Comparative Logics and the Comparative Study of Civilizations

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Introduction

The following paper reflects two concerns: The first is with the nature of human awareness in the world of which we are aware. It is clear that world and awareness cannot be distinctly separated from one another, except perhaps metaphorically. But it is equally clear that these different aspects of common experience are different aspects.

My second concern is with different logics both as these reflect attempts to relate world and awareness in various cultures, and as they can be used to critically examine the perspectives from which we undertake any comparative study of civilizations.

Within the framework of these two concerns, I shall present what I consider some of the most important epistemological problems implicit in relating the potential for experience to the objects of experience, as well as approaches to these problems by four oriental and occidental systems. In each case I will suggest possibilities for logical syntheses as well as potential applications to the comparative study of civilizations.

Problems

1. Civilization is a mental state, a state of mind, regardless of how one may otherwise define it. Perhaps the Jain position that the basic characteristic of jiva or soul is the "potential for consciousness or attention," expresses this idea most clearly.

   Most Indian systems in general and the Jain in particular discuss the difficulties that arise when being aware is mistaken for the objects of awareness. This insight is found in the "Tat tvam asi" of the Upanisads, the Taoist proposition that the "Tao of which one can speak is not the Tao," the Confucian concern with "rectification
of names, "Socrates knowing that he does not know, the Copper Eskimo's awareness that the dancing bear is not the bear dancing. And one finds it in different approaches to approximation and modeling in modern physical and social science, from Goedel's incompleteness theorem, to Heisenberg's uncertainty principle. The mathematician, Jacob Bronowski, wrote:

...it is not possible for the brain to arrive at certain knowledge. All those formal systems, in mathematics and physics and the philosophy of science, which claim to give foundations for certain truth are surely mistaken. I am tempted to say that we do not look for truth, but for knowledge. But I dislike this form of words, for two reasons. First of all, we do look for truth, however we define it; it is what we find that is knowledge. And second, what we fail to find is not truth but certainty; the nature of truth is exactly the knowledge that we do find.

2. One of the most important aspects of human awareness is that it is always potential awareness of awareness. It is this potential which distinguishes human consciousness from the sense consciousness which we share with other living organisms—and I am quite aware that any statement about other organisms is made in my contexts, not theirs. Questions as to where or how such awareness occurs, are ultimately irresolvable for such questions already presuppose this potential.

3. It is human awareness of awareness which enables w/man to convert awareness into meaning. I would define knowing as this conversion process from awareness/perception/cognition to meaning/objects of awareness/concepts of recognition. This conversion begins in the human ability to re-cognize in symbols, and it is expressed in rituals, rites, theories, explanations, speculations, laws of nature, etc. The conversion of awareness into meaning is the essence of the artistic, religious, philosophical and scientific speculation in any tradition. As the Buddhist might say, it forms the webs with which w/man connects the points of human experience. It is the maps w/man maps to trace both personal lifetimes and ages.

4. The conversion of awareness into meaning is a process with two complementary aspects: (1) It enables us to create the institutions, values, and systems of explanation within which we individually and collectively live and move and have purpose, but (2) it also enables us to an awareness that these institutions, values and
systems of explanation within which we live and find purpose, in turn live and have purpose only in us. We conceive our concepts, and conceive ourselves conceptually. On the one hand we define the world, and on the other we are aware of ourselves via these definitions. In a sense we are always lifting ourselves by our own pants seats.

5. This awareness of inside/outside, definer/defined, creates an instability at the core of all stability. But it is also the potential source of creative change in the lives of individuals and collectives where it expresses itself in the truths of paradox and the paradoxes of truths. Niels Bohr is said to have divided truths into two sorts, trivial ones where opposites are clearly absurd, and profound truths, which are recognized by the fact that their opposites also are profound truths. Chuang Tzu’s butterfly dream expresses this paradox in one way as it is reflected in the life of the individual. Galileo’s two laws of motion express it in another way as the relative condition of our experience of the world. All of these paradoxes are implicit in the comparative study of civilizations for any such study presupposes certain definitions as fixed points.

Solutions

The systems w/man has used to accommodate the paradoxes identified above are many and complex, and I will limit my discussion to those which have a bearing upon the logics to be presented in the final section of my paper:

1. Extrinsic dualism (L. “from without”) ... This is the position that there are, extrinsic to human consciousness, two qualitatively different realities or worlds. In part this is the Pre-Socratic Greek view of a real world and an apparent world. It is found in Plato’s and Aristotle’s approaches to universals and particulars. And in the synthesis of Greek and Christian thought, it is the absolute dualism of creator vs. creation/createe, in which the Platonist/Aristotelean universals tend to become the ideas in the mind of a deity. These ideas, or laws of nature can be discovered by reason, sense experience, intuition, or provided by revelation; but in any case their meaning and truth is external to any particular reasoner, perceiver, etc. The mind is either a blank at birth (Aristotle), or full of forgotten images, to be recalled later in life (Plato). In
extrinsic dualism answers precede questions and determine their relevance and significance. Some version of existence and substance as pre-conceptual usually defines both concept and conceiving—this has produced a centuries long argument over freedom vs determinism/pre-destination, in religion, science, philosophy, etc. In extrinsic dualism, all problems of awareness, including awareness of being aware, are to be resolved in an appeal to either the object world, or to objective and universal reason structures.

