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PHIL 432: Muhammad Iqbal and Charles Peirce

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Max Weber - in Conversation with Iqbal and Peirce

حقیقت ایک ہے ہر شے کی، خاکی ہو کہ نوری ہو
لہو خورشید کا ٹپکے اگر ذرے کا دل چیریں

There is one reality for everything, be it of earth or fire;

The blood of the sun will drip, if we split the heart of an atom.

- Iqbal, "Tulu-e-Islam"

In *The Reconstruction of Religious Thought in Islam*, Allama Muhammad Iqbal, in his own words, attempts to "reconstruct Muslim religious philosophy with due regard to the philosophical traditions of Islam and the more recent developments in the various domains of human knowledge" (preface). In doing so, Iqbal's work also provides a reconstruction of both Philosophy and Science, presenting us with alternative conceptions not only of God and the Universe, but also of the human Self and the nature of Reality. For Iqbal, Religion, Science and Philosophy cannot be viewed as distinct, hierarchical wholes; it is only when a relationship is established between the three, and "mutual harmonies" (Iqbal, preface) are discovered, that a better understanding of the nature and purpose of man and his universe can be achieved. Iqbal is not alone in his unorthodox thinking. One finds strong parallels between Iqbal's *Reconstruction* and the theory of Pragmatism founded by the notable philosopher,

Charles Sanders Peirce (and later developed by his student, John Dewey). Peirce, too, instead of viewing philosophy as a complete and ‘closed’ discipline, understands the need for establishing relationships between philosophy and the various domains of human experience. According to Peirce, “pragmatism is, in itself, no doctrine of metaphysics, no attempt to determine any truth of things. It is merely a *method* of ascertaining the meanings of hard words and of abstract concepts.” [emphasis added] (“Pragmatism and Islam”). Thus, Peirce’s work does not construct absolute principles; rather, he provides us with the tools required to better understand the “unity of the development of the material and organic world” (“Pragmatism and Islam”), and see the interrelationships that exist between the various spheres of knowledge and experience.

While both Iqbal and Peirce address the problems in Orthodox conceptions from the perspective of philosophy, the underlying framework, which is the root of these issues, can be found across disciplines as varied as physics, economics, literature and sociology. Consequently, this essay is divided into two parts: the first part, in light of John Dewey’s *Reconstruction in Philosophy* and *Quest for Certainty*, aims to highlight the reasons why the orthodox conception of philosophy requires reconstruction. Additionally, it will discuss the major hurdles that are obstructing this task and the strategies that can be used to overcome them. In the second part of this essay, we will turn to the work of the eminent sociologist, Max Weber, whose “Religious Rejections of the World and Their Directions” will be analyzed in light of the conceptual tools presented (and suggested) in the works of Allama Muhammad Iqbal and Charles Sanders Peirce. Both these philosophers allow us to, firstly, recognise the underlying framework that the Orthodoxies of the various spheres are based on; and secondly, to develop alternative conceptions thereby expanding our understanding of that which we aim to study. The essay will not only highlight the strong parallels between the approaches of Iqbal, Peirce and Weber, but will also attempt expand upon Weber’s insights

using the tools derived from Iqbal and Peirce. Ultimately, a juxtaposition of the works of Weber, Iqbal and Peirce will allow us to analyze the problems of immutable hierarchies and absolutism as they exist, not just in philosophy, but in all the major spheres of human experience.

According to John Dewey, early man, in his attempts to escape from peril, sought security by two means: propitiating the powers that determine his destiny (i.e. “changing his self in emotion and idea”), and inventing the arts as a means to influence the world through action (*Quest 3*). In its endeavour to be “absolute and unshakeable,” this “quest for certainty” led to the demarcation between two realms: “a higher realm of fixed reality” with which knowledge is concerned and which, being immutable, allows for complete certainty and escape from peril; and “an inferior world of changing things with which experience and practical matters are concerned” and in which a degree of uncertainty inheres (Dewey, *Quest 16-17*). This division is one that still exists today. The traditional hierarchy between the transcendental and the material (and respectively between knowledge and action) has been propagated by philosophy. The discipline has deemed its task to be that of “extract[ing] the essential moral kernel out of the threatened traditional beliefs of the past” (Dewey, *Reconstruction 18*). It has thus “arrogated to itself the office of demonstrating the existence of a transcendent, absolute or inner reality and of revealing to man the nature and features of this ultimate reality” (Dewey, *Reconstruction 23*). Dewey outlines three traits that the discipline of philosophy has had from its origin: first, the mission of rationally justifying the spirit of traditional beliefs is one that philosophy was sworn in advance to; second, philosophy resorted to “ultra-scientific argumentation” and “abstract definition” because of the lack of intrinsic rationality in the matters it dealt with; finally, since the authoritative tradition it hoped to preserve was

pervasive and comprehensive, philosophy made equally far-reaching and universal claims metaphysically (Dewey, *Reconstruction* 18, 20, 22). As a result of this self-proclaimed task – and uncritical adherence to the framework on which it is based – philosophy is now in a state of crisis.

The principal accusation against classical philosophy is its “notion that thought, apart from action, can warrant complete certitude as to the status of supreme good” (Dewey, *Quest* 18). Philosophy’s fixation with uncovering the antecedently real has allowed it to make “an over-pretentious claim to certainty” (Dewey, *Reconstruction* 21), but at the same time has done very little to actually improve the human condition. In fact, by relegating action to an inferior status, philosophy has diverted inquiry from “the purposes which experience of actual conditions suggest” and has prevented the development of concrete methods of their realization (Dewey, *Quest* 17). While philosophy claims to study the Good (i.e. the “eternally perfect” ultimate Being), notions of goodness and of other such ideal values in relation to their meaning in human life are deemed too unimportant and unworthy to be subjects of philosophy (Dewey, *Quest* 15). More so, it is due to the inferior view held of practice that questions regarding “the secure place of values in human experience” are rarely raised “in connection with the problem of the relation of knowledge and practice” (Dewey, *Quest* 31). The very meaning of ‘practical’, instead of being applied to all forms of action through which values can be secured in life and human relationships can be made more significant, is limited to material comfort and physical security thereby stripping the term of all but the narrowest sense of value and meaning (Dewey, *Quest* 32). Ultimately, rather than working towards the “relief of the human estate,” current philosophy only aims to create, in the words of Francis Bacon, “the Empire of Man over Man” (Dewey, *Reconstruction* 37, 43).

Furthermore, the hierarchical division of the transcendental and the phenomenal is one that is founded on pre-scientific, pagan views of the organization of the world. It is based

on an understanding of the world as predetermined and “closed” i.e. composed of a set number of fixed forms and having defined external boundaries (Dewey, *Reconstruction* 54). The classical conception is of a world where there is no notion of equal action and reaction; all action is one-way – from the higher to the lower – and both dignity and power are given accordingly. Essentially, then, it is a world where relationship – in the sense of real connection and mutual influence – is simply not possible. The scientific worldview, on the contrary, is of an “open world” without definite bounds, where “change rather than fixity is the measure of “reality”” (Dewey *Reconstruction* 54, 61). The world of modern Science is one of dynamism; it does away with the fixed hierarchies of the classical world and allows the existence and maintenance of multiple, simultaneous interrelationships. It is only here that evolution – in the sense of true growth and the birth of new forms – can occur, while the old conception perceived of development as merely a term for “predetermined movement” (Dewey *Reconstruction* 58). The current notion of potentiality and progress is not possible in the old conception, which, Dewey argues, is a projection of fixed feudal relations onto the physical world – a consequence of the “innermost ideals and aspirations of *distinctively Greek life*” [emphasis added] (*Reconstruction* 19, 59, 62-3). Thus, traditional philosophy promotes ideals based on ancient Greek metaphysics and pre-scientific dogmas, and real inquiry (and, consequently, progress) can occur only when it questions these, just as challenging dogmas allowed for new ideas and methodologies to develop in Science (Dewey, *Reconstruction* 75). In other words, it is only if philosophy “associate[s] [its] ideas about values with practical activity instead of with cognition of the antecedent Being” can it be useful in helping men and women make adequate judgments about what to strive for in actual life (Dewey, *Quest* 42). The Good, True and Beautiful are not simply to be conceived as properties belonging to an ultimate and supreme Being. If philosophy aims to put an end to the current crisis it has entangled itself in, if it is to be relevant to the lives of individuals once

again, then it must endeavour to ascertain the place of these values in an open, dynamic world of interrelationships and potentiality.

