IQBAL, PEIRCE AND MODERNITY

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Few religious thinkers have met the challenges of modernity as successfully as Allama Muhammad Iqbal. I address his thoughts today both to honour the genius who is honoured by my close Muslim colleagues and to learn more deeply from him and from them how my people– and how all our Abrahamic community– may repair the ills introduced by modernity without diminishing the gifts received from modernity.

My first Muslim dialogue partner, Basit Koshul, introduced me to *The Reconstruction of Religious Thought in Islam*[116] in 1997. Studying Iqbal together we began a practice that led to our interest in scriptural reasoning: our way of studying Abrahamic scriptures together as a means of repairing what we considered the ills of modern academic thought. While Dr. Koshul was introducing me to the reparative theology of Iqbal, I was introducing him to the reparative logics of Charles Sanders Peirce, the American pragmatist whose work in the philosophy of science preceded Iqbal by half a century (he was born 1839 and died 1914). Our celebration of Iqbal today offers me the happy opportunity to reflect on how much these two masters share in the way they diagnose and seek to repair the ills of modernity. There are good reasons to draw the works of Iqbal and Peirce into dialogue. Peirce was the greatest philosopher and logician of science of his day, innovator of such intellectual practices as pragmatism, semiotics, and the logic of relations while also surprisingly attentive to matters of scriptural faith. As Dr. Koshul was the first to show,[117] Peirce's logic of science adds technical precision to

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[116] Allama Muhammad Iqbal, *The Reconstruction of Religious Thought in Islam*, ed. Saeed Shiekh (Lahore: Institute of Islamic Culture, 1986 [1934]). Citations will be to page numbers in this volume.

[117] Koshul comments, "My academic interests are focused on interrelating the social science of Max Weber with the theocentric semiotics of Charles Sanders Peirce and then relating this synthesis to the philosophy of religion articulated by Muhammad Iqbal." See Basit Koshul,

Iqbal's philosophy of religion and science, while Iqbal's philosophical theology adds accounts of scriptural and liturgical theology that are undeveloped in Peirce's work. This dialogue, moreover, is not just a matter of intellectual history, since the writings of both Iqbal and Peirce remain profound resources for contemporary philosophies of science and religion.[118]

To introduce this dialogue, I will re-read Iqbal's' *Reconstruction* through the lens of Peirce's pragmatism. In the interest of space, my reading will seek answers to the single most important question a pragmatist may ask today: how shall Scriptural religion respond to the challenges of modernity? When read by way of Peirce's pragmatism, I believe *Reconstruction* responds with the following nine lessons:

> Lesson #1: Scriptural religion is not shocked by radical, historical change but offers itself as teacher and guide to communities and societies facing upheaval.
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> Iqbal writes:
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> Reality lives in its own appearances; and such a being as man, who has to maintain his life in an obstructing environment, cannot afford to ignore the visible. The Qur'an opens our eyes to the great fact of change, through the appreciation and control of which alone it is possible to build a durable civilization. (R 12)

Now, Charles Peirce was first a chemist and mathematician and only later a philosopher of science with a Christian voice. He is perhaps best known for his pragmatism, a method for re-connecting the abstractions of modern

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cited in *Scriptures in Dialogue, A record of the seminar 'Building Bridges' held at Doha, Qatar, 7-9 April 2003*, ed. Michael Ipgrave (London: Church House Pub, 2004), 26. Koshul articulates this argument in his forthcoming PhD Dissertation, *Max Weber, C.S. Peirce and the Unification of the Natur and Geist Sciences* (University of Virginia).

