

## A Cognitive Semantics Analysis of *Alam* (Nature) in Malay

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### Abstract

This paper examines the semantics of the word *alam* ‘nature’ and provides an insight into the concept of nature in Malay. Using a cognitive semantics framework, an ICM for *alam* is proposed and compared to Schroeder’s (1999) ICM for nature. In essence, the ICM for *alam* has its focus on the Creator and the multiple *alam*s of His creation. In contrast, the modern day ICM for nature stresses on the intrinsic characteristic of nature and their relations to external agents. The paper argues that in the context of discourse on science education, nature and environment, it is important to realize that the notions of nature from a predominantly English language perspective based on the empirical logical positivistic notions might be imposing a view of nature which is incommensurate with the local language and perhaps be ‘adding unnecessary confusion to the indigenous associative relations’ formed in the other languages and culture. (cf. Kawasaki 1996). This is especially important since the concepts of nature, universe and environment appears to be a major concern and predominates much discussion in the world we live in today. The conception of nature and our different interpretations of the concept of nature affect the way we deal with these issues.

**Keywords:** Cross-cultural semantics, cognitive semantics, *alam*, nature, environment

### 1. Introduction

Whitehead (2007:3) has argued that it is possible to think ‘homogeneously’ or ‘heterogeneously’ about nature. Thinking homogeneously about nature would approach nature as if it was independent of thought. On the other hand, a heterogeneous approach to nature would mean that we think of nature in conjunction with thought. Thus there could be many concepts of nature according to how we think and talk about nature.

The purpose of this paper is to examine the semantics of the word *alam*<sup>7</sup> ‘nature’ and provide an insight into the concept of NATURE in Malay. The context of this discussion is essentially a cross-cultural semantics investigation of the word of *alam* versus *nature* in order to better comprehend intercultural awareness. Berendt (2008:73) notes:

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<sup>7</sup> In the text, word forms are *italicised*. Glosses are in single inverted commas, e.g. *alam* ‘nature’. Concepts are denoted using SMALL CAPS, e.g. NATURE.

The goal of intercultural awareness, while necessary in our modern world of multiple contacts is also most probably illusive in many ways. Immanuel Kant in his *Critique of Pure Reason* (1781) argued at the time of the dominance of scientific rationalism that it was impossible to be certain what the order we think we discern in nature bore to reality. This ‘order’ was simply the creation of our own minds. ... As we create orders of understanding in more allusive aspects of our experience the nature of our cognitive patterning becomes a key to our own cultural awareness and its contrast to others.

The word *nature* is defined in the *MSN Encarta Dictionary* as the physical world including all natural phenomena and living things. *Nature* also denote the the forces and processes collectively that control the phenomena of the physical world independently of human volition or intervention, sometimes personified as a woman called ‘Mother Nature’ (*MSN Encarta Dictionary*. Retrieved December 22, 2008 from [http://encarta.msn.com/dictionary\\_/nature.html](http://encarta.msn.com/dictionary_/nature.html)) In this regard, Kawasaki (1996) using a Saussurean structuralism framework has noted that the concept of nature itself is not absolute. He argues that Western science constitutes a way of seeing NATURE and the translation of this concept into Japanese as *shizen* which has a totally different connotation ‘has caused unforeseen problems in science education in Japan’. The Japanese term *shizen* has been regarded as the Japanese equivalent of the English term *nature* only because a part of referents of this term coincide with those of *nature*. Thus, the Japanese term sometimes refers to referents which are ‘supernatural’. This is because the word *shizen* was not an empty receptacle for concepts. Apart from the etymological differences, with their own particular Japanese concepts, he argues that words are not receptacles that can be arbitrarily filled.

It is within this context of linguistic incommensurability that the semantics of *alam* is described. The description utilizes the framework of cognitive semantics to reveal how the concept of *alam* is structured and how this concept compares to that of *nature* in English. We will conclude with a brief discussion of the linguistic incommensurability of *alam* and *nature* and what they might imply for cross-cultural communication.