The primary task of current philosophy, then, is to undertake philosophic reconstruction and endeavour to resolve the problems it has exacerbated – problems that would not exist today if it weren't for “the prior uncritical acceptance of the traditional notion that knowledge has a monopolistic claim to reality” (Dewey, *Quest* 24). The paramount aim of this reconstruction is the elimination of the ancient Greek framework of demarcated realms and immutable hierarchies whereby “practical utilities” are separated from superior spiritual and ideal values (Dewey, *Quest* 30). It is only in an open, dynamic world of mutual relationships that philosophy can progress, and prove fruitful for the lives of actual men and women. Consequently, the first step that philosophers must take is to clear themselves of the responsibility of proving “whether values have antecedent Being” (Dewey, *Quest* 46) and instead to take the material world seriously, precisely *because* of its materiality. “Matter means conditions” – both the conditions of achievement and the conditions of obstruction; it is only in giving these conditions the respect and attention they deserve that philosophy can be of any import. Dewey goes on elaborate: “it is a strict truism that no one would care about *any* exclusively theoretical uncertainty or certainty” [emphasis original] (Dewey, *Quest* 38). Perhaps even graver than the reactions of others are the consequences for philosophers themselves for “to profess an aim and then neglect the means of its execution is self-delusion of the most dangerous sort” (Dewey, *Reconstruction* 72-3). This does not imply, however, that we now assume action to be inherently superior to knowledge/ thought; in doing that, we would still unwittingly be maintaining the immutable hierarchies of the Greek paradigm and (as Dewey says of Bacon) be presenting “new wine in old bottles”. Instead a dialogic relationship must be formed between knowledge and practice, between our means and ends. The aim, according to Dewey, is “the securer, freer and more widely shared embodiment of

values in experience” which is to be sought by “means of that active control of objects which knowledge alone makes possible” (*Quest 37*). The problem for post-reconstruction philosophy, then, regards the *interaction* between our judgment about our ends and the knowledge of the means for their attainment (Dewey, *Quest 37*).

In light of this, the new task of philosophy is one that deals with practical and social issues; it is concerned with institutions, and with the aims and systems of education rather than framing absolutist theories of the Universe, Reality, and Ultimate Value (Dewey, *Quest 45-6*). Consequently the questions to be asked are proximate questions, not ultimate ones: regarding the state of existence in specific temporal and spatial contexts, and the fruitful application of current authentic beliefs about existence on actual practical problems (Dewey, *Quest 37, 45*). Dewey shows how the crisis that philosophy is undergoing is social, historical and temporal in nature – it is a crisis in culture and not an issue of the adjustment of attributes of reality to one another (Dewey, *Quest 47*). Moreover, philosophy itself has, over the years, contributed to the problem it faces today. It only follows that the solutions also be provided by philosophy and that they are specific to socio-historical contexts.

We now move on to the next part of our essay. To start off, let us first summarize the arguments made by Max Weber. In his “Religious Rejections of the World and Their Directions”, Max Weber examines religion and the various worldly spheres (namely, the political, economic, erotic, aesthetic and intellectual spheres) that constitute ‘culture’. Weber creates ideal types of these spheres, discussing their supreme values and the institutions they have given rise to. Moreover, he analyzes the relationships between these multiple domains of social reality in light of their histories and traces the changing nature of these relationships given the continuous process of intellectualization that each sphere has undergone (and continues to do so). Using specific empirical examples, Weber argues that increasing systematization and rationalization of the worldly spheres has led to their “internal and lawful

autonomy” [emphasis removed] (Weber, “Religious Rejections” 328) which results in mutual tensions with the religious sphere. Weber, in creating these ideal types, analyzes the highest value of each sphere and discusses how this value manifests itself in actuality resulting in a “religious rejection” of the worldly spheres and vice versa. In the case of the economic sphere, for instance, the ideal of profit-maximization in the capitalist market allows “no personal bonds of any sort [to] exist” (Weber, “Religious Rejections” 331). This goes directly against the religious ideals of love and brotherliness, and the more rational and thus impersonal the capitalist economy becomes, “the less accessible it is to any imaginable relationship with a religious ethic of brotherliness” (Weber, “Religious Rejections” 331). Ironically, even when this ideal value is the same (as is the case with asceticism and mysticism), the differing interpretations of it and means for achieving it lead to tension and a relegation of the other to an inferior position (Weber, “Religious Rejections” 323-6). This becomes clear when Weber compares mysticism and asceticism: the mystic proves his love for God by rejecting all action as worldly while the inner-worldly ascetic proves himself *through* action in a worldly ‘vocation; thus “[t]o the inner-worldly ascetic the conduct of the mystic is an indolent enjoyment of self; to the mystic the conduct of the (inner-worldly active) asceticist is an entanglement in the godless ways of the world combined with complacent self-righteousness (Weber, “Religious Rejections” 326). Consequently, the more rationalized and defined each of the spheres (and sub-spheres) become, and the more it absolutizes its highest values, the more it distances itself from other spheres thereby coming into tension with them.

However, an examination of the historical processes of this rationalization reveals that the worldly spheres in fact emerged from the religious sphere itself and the polarity between the two is not as stark as it appears initially. Underlying the obvious differences lie deep structural similarities and these spheres, despite their difference, continue to use each other

for their own ends. Through the course of Weber's essay, these similarities, and the importance of considering the causal capacity of various cultural and historical processes, as well as the existence of multiple types of rationalities in social reality (which counters notions of absolutist world views), become quite evident.

Before we examine the 'undogmatic' nature of Weber's analysis let us first understand the aim of the tools developed by Iqbal and Peirce. Iqbal and Peirce provide us with the conceptual tools required to better understand the very framework on which orthodox philosophy (and, by extension, the orthodoxies of the various other domains of human experience) is based. Moreover, these very tools can be – and have been – used to conceptualize alternative frameworks for understanding the Self, Knowledge, the Universe, and those we consider Others. Unlike orthodox notions, these frameworks allow the possibility of various relationships between the aforementioned themes, thereby providing a better understanding resulting from an expansion of meaning. In the first few chapters of his book, Iqbal discusses the limiting nature of the classical Greek framework. He argues that while it contributed greatly to development of the outlook of Muslim scholars, "it, on the whole, obscured their vision of the Qur'an", which is "anti-classical" in its spirit (Iqbal 3). Iqbal's discussion of the Ash'arites and Mu'tazilah, and great thinkers like Ghazali and Ibn Rushd (pages 3-5) reveals that irrespective of their ultimate stance, they all based their positions on immutable hierarchies and absolutism. Ghazali, for instance, ended up drawing demarcations between Religion, Science and Metaphysics, as well as between thought and intuition. He relegated thought to an inferior position because he was convinced of its "finitude and inconclusiveness" in light of the "total Infinite in mystic experience" (Iqbal 4). By creating this absolute hierarchy, Ghazali himself drew limits to his understanding of thought and its potential relationship with the infinite. Allama, on the other hand, shows us that if one moves past such hierarchies, it is possible to conceive thought as a "whole in its

dynamic self-expression”; thought “unfolds its internal infinitude in time” like the seed that “carries within itself the organic unity of the tree as a present fact” (5).

