THE CONTRIBUTION OF EARLY MUSLIM SCHOLARS TO SEMIOTICS: SELECTED HIGHLIGHTS AND IMPLICATIONS

*Elma Berisha**

Abstract: In a previous article I have argued that the contribution of early Muslim scholars to Semiotics needs to be unearthed and highlighted. Semiotics is broadly defined as the study of signs or sign-use behaviour leading to communication and understanding between humans in society. Semiotics emerged in the early twentieth century as distinct from mainstream philosophy or philosophy of language. As an institutionalised academic discipline, semiotics has acknowledged the implicit contributions of earlier scholars from antiquity, the middle ages and early modernity. However, to date the contribution of Muslim scholars is conspicuously absent. Hence, in this article I intend to recapitulate perspectives from selected Muslim scholars in order to obtain a more balanced notion of sign-function and its potential implications. This is where the unique contributions of al-Ghazali (1058-1111) and Ibn Barrajan (n.d.-1141) come in, whose perspectives are reflected in key modern approaches to sign models and their interpretational tendencies. The article suggests that there is a need to explore the legacy of Muslim scholars in the field of semiotics in a much more systematic and comprehensive way, given that sign-based thinking (or the *ayah* doctrine) is a major theme in the Qur'an.

Keywords: semiotics, signs, *ayah*, Qur'an, al-Ghazali, Ibn Barrajan

Why Signs and Names Are Important

Signification (meaning-making) based on signs is the basis of human cognition, communication and culture. The most common defining feature of a sign is its ability to stand for 'something else.' A sign is an event that "generates in us the expectation of something else."¹ A sign can be a letter, a word, an image, a number, a sound and so on, while the 'something else' can be anything at all. The presence of the 'something else' is not immediately necessary in sense-perception for sign-function proper to unfold. Indeed, the whole point of semiotics or sign-function, as emphasised by the renowned semiotician J. Deely, is to enable thinking and communication without the need for the referred to material objects being part of the immediate physical context.² A common way to illustrate this point is how one can converse about an elephant without having to bring an elephant into the room every time it is referred to. Or take, for example,

a simple statement like “Mangosteens, grapes and dates are fruits.” Imagine the difficulties of constructing this sentence using real objects, of having to display a sample of the fruits in question while also requiring a sign for ‘equal’ and some symbol of belonging on the other side of the ‘equation’. What could we display there, on the other side, to substitute for the word ‘fruits’? Should all possible fruits be gathered there, from all seasons, all geographies? Should we qualify it further, e.g to ‘tropical fruits’? If we did, we would need to re-track to see if these three fruits really are ‘tropical’, which in turn would entail breaking the qualification down to two or more sentences, each with its correctly re-categorised fruits. Thus, even in this simple classification, the question arises as to how to handle overlaps and exceptions. A simple statement like this would become insurmountable if it were not for the routine linguistic significations we use on a daily basis. This relates to the awkwardness one might feel if forced to define every word spoken in a conversational flow, e.g. “but, what do you mean by grapes?” Words we say are taken for granted because they trigger automatic mental images in our minds. They perform the indispensable role of organising reality.

The above example not only indicates how signs facilitate human communication by virtue of referring to objects and concepts in their physical absence, but also demonstrates how names serve as a pragmatic shortcut to avoiding all kinds of complications over definition and classification. Signs and names serve as inter-subjective conventions concerning how we refer to things, people, ideas and phenomena in general. We say ‘fruits’ without having to disagree or argue *ad nauseam* about how fruits are defined. Hence, one need not wonder why the Qur’anic verses about the ‘names’ are so supremely fundamental, coming as they do right at the start, hand-in-glove, with the creation of the first human being.