[118] The most cited collection of Peirce's writings is Charles Sanders Peirce, *Collected Papers*, eds. Charles Harteshorne and Paul Weiss (Cambridge: Belknap Press of Harvard University, 1934). For one of several sources on Peirce's philosophy of religion, see Peter Ochs, *Peirce, Pragmatism, and the Logic of Scripture* (Cambridge, UK: Cambridge University Press, 1998).

western thought to the lived realities they are meant to serve. Peirce's pragmatism offered a means of repairing scientific and humanistic inquiries that, having forgotten their origins and purposes in everyday life, had become self-referential and self-serving. Peirce's pragmatism was taught more widely by his disciple and benefactor William James,[119] whose work introduced Iqbal himself to the psychology and epistemology of American pragmatism. Iqbal's distinction between mysticism and prophecy helps clarify the meaning of pragmatism. He writes,

> "Muhammad of Arabia ascended the highest Heaven and returned. I swear by God that if I had reached that point, I should never have returned." (1) These… words of [the] great Muslim saint, 'Abd al-Quddus of Gangoh… disclose… an acute perception of the psychological difference between the prophetic and the mystic types of consciousness. The mystic does not wish to return from the reposes of "unitary experience."… [But] the prophet returns to insert himself into the sweep of time… [His] desire is to see his religious experience transformed into a living world-force. (R 99)

In these terms we may say that pragmatism was Peirce and James' way of asking their Harvard colleagues to act less like mystics and more like prophets. For Peirce, this pragmatism was a moral imperative rather than a merely alternative school of thought because, after the Fall, intelligence is brought to life for the sake of repairing the wounds of life in this world. I believe Iqbal's pragmatic imperative was to repair Muslim society from the ill effects of modernity– without damaging its good effects. This is the work of *Reconstruction*:

> Humanity needs three things today - a spiritual interpretation of the universe, spiritual emancipation of the individual, and basic principles of a universal import directing the evolution of human society on a spiritual basis. Modern Europe has, no doubt, built idealistic systems on these

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[119] See William James, *Varieties of Religious Experience* (Scotts Valley, CA: IAP, 2009) and William James, *Pragmatism and Other Writings*, ed. Giles Gunn (New York: Penguin Classics, 2000).

lines, but experience shows that truth revealed through pure reason is incapable of bringing that fire of living conviction which personal revelation alone can bring. . . . Believe me, Europe today is the greatest hindrance in the way of man's ethical advancement. The Muslim, on the other hand, is in possession of these ultimate ideas of the basis of a revelation, which, speaking from the inmost depths of life, internalizes its own apparent externality. . . . Let the Muslim of today appreciate his position, reconstruct his social life in the light of ultimate principles, and evolve, out of the hitherto partially revealed purpose of Islam, that spiritual democracy which is the ultimate aim of Islam. (R 142)

Lesson #2: a symptom and mark of change is pain. Scriptural religion offers itself as teacher and guide to communities overcome by pain.

In *Reconstruction,* Iqbal offers an epistemological and scriptural account of pain that begins in the Qur'anic narrative of the creation of man. For Iqbal, the narrative attends to humanity's two elemental desires: the desire for knowledge, and the desire for self-multiplication and power (R 68). Both desires are seated in the form of creation itself: for the Creator is that Supreme Ego who creates all things from the smallest atom to man in the image of "ego", that is, as centres of energy and activities. They are simply varied in their degree of complexity, relationship and self-consciousness. All things therefore desire to know, or assimilate their worlds to themselves, and all things desire to repeat themselves. Thus far, the Qur'anic account could serve as Peirce's ontology, since for Peirce all things, from the smallest atom, have life and seek to know and seek to grow. But what of pain?

For Iqbal, the narrative of the Fall is not about any "moral depravity: "it is man's transition from simple consciousness to the first flash of self-consciousness… Man's first act of disobedience was also his first act of free choice; and that is why, according to the Qur'anic narration, Adam's first transgression was forgiven [2:35-37 and 20:120-122]" (R, 68 and note no. 60 p 170). The story of the tree is a story of man's temptation to ignore the fact that his freedom is bounded by finitude.