Keeping this in mind, let us now study Weber’s arguments more closely. First and foremost, Weber gives an equal standing to each of the spheres; in keeping with the Iqbalian framework he does not absolutize the values of one sphere as a lens with which to understand the others, neither does he create hierarchies between the spheres. His discussion of each sphere is informed by the self-understanding of *that* specific sphere itself. When claiming that religion’s ideal values are love and brotherliness, Weber uses examples from within religions of salvations. Salvation religions issued imperatives based on the ethic of reciprocity, Weber argues; “externally, such commands rose to a communism of loving brethren; internally they rose to the attitude of *caritas*, love for the sufferer *per se*, for one’s neighbor, for man, and finally for the enemy” [emphasis original] (Weber, “Religious Rejections” 330). Similarly, in the case of the intellectual sphere, it is only when the sphere’s own standpoint has been clarified (in “Religious Rejections” 350-1) that Weber goes on to discuss its tense relationship with religion. This parallels Iqbal’s approach, which removes the orthodox hierarchy between Religion, Science and Philosophy; rather than promote the religious sphere as superior, Iqbal argues that “the Qur’an [...] attaches equal importance to all the regions of human experience as yielding knowledge of the Ultimate Reality [...]” (12). Iqbal makes this point in more detail in his discussion of mystical experience as a source of knowledge, contending that “the facts of religious experience are facts among other facts of human experience and, in the capacity of yielding knowledge by interpretation, one fact is as good a another” (13). Mystic experience is immediate, unanalyzable, instantaneously incommunicable, and related to common experience (Iqbal 14-18) but these very characteristics can also be found in both physical and intellectual experience as well. What’s more, mystic experience is as real as any other form of human experience precisely because

“[p]sychologically speaking [...] [t]he scientific form of mind is as much organically determined as the religious” (Iqbal 18). Finally, Iqbal argues that his claim can be proven using the same tests (the intellectual test and the pragmatic test) that are used to validate other forms of experience (21). This standpoint of Iqbal and Weber is congruent with Peirce’s understanding as well. In his discussion on the fixation of belief, Charles Peirce outlines the four main methods of fixing belief (namely, tenacity, authority, a-priori method, and the scientific method). Peirce explicitly states that he prefers the scientific method, which is the “only one of the four methods which presents any distinction of a right and a wrong way”, and through which “the ultimate conclusion of every man [is] the same” (5.384-5). At the same time, however, Peirce makes it clear that the scientific method is not to be considered more valid than the other three methods; it is not to be thought of as unequivocally better than them. He states quite clearly that “[i]t is not to be supposed that the first three methods of settling opinions present no advantage whatever over the scientific method. On the contrary, each has some peculiar convenience of its own” (Peirce 5.386). For Peirce, then, just as for Iqbal and Weber, one cannot make absolutist claims based on immutable hierarchies irrespective of one’s own position; each sphere, each method must be judged on its own terms from a position of equality.

Moreover, both Iqbal and Weber show that while each domain wishes to perceive itself as complete and self-sustaining, and more importantly, as utterly distinct from other the other spheres, there exist, in reality, various structural commonalities and overlapping relationships between them. A careful study of Weber’s work reveals that each sphere (religious and worldly) has absolutized some value as ideal and attainable only through the interpretations and methods of that specific sphere. For religion it is brotherliness, for economics it is profit, for politics it is power, for the aesthetic sphere it is beauty, for the erotic sphere it is sexual love, and for the intellectual sphere it is rationality (Weber,

“Religious Rejections” 330, 331, 334, 341, 343, 330, 350-1). Irrespective of what this value is, the relationship each sphere has with its highest value is fixed: the highest value is, for all intents and purposes, the *highest* in an unchanging hierarchy, and is to be attained at the expense of all else. For the true lover, “unique meaning” can arise solely for his “specific other” and the erotic relation offers “the unsurpassable peak of the fulfillment of the request for love” (Weber, “Religious Rejections” 347).

The structural similarity does not end here. Weber discusses another similarity between the spheres: they are all based on presuppositions that they cannot justify on the basis of their own methods. Science, according to Weber, seems “unable to answer with certainty the question of its own ultimate presuppositions” (“Religious Rejections” 355). In his “Science as a Vocation”, Weber expands this point further, stating that “[n]o Science is absolutely free from presuppositions, and no Science can prove its fundamental value to the man who rejects these presuppositions” (153). Science assumes, for instance, that scientific truth about empirical reality is “real”, it “can be known”, and it is “worth knowing” (Koshul, “Postmodern Significance” 49). The same holds true, however, not just for the intellectual sphere but also for aesthetics, politics, economics and the erotic sphere as well. Aesthetics, for instance, “seeks to find out under what conditions [art] exists” but it does not ask whether the realm of art is one of “diabolical grandeur”, hostile to both God and man; it does not ask “whether there *should* be works of art” [emphasis original] in the first place (Weber, “Science as a Vocation” 144). Similarly, the Political sphere does not question the reality of power or whether power is even an ideal worth striving for; the value of power is simply taken for granted. The same argument can be made for the rest of the worldly spheres and the religious sphere as well.

Another aspect one notices is that, according to the orthodoxies of each realm, the highest ideal can only be achieved through the methods of that sphere itself; all else is

perceived as competition or a hollow imitation of the Real. When art takes on the role of this-worldly salvation, for instance, the mystic perceives it as “diabolic”; art becomes “an ‘idolatory’, a competing power and a deceptive bedazzlement”, even the allegory of religious subjects appears as “blasphemy” (Weber, “Religious Rejections” 343). At the same time, however, religion and the worldly spheres make use of each other for their own purposes when it is expedient: in the case of the political sphere, Weber argues that, not only have religious organisations been historically entangled in power struggles but political actors have also utilized religious organisations for “taming” the masses (Weber, “Religious Rejections” 337-8).

Moreover, it is not simply that these spheres have historical, unavoidable relations with one another; one finds characteristics attributed to other spheres in the very make-up of each domain. While the orthodoxy of each realm actively denies the existence of such attributes, they form a fundamental part of the sphere. Science, for instance is perceived as completely “rational”, “empirical” and “mathematically oriented” (Weber, “Religious Rejections” 351), devoid of individual subjectivities and of irrational and anti-rational elements that are found in religion and the erotic and aesthetic spheres. Moreover, as Science becomes more and more rational, it “increasingly pushes religion from the rational to the irrational realm” (Weber, “Religious Rejections” 351). A more nuanced understanding of Science reveals, however, that Science itself is comprised of various supra-rational and anti-rational elements. Weber talks of “*belief* in the value of scientific truth” [emphasis added] (qtd. in Koshul, “Postmodern Significance” 45) that cannot be justified using empiricism and rational tools; accepting the value of Science is ultimately an act of faith. Additionally, the scientific process itself cannot be reduced to empiricism and rationality: Weber discusses the role of the idea in Science – a completely irrational element that cannot be controlled via scientific tools – without which scientific progress is simply not possible. He argues that it is

false to think of Science as a “calculation involving only the cool intellect and not one’s ‘heart and soul’”; if there is no idea in the scientist’s mind that directs his computations, the possibility of even a small result does not remain (Weber, “Science as a Vocation” 135). In Science, then, “inspiration plays no less a role [...] than it does in the realm of art”; while the quality of the scientific and artistic imaginations differs, the psychological process is predominantly the same, both, according to Weber, are “frenzy (Weber, “Science as a Vocation” 136). Moreover, one’s very ability to experience this inspiration itself depends on unquantifiable factors like destiny and the gift of grace (Weber, “Science as a Vocation” 136). Science, then, cannot be reduced to rational empiricism as the orthodoxy is wont to do so.