He taught Adam the names (of all things), and then showed them to the angels: “Tell me the names of these, if you are truthful.” “Transcendent are You!” they replied. “We have no knowledge except that which You have given us. You alone are the Knowing, the Wise.” Then He said: “O Adam, tell them their names;” and when Adam had informed them of them, He said: “Did I not tell you that I know what is in the heavens and earth, and I know what you reveal and what you have been concealing.” 2.31-33³

A few brief ‘learning points’ emerge from these verses in the context of the semiotic issues raised in this article. First, “He taught Adam the names” implies an inherent capacity for extraneous learning in human nature, particularly a

capacity for linguistic repertoire. Second, “Tell me the names of these,” means the angels failed to name the displayed objects because concepts/meanings were not given *a priori* to them. The reply of the angels was not “we see no things” nor were they silent due to any inability to communicate. Their reply was: “*We have no knowledge except that which You have given us.*” This implies that, besides the names themselves, there was also knowledge of those names. Third, from these verses it is evident that something was shown to all parties in the narration. The ‘names’ therefore refer to some undeniable reality, independent of human linguistic and perceptual lenses. Fourth, this narration suggests that the first human was taught a method of overcoming the definitional problems of reality. However, since the names of the things were not ‘taught’ to angels, they in turn were not able to define the things, despite being able to testify to their presence. Accordingly, for humans, the names are an enabling tool that helps them think about and relate to the external world, as well as to each other. Names were given as a method to perceive reality, not substitute for it, as seems to have been misinterpreted in an extreme thread of Western semiotics, following the *language turn*. In this limited space, no justice can be done to the paramount relevance of these verses and their potential interpretations. These brief highlights merely serve as a prologue to the Qur’anic ethos in which the contribution of the early Muslim scholars to semiotics occurred.

Al-Ghazali’s Standard Theory of Signification

Simple sentences such as “Mangosteen, grapes and dates are fruits” can be said to comprise signs of dyadic nature. A written or spoken sentence is limited to a linguistic-psychological level. In each case, the spelling (*sound*) or writing (*image of text*) are known as the ‘signifiers’ while the meaning these imply in our minds (*concept*) is referred to as the ‘signified’. For example, the written word ‘fruits’ is a signifier for the signified ‘concept of fruits’ in our minds. A picture of fruits could also serve as a signifier of the same mental concept. In modern semiotics, the popular dyadic model of signs is that of Ferdinand de Saussure (1857-1913), widely-known as the father of semiotics. He has defined a sign as “a two-sided psychological entity” (Fig 1).⁴ In the Saussurean dyadic model, the sign-function unites “not a thing and a name,”⁵ but a mental concept and a name. Therefore, the notion of the object (or the thing) as an extra-psychological anchor is entirely absent. A more complete way of conceptualising signs in modern semiotics is the triadic model, which we will refer to in more detail later.

Figure 1: Semiotic dyadic model of F. de Saussure

It is noteworthy that a triadic model of sign-function is considered a major achievement in mainstream semiotics, one solely attributed to Latin scholars of the seventeenth century.⁶ There is evidence, however, that early Muslim scholars have felt it necessary to go beyond the linguistic framework of sign-function since the eleventh century, if not earlier. They were not only interested in how to build formally correct inferences, but also in how sentences connect to the real world of things. As the sciences of grammar, rhetoric and syllogistic logic flourished, these scholars aspired not only to build linguistically and logically valid arguments but, as importantly, to build them in a way that reflected objective reality.⁷ This tendency is a seamless reflection of the over-arching Qur’anic framework of *ayat*, translated as ‘*God’s signs in the universe*’. The Qur’an advances an essential doctrine of *ayat* permeating all reality “created upon the truth (*haqq*),” functioning as pointers to the providential purpose of creation. As stated in the Qur’an:

In the earth are signs [*ayat*] for those having sure faith; and in your selves; what, do you not see? (51:20-21)

Then, do they not look at what is before them and what is behind them of the heaven and earth?...Indeed, in that is a sign [*ayah*] for every servant turning back. (34:9)

And We did not create the heavens and earth and that between them in play. We did not create them except upon the *haqq* (truth). (44:38-39)⁸