The only way to correct this tendency was to place him in an environment which, however painful, was suited to the unfolding of his intellectual

> faculties. Thus Adam's insertion into a painful physical environment was not meant as a punishment; it was meant rather to defeat the object of Satan who, as enemy of man, diplomatically tried to keep him ignorant of the joy of perpetual growth and expansion. But the life of a finite ego in an obstructing environment depends on the perpetual expansion of knowledge based on actual experience. And the experience of a finite ego to whom several possibilities are open expands only by [the] method of trial and error. Therefore, error which may be described as a kind of intellectual evil is an indispensable factor in the building up of experience. (R 69)

Iqbal's account of the tree could well serve as Peirce's anthropology. For Peirce, too, the human being lives in this world as an environment whose obstructions stimulate discovery and change and learning. Each obstruction causes the pain of doubt; doubt leads one to discover his errors, to imagine ways of correcting them, and to test these imaginings through trial and error. This process repeated again and again is the life of the scientific intellect whose distillate Peirce calls "the protean *vir,"* the really human. This *vir* or active-human grows through self-control, mediated by trial and error, and its ultimate distillate is completed science or knowledge of the real, the one real that is this created world. The Qur'anic narrative of the tree thereby provides Scripture for Peirce's account of science and of the pain of doubt that gives rise to it.

But Iqbal recognizes a second narrative, as well, in which human desire for self-multiplication and power threatens its capacity to know the world through trial and error. Satan tempts the humans to eat of the tree of Eternity and with the promise of "the Kingdom that fails not." But each self is finite so that the humans' goals of indefinite self-replication must eventually lead to the conflict of each against the other: this "brings in its wake the awful struggle of ages. 'Descend ye as enemies of one another' says the Quran (2:36). This mutual conflict of opposing individualities is the world-pain which both illuminates and darkens the temporal career of life… The acceptance of selfhood as a form of life involves the acceptance of all the imperfections that flow from the finitude of selfhood" (R 70).

Such an account! This second narrative of pain not only complements but also lends greater clarity to Peirce's account of the category of Pain or Struggle in all human experience.[120] For Peirce, the pains of both doubt and suffering belong to this category, but Iqbal offers Peirce a better means of distinguishing between them. For the twentieth century mystic Simone Weil, this is the distinction between pain and affliction. Weil notes that affliction is a condition of the spirit when, seeing no end of pain, it loses hold of good reasons for living.[121] In these terms, Iqbal's account of the "awful struggle of ages" may be an account of affliction. Beyond the frustrations that are prompted by "an obstructive environment" and that stimulate scientific inquiry, this is the pain that follows war and gives rise to despair. May we say that the difference between these two pains marks the difference between the way modernity contributes to our civilization (refining how we may reason scientifically in response to obstructions) and the way it burdens our civilization (forgetting the reparative purpose of science and thereby leaving so many obstructions in place)? May we say that, for both Iqbal and Peirce, modernity offers instruction in the pain of individualized consciousness, which brings free choice and critical reason? But that modernity also brings the risk of self-serving consciousness, which divides the world into the destructive dichotomies of mere self and mere other and which breeds affliction, beyond pain? If so, then Lesson #2 also introduces one of modernity's defining inner challenges: the challenge of human freedom, not just in modernity but also in the creation of humanity. One of Iqbal's profound contributions is to criticise and repair modernity but only as one must criticise and repair every epoch of human life. Modernity is therefore a problem only because we are modern, just as tradition is a problem when we are traditional and theology when we are theologians. From this perspective, Iqbal provides Qur'anic instruction in how to mend a divided world without

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[120] In his phenomenology– or foundation for logic– Peirce identified three categories of all human experience. He called these "Firstness" (the category of pure possibility or quality or spontaneity), "Secondness" (the category of pain, which he identified with radical separation or dividedness), and "Thirdness" (the category of relation and mediation, which includes all relations of meaning and signification). See, for example, Charles Peirce, "The Universal Categories," in *Collected Papers* Vol. I Par. 41ff.