On the other hand, religious orthodoxies claim that Religion is based on supra-rational factors and is thereby utterly detached from Science and its tools. In fact, Religion requires a certain degree of ‘intellectual sacrifice’ since “religious knowledge moves in a different sphere and [...] the nature and meaning of religious knowledge is entirely different from the accomplishments of the intellect” (Weber, “Religious Rejections” 352). Despite this explicit stance, weber contends that “the more ‘doctrine’ a religion contains, the greater its need of rational apologetics” (Weber, “Religious Rejections” 351). Religious ethics, he argues, have a decidedly “rational character” and the quest for salvation is “intellectualist” in nature.

A comparison can be made between Weber’s discussion of the attributes of Science and Religion, and Iqbal’s analysis of the characteristics of mystical, intellectual and physical experience (discussed on page 10 of this essay). Both reveal that despite the differences that appear on the surface, there are some the deep-rooted similarities that exist in all the realms of human experience, and that a true self-understanding is only possible if one looks at each domain holistically, without ignoring aspects that go against the image absolutized by the orthodoxy. A more direct correspondence between the two thinkers becomes apparent when

one studies Iqbal's approach towards religion and science. Like Weber, Iqbal argues that Religion is perhaps even more in need of rationality than Science is: "religion stands in greater need of a rational foundation of its ultimate principles than even the dogmas of science" because "no one would hazard action on the basis of a doubtful principle" (2). Iqbal claims the affinity between rationality and belief from both the scientific and religious points of view. He quotes the eminent philosopher Alfred Whitehead who claims that, "the ages of faith are the ages of rationalism". Moreover, from the religious perspective, the search for rationality is not something imposed on religion from without in later centuries, Iqbal contends, it began with the Prophet himself. Peirce, too, contends against the stark demarcations that the Orthodoxy has created between the various domains of human experience. He claims, for instance, that thought and feeling are not diametrically opposed to each other; rather, emotion, for Peirce is the "warp and woof of cognition [...] even in the objectionable sense of pleasure and pain" (qtd. in Parret 168). In fact, scientific philosophy does not exist for Peirce unless intuitive feelings are given their proper place alongside intellect (Koshul, "Muhammad Iqbal" 15). Thus, a close study of the works of Weber, Iqbal and Peirce brings to light the inherent affinity between the various domains of human experience and highlights the necessary existence of multiple relationships between them if one looks past the Orthodoxy's tendency to absolutize and hierarchize.

Moreover, Weber's 'Religious Rejections' reveals that even this creation of an impermeable boundary between the Self and the inferior Other becomes possible only if one completely disregards the historical development of each sphere. Growing tensions between the spheres are a result of increasing rationalization whereby it becomes possible for each sphere to proclaim itself as immutable and independent in light of the other spheres. In the case of religion, for instance, "tension has been [] greater the more religion has been sublimated [...] towards 'religious absolutism'" (Weber, "Religious Rejections" 328). The

same is true for the worldly spheres as well: tensions between the spheres have resulted from the “rationalization and conscious sublimation of man’s relations to the various spheres of values” which have worked towards “making conscious the *internal and lawful autonomy* of the individual spheres” [emphasis original] (Weber, “Religious Rejections” 328). Even a cursory look at history reveals the interconnected and interdependent past of the value spheres. If one goes far back enough, in fact, it becomes difficult to even distinguish one sphere from another precisely because such demarcations did not exist – the effects of this are evident even today. Contemplative seclusion has established entire districts for begging (e.g. in India), and temples and monasteries have been and continue to be “the very *loci* of rational economies” [emphasis original] (Weber, “Religious Rejections” 332). In the aesthetic sphere, “religion has been an inexhaustible fountain of opportunities for artistic creation”, whether in the form of religious artifacts, holy singers and dancers or the architecture of temples and churches (Weber, “Religious Rejections” 341). Similarly, the Protestant scientific worker conceived of his task as the duty to “show the path to God” (Weber, “Science as a Vocation” 142).

Thus, Weber’s focus on historical contextualization complements Iqbal’s stance of dissolving impermeable boundaries and immutable hierarchies as it shows that dynamic relationships are necessary for progress in the real world. Iqbal too argues for (what we may term for the purpose of this essay) ‘cross-reference’ as a means to self-affirmation. In other words, he demonstrates how absolutism, in the process of negating the other, prevents a dynamic relationship with them and one’s only reference remains the unchanging self (i.e. self-reference). In the case of Religion, Science and Philosophy, for instance, each domain judges itself, the other two spheres and the world at large based on its own texts, criteria and suppositions, thereby preventing dialogue and growth. Thus, it is not simply a hierarchy that is fixed; the very ideas we have become static and incoherent in light of changing reality.

Self-reference, in the process of negating the other, results in a negation of the self as well. It is only with the creation of relationships whereby each discipline's self-understanding is informed by knowledge of the other that genuine progress and self-affirmation is possible. The dissolution of absolute hierarchies and a focus on cross-reference are therefore necessary for a comprehensive view of Reality. In keeping with this, Weber states: "...so long as life remains immanent and is interpreted in its own terms, it knows only of an unceasing struggle of these gods with one another" (Weber, "Science as a Vocation" 152) – these "gods" being those of the "different worldly value spheres [that] are engaged in irreconcilable conflict (Koshul, "Postmodern Significance" 18).

Weber's discussion of the religious sphere provides further examples of self-negation and the creation of internal inconsistencies as a consequence of self-reference. The Puritan ethic of 'vocation' essentially "renounced the universalism of love" – which is one of Religion's highest ideals – and "rationally routinized all work in this world into serving God's will and testing one's state of grace" (Weber "Religious Rejections" 332). Since the material world was perceived as completely God-willed, one's socio-economic position became a sign of the presence (or absence) of the grace of God. In principle, this meant that salvation was no longer a goal attainable by everybody as grace was always "particularized" (Weber "Religious Rejections" 332-3). Puritanism thus not only went against the ideal of love but also ended up maintaining a "standpoint of unbrotherliness", no longer remaining "a genuine 'religion of salvation'" (Weber "Religious Rejections" 333). By resorting to absolutism and the creation of immovable hierarchies, Puritanism went against the very values religion proclaims to defend. Similarly, by preventing any genuine relationship with the material world and the various realms that exist within it, mysticism too ultimately negates the value of brotherliness. This is because a close analysis reveals that the "benevolence" of the mystic does not truly care about the person "to whom and for whom it

sacrifices”; ultimately, “mysticism is not interested in his person” (Weber, “Religious Rejections” 333). The mystic’s “objectless devotion” is entirely for the sake of devotion itself (Weber, “Religious Rejections” 333); this “acosmic” love for all is in essence a love for none.

Consequently, it is only when the different Orthodoxies allow the organic development of dialogue with the other realms of human experience, and rather than claiming one value to be supreme, accept the various facets and diverse values existing within their own domain (e.g. faith in Science) that the internal incoherencies of each can be resolved and genuine progress is possible. Weber argues, for example, for a value-free Science. This stance is clarified by Löwith, who explains that by ‘value-free’ Weber meant that Science’s “value-judgments were to become decisive, logically consistent and self-reflexive, rather than remaining concealed, both to others and to science itself, under the cloak of “scientific knowledge”” (qtd. in Koshul, “Postmodern Significance” 47). In essence, Weber aims to “bring those extra-scientific criteria of judgment into the scientific equation...” that the Orthodoxy conveniently renounces (Löwith qtd. in Koshul, “Postmodern Significance” 47).