In the current exposition of early Muslim work on signification, I have taken al-Ghazali’s standard theory of signification as a case in point. His treatise on the *Beautiful Names of God*,⁹ provides an elaborate exposition of the relationship between language, meaning and reality. In what could be termed al-Ghazali’s triadic interpretation of signification, he states that “the truth is that the name is different from both the act of naming and the thing named, and that those three terms are distinct and not synonymous.”¹⁰ Al-Ghazali makes a clear distinction

between the name (*al-ism*), the thing named (*al-musamma*), and the act of naming (*tasmiyya*).¹¹ He starts his book by stating clearly the four signification positions that he deems erroneous, before then seeking to advance his own. These four erroneous positions are: 1) when the name is confused with the act of naming, 2) when the name is confused with the thing named, 3) when the name is allowed to be both the same with the thing named or not the same with the thing named, and 4) when the name cannot be said to be either the same with the thing named or other than it. Al-Ghazali by contrast elaborates a distinct identity for each signification element: “The meaning of the name is other than the name”¹² and “The act of naming is mentioning the name or positing it.”¹³ He also emphasises the role of the human observer in signification: “that for everything posited for the purpose of signifying there is someone to do the positing, the ‘act of’ positing, and the thing posited.”¹⁴

Ultimately, al-Ghazali’s tries to balance the Ash‘arite and Mu‘tazilite philosophical viewpoints when finding a solution to the problem of the divine names and attributes.¹⁵ Despite the obvious challenges in juggling these contradictory positions, al-Ghazali did not reduce the signification model to anything less than a triadic structure. He maintained that any signification process involves these three levels of reality: linguistic, conceptual and objective (or ‘particular’). More importantly, to quote T. Kukkonen, an expert on al-Ghazali: “Al-Ghazali contends that of the three modes of existence, existence in particulars regularly enjoys primacy, because whenever a form or shape present in the imaginary faculty (*al-khayal*) corresponds to an actual object of cognition, it will have arisen through one’s perception of some actual existent.”¹⁶ Hence, al-Ghazali not only did not dismiss the object or the referent from the equation, but he established its primacy over the linguistic or conceptual. Illustrating this with our fruits example, between the signifier ‘fruits’, the meaning it triggers in our mind and the reality of the fruits themselves, it is the latter that is of primary importance. Unlike U. Eco and F. Saussure, al-Ghazali embeds the relationship of objects or things to meanings/signified/concepts/the ‘content of knowledge’ in some sort of non-arbitrary, ‘causal-representational’ account. As it might already have become clear from previous Qur’anic verses, this is a decisive feature in the Islamic interpretation of sign-function. In a similar vein with modern semioticians, al-Ghazali attributes the relationship between ‘the expression’ (name or signifier) and referred things or objects to human choice (*ikhtiyar insani*),¹⁷ qualifying it as subject to convention and change. In other words, “Words consist of segmented letters, posited by human choice to indicate individual things.”¹⁸ Al-Ghazali’s standard signification model bears multi-layered implications and deserves an in-depth discussion on another occasion.

Ibn Barrajan on the Ontology of Signs

Kukkonen notes that for al-Ghazali the question of naming is “fundamentally ontological and he treats it as such.”¹⁹ Here the ontological treatment of signs is illustrated with another early Muslim thinker, the twelfth century Andalusian, Ibn Barrajan of Seville.

To echo the author of *The Mystics of al-Andalus*, Ibn Barrajan was a “connoisseur of this divine art. He spent his waking hours practicing, explaining, and illustrating ways of ‘reading’ the books of nature, revelation, and man.”²⁰ ‘Religious literacy’ for Ibn Barrajan was the ability to read God’s signs in creation. He insists that creation intrinsically bears the touch of its divine Creator, just as an artist inherently leaves his personal mark on his artistic productions.²¹ What he terms as ‘*masiwaAllah*’ or ‘everything other than Allah’ is divided into three basic categories that each disclose God’s creativity in distinct modes. These are: (1) the human being, (2) physical creation, and (3) revelation. How can something that is essentially defined as ‘other than Allah’ be in turn essentially defined as signifying towards Him? God can be known only through signs but never through any personifying representation.