[121] Simone Weil, *Waiting for God* (Harper Perennial Classics, 2009).

dividing ourselves from the present world. This is to accept the pain of learning while disciplining oneself from becoming an agent of affliction. Reframed in these scripturally elevated terms, Peirce's pragmatic lesson is that to repair affliction without re-imposing it is to repair afflicted creatures (institutions, bodies, or civilizations) through rules of repair that are immanent in them– even if also hidden from view. But how?

Lesson #3: when confronted suddenly by something as different and threatening and potentially undermining as the afflictions of modern civilization, before anything else: Pray.

Just after his discussion of Adam's fall, Iqbal adds this: In contemplating the end of humanity's struggle of the ages, of self against self, "we are passing the boundaries of pure thought. This is the point where faith in the eventual triumph of goodness emerges as a religious doctrine. 'God is equal to His purpose, but most men know it not' (12:21)… Religion is not satisfied with mere conception; it seeks a more intimate knowledge of and association with the object of its pursuit. The agency through which this association is achieved is the act of worship or prayer ending in spiritual illumination. The act of worship, however, affects different varieties of consciousness differently" (R, 70ff.).

Iqbal does not compose these sentences in a pragmatic voice, as if the prayer emerged as the cry of a science that recognized it had surpassed its limits and found itself in shipwreck: not just unknowing, but urgently needing to know and not knowing how. But, through Iqbal's account, prayer may indeed set the conditions for pragmatic repair. Beginning with the modern voice of William James's *Varieties of Religious Experience*, Iqbal's observes that "prayer is instinctive in its origin… the act of praying as aiming at knowledge resembles reflection… in thought the mind observes and follows the working of Reality; [while] in the act of prayer it gives up its career as a seeker of slow-footed universality and rises higher than thought to capture Reality itself with a view to become a conscious participator in its life." (R, 71ff.). A paragraph later he concludes: "The truth is that all search for knowledge is essentially a form of prayer. The scientific observer of Nature is a kind of mystic seeker in the act of prayer." (R, 73).

I read Iqbal's response to modernity as first a liturgical one, before anything else. This means that Iqbal's subject is affliction, not mere pain: not localized injustices or even oppressions, but systemic disorders that undermine a civilization's very capacity to know the world, to sponsor a science. To say "pray first" is to say that affliction is the kind of pain that undermines one's trust in all established and conventional practices for encountering the unknown. To pray first is to scrutinize each of these practices, from the everyday habits of the body to the most exacting practices of medicine and morals, to be sure that the problem cannot be resolved within one of those agencies. It is to recognize that, if no means of repair is to be found, this is a sign that one's civilization may be facing a defining moment: this will be either a time for fruitless repetition of failed orthodoxies and conventions or a time for radical renewal. If this is indeed such a time, to pray first is to summon the power of all that remains of current practices– as if to spread one's arms open heavenward as one would open one's arms in prayer –as if the current civilization's practices were a chorus of angels all at once emitting one vast collective cry to God:[122] "God, you are great! Creator, remember us Your creatures, remember who we were on the day You made us, see how far we have fallen since and how empty we are now of the Wisdom out of which You first fashioned us! Hear our prayer! Oh, deliver us Your Wisdom once again so that in Your Wisdom we might find renewed life and renewed ways of knowing You here on this earth."

In Iqbal's more humble voice, to pray first is to recognize that every science is finite, is born out of obstruction to repair that obstruction, but dies away when faced with a wholly new obstruction. One could call it a time for paradigm shifts, but only if these include paradigms that inform our consciousnesses and not just the current disciplines or fashions of our various academic guilds. I trust it is no coincidence that Iqbal introduces his account of prayer in *Reconstruction* immediately after his account of the Fall. As I read him, the first narrative of the Fall introduces science, in the broadest sense, as the human work of learning to know the world and in so

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[122] The notion of cry is suggested by David Ford. See David Ford, "Wisdom Cries," in *Christian Wisdom: Desiring God and Learning in Love* (Cambridge: Cambridge University press, 2007), 14-51.

knowing to repair the pain and struggle that gives rise to science itself… But the second narrative introduces the human-to-human violence that obstructs the pursuit of science and threatens, at times, to destroy all that science has built. This degree of violence cannot be repaired by the science of a given civilization because it is the very fruit of the freedom that also generated this science. The repair can emerge only out of a practice that uncovers the regenerative font of human freedom that informs all science. Peirce called this pragmatism –and I believe in this way he adds something to Iqbal's account. Iqbal calls it prayer and thereby adds a great deal to Peirce's account.