This argument can be extended to all the spheres under discussion, both religious and worldly. On its own, each sphere provides only a limited experience of Reality, and if one perceives these spheres as distinct entities without interrelationships, one is left with a fragmentary, incoherent worldview. In this respect as well, Weber’s views are congruent with the Iqbalian perspective. Weber states: “knowledge of social laws is not knowledge of social reality but is rather *one* of the various aids used by our mind for attaining this end...” [emphasis added] (qtd. in Koshul, “Postmodern Significance” 47). Knowledge of social laws, then, is simply a tool that helps us understand one facet of Reality rather than providing a total worldview. A complete picture of Reality can only be achieved if the various domains of human experience are considered as existing in mutually reinforcing relationships. Similarly, Iqbal argues that Science “is not a single systematic view of Reality”; rather, it is,

by nature sectional (33-4). It is in fact Religion which “is an expression of the whole man” and “which demands the whole of Reality” (Iqbal 2,34). To this end, then, both Science (as described above) and Philosophy (whose task is to “trace the uncritical assumptions of human thought to their hiding places” (Iqbal 1)) are necessary ‘aids’ in the “synthesis of all the data of human experience” (Iqbal 34) – as demanded by Religion. The necessity of accounting for all facets of experience and their interrelationships is evident in Charles Peirce’s philosophy as well. In “The Seven Systems of Metaphysics”, Peirce discusses the categories of “Firstness”, “Secondness” and “Thirdness” or Quality (object), Reaction (interpretant) and Representation (sign) (179). Most philosophies disregard at least one of these categories: Nihilism accepts only Firstness, Hegelianism only Thirdness, and Cartesianism accepts Secondness and Thirdness but rejects Firstness (Peirce 180). Peirce, however, argues that object, sign and interpretant are all real; in fact, they are all *equally* real, to the extent that it becomes impossible to genuinely understand one in the absence of the others. The importance of interrelationships becomes even more evident in Peirce’s analysis of thought, belief and action in his “How to Make Our Ideas Clear”. Peirce defines belief as that which shapes our desires and our actions; the feeling of believing is a definite sign that there exists in our nature some habit which will determine our actions. (5.371). Moreover, it is a calm and satisfactory state that we do not wish to avoid or to change to a belief in anything else (Peirce 5.372). The prerequisite for attaining any kind of belief, however is doubt. On the other hand, Peirce describes thought as an action with a “beginning middle and end and consists in a congruence in the succession of sensations which flow through the mind”; it is by nature tangible and practical (5.395, 5.400). Finally Peirce comments on the character of action: action is that which occurs as a consequence of thought and belief. Thus, a different belief will necessarily lead to a different sort of action. Peirce argues that “every stimulus to action is derived from perception [...and] every purpose of action is to produce some sensible

result” (5.400). What becomes clear ultimately is that one cannot understand belief, thought or action in isolation because their workings are inextricably linked. Peirce states, “action of thought is excited by the irritation of doubt and ceases when belief is attained; so that the production of belief is the sole function of thought” (5.394). Moreover, thought in action is a part of belief and “whatever does not refer to belief is not part of thought itself” (Peirce 5.396) and, consequently, cannot lead to action. In short, “belief is a rule for action” and its application involves both further doubt and further thought (Peirce 5.397). In essence then, Peirce’s philosophy is based on the dissolution of fixed hierarchies and establishment of cross-reference as well. These become the necessary condition not simply for addressing the heightened tensions that currently exist between and within the spheres, but also for a comprehensive, internally consistent view of the human Self and the Reality around us.

It is important to address one concern at this point. Weber’s work carries multiple implications of the need to eliminate fixed hierarchies of promote cross-reference. At certain points, however, Weber also suggests that while the different realms were heavily interdependent in the past, future relationship and dialogue between them may not be possible. He says, for instance, that “...the various value spheres of the world stand in *irreconcilable* conflict with each other” [emphasis added] (Weber, “Science as a Vocation” 147); elsewhere he states, “...the tension between the value spheres of ‘science’ and the sphere of the ‘holy’ is *unbridgeable*” [emphasis added] (Weber, “Science as a Vocation” 154). Moreover, he claims to be in agreement with “the elder Mill, [...who] said: if one proceeds from pure experience, one arrives at polytheism” (Weber, “Science as a Vocation” 147) i.e. fragmentation as a result of the “struggling gods” of the various spheres. Thus, despite the fact that Weber’s work provides us with unorthodox understandings in keeping with the views of Iqbal and Peirce, here Weber himself puts limits on inquiry by making absolute statements. As harsh as it may sound, Weber (unwittingly?) commits what Peirce

calls the “venomous error” i.e. “block[ing] the way of inquiry” (1.135-6). One of ways this error takes shape is in the form of “absolute assertion” (Peirce 1.137) i.e. stating that something is so and so without any degree of doubt. Hence, Weber’s assertion that the gap between the realms is “unbridgeable” and that their problems are “irreconcilable” can be seen as a clear example of this error.

Furthermore, in light of Iqbal’s work one sees that it is possible to conceive of an alternative understanding not only of the various spheres but also of the notion of experience itself; the entire *Reconstruction* is in fact an attempt to do just that. In the preface of the *Reconstruction*, Iqbal declares that his aim is to address “the demand for a scientific form of religious knowledge”. More so, he states – as if in direct response to Weber’s statement – “the day is not far off when Religion and Science may discover hitherto unsuspected mutual harmonies” (Iqbal Preface). A clear example of Allama’s attempt to bridge the supposedly ‘unbridgeable gap’ between Science and Religion is his reconstruction of the understanding of experience. He argues that experience exists at three levels, namely, the level of matter, the level of life and the level of mind and consciousness – studied by physics, biology and psychology respectively (Iqbal 26). The entire second chapter of the *Reconstruction* provides alternative, unorthodox perceptions of matter, life and consciousness (based on data from within natural sciences themselves) that make it possible to view the Universe as a symbol and an act of God (and hence to see that Religion and Science are in fact interdependent parts of a whole). Let us look at Iqbal’s discussion of experience at the levels of life and consciousness, for instance.¹ The orthodox conception of life proposes a mechanistic theory that views life as self-maintaining, self-producing machines without ends or purposes (Iqbal 34). To state an event in mechanistic terms is “to state it as a necessary result of certain simple properties of separate parts that interact in the event” (Haldane qtd. in Iqbal 35). This

¹ Due to limitations of space it is not possible to discuss Iqbal’s complete argument

assumes firstly, that the interacting parts have definite and simple properties and, secondly, that these properties invariably react in the same way under the same conditions (Haldane qtd. in Iqbal 35). Evolution, therefore, is a chance event that occurs by random mutation as the living being has no intelligence and no purpose; it plays no part in determining its own life. Thus, the mechanistic theory ultimately means that meaning cannot be attached to life.

Allama rejects this theory using the works of Haldane, Driesch and Carr. Haldane shows that a self-reproducing ‘mechanism’ cannot be viewed as a mechanism at all since it would not constitute of parts; the mechanisms of the parent reconstitute themselves at each generation during reproduction (qtd. in Iqbal 35). Driesch adds to this claim by discussing the factual wholeness of life and stating that – unlike a machine – living beings possess a career i.e. their activity can only be explained with reference to a remote past found in spiritual reality, and they have ends and purposes in life (Iqbal 35-6). It can be asserted then that life is “foundational and anterior to the routine of physical and chemical processes which must be regarded as a kind of fixed behaviour...” (Iqbal 36). Finally, Iqbal refers to Carr’s argument which shows that if intellect is viewed as a result of the evolution of life, then life – which can evolve intellect as a mode of understanding reality – must be more concrete than any abstract mechanical movement which intellect can present to itself by analysis (36). Allama thus shows the primacy of thought and intellect in life, which cannot be viewed merely as a mechanism constituted by separate parts. Thereby, he presents a dynamic theory of life in which conscious experience is an organic whole and creative activity is free activity, and by its nature opposed to repetition. Thus Iqbal ties to the Qur’anic conception of man as “a creative activity, an ascending spirit who, in his onward march, rises from one state of being to another” (10). Iqbal quotes Surah Ar-Ra’d of the Quran: “Verily God will not change the condition of men, till they change what is in themselves” (10), highlighting the freedom human beings have to choose their destiny (i.e. they play a role in determining the directions

of their lives). It is the lot of man, Iqbal says, “to share in the deeper aspirations of the universe around him and to shape his own destiny as well as that of the universe” (10). Ultimately then, man’s life and the “onward march” of his spirit depend on the connections and the relationships he has with the reality that confronts him. A reconstruction of our understanding of experience and of Science, Philosophy and Religious Thought thus allows the resolution of the “irreconcilable” differences that exist according to Weber.