## 2. Theoretical Framework

The use of cognitive semantics is particularly apt for a cross-cultural semantics investigation in the present study into the conceptualization of nature. Cognitive semantics as a multi-disciplinary theory of language attempts to describe language phenomena from a cognitive, cultural and physiological point of view taking into account the sociological and anthropological differences as well as the experiential realisms and natural surroundings that are embodied in the *homo lingualis*. A major question in cognitive semantics research is how different languages and cultures utilize the resources in the language system (the grammar and lexicon) to construe the world. Geeraerts perceives cognitive linguistics as ‘an approach to the analysis of natural language that focuses on language as an instrument for organising, processing, and conveying information’. As such, the analysis of the conceptual and experiential basis of linguistic categories is seen to be of primary importance.

*The formal structures of language are studied not as if they were autonomous, but as a reflection of general conceptual organisation, categorisation principles, processing mechanisms, and experiential and environmental influences.*

(Geeraerts 1997:7)

Although the CL enterprise is not a monolith (Goldberg 1996: 3), most if not all cognitive linguists share some foundational assumptions. Newman (1996: ix) summarises the theoretical assumptions of the cognitive linguistics enterprise as follows (cf. Goldberg 1996:3-4; Geeraerts 1997:7, Heine 1997:3-7):

- a. there are important links between linguistic structure and human cognition, making it imperative to acknowledge the role of human cognition and human experience in motivating and explicating linguistic structure;

- b. a language community imposes its own categorisations upon the entities which constitute reality and such categorisations may differ considerably from one language community to another;
- c. most of the categories relevant to linguistics are viewed as having central and less central members rather than being criterially defined;
- d. where the meaning of a form needs to be elaborated, then a larger context or 'frame' [domain] needs to be invoked in order to properly describe the meaning.

Thus, the use of cognitive semantics as an approach to human discourse seen through underlying conceptual schema patterns could be significant in understanding cross-cultural communication. Cognitive semanticists, in general, agree that there are universal as well as language specific construal. For instance, Asmah (1996), Yu (2003), Imran and Norsimah (2005) have found that the conceptualization and metaphorisation of the body is influenced by and interacts with the folk cultural elements in society. Kövecses (1999) also agrees that the conceptualization of the body and body parts is in large part culture-specific with several universal conceptual structure at the categorical and schematic level.

Similarly, one could legitimately ask whether concepts such as NATURE are conceptualized and metaphorised differently in different languages. The 'tool' that is available to the cognitive linguists is the idealized cognitive model (ICM) (Lakoff 1987). The ICM organizes our knowledge, thought and understanding of concepts. Thinking mainly consists in reasoning and categorizing relative to the idealized cognitive models. Since our knowledge, thought and language are closely interrelated, linguistic structures and their meanings can also be derived from the ICM (Lytje 1990). For example, Lakoff (1987:74-76) describes the ICMs for *mother* as follows:

BIRTH: the person giving birth is the mother

GENETIC: the female who contributed the genetic material is the mother

NURTURANCE: the female adult who nurtures and raises a child is the mother of the child

MARITAL: the wife of the father is the mother

GENEALOGICAL: the closest female ancestor is the mother

The birth, genetic, nurturance, marital, genealogical ICMs of mother forms a cluster of domain matrix in understanding *mother*. Deviations from the cluster are possible normally in the form of adjective + noun compounds such as *stepmother* which fits the NURTURANCE and MARITAL models but not the genetic or *unwed mother* which fits all the domains except for the MARITAL model (Croft & Cruse, 2004:31).

Hence, the application of the semantic categorization and idealized cognitive models in cognitive semantics is particularly suited to an investigation of semantic and conceptual differences between different words.

The methods of cognitive semantics are used here in the present study in order to distinguish differences in the conceptualization of nature as characterized by *alam* in Malay and *nature* in English. In order to explicate the semantics and thus (possible) differences in the construal of *alam*, a cognitive semantics analysis of the word is conducted. In particular, a general schema of the ICM for the item in questions is proposed. This is later compared to the schema proposed for the English word *nature*. Differences in the schema can reveal the linguistic incommensurability and hence construal of the concept of nature in the two languages. From a cognitive linguistics perspective, the notion of linguistic incommensurability can also be explicated via the differences in the schema and the schematic networks.