For the pragmatist, the intellect that oversteps its bounds is repaired, adequately, only by being called back to its origins. Within its origins is the hand of its creator, who alone knows the creature well enough to hold a balm for whatever it suffers. Now, neither Iqbal nor Peirce speak directly about the identity of this creator, since the creator's identity can be articulated only in relation to the one who asks for it and, at this initial stage of the *Reconstruction*, the one who asks is not quite ready to think outside the bounds of science, let alone to hear about God. Peirce is the more reticent of the two, since his intended readers are literally laboratory scientists and logicians, while Iqbal's audience may be touched by modernity, but they also know poetry and Qur'an. Much of Peirce's writings therefore remain within the frame of Iqbal's Chapter One, moving at times as far as the issues of Chapter Three. But Iqbal offers the scientist a quicker conversion.

> Lesson #4: To pray is already to exceed the limits of modern propositional science.

Iqbal presents the lessons of *Reconstruction* in developmental stages, so that the discourse offered in the early chapters presupposes a form of cognition and reception that will not be presupposed in the latter chapters. If I am reading him correctly, each stage of the book repairs and elevates the one before it, which also means that each stage has its own dignity and divine purpose as well as its own limits. May I conclude that each stage is thus a stage of prayer, beginning with the prayer that emerges out of the crises of modern science, turning next to the prayers of those who would repair this science? And so on? If so, Chapter One introduces what we might label

"propositional reasoning," or the science of modern civilization that has done its good work but now also faces its limits. To have limits is appropriate in this world of the initial Fall. But to ignore those limits is not appropriate. Chapter One identifies the limits of propositional science, warns gently of the dangers of overstepping them and concludes by introducing the remedy for overstepping: prayer itself encountered first in the simple acknowledgement that one's practice of science has reached an impasse and the unknown, for now, remains unknown.[123]

> The truth is that all search for knowledge is essentially a form of prayer. The scientific observer of Nature is a kind of mystic seeker in the act of prayer. Although at present he follows only the footprints of the musk-deer, and thus modestly limits the method of his quest, his thirst for knowledge is eventually sure to lead him to the point where the scent of the musk-gland is a better guide than the footprints of the deer. This alone will add to his power over Nature and give him that vision of the total-infinite which philosophy seeks but cannot find. (R 73)

> Lesson #5: To pray in response to the limits of modern philosophy is to test the capacities of modern reasoning to address the unknown.

Chapter Two presents itself as a "philosophical test of the revelations of religious experience," from the scholastic arguments for the existence of God to Bergson's account of pure temporal duration. Re-read in light of Peirce's pragmatism, however, Chapter Two would seem to bear a somewhat different fruit. On one level it would enable readers to sense an at-homeness

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[123] In this way, Chapter One of the *Reconstruction* corresponds to Part I of Franz Rosenzweig, *The Star of Redemption*, trans. Barbara Galli (Madison: University of Wisconsin Press, 2005), where the reader is addressed as if she or he could be burdened by a reductively modern consciousness. We may take this to mean someone who thinks, in western secular fashion, only through modern propositional thought. For Iqbal, this is someone for whom the commanding word of the Qur'an would be confrontational, contradictory, paradoxical, or mute. Iqbal does not confront such a reader, however. Even more ironically than Rosenzweig, he reflects back to the reader the limitations, if not contradictions, that are intrinsic to the modern propositional model of reasoning when it is applied beyond its proper domain.