In conclusion, it can be said that the tendency to create absolute hierarchies and base one’s understanding of the Self and the surrounding Reality solely on self-reference is one that exists across the various realms of human experience. Each domain has certain fixed dogmas that are preventing progress and thus need to be critically examined to avert the immanent crisis. However, thinkers like Weber, Iqbal, Peirce and Dewey are proof that this critical examination is already underway and is being carried out by individuals from within these disciplines themselves. Such thinkers make it possible to conceive of a world where each sphere is more reflexive and more aware of its interdependence on the others; they allow the possibility of a more consistent and coherent understanding not only of the Universe and the Reality around us, but also (and perhaps more importantly) of our own Selves and our relationship with this Reality that confronts us.

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The Scientific Imagination

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Final Essay

The biggest scientific delusion of all is that science already knows the answers. The details still need working out but, in principle, the fundamental questions are settled (Sheldrake Introduction). This delusional thinking, according to Rupert Sheldrake, author of 'Science Set Free', is holding back scientific inquiry and discovery. Sheldrake identified 10 beliefs amongst the scientific community that have hardened into dogmas. According to him, if these beliefs were examined critically and questioned then science would be 'better off'. Some of the dogmas that Sheldrake mentions are challenged in the film 'The Man Who Knew Infinity' and the documentary 'Alive Inside'. 'The Man Who Knew Infinity' chronicles the life of Srinivasa Ramanujan, a genius mathematician from India, and his quest to get his discoveries published and the subsequent challenges he faced. 'Alive Inside' portrays patients who suffer from dementia and the role of music in helping them regain some of those memories that they previously thought were lost. This essay will, firstly, identify the dogmas that are challenged by these two films. Secondly, it will examine these dogmas in the light of the texts of Charles Sander Peirce, Max Weber and Henry Poincare and assess their validity.

One of the dogmas that 'The Man Who Knew Infinity' challenges is that 'unexplained phenomenon such as telepathy are illusory'; the 9th dogma identified by Sheldrake. In the context of the film, the unexplained phenomenon would be intuition based thought approach or divine inspiration. From the start of the film, we observe that Ramanujan had no prior knowledge or any sort of foundation in mathematics. Yet he had discovered mathematical theories that are still employed in the discipline today. The most pertinent example of this in the movie was the scene in which Ramanujan was part of a lecture taught by Mr. Howard. Ramanujan was not taking any notes in class but was listening attentively. Mr. Howard, disturbed, asked him to come up to the board upon which Ramanujan completed the proof for the problem. Mr. Howard asked him as to how he knew the solution upon which Ramanujan said 'I don't know. I just do.' Ramanujan's explanation for this odd behavior was a sort of divine inspiration. For Ramanujan, his faith had a crucial part to play in his mathematical discoveries. Later on in the film, Ramanujan says to Hardy "You want to know how I get my ideas? My God. Namagiri. She speaks to me. Puts formulas on my tongue when I sleep. Sometimes when I pray." (1:25:24-1:25:40). This sort of divine inspiration is usually dismissed and considered to be false. However, Ramanujan's life and work goes to show otherwise.

Another dogma challenged in 'The Man Who Knew Infinity' is that 'the laws of nature are fixed. They are the same today as they were at the beginning and they will stay the same forever', the 4th dogma mentioned by Sheldrake. Within the context of this film, the dogma can be rephrased to 'Certain laws are fixed and will stay the same'. This dogma is brought into question when the film portrays Ramanujan's and Hardy's quest to devise a formula that would give the number of partitions of any positive integer. However they faced opposition from Major Percy McMahon, the head of combinatorial mathematics, who claimed that such a formula could never

be devised. Ramanujan and Hardy eventually did end up proving McMahon wrong and the formula they developed is still being used today. If they had heeded McMahon's advice they would have never worked towards such a formula which would have not resulted in such breakthroughs.

Lastly, 'Alive Inside' challenged the 10th dogma that Sheldrake writes about which is that mechanistic medicine is the only kind of medicine. The documentary is about patients who suffer from dementia. In a nursing home, social worker Dan Cohen, wanting to bring about a change, starts providing the patients with musical therapy. Many of the patients start listening to songs that they listened to in their youth. Remarkably enough, the patients start to remember some of their past memories associated with the music which they were unable to access before. No mechanistic or conventional medicine had helped in bringing back such memories. Dan's approach challenged the notion that illnesses and diseases can only be treated by medicine that comes in the form of tablets or dosages.

These dogmas mentioned above, are better understood when thought of after reading the two texts 'Notes on Scientific Philosophy' by Charles Sander Peirce, a philosopher and mathematician amongst other things, and 'Science as a Vocation' by Max Weber, a well renowned sociologist and philosopher. The three dogmas will be discussed at length below with reference to these readings.

Ramanujan never had any formal education in the field of mathematics and yet made breakthroughs that have changed the discipline. He claimed that he owed many of his discoveries to intuition and God. In his own words: "An equation has no worth to me unless it expresses a thought of God". This process of revelation or divine inspiration was crucial for Ramanujan. Revelation is discussed by Charles Sander Peirce in his text, which focuses on the true definition

of philosophy, the tools required to study it as well as the tools for scientific inquiry. He goes on to mention revelation and reasoning as a means of scientific inquiry. He writes: "Somebody will suggest revelation. There are scientists and people influenced by science who laugh at revelation; and certainly science has taught us to look at testimony in such a light that the whole theological doctrine of the evidences seems weak. However I do not think it is philosophical to reject the possibility of revelation" (Peirce §5 143.). Peirce recognizes the importance of revelation as a means of scientific inquiry. But he also expresses some concerns regarding the authenticity of revelation. He wrote: "I declare as a logician that revealed truths-that is truths which have nothing in their favor but revelations made to few individuals-constitute by far the most uncertain class of truths there are" (Peirce §5 143.). The main reasons for this declaration were the spontaneous nature of revelation as well as the fact that it could be subject to human distortion, thus bringing into question its validity. This concern of Peirce's is mirrored by Hardy's attitude and mathematical work ethic. Despite Ramanujan's breakthrough formulas, Hardy insisted that Ramanujan write down proofs for his discoveries. If he did not do so, there would be no point in publishing Ramanujan's work as no one would believe it. In other words, Ramanujan had the idea but Hardy pushed him to subject the idea to experimentation and bring it into a concept form. This process is discussed by Max Weber, who stressed on the importance of both ideas and rational experimentation. According to him, the concept or intuition would open up the way of knowing but rational experimentation was necessary (Weber 8). Hardy thought this necessary which it proved to be as sometimes Ramanujan's theories failed to hold up when Hardy asked for proofs. An example of this would be the prime number theorem. Ramanujan's theory that upon comparing the prime number approximation to the actual number of prime numbers would predict that the approximation moves higher was not right as it would sometimes

predict less, not more, than the actual number of primes. This was pointed out by Hardy's close friend, Mr. Littlewood. Littlewood's proof was in direct contradiction with Ramanujan's claim. Hardy said to him: "No, because, however intuitively obvious it may seem, when subject to calculation, it fails" (1:00:50-1:00:55). This shows that the intuition based approach did not always work in Ramanujan's favor and gives credence to Peirce's misgivings regarding the authenticity of revelation. Ramanujan's approach was best complemented by Hardy's approach of providing meticulous proofs.