### 3. Analysis

Based on lexicographic description, *alam* might not appear to be a complex concept. *Kamus Dewan* (1994) lists only five senses of *alam* (in contrast to 10 entries for *nature* in *Collins Cobuild English Dictionary*). However, *Tesaurus Umum Bahasa Melayu* (1990) lists at least 19 synonyms of *alam*,

which include *dunia, bumi, buana, jagat, angkasa, wati, langit, bidang, lingkungan, arena, kawasan, daerah, tempat, negeri, negara, habitat, persekitaran, bendera, and panji-panji*.

### 3.1. Polysemy of *Alam*

The first sense of *alam* listed in *Kamus Dewan* (1994: 25) denotes the physical earth or world as we know it. Examples of usage of *alam* in this sense is shown in (1) – (3).

- (1) *Bencana alam telah berlaku di muka bumi ini sejak beratus tahun yang lalu.*  
disaster nature PASS happen on face earth this since hundreds years REL pass.  
'Natural disasters have occurred on the surface of earth since hundreds of years ago.'
- (2) *Ilmu alam adalah satu bidang yang kompleks kerana ia bukan sahaja*  
knowledge earth is one field REL complex because it not only  
*mempunyai ciri-ciri sosial tetapi termasuk juga ciri-ciri sains semula jadi.*  
have features social but include also features science natural  
'Geography is a complex field because not only does it have social characteristics, but it also combines the characteristics of natural science.'
- (3) *Nama nya termasyhur di seluruh alam.*  
Name POSS famous in throughout world.  
'His name is famous worldwide.'

*Bencana alam* in (1) refers to natural disasters on earth such as earthquakes, volcanic eruption, landslides and floods on earth. In (2), the phrase *ilmu alam* 'geography' (literally, 'knowledge earth') denotes the study of the earth and its (physical) features, inhabitants, and phenomena such as climate, demography and industry. While in (3) *alam* refers to the world.

The second sense of *alam* in the *Kamus Dewan* (1994: 25) encompasses a larger confine of space to include everything under the sky, i.e. the universe (4).

- (4) *Tuhan menjadikan alam ini dalam masa enam hari.*  
God  
'God created the universe in a matter of six days.'
- The third sense of *alam* in the *Kamus Dewan* (1994: 25) denotes a domain that encompasses a group or cluster of people or creatures with specific characteristics or share certain properties.
- (5) *Alam remaja penuh cabaran dan masalah.*  
world teenagers full challenges and problems.  
'Adolescence is full of trials and tribulations.'
- (6) *Remaja mengalami masa peralihan dari alam kanak-kanak ke alam dewasa.*  
Teenagers experience time transition from world children to world adult  
'Adolescence is the transition period from childhood to the adulthood.'
- (7) *Semut mempunyai otak yang paling besar dalam alam haiwan, jika*  
Ants have brain REL SUPER big in kingdom animal, if  
*dibandingkan dengan nisbah saiz badan nya.*  
compare with ratio size body-POSS  
'Ants have the largest brains in the animal kingdom, if compared to the ratio of its body size.'
- (8) *Tujuan migrasi Minangkabau adalah untuk memperkaya dan memperkuat alam*  
Reason migration Minangkabau is for enrichment and strengthen world  
*Minangkabau.*  
Minangkabau.  
'The objective of the Minangkabau migration is to enrich and strengthen the Minangkabau world.'

The fourth sense of *alam* in the *Kamus Dewan* (1994: 25) denotes more localized, confined and restricted 'space' usually denoting some discipline, theme, or area of interest (activities).

- (9) *Kemuncak kegiatan alam persuratan Melayu melalui Bahasa Melayu dan tulisan*  
Peak activity world literary Malay through language Malay and writing

*Jawi adalah di Penyengat, sebuah pulau di Kepulauan Riau.*

Jawi is at Penyengat, an island in archipelago Riau

‘The peak of activity in the Malay literary world using the Malay language and Jawi writing is at Penyengat, an island in the Riau archipelago.’

- (10) *Dalam konteks ini, alam hiburan - filem dan muzik, misalnya, menjadi punca*  
In context this, world entertainment films and music, example, become source  
*pengaruh yang paling hadapan.*

influence REL SUPER front

‘In this context, the world of entertainment – films and music, for example, are the foremost sources of influence.’