in modes of reasoning that exceed the limits of propositional science: we come to recognize that these rationalities apply to the natural world. On another level, it would challenge readers to move from open-ended prayer to dialogue with the Unknown. Within that dialogue, it would encourage them to inquire after characteristics and names by which the Unknown might be recognized and called. One need not look too deeply beneath the plain sense of Iqbal's writing to recover this pragmatic reading. Chapter Two begins, for example, with propositional reasonings about religious experience (the classic arguments) and ends with several early forms of post-propositional reasoning –such as organicist approaches to biology (such as Driesch's) and process theories of space and time (such as Whitehead and Bergson's).[124] While presented as means of testing the reality of religious experience, the effect of Iqbal's reasoning is, in each case, to test the capacity of a given scientific paradigm to frame questions about the Unknown. If I am right about this, then Peirce's logical studies of the 1880's and on would have significantly strengthened Iqbal's claim. Peirce would have urged him, for example: a) to be more cautious about framing a model like Bergson's *durée* as potentially adequate to religious experience; b) to be more cautious in fact about framing an experience as "religious," since each of these frames becomes proposition-like, predicating something ("religious") of something ("this experience"); c) instead, to propose and test ways of probing what is unknown. He might then evaluate each probing (like *durée*) as either useful or not useful as a means of advancing one step from some crisis of knowledge to some new way of knowing. As for the probing named "God," that is the subject of another lesson.

> Lesson #6: To pray in response to the limits of science is to interrogate the radically unknown.

This brings us to Chapter Three. Appropriate to a dialogue that is not yet finished, Chapter Three introduces the now scientific reasoner, still uncertain

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[124] It could well be argued that these approaches, like Einstein's theories of relativity, belong still to the modern project and within the limits of propositional calculi. Iqbal's intent, however, is to look beyond these limits, as illustrated by his interest in Heisenberg and Planck (R 55-56). His turn is therefore to post-Newtonian sciences built on logics of probability.

of precisely where he or she is going, to liturgy. The defining relationship in *Reconstruction* is indeed between scientific reasoning and what our Jewish philosopher (and friend) Steven Kepnes calls "liturgical reasoning."[125] Liturgy begins in prayer; prayer, most simply put, begins in petition; and the scientific reasoner engages in petitionary prayer as soon as he or she names something out there "unknown" and asks "how can I know you?" In other words, "What in fact leads me forward from reasoning as I know it to a reasoning I do not yet know?" For the scientist, it is in this prayer environment that the phenomenological face of *ayaat* is first encountered: that which, on the divine side, is always already known to be divine sign and which, on the side of human experience, remains some series of phenomena that exceed our comprehension but not our capacity to ask questions. This sign is a response to questions that we can formulate but cannot yet answer.

> Prayer, then, whether individual or associative, is an expression of man's inner yearning for a response in the awful silence of the universe. It is a unique process of discovery whereby the searching ego affirms itself in the very moment of self-negation, and thus discovers its own worth and justification as a dynamic factor in the life of the universe. (R 74)

Liturgical knowing includes interrogative knowing (a category best examined in our friend Robert Gibbs' book *Why Ethics?*).[126] This means asking questions that could be answered because they are probative, and to ask a question presupposes a degree of knowledge**.** Along with asking comes faith: to ask is to trust that, though we enter the dark, what we know can lead us forward if we ask the right questions of what we do not know. Knowing therefore includes discrimination, recognizing the difference between what is known and not known. It means calculation and judging probabilities. Finally and most significantly, it means relationship. *We are in relationship with what is not known.* There is therefore no simple binary between knowing and not knowing; and, if the known/unknown is not a binary relation, then no

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[125] Steven Kepnes, *Jewish Liturgical Reasoning* (London: Oxford University Press, 2007).

[126] Robert Gibbs, *Why ethics? Signs of Responsibility* (Princeton: Princeton University press, 2000), 3-6.

feature of our knowing belongs to a simple binary. That is the signal feature of Lesson #6. Ignorance is a stage of knowing and therefore of relationship.