At this point, it is fitting to mention Henry Poincare's text 'Mathematical Creation'. Henry Poincare was a mathematician, physicist and philosopher who had made important contributions towards these fields. In the text 'Mathematical Creation', Poincare, while referring to his own experiences at the time that he was pondering over Fuschian functions, discussed the importance of unconscious work or the sudden inspiration in mathematical creation. According to him: "Most striking at first is this appearance of sudden illumination, a manifest sign of long unconscious prior work. The role of this unconscious work in mathematical creation appears to me incontestable, and traces of it would be found in other cases where it is less evident"(Poincare 90). Poincare establishes that intuition and inspiration have an important role to play in mathematical creation. However, he also gives equal importance to the role of conscious work in the process of mathematical creation. Unconscious work can only be of use when it is preceded by a certain period of time devoted to working towards the goal consciously. The conscious work starts the unconscious work in the brain which, later on, takes a conscious form (Poincare 90). Poincare also stressed upon the necessity of verification on those ideas that appear as a revelation as he also recognized that many of his own ideas that had come to him did not hold up at the time of verification. This shows the necessity of both an intuition based approach and a

meticulous verification based approach towards any problem in any discipline. This was also discussed by Weber who wrote: "The idea is not a substitute for work; and work, in turn, cannot substitute for or compel an idea, just as little as enthusiasm can" (Weber 5). So it is seen that revelation/inspiration/intuition have, in Ramanujan's case, paved the path to scientific inquiry and to dismiss these phenomena as illusory would not be beneficial in the pursuit of scientific inquiry. However, intuition alone does not always reveal favorable results as is discussed in Peirce, Weber and Poincare's readings.

The next dogma challenged in 'The Man Who Knew Infinity' is that certain laws are fixed and can never be changed or adjusted. Mathematics is considered the language of the universe. The laws of nature are defined mathematically. Yet even in the field of mathematics there cannot be any certainty or exactitude as pointed out by Peirce who employs the example of Euclid. He writes 'Euclid, be it observed, never pretended they were evident; he does not reckon them among.... things everybody knows, but among the postulates or things the author must beg you to admit' (Peirce §2 130). How can the laws of nature be certainly fixed when even in mathematics there is no certainty? An example of changing laws is that of Hardy and Ramanujan's successful attempt at creating a formula to find the number of partitions of a positive integer, which was previously thought of as impossible by the expert in this field, Percy McMahan, who insisted that it would and could only be solved by manual calculation. McMahan said: "You fail on primes then turn around and think you can crack partitions? Can't be done. I'm telling you" (1:09:20-1:09:25). Absolute assertion, as in McMahan's case, is criticized by Peirce in his text. He continually mentions that the way to scientific inquiry should not be blocked, as that is a 'venomous error'. This error comes in many forms. One of them is, in Peirce's words: "The second bar that philosophers often set up across the roadway of inquiry lies in maintaining that

this, that and the other can never be known" (Peirce §4 138.). The reason that this declaration is harmful is because it completely blocks an avenue of research and discourages any further study in that area. Maybe in a later point in time new resources might help in giving us the answers to the questions we cannot answer today. But to say that the answers can never ever be known is an ignorant statement. Another form of the venomous error is when it is thought that any law has attained its final form and is complete. This is in line with the thought mentioned by Sheldrake who noted that many scientists believe that there is no more left to be discovered in science and no big discoveries will be made now. However, progress in science goes on ad infinitum, as Weber wrote (Weber 6). In his view, any scientist would and should know that his or her discoveries will eventually be surpassed, as it is the goal of science to move forward and to evolve. "Every scientific 'fulfilment' raises new questions; it asks to be surpassed and outdated" (Weber 6). It is incumbent upon a scientist to be aware of this fact.

The last dogma, challenged in 'Alive Inside', is that mechanistic medicine is the only kind of medicine that works. Whenever someone is diagnosed with a disease or illness the contemporary thought is to treat their physical illnesses with mechanistic medicine, most commonly, in the form of tablets. However, this documentary challenges the notion by showing the effects of musical therapy on patients with dementia. When these patients started to listen to the music that they had listened to in their youth, they were able to recall some of those memories that they previously thought had been lost. The music helped combat the memory loss in a way that no medicine or treatment had. This portrays the failure of the modern medicine industry. An industry which claims to heal and fix patients yet only administers them temporary relief physically but none emotionally. Efforts are made to physically alleviate a patient's pain but little is done to psychologically heal patients. A prescription is given to heal any kind of

illness. This conundrum is discussed by Weber, who takes the example of modern medicine to illustrate that science is not free from presuppositions, even as much as it claims to be. This is Sheldrake's main focus in 'Science Set Free' as well. Modern medicine presupposes that it is a doctor's duty to save a person's life, without taking into consideration whether they actually want to live. According to Weber, medicine does not answer the question of whether there is any worth in living even when it may seem that there is none (Weber 10). He says: 'Natural science gives us an answer to the question of what we must do if we wish to master life technically. It leaves quite aside, or assumes for its purposes, whether we should and do wish to master life technically and whether it ultimately makes sense to do so' (Weber 10). Modern mechanistic medicine only aims to help patients alleviate their physical pain but does not help patients recover from the psychological and emotional trauma. By simply offering patients music to listen to, they remember integral memories which made them who they were and so they are able to gain back their personality, which is more than any mechanistic medicine can do. Another example is of the Belgian town Geel. This town would welcome mentally ill patients and pair them with a family in the town, in which they would be treated as a member of the family and as a normal human being ("For Centuries, A Small Town Has Embraced Strangers with Mental Illness"). It was observed that many of the problems associated with mental illnesses faded away. A perfect example of non-mechanistic medicine having a significant effect on patients. So this dogma is not valid as *Alive Inside* shows us that music can be a medicine which acts more effectively in helping patients to heal. It is also shown by the example of the Belgian village, Geel, where by simply treating patients as normal humans and integrating them into a family helps them drastically.

After analyzing the dogmas in the light of both the films, the texts of Weber, Peirce and Poincare, and other sources, it is clear that these dogmas are not valid and are unfounded. Not all unexplained phenomena are illusory. They may very well exist and the best example of this is Ramanujan's mathematical discoveries which he claimed to have gotten from a divine power and without any prior mathematical foundation. These ways of inquiry are shaky but cannot be dismissed. The laws of nature might not be fixed as there lies no certainty or exactitude that can be obtained from reasoning or revelation. Science, by definition, will progress and to halt this progress by fixing certain laws and not allowing any more inquiry is harmful. Mechanistic medicine is not the only kind of medicine that works. Medicine is meant to heal patients and alleviate their trauma and if music and merely treating patients as humans can help heal them then these simple things should also be considered as medicine which works. These dogmas are not valid and need to be questioned in a new light as says Sheldrake, Weber and Peirce.

Before having read the texts of Weber and Peirce, my conception of science was a dogmatic one in that the dogmas that have been mentioned by Sheldrake are the ones I thought were irrefutable. These were merely facts to me. However, after reading Peirce I have realized that no matter how much science might claim, it is not free from uncertainty. Peirce and Weber have made excellent arguments, which are substantiated by the two films that we have seen. Their arguments also supports Sheldrake's argument, which is that dogmatic thinking is hampering scientific inquiry. Dogmas need to become questions and hypotheses for a truer form of science to be achieved. The charade put on by scientists who claim that science has found all the answers to the questions of the universe, is harmful not only for us as a part of society but for these scientists as well who will eventually have to realise the hard truth: that they have been leading themselves astray.

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Kinza Mahmood

Sara Kazmi

Introduction to Punjabi Poetry

17 May 2017

A Fight for Freedom

The story of Heer-Ranjha has been told multiple times but there is something extraordinary about the way Waris Shah has portrayed it that makes his version the only one people seem to care about. It has been over 200 years since Waris Shah's Heer was written yet it is still just as relevant. Women today identify with Heer's crisis, her passion and her fearlessness. This paper seeks to find out why that is by analyzing a small section of the 650-verse long epic, in particular the dialogue between Heer and the Qazi.