The fifth sense of *alam* in the *Kamus Dewan* (1994: 25) refers to the forces or laws of nature and / or universal order / law in collocation with the word *hukum* ‘laws’ (11):

- (11) *Hukum alam adalah hukum yang berlaku untuk semua manusia, bangsa apapun*  
law nature is law REL happen for all mankind, race whatever  
*dan di mana saja di dunia ini.*

and at where only in world this

‘Universal law is the law that is applicable to all human beings, irrespective of race or location in this world.’

In contrast to the origin of the word *nature* which is derived from the Latin *natura* (from *natus, nasci* meaning ‘to be born’), the word *alam* has its origin in Arabic. The Malay word *alam* has its origin in the Arabic word *aalAm* *عالم* (*al-'alamin*) which means world, universe, and creation.<sup>8</sup> From the Islamic theological point of view, *al-'alamin* (*عالم*) (literally, ‘worlds’) refers to the universe and all that exists (Calderini 1994). This includes all forms of God’s beings (*makhluk*) be they physical entities - humans, plants, animals, earth, stars, or non-physical ‘supernatural’ beings such as jinn and angels. In other words, *alam* as embodied in the phrase *al-hamdulillah rabbil 'alamin* encompasses all of Allah’s creation. *Alam* thus represents the Greatness of Allah and is the sign or symbol to the Greatness of God.<sup>9</sup> According to some mufasssiroon (exegetes), the reason the world/universe is called the ‘*aalam* is because it is through the universe that the Creator is known. Others held the opinion that it refers to all kinds of created beings collectively, i.e. the mark by which life is known. Thus in Arabic, the meaning of *alam* is closely related to *alim*. Both words share the same root - ‘ayn laam meem’ – with the meaning of a mark or distinct quality by which something is known. Thus, a scholar was called an ‘*aalim* from the verbal noun ‘*ilm* because it is through ‘*ilm* ‘knowledge’ that something (in the universe created by Allah) becomes known. According to Ramli Awang (2003), the *riwayat* ‘narration’ from Wahab bin Munabbih states that Allah created 90,000 *alams* and the *alam* as we know it is only one of this numerous manifestation of *alams* (worlds). Others have contended that the number of *alams* created by Allah is countless with many levels. Hence, the phrase *Wallahu alam* ‘Only Allah knows’.

Based on the origin of the word *alam*, in essence, it is then possible to distinguish the many different worlds (and all entities within those worlds) of God’s creation from the Creator. Each of the multiple types of *alam* will occupy their own space (with overlaps being possible). A semantic analysis (the ICM) for *alam* would thus have to accommodate and capture this multiple types and levels of ALAM.

<sup>8</sup> According to Goddard (2005), the influence of Arabic on Malay began with the Islamization of the region in the 1400s through the Arab traders and scholars. However, Campbell (2007) is of the opinion that ‘a large portion of Malay/Indonesian words with Arabic cognates arrived not directly from Arabic but via the medium of Persianized Indian languages spoken by the traders and missionaries from India, while in more recent times, words have been borrowed directly from Arabic.’

<sup>9</sup> This is in line with the notion of *alam* as *bendera* ‘flags, signs’ and *panji-panji* ‘symbol, flags’. The creation of *alam* and all things in *alam* are the signs and testimony to the greatness of God. Some Islamic scholars have also defined *alam* as God’s revelation - *wahyu*.