That conclusion is central, as well, to Peirce's logical and philosophical work. For Peirce the pragmatist, the urgent purpose of logic is not to help us map what we already know but to guide our walking forward into the dark: to guide our probative ways of inquiring after what we do not know, even when our ignorance pains us the most and imperils us. By way of illustration, Peirce's logic of vagueness guides the study of indefinite things; his logic of relatives guides the study of predicates as yet unmarried to specific subjects; and his logic of relations guides the study of bonds, between chemicals or between persons; in the latter case this includes the study of faith and trust as well as bonds to the Unknown.[127]

> Lesson #7: The pragmatist's prayer is personification: an open hand and an outstretched arm, or prayer for the renewal of person to person relationship, including the renewal of law (*shariah*) and the relation of creature to creature.

In Chapter Four, "The Human Ego– His Freedom and Immortality," Iqbal writes that, in the face of both traditionalist dogmatism and modern scepticism, there are strong philosophic and Scriptural grounds for recognizing the reality of the ego and for discerning its irreducibly relational character: "Whatever may be our view of the self-feeling, self-identity, soul, will– it can be examined only by the canons of thought which in its nature is relational" (R 78). Re-read in light of Peirce's pragmatism, the chapter yields what I call a prayer of personification, because it narrates the life of the creature, who, as ego or person, remains the agent of scientific judgment. Lesson #6 taught that, even in a time of profound doubt, the perplexed or afflicted reasoner still has a personal relation to the Unknown. Lesson #7 teaches that the Unknown may itself be personified, since we may, at least probatively, suppose that personal relations are established with other

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[127] See Peirce, "Issues of Pragmaticism," *Collected Papers Vol. 5.460ff.* Cf. Susan Haack, Ch 6 in *Deviant Logic* (Cambridge: Cambridge University press, 1975). Ochs, Ch. 7 in *Peirce, Pragmatism, Logic of Scripture.*

persons. The afflicted reasoner addresses the Unknown as person and speaks to him or her, not necessarily through oral human speech, but through some means or measure of interaction. To have a measure is to be known, so that the Unknown is also known to some degree. For Peirce as well as Iqbal, this knowing-unknowing is, at once, relational, vague (or indefinite), and non-absolute. To know relationally is not to know all-or-nothing, but to know however one may tend to know. This is not, therefore, the kind of knowing that can be interrogated through propositional reasoning, since that kind of reasoning requires all-or-nothing judgments (obeying the law of excluded middle as well as the principle of non-contradiction). We may thus recognize why propositional reasoning cannot provide an adequate account of the relationship between known and unknown and cannot therefore guide inquiries into the Unknown. The reasoning that will guide us is relational, personal, interrogative, and probative. But is there reason to call it "prayerful?"

Iqbal writes that,

> It is open to man, according to the Qur'an, to belong to the meaning of the universe and become immortal… Life offers a scope for ego-activity, and death is the first test of the synthetic activity of the ego… It is the deed that prepares the ego for dissolution or disciplines him for a future career… death, if present action has sufficiently fortified the ego against the shock that physical dissolution brings, is only a kind of passage to what the Qur'an describes as *Barzakh* . . . a state of consciousness characterised by a change in the ego's attitude toward time and space… in which the ego catches a glimpse of fresh aspects of Reality and prepares himself for adjustment to these aspects… The resurrection, therefore, is not an external event. It is the consummation of a life-process within the ego. (R, 94-96).

This remarkable passage leads quite a step beyond prayer, but it should provide a very vivid image of the ultimate fruits of reason's effort to interrogate the Unknown. This effort belongs to the deed that, in Iqbal's words, disciplines the ego for a further career – or that, in Peirce's words, generates the protean *vir* of intellectual self-control.