Ibn Barrajan conceived of all of existence (*wujud*) as a unitary whole with no independent parts.²² In his own words, “Nothing stands on its own [*la yaqum bi-nafsihi*].”²³ All entities in physical creation, just like all human organs, are interdependent: plants depend on the sun, and animals depend on plants. Similarly, the heart depends on lungs, and the limbs depend on veins, etc.²⁴ Everything is submerged in interconnectedness, interdependence, and correlative existence.²⁵ Ibn Barrajan reminds his readers that the Qur’an enjoins the believer repeatedly to seek knowledge of the creation of the heavens and earth, with most of the revelation being devoted to invoking God’s signs in the world. From this perspective, Ibn Barrajan’s doctrine of *al-haqq al-makhlūq bihi al-khalq*²⁶ is a direct response to this Qur’anic invitation to contemplate God’s creation and recall that the things of this world are signs of God. Moreover, as Ibn Barrajan reiterates, it was Ibrahim, the “supreme Mu‘tabir,” who first arrived at the knowledge of divine unity by pondering the celestial heavens.²⁷ Therefore, Ibn Barrajan holds that studying the structure of the cosmos complements studying the structure of the Qur’an.²⁸ All this stands in contrast to the commonly-held view that religion makes one depreciate this worldly reality (*dunya*). Early Muslim scholars emphasised objective reality as it is, having no incentive to deny it, doubt it or avoid its objectively occurring phenomena in any way. On the contrary, they made it their intellectual mission to study and appreciate it. This statement from al-Ghazali testifies to this: “within (the realm of) possibility, there is nothing more wondrous than what (actually) is.”²⁹

At this junction it is noteworthy that the multiplicity of subjective interpretations of signs is not taken negatively by early Muslim scholars. Humans are seen as occupying the unique position of being both sign-readers and a sign in their own right, simultaneously. To early Muslim scholars, the beauty of the human contribution to sign-reading is precisely the subjective perspectives and idiosyncratic insights they bring to that endeavour. “The multiple meanings of God’s signs emerge out of the fact that God’s creative power is infinite, and thus His creation can be contemplated from different perspectives, and by different souls with different potentials and degrees of realisation.” “And He created Adam and implanted within him the meanings of the names of God. It is native to traditional thought that the qualities of God’s names permeate the Adamic form and are concealed within him.” To further conclude that “the signs of God, like the verses of the Qur’an, are open to simultaneous interpretations that are equally valid,”³⁰ al-Ghazali seems to be on the same page with this: “creatures differ in the sea of knowing God - great and glorious - and that their difference is without limit.”³¹ Once this inclusive perspective is suggested, the relevance of semiotics looms beyond the communication and epistemological realms. It suggests that sign-based thinking and approaches to reality serve as a meeting point in between the subjective, the objective and the potential come together.

Modern Triadic Model

Here we have outlined several examples of how signs enable communication in at least two significant ways: by substituting for things/objects and by circumventing definitional complications. It is said that communication would be unthinkable without signs to substitute for referred objects/things. At the same time, we have highlighted the emphasis al-Ghazali placed on the objective side of signs, namely the primacy of prioritising the referred-to object over the linguistic/mental representation of it. This may sound contradictory. At one end we are saying the greatest merit of signs is that we can almost dispense with objects, thus allowing the subjective and inter-subjective to flourish, while at the other end we hold that a dyadic account of signification is incomplete and that the emphasis of Muslim thinkers on the objective side is important. How can this be explained? We need to take a closer look at the modern triadic model of signs and attempt to connect the dots underpinning certain major philosophical tendencies.