### 3.2. An Idealized Cognitive Model for *Alam*

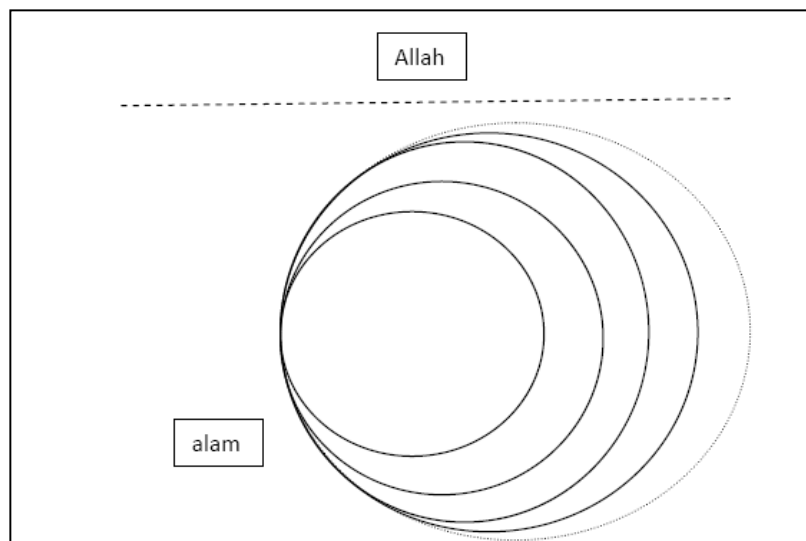
Schroeder (2005:198) argues that basic conceptual schemas or idealized cognitive models structure human thought. ‘An ICM describes how the key components or actors in a situation are related to each other. People use these models to think about and classify the things and events that they encounter in the world’. Similarly, Cienki states that

ICMs are proposed as a way in which we organize knowledge, not as a direct reflection of an objective state of affairs in the world, but according to certain cognitive structuring principles. The models are idealized, in that they involve an abstraction, through perceptual and conceptual processes impart organizing structure – for example, in the form of conceptual categories.

(Cienki 2007: 176)

Based on the the meanings of *alam* in the previous section that extends to all God’s creation, far beyond just the universe (*alam semesta alam sejagat*) or mother earth / nature (*alam semulajadi*) or the environment (*alam sekitar*) to include afterlife (*alam barzakh*), supernatural world (*alam ghaib*) etc., the ICM of *alam* must take into account the countless *alam*s and their relationship to the Creator. A possible basic conceptual schematic ICM for *alam* is proposed in Figure 1. The basic schema in Figure 1 can be used to represent the viewpoint of all the meanings. The entity of interest in the model for all the meanings is the expanse or the boundary of *alam*. Based on linguistic data, an idealized cognitive model (ICM) of *alam* would encompass everything created by God (known or unknown to man or by humans). The ICM would have to accommodate ‘everything’ be it physical or spiritual. In the more ‘empirical positivistic mode’, *alam* circumscribes the world or earth (Mother Nature). A manifestation of this is the expression *bencana alam* – which relates to natural disaster on the surface of earth (flooding, quakes). It is also in this sense that *alam sekitar* ‘environment’ and *ilmu alam* ‘geography’ is most often used. This aspect of *alam* as nature – is also carried over in Western scientific concept in Physics, Chemistry, Earth Science and Biology in relation to matter or physical world as known by man. In the case of *alam semesta*, the further expanse of *alam* is the most appropriate. For the expression *alam sekitar*, the boundary is set within that of the earth and its environment (inclusive of the species of plants and animals presently existing within that boundary). In the case of the ‘natural versus supernatural’, the realm of existence (or boundaries) extends beyond the physical to encompass the metaphysical world.

**Figure 1:** An Idealized Cognitive Model for *alam*



In the subsections below, I will examine how this idealized cognitive model for the concept of *alam* applies to the various uses / meanings of *alam*.

### 3.2.1. *Alam* as Universe

*Alam* as *universe* encompass the largest (perhaps an infinite) space. This sense of *alam* is most frequently found in the compound noun *alam semesta* and *alam sejagat*. Everything (and every non-thing) can be included under the concept of *alam* as universe:

(12) *Tuhan sekalian alam*

God entire universe

‘God of the entire universe.’

*Alam semesta* would encompass elements in both the heaven and earth and all possible worlds; and is not confined to the earth alone. Except for the limitation of human knowledge, the boundary of *alam* subsumes physics (science of matter, space and time); astrophysics (the solar system and the cosmos, black holes etc.) and also the metaphysical (the paranormal or supernatural phenomena). Hence the phrase *cosmogenic myth* is translated as *mitos kejadian alam*. Supernatural phenomena are merely metaphysical phenomena that currently remain outside of our cumulative understanding as human beings of the universe. The supernatural world invisible to the human eyes (*alam ghaib*) and the realm of the afterlife (*alam barzakh*<sup>10</sup> / *alam arwah* / *alam baqa* / *alam akhirat*) all form part of this universe. The possibilities of constricting or narrowing the scope the universe (*alam*) to denote smaller (and smaller) microcosm is seen in the word that denotes microcosm itself - *alam kecil* with the larger macrocosm being referred to as *alam semesta*.