To trust that, despite present afflictions, the Unknown will eventually speak is to address the Unknown through a petition: "Please Unknown, come now, and bring me forward to you." That request is as much scientific inquiry as it is prayerful reasoning. It is a petition displayed as much in the experimental laboratory as in the mosque. Science and prayer are close because they both presuppose interpersonal relationship, petition, and knowing – moreover, a knowing that goes through our relationship to the natural world. So, what does liturgy add to science when science is characterized as petitionary? Perhaps it is that, unlike science, which treats the unknown like a person but does not usually call him a person, liturgy introduces the unknown *as* a person per se. The person speaks and speaks, in fact, in the name of the Prophet. And the person of the Prophet introduces the seeker to the person of Allah.

> Lesson #8: To pray in response to the limits of human-to-human and creature-to-creature relationships is to pray for the divine presence, alone.

Entering this Lesson, the reasoner has now most of the elements of knowing gathered about her. The reasoner now has the name of the Unknown itself, God, and by way of Scripture is beckoned to entertain at least three more dimensions of her epistemic relationship to God:

1. *Scripture speaks in the name of this God, so that the reasoner is no longer one who speaks words into the Unknown but now one who hears words spoken by the Unknown. The voice of the Qur'an confirms the reasoner's trust: yes, the Unknown will speak, and its speech is commanding.*

This is the moment of transformation. Previously, we reasoners ask and the Unknown answers. Now, however, we speak by way of scripture, which declares itself to be the voice of the Unknown, so that we are brought to observe what it is like to be on the other side. In a sense we hear what we imagine the Unknown hears from us: speech. But is this speech asking us something, rather than answering us? In fact, no: there is a great transformation taking place here, for now the speech of the Unknown– revealed as the speech of God– asks in a different way. It asks *of* us, in the sense of demanding and interrogating: who are you, what are you doing, what is your ignorance? What are you lacking? These too are questions.

2. *While the reasoner asked, "Who are you?" the Unknown answers with a demand: Act this way, and then you will know.*

Once again, the speaker asks, but now the speaker introduces himself as author of the very world of which we found ourselves ignorant. And the speaker commands. For Iqbal, the *shariah* is a condition for scientific inquiry. The scientist, in other words, does not inquire into a passive universe, demanding that it reveal its secrets to humanity. Instead, by way of the universe, the creator inquires into humanity, setting the bounds of human action and thereby setting the conditions for scientific inquiry.

> In the history of religious experience in Islam which, according to the Prophet, consists in the 'creation of Divine attributes in man'… In the higher Sufism of Islam unitive experience is not the finite ego effacing its own identity by some sort of absorption into the Infinite Ego; it is rather the Infinite passing into the loving embrace of the finite. (R, 87ff.)

3. *The Qur'an addresses its commands to the Ummah as the precondition and context for what it may demand of reasoners individually.*

> The spirit of all true prayer is social. Even the hermit abandons the society of men in the hope of finding, in a solitary abode, the fellowship of God. A congregation is an association of men who, animated by the same aspiration, concentrate themselves on a single object and open up their inner selves to the working of a single impulse. (R, 73)

Scripture speaks its commands to humanity by way of language and society. In Chapter Five, Iqbal writes, "The mystic does not wish to return from the repose of "unitary experience."… [But] the prophet returns to insert himself into the sweep of time… [His] desire is to see his religious experience transformed into a living world-force" (R 99). Peirce traced his pragmatism from the Scripture's prophetic tradition: a call to the modern academy and seminary to return to the sweep of time and to realities of worldly need and suffering. For Iqbal, this call affirms the perspicacity of modern science while recognizing how this science may be opened to prayer and scripture.

We have come full circle. Scripture opens its commanding voice to science when the obstruction that prompts inquiry is not pain alone, but affliction, as the mark of civilizational upheaval. When civilization is out of order, so too are the disciplines of science, and scientific inquiry is completed only through prayer. Science completed in prayer is science that exceeds the limits of modern propositional thinking and its binary logics. This is science for which the Unknown is a source of instruction and not just an obstacle: a science of probabilities, of vagueness, and of relation; a science through which creator and creature enter into dialogue for the sake of repairing the world, binding together Unknown and knower, creator and worshipper.

Religion In The 21st Century