutiny. On this, I am in complete agreement with Gutas and Reisman.