### 3.2.2. *Alam* as Worlds

The various ‘dimensions’ of *alam* ‘universe’ can also be manifested as different worlds (parallel universe / worlds). In other words, *alam* conceptualized as worlds also allows for different possible worlds. Hence in Malay, the metaphysical worlds mentioned above are often translated as *alam* (though we can also speak of *dunia*). Instances in the language include the following expressions: *roh alam* ‘world of souls / spiritual world’, *alam kerohanian* ‘spiritual world’, *alam kebendaan* ‘material

<sup>10</sup> In Islamic eschatology, *barzakh* (Arabic: *بَرْزَخ*) is the intermediate state in which the soul of the deceased is transferred across the boundaries of the mortal realm into the spirit world and into a kind of ‘cold sleep’ where the soul will rest until the *Qiyamah* (Judgement Day).

world’, *alam tampak* ‘visible world’, *alam fizikal* ‘physical world’, and also *alam insani* ‘anthropocentric world’.

### 3.2.3. Alam as Nature

The notion of *alam* as nature is best seen in the phrase *ilmu alam* which traditionally<sup>11</sup> refers to the discipline of geography - the study of the earth and its phenomena. Thus *alam* in this sense is firmly rooted in the physical world or the earth but not exclusive to the physical earth sciences but also the non-physical aspects to include the component of human geography. Similarly the notion of *kaji alam* (according to the *Kamus Dewan*) would encompass the study of flora and fauna especially in relation to their relationship to nature and the environment and their ecology. The boundary for *alam* as nature is most appropriately circumscribed by the earth (including its atmosphere) and things terrestrial. Linguistically, *alam* as nature is seen in these expressions where the choice of word for the translation of *alam* is *nature*: *pemuliharaan alam* ‘nature conservation’, *keseimbangan alam* ‘balance of nature’, *pemujaan alam* ‘nature worship’ and *sumber alam* ‘natural resources’.

### 3.2.4. Alam as the Environment (*Alam Sekitar*)

A natural ‘scoping’ of *alam* as nature (earth) is the environment (earth’s environment). The sense of *alam* as environment is often denoted by the phrase *alam sekitar*<sup>12</sup>. The physical (earth) or terrestrial component of the environment - *alam sekitar fizikal* can also be distinguished from the biological environment which is rendered as *alam sekitar biologi* in Malay. The notion of *alam* as environment as embodied in *alam sekitar* is the most common occurrence of *alam*. Out of 235 terms involving *alam* in the Dewan Bahasa dan Pustaka’s online terminology database<sup>13</sup>, 62 per cent (or 146 terms) appear as the compound *alam sekitar*.

Some common expressions include the following: *pencemaran alam sekitar* ‘environmental pollution’, *pengurusan alam sekitar* ‘environmental management’, *maklumat alam sekitar* ‘environmental information’, *Akta Perlindungan Alam Sekitar* ‘Environmental Protection Act’ and *sains alam sekitar* ‘environmental science’.

### 3.2.5. Alam as Kingdom / Realms / Domains

A natural subset of nature (*alam* as nature) is the narrowing of that universe to very specific domains or sub domains. Thus various species of life forms on earth can form their own *alam*. For instance, the animal kingdom is referred to as *alam haiwan*. Similarly, the vegetable kingdom is *alam tumbuh-tumbuhan*. Both these *alam*s are ‘subdomains of *alam* in the biological spheres - *alam biologi*. Likewise, the inanimate kingdom is known as *alam jamadat*.

However, the rendition of *alam* as Kingdom is not restricted to the biological sphere. It can equally apply to a country (an expanse of space or region). In History, the Middle Kingdom (China) is rendered as *Negara Pusat Alam*. The carving up of the universe and nature into specific domains can also be done for abstract space such as cultural realms which are *alam budaya*. People sharing the same cultural (and perhaps regional) ‘sphere’ also reside in their own *alam* as in *alam Melayu* ‘the Malay world’ and *alam Minangkabau* ‘the Minangkabau World’. *Alam* in this sense would encompass the consciousness, the language, the culture and norms as well as the artifacts and technology. [Note: in English, the use of *kingdom* in this instance cannot be replaced by *nature*]. Thus nations that share the same cultural space can be referred to as *sealam*:

(13) *Malaysia se alam dengan Indonesia*.