The dialogue begins with a desperate Heer who approaches the Qazi, looking for him to aid her in her attempt to secure freedom. The Qazi and Heer argue about the validity of her nikkah in accordance with Islam until the Qazi realizes that Heer is not one to quit and tells her parents to forcefully read her nikkah, hence getting the final word in the dispute.

Right from the start the desperation of Heer can be sensed and in her first words to the Qazi she is presented as someone who is helpless, a victim of society as she approaches the Qazi saying "mien ta mang ranjhetay di chuki maon kufr te gheeb kyun toldi hai ". There is a tone of agony to the words, as they depict someone who isn't willing or perhaps isn't even capable of leading the discourse on her own terms and hence has to use the curtain of religion to get her point across. She appeals to the Qazi in a language that she hopes he will respond to and might understand her point of view. She doesn't use religion in accordance to the "shariah" or to the ways of the Qazi; on the contrary, she presents religion in her own interpretation with

her love to Ranjha as a central theme. She compares her true love to the love her parents are trying to enforce upon her i.e. Saida saying she would sacrifice a thousand members of his family to have just one Ranjha. This dialogue is not only a declaration of Heer's love but a testament to her strength and her willingness to take this love forward. Doel explains it best when he writes, "Varis's Hir pleads her own servitude to the paradigm of love more than she questions the Qazi's attachment to the ideologies of social control" (156).

The reply of the Qazi is typical of one that would be expected in a society such as the one Waris has portrayed. It is a male dominated society and hence the tone of the Qazi has a sense of authority, a sense of omniscience. Since Heer is the first to bring up religion, the Qazi flaunts his knowledge of religion by bringing up shariah, life after death and heaven etc. He initially threatens Heer with her life before attempting to persuade Heer by painting a beautiful picture of 'what ifs' if Heer were to agree to the marriage. His ending statement radiates his authority as he reminds Heer of where women belong in society; wearing a "haya di chadar" and protecting it from 'stains' and staying away from 'haram'. Through this reply the reader knows immediately that Qazi has the upper hand in the discourse. His tone, his choice of words, his way of speaking, his expertise all exude his strength and arrogance based upon the society he understands using his definitions while knowing full-well that everyone present would support his every word instantaneously.

Jumping ahead a few stanzas, to 212, Heer replies to the accusations made by the Qazi. In this stanza, Heer's bold spirit is finally seen after having been crushed for so long by the society, her family and now the Qazi. She returns each argument of the Qazi with a renewed vigor, her strength anchored in her love for Ranjha. In the previous stanzas, the Qazi has repeatedly talked about haram and the significance of nikkah repeatedly and Heer finally confronts this. She says "Qalo bala de denha nikkah budha rooh nabi di aap parhaya ae" which

means that her nikkah was officiated by the Prophet (PBUH) himself the day the souls were created and paired up. She even claims that the four angels were witnesses to the event and then asks the Qazi, "When did God give you the right to break my first nikkah just to enter me into a second?" This whole stanza shows a fiery side of Heer that had previously been suppressed. Heer addresses the concerns of the Qazi regarding a 'halal nikkah' going as far as to use Qur'anic verses in her argument which shows that Heer is not some hysterical young girl infatuated with the first man she finds attractive. She is portrayed as a learned, passionate girl who understands the rules of shariah and her rights in Islam. She uses her knowledge in an attempt to beat the Qazi at his own game without threatening his life as the Qazi did hers. The interesting thing here is that Heer does not conform to the Qazi's definition of shariah when presenting her argument. While using the same rules, she showcases her own interpretation of those laws in a way that one cannot deny that her interpretation may just be the true interpretation. This is especially true when she points out the corrupt nature of the breed of Qazis which is inherent in the fact that the Qazi is not given a name in the tale, only his title. Concurrently, Heer's arguments can also be seen as dramatic or unrealistic which is another dimension of her character that Waris Shah has so skillfully crafted. Heer's arguments have a hidden idealistic tone in them as if to portray that after all the hardships she has faced, she dreams of a better world, perhaps the afterlife. "Dozakh moheryan Milan be sadaq jhootay jinhan baan takan aas paas daai" where in the whole stanza she talks about how her faith is true and those who have wronged her and lied to her will finally be paid their due. It's as if she understands that regardless of how much she fights, she will not be able to win because the power lies with the men, especially religious authoritative men such as the Qazi and while she has accepted her fate, she refuses to go down without a fight.

One may think that Waris Shah conjured up this intense side of Heer out of the blue but that is not the case as when Waris first describes the character of Heer, Deol notes, "the poet indulges in a rather more explicit type of martial imagery that seems to foreshadow the violence of Hir's attacks on Kaido and the sternness of her resistance to the Qazi" (153). Waris Shah so eloquently weaves the line between love and Heer's upcoming battles by using analogies (translated here literally) such as "her nose is like Husain's sword" and "the surma decorates her eyes as if the armies of Punjab were attacking Hind."

The Qazi too then uses the Quran in his counter argument. "Hukam maon te baap da man lena ayho raah tareeq da zor hai", this refers to the verse in the Quran where children are commanded by God to obey their parents. While the argument of the Qazi does not explicitly mention social customs, he does bring up following the wishes of the parents implying that not only will this fulfill her religious duties but also her moral ones (Mir 749). What is meant by moral here? Moral is not what is right or wrong ethically; it is what is right in the eyes of the society and how subtly the Qazi brings up the fact that Heer will bring dishonour upon her family if she fails to comply with society's wishes. He compares her to a peacock who regrets looking at its feet because that is the one area it falls short of beauty saying that this will be the state of Heer if she continues with her stubborn ways: full of regret and self-loathing. He also threatens Heer, more subtly this time, saying that he will not take no for an answer. One can tell that Qazi is not used to being told no or even having someone argue with him on religious matters which is why he quickly resorts to threatening Heer with her life e.g. when he says "duray sharah de maar udher desan karan umer khatab da niyaoun heeray." With the intense reaction from the Qazi, it can clearly be deduced that an experience such as this is new for him especially coming from a woman. He uses force and threats to shut down Heer just as her parents and brother had done. He tries to pressure her through instilling a fear in her of dishonour upon her character and her

family. This is no longer just a matter of getting a girl married because he was paid for it; it has become a matter of honour, of ego and most importantly, of his livelihood. If Heer can question his character, his religious interpretations, what is to stop others from doing the same? So if he loses to her he's losing his authority. If he grants Heer her rights then he will have to do the same for all other women which will shatter the system that he along with the upper class have spent decades building. There will be no difference between a Qazi and a beggar if everyone is allowed their own interpretation of religion. Thus, perhaps, there is also the basic fear rooted into the Qazi of losing everything he's ever worked for to this nuisance which is why he reacts so strongly.

Waris has intricately captured the essence of Punjab at the time through his telling of Heer. He paints the picture of a society so set in its ways that it has no room for love and is willing to kill anyone who does not conform. It's a society dominated by men who have brainwashed women to the extent that they too reinforce the stereotypes of what women 'are supposed to be like'. Waris, though, does not let Heer fall into the same dimension as those purposeless women. Heer is an unconventional heroine that refuses to fit into the socially constructed image of a woman of that period and fights social ideology at every step (Deol 152). While it may seem like the dialogue is a comparison of traditional Islam and Sufi Islam, Heer is actually counteracting the social norms and authority of the Qazi through the use of Sufi terms and her knowledge of the foundations of religion in Punjab at the time. A rightful conclusion can be found in the words of Mir, "What we find in this text is not a denial of the religious law upon which the Qazi's authority is grounded, but a discourse on the proper interpretation of that law – with the question of pious conduct laying at the very core." (749).

Words: 1836

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