For C. S. Peirce (1839-1914), the founder of the American School of Semiotics, a sign is “irreducibly triadic in character.” Quite explicitly put in Peircean’s words, “if a relation is not triadic, it is not a sign relation.”³² Peirce’s triadic model of sign consists of *representamen*, *interpretant* and *object*.³³

Terminological variations of the triadic model are illustrated in Figure 2 below, which is reminiscent of al-Ghazali's elemental structure of the name and its meaning. The triadic nature enables relationships between things, concepts and human subjects to transfer into far-ranging meaning-making networks, or "global semantic fields."³⁴ Hence, the triadic model has been seen as important due to its ability to bridge the gap between the subjective and objective aspects of sign-function, through its integrating function between the *interpretant* and *object*.³⁵

Figure 2: Semiotic Triadic Model³⁶

Nevertheless, in modern semiotics, besides wide variations in terminology, there is also a wide range of interpretations about the role of the object itself, just as there are nuances of understanding regarding the nature and role of the interpretant.³⁷ In the long-standing spectrum of these nuanced interpretations, there seems to be a tension between the triadic elements. This appears alongside ongoing discussions about the subjective versus the objective, the interpretant versus the object, observer versus the observed, the intensional versus the extensional and so on.³⁸ This schism becomes particularly apparent once one focuses on the role and function played in signification by the third element (Figure 2), the object or the referent. In the words of T. Sebeok, reminiscent of al-Ghazali's above-mentioned second refuted positon: "The initial distinction between object (O) and sign (S) raises profound questions about the anatomy of reality, indeed about very existence, but there is nothing approaching a consensus about these riddles among physicists, let alone philosophers."³⁹ In plain words, there seems to be a tendency to impose a predominating role on one element of sign-function over the rest, including the sign-function itself. For some, there is no room for an interpreter or subjective sign-reader, while for others the interpreter is everything. In the former tendency, we speak of objects but not signs, and in the latter we speak of culturally-defined signs which are liberated from the extraneous reality of objects.

Denial of Signs

One dominating paradigm is to deny signification altogether, which is the implied position of reductionist positivism. In a positivist, Cartesian world everything is analysed as an object, set of objects, and objects acting and reacting upon one another. The world is a mechanical machine with its interpreting ghost already exorcised. This mechanistic approach prevailed during recent centuries and provided a powerful tool for science, but not without neglecting human psychology and ecology. In this scheme of things, there is no formal acceptable way to link the workings of human psychology and the reality of objects experienced. In a way, for this interpretation there are no signs, only basic objects. In modern popular culture, this is manifested in the tendency to deny meaning to the universe and to warn against reading signs where there are none or seeing patterns where there are none. Signification is pitted against nihilism, nothingness, meaninglessness, and randomness. Seen semiotically, this is an ideological campaign against the concept of signs. But if signs and signals were to be ignored in nature, there would be no scientific discoveries whatsoever. Science is anything but a thrill of chance or a random connection of dots. For example, if the ‘echo of the big bang’ which was but noise heard on a radio telescope had been ignored as meaningless by two astronomers in New Jersey fifty years ago, no development would have taken place towards the Big Bang theory. All they heard was a random noise. But they paid attention to it and discovered cosmic background radiation, thereby strengthening the Big Bang thesis. Philosophically, ignoring the signifying value of objective reality is merely a way of avoiding the ultimate question “how can signification arise out of something that signifies nothing?”⁴⁰

As a student of psychology, I have been well aware of the efforts of behaviourists to de-mentalise the notion of signs. In a typical behaviourist scheme, there is stimulus and response, but nothing in between. This is said to be the legacy of an ancient Greek claim that “in order for knowledge to be knowledge it has to be free of the human element.”⁴¹ Dismissing the role of human mental activity in the act of knowing and science-making was a major topic of discussion in our Islamic psychology classrooms.⁴² For so long, modern science had simply left out so-called higher-level cognition, the mysterious and complicated realm of human thinking and reasoning. Introspection was taboo. A person could become an object of others’ scientific examination without ever being entitled to speak of one’s own self in one’s own terms. There was no room for interpretant, whatever this is taken to mean. It was not until the twentieth century that the psychology of thinking became a scientific endeavour.⁴³ Against this backdrop, it is no surprise that, since the founding of semiotics, the positivist paradigm has been one of the challenges to its advancement.⁴⁴