Malaysia one world with Indonesia

‘Malaysia and Indonesia shares the same ‘world’.

<sup>11</sup> The borrowed word *geografi* is now used to refer to this discipline as a subject in the curriculum.

<sup>12</sup> Environment is also denoted by *persekitaran* which is a synonym of *alam sekitar*.

<sup>13</sup> [http://sbmb.dbp.gov.my/knb/cariankata/nb\\_carian\\_kata\\_istilah.aspx?KataKunci=ALAM&Type=1..](http://sbmb.dbp.gov.my/knb/cariankata/nb_carian_kata_istilah.aspx?KataKunci=ALAM&Type=1..) Accessed 12 November 2008.

The delimitation of boundaries as ‘borders of discipline, area, interests or activity’ is also possible. Hence, *alam persuratan Melayu* refers to the discipline (or world) of Malay letters and *alam persuratkhabaran* to (world of) media studies. In common usage as themes, slogan, and proper names of shops specializing in certain products or activities the use of *alam* to denote the specialization of an area abounds. For example, *alam sukan*, *alam sutera*, *alam seni foto* are best translated as the *world of sports*, *world of silk* and *world of photography* respectively.

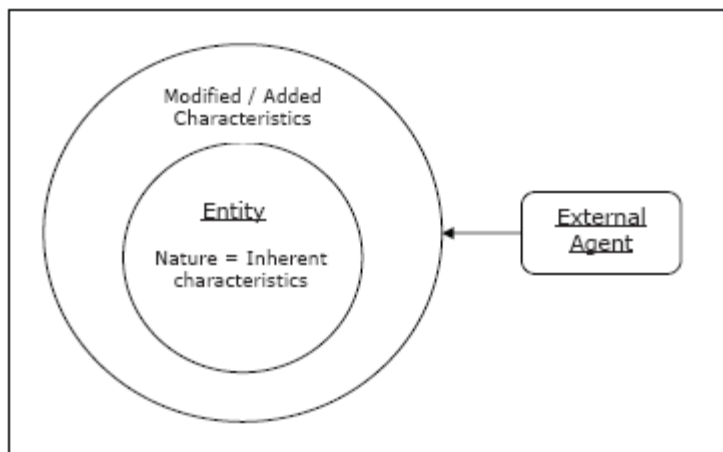
### 3.2.6. *Alam* as a Temporal Sphere

The extension of linguistic expressions from physical space to temporal space is well documented in the study of prepositions in cognitive semantics. (Meex, 2001; Tyler & Evans, 2003). The usage of spatial preposition can most often be extended to temporal usage. The same principle is seen to be at work in the case of *alam*. *Alam* may also denote a temporal span or a bounded span of time or a state. Hence *alam persekolahan* denotes one’s period of time in school (school life), *alam remaja* denotes adolescence, *alam kanak-kanak* ‘childhood’ and *alam keibuan* ‘motherhood’.

## 4. Comparing *Alam* and Nature

The focus of the ICM proposed for *alam* is the multiple and overlapping worlds in relation to the Creator which can be seen as the External Agent, separate from the *alam* It has created. The space (and the entities in that *alam*) could be physical (*alam nyata / alam fizikal*) or metaphysical (*alam ghaib*). For the purpose of comparison, the ICM for nature as proposed by Schroeder (2005) is reproduced here in Figure 2.

**Figure 2:** Schroeder (2005) Idealized Cognitive Model for *nature*



According to Schroeder (2005) the focus of the ICM for *nature* is an entity of some kind, which could be an organism, an object, a person, a system, an environment, a process, or anything of interest. The nature of this entity is some set of characteristics or features that are presumed to be inherent or intrinsic to it. These characteristics are often regarded as being inward or internal to the entity, i.e., they arise from or are located inside the entity, in some sense. The schema also includes an agent or actor that is external to the entity of interest and which acts upon it in some way. The action of the external agent gives rise to modifications of the entity’s intrinsic characteristics, or to new characteristics that are added to the entity’s original characteristics. These modified or added characteristics are often regarded as ‘outward’ or ‘superficial’ to the entity.

Schroeder (2005:196) further states that the many uses of the word nature in English ‘can be derived by assigning different things to the various roles in this model’. For example, when we speak of the laws of nature, the entity in the ICM is the physical universe. The scientific laws that govern

physical events and interactions are considered to be intrinsic to the universe and hence they are 'natural'. In this case, the external agent would be something that stands outside of physical reality (e.g., a spirit or deity), and an 'unnatural' event would mean a supernatural or miraculous occurrence caused by that agent. On the other hand, when we tell a person to 'act natural', the entity of concern is the person's behavior. *Nature*, in this case, refers to the person's own intrinsic behavioral patterns and predispositions. The external agent is the person's conscious will, which is capable of altering their natural behavior pattern by deliberately imposing some other way of behaving (for example, to conform to social expectations). This altered behavior would be considered unnatural for the person.

One immediate difference between the two ICMs is the role of the nature with its inherent characteristics. In Malay usage, the concept of *alam semulajadi* or *alam tabii* best capture the notion of the intrinsic characteristics. However, the intrinsic characteristics from the *alam* perspective are not uncaused. Rather the characteristics are a corollary of the Creator. The intrinsic are left to man as the Creator's viceroy on earth that have been given the gift of *akal* (reason) to uncover and to seek knowledge of the properties concerned. Hence *alam* and *ilmu* (knowledge) share the same root 'ayn laam meem'. Consequently, it is natural that there may be many 'things' in *alam* which have yet to be 'known' or to be explained by man. In this regard, the concept of *alam* and knowledge of the universe share the same monotheistic Abrahamic roots and tradition. Studying and understanding nature is seen to be as ultimate triumph of human reason by which we come to understand God (Hawking 1988:175).

Another difference between the two schemas is in terms of the external agent. The external agents in the ICM for *nature* are bound by physical reality i.e., natural and intrinsic to the universe, govern by scientific laws, and interacts with nature. On the other hand, the ICM for ALAM, separates the agent Creator from the physical and non-physical entity created. As such any modified or added characteristics cannot have a role in the ICM of *alam*.

## 6. Concluding Remarks

The present cognitive semantics analysis of *alam* (in comparison to *nature*) has revealed that the notion of nature might not be as 'universal' as one would like it to be. This poses a question on the supposedly 'universality' of nature as is presented in discourse on science, nature and environment. Based on the investigation of this concept in Malay, it seems clear to us that at least from a cognitive semantics perspective, some degree of cultural and linguistics relativism exists in the meaning and conceptualization of nature. Malay *alam* cannot be separated from its Arabic and Islamic origin and as such *alam* provides a conceptualization of nature as 'the sum total of everything that exists, but it is also the impersonal necessity of the world' ruled by the will of an all-powerful and wise God (Manzoor, 2003:421) *Nature* in present day usage is one manifestation of the human ability to articulate the physical world. The general question is whether the use of terms for *nature* in other languages such as Japanese - *shizen* (自然), Chinese - *zhiran* (自然), Korean - *Ja Yeon* (자연), or Arabic - *al-tabee'ah* - الطَّيِّعَة, provide similar construals of nature. The contention is that they might not. I have shown this with the comparison of the ICMs for *alam* and *nature*. The focus on the 'intrinsicness' of nature which is translated into *alam semulajadi* or *alam tabii* essentially contradicts the etymology and the ICM of *alam*. Due to the fact that these expressions have been used to capture the notion of *nature* so often is at the expense of reconfiguring the ICM for *alam*.

In the context of discourse on science education, nature and environment, it is important to realize that the notions of nature from a predominantly English language perspective based on the empirical logical positivistic notions might be imposing a view of nature which is incommensurate with the local language and perhaps be 'adding unnecessary confusion to the indigenous associative relations' formed in the other languages and culture (cf. Kawasaki 1996). This is especially important since the concepts of nature, universe and environment appear to be a major concern and predominate much discussion in the world we live in today. The conception of nature and our different interpretations of the concept of nature affect the way we deal with these issues.

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