Culturalisation of Objects

Having an awareness of how human psychology has been downplayed by the predominating positivist paradigm, it was a surprise to discern an opposite tendency in some pockets of semiotic literature. I tracked this tendency while attempting to understand the role of the object or referent and the implications of its presence or absence in modern semiotic models. Above and beyond semiotic models, when it comes to elucidation of the nature and function of the object, Eco states that “though it (*the object*) certainly was a necessary condition for the design of the model, it is not a necessary condition for its semiotic functioning.”⁴⁵ Inadvertently, this potentially risks regressing the triadic model of sign back to a linguistic-psycho-social level. However, Eco insists that for sign-function proper, the triadic model does not mandate “the presence of the referent (*the object*) as a discriminant parameter.”⁴⁶ For Eco the object itself converts into a cultural unit, which is subjectively-bound and engenders the notion of social construction. Accordingly, all the terms involved in sign-function, including the referent or the object, are defined or explained through arbitrary cultural systems. “Every attempt to establish what the referent of a sign is forces us to define the referent in terms of an abstract entity which moreover is only a cultural convention.”⁴⁷

The tendency to downplay the objective and advance a cultural approach to sign-function becomes much clearer in the following chapters of Eco’s *A Theory of Semiotics*, in which he discusses “the referential fallacy” or “extension fallacy.” In his own words, “The referential fallacy consists in assuming that the ‘meaning’ of a sign-vehicle has something to do with its corresponding object.”⁴⁸ Al-Ghazali would have agreed that the name of the thing/object/referent should not be confused with what it stands for. Nevertheless, he maintained that that ‘meaning’ does have something to do with its corresponding object/thing. To simplify, for Eco the relationship between names/signifier and object/thing is arbitrary and cultural, as can be illustrated with multi-lingual references/names to the same thing/object. However, for al-Ghazali the relationship between concept/signified/meaning and the object/thing is beyond the arbitrary, as no meaning could possibly be constructed using only arbitrary signs or names. This presupposed causal feature is the ‘taught’ element as mentioned earlier in the Qur’anic verses.

On the other hand, the theory of codes espoused by Eco is only concerned with “the conditions under which the message may be communicated and comprehended,” not its truth-value or connection with facts (in this case, status of the object).⁴⁹ The empirical verification of an object is not necessary for semiotic codes to function. In Eco’s own words, objects become subjects of metaphysics:

“The idea of the ‘interpretant’ makes a theory of signification a rigorous science of cultural phenomena, while detaching it from the metaphysics of the referent.”⁵⁰ Eco defines semiotics as a “theory of lies” by virtue of the fact that semiotic codes work in the way that they do: by standard function, they signify meaning, regardless of whether they are empirically verified or not. “Thus semiotics is in principle the discipline studying everything which can be used in order to lie. If something cannot be used to tell a lie, conversely it cannot be used to tell the truth: it cannot in fact be used ‘to tell’ at all.”⁵¹ Indeed, as many have pointed out, the semiotic freedom that allows use of words/signs to state an untruth is a privilege accorded to humans alone. We can see the difference here from the emphasis of early Muslim scholars, who preferred to treat lies as an exception to truth (*haqq*) rather than as the general rule. Instances brought up by Eco, such as unicorns, whereby we create semiotic functions with unreal objects, are exceptions. The under-scoring of early Muslim scholars implied that objective things are present out there, functioning as a general foundation for any cultural signification to occur, be it truthful or not. By contrast, Eco, by silently ignoring what the object is, is ready to go on and elaborate on future possibilities of that object becoming something else.⁵² This illustrates how codes work in that the ‘cultural unit’ of an object is likely to change to accommodate new features. Here is a telling passage quoted at length:

Every English speaker can speak about snow and understand sentences concerning snow because he possesses a cultural competence assigning to the content-unit «snow» certain properties which do not include that of being made with peanut butter. The laughing response is the side-effect of a misuse of the code, or of a contradiction posited within the code. But it is both authorised and elicited by the code's existence. The code does not stop us from understanding a proposition which is commonly believed to be false. It allows us to understand it and to understand that it is ‘culturally’ false. It is possible that in a possible world or in our future world, because of the increasing water pollution, snow could be exposed to such an ecological tragedy. But even though it happened, the fact would still be semiotically ridiculous. Obviously in the latter case this sense of the ridiculous will quickly disappear, and a sense of fear will take its place. But both fear and amusement can, in this sense, be considered as the consequence of a particular contradiction within the code (4). One laughs because even though one realises that the situation is unthinkable, one understands the meaning of the sentence. One feels fear because, even though one realises that the situation is possible, one does not like to accept such an alarming semantic organisation of one’s experience. The sentence

appears to be ridiculously or tragically meaningful insofar as its meaning conflicts with the meaning-rules we possess. Its meaning is unacceptable not because it is incomprehensible but because - if accepted - it implies the restructurisation of our codes.⁵³

Bridging the Gap

The notion of objects being screened through cultural filters and subjective loopholes is hardly deniable. Much of what we know reflects the cultural lenses through which things are taught us. However, this is not quite the same as imparting an ontological priority to cultural units over objective units. Cultural units are a derivation or approximation, or even a distortion, of factual, natural objective units, not vice versa. After all, it is the object towards which the sign-function points, cultural variations notwithstanding. What early Muslim scholars seem to have been saying when they gave primacy to objects is that one should be given the choice to go and inspect things for oneself, to stretch-test the cultural lens in order to either confirm it or defy it with facts. In this whole enterprise, the role of human interpreter is both crucial and undeniable, in addition to culturally-bound. But this is only insofar as objective reality signifies, as it always has, the independence of the human mind.

Recent developments in semiotics appear to place a new emphasis on the relational nature of signs, attempting to balance both the subjective and the objective. This is seen as a good development to bridge the gap between the hard sciences and social sciences.⁵⁴ It is striking to discover that Muhammad Iqbal's (1877-1938) take on signification is close to these attempts to bridge the gap. Iqbal's visionary call to re-think the age-old categories of cause/effect, knower/object and ideal/real resonates with many other voices in modern semiotics. Reminiscent of Deely's discourse, Iqbal speaks of a reality which is "relational in character."⁵⁵ Building on the tradition of early Muslim scholars, Iqbal reminds us of how the Qur'an points to signs outside of itself and "declares the unity of inner experience" and "History and Nature" as being "three sources of knowledge."⁵⁶

Key Recommendations

- This, admittedly rather rudimentary article, suggests that there is a need to explore the legacy of Muslim scholars in the field of semiotics in a much more systematic and comprehensive way, especially given the influence on scholars of the sign-based thinking (or *ayah* doctrine) which is so key to the Qur'an. This could contribute to the re-establishment of a

model of critical thinking, rooted in the Qur'anic concepts of language, meaning and reality.

- It also recommended that a more systematic investigation be undertaken into what a sign-dependent reality means. As many authors, including Iqbal, have pointed out, a sign-dependent approach may contribute to progressively narrowing down the objective-subjective gap, thereby ameliorating the effects of the two extremes of reductionist positivism and cultural relativism. This understanding could foster a paradigmatic framework for a renewed relationship with the universe, where natural science once again becomes a way of fulfilling intellectual curiosity in God's creation and serving humanity in pursuit of individual eternal reward.
- Since a sign-based approach invites investigation into what is conveyed in the sign itself, it is likely to stimulate a discursive approach to learning, inquisitive thinking and openness to new discoveries.

Notes

* *Elma Berisha* is an alumni of the International Islamic University Malaysia. She is a social researcher, psychologist by training, data scientist by profession, with a recent research interest in cognitive semiotics. In the past decade, Elma has worked with a wide spectrum of public institutions in Malaysia, including top universities, international organisations and professional bodies. Until 2015, Elma was the Regional Manager for Consumer Research in Asia Pacific, with Frost & Sullivan. Her focus research area was on the evaluation of public perceptions in Malaysia and Singapore, primarily with regards to public safety, corruption and urban development. Currently, Elma is attached to the Asian Institute of Finance, a Bank Negara think tank in Kuala Lumpur established to enhance human capital development.

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