2. Intrinsic dualism (L. “from within”) ... This position holds that innate and implicit in human nature and experience, as in the world itself, there are two absolutely different qualitative essences ... one of which is the source of the material or physical aspects of human experience, the other is the source of human awareness of the material and physical aspects. All things are an unmixed mixture of these different essences. One analogy often used to explain the idea of unmixed mixture is that of the combination of oil and water, in which a temporary union appears to occur. Two of the most important systems of intrinsic dualism are those of the Samkhya and the Jaina. Awareness of objects and awareness of being aware, reflect the synthesis that is w/man’s nature, and is to be accommodated and incorporated into all thinking.

3. Situational pluralism ... This is the position of the early Indian Buddhists who chose a middle path between the perceived nihilism of extreme materialism, and the soul theory of other schools, including the spiritual pantheism of the Vedantins. The Buddhists see the world as it is experienced in the moments of particular situations. There is no pre-existing object world which produces appearances, and there is no pre-existing subject consciousness which is aware of these appearances. There is only experience which is always an immediate synthesis of appearance and awareness. The source of what appears to be mental continuity as well as physical continuity is memory. But memory too is only recalled immediate experience. Thus to know is to relate the recognized known to the situation/s in which it was cognitively encountered. The relationship of awareness of world to awareness of awareness is an aspect of relating in experience cognition and re-cognition. The relationship is that there is no relationship apart from perception and memory.

4. Complementary continuum (complement—"something that fills
up, completes, or makes perfect," and *continuum*—"something absolutely continuous and homogeneous of which no distinction of content can be affirmed except by reference to something else... something in which a fundamental common character is discernible amid a series of insensible or indefinite variations)."¹

... Although these two terms have in one sense a common meaning, I would use them here to emphasize two ideas central to the Chinese philosophical tradition, i.e. that there is a fundamental process, the *TAO*, which is continuous in all difference and distinction, and that all distinctions and differences in this totality are necessarily mutually completing.¹²

In such a view, the human intellect is potentially capable of functioning on three levels of awareness: (a) as an active participant *in* the world process, (b) as a passive manifestation *of* the world process, and (c) beyond *activity* and *passivity*, aware of (a) and (b).¹³

**Logics**

A logic arises in a tradition as a way of relating ideas and experiences, and as such reflects its heritage. One culture may emphasize certain spiritual aspects of human experience, e.g. the "potential for attention" as in the world view of the Jainas. Another culture, as in the case of the occidental, may stress the increasingly abstract *objects* of attention and thought—*things* or *events* whose essences it is assumed are constant and unchanging, as in the Platonist *forms*, the Aristotelean universals, or the structures themselves as in modern symbolic logics. The Chinese logicians, Hui Shih and Kung-sun Lung Tzu, present a more intuitive synthesis of these poles of attention and its objects. This would seem to be the meaning of the Chinese logicians statement: "A chicken has three legs."¹⁴

Any given logic does more however, than reflect its tradition, it also reinforces that tradition's way of thinking in that it both represents and sets rules and standards. These two aspects of various logics have historically proven to be one of the major obstacles to cross-cultural understanding and to the study of comparative logics. All too often comparisons are made on the basis of some system's assumption that its approach is the only logical way. Thus
other logics are squeezed into a Procrustean bed in which what is seen as deficiency is rejected or ridiculed, what is seen as surplus is simplified or deleted. The English materialist, Thomas Hobbes' observations are fairly representative of this perspective at its most conservative:

The first author of speech was God himself, that instructed Adam how to name such creatures as he presented to his sight... And therefore in geometry, which is the only science that it has pleased God hitherto to bestow on mankind, men begin at settling the significations of their words, which they call definitions and place them in the beginning of their reckoning.15

By way of illustration of the thesis that there are many logics and that these logics reflect different origins and therefore serve different purposes and cannot be reduced to any single logic, I will schematize four that I feel are of particular significance to all pursuit of knowledge:

OBJECT LOGICS

The best illustration of object logic are Greek syllogistic and propositional logics and modern symbolic logics. These are systems within which the function of logic is to organize objectively thinking and statements about the world, without reference to the reasoning/thinking subject. The word object comes from the Latin: ob—"in the way," and jacere—"to throw." Objectification rests upon three fundamental presuppositions:

1. There is an independent entity or process—including reasoning process—which possesses its own nature and identity, regardless of human perceptions and interpretations of it. In the object tradition, objectification was and is often accomplished by means of axiomatization, i.e., the assertion of a definition which is itself unprovable, assumed to be true or primary, and the source of other statements/theorems, whose truth/operations, etc. depend upon its acceptance and application. In modern symbolic logics, the requirement for axioms which establish a deductive system is that they be independent (not reducible to others), consistent (non-contradictory), and complete (adequate to the task they are to perform).

2. There is a limit to questions, knowledge, and description—
this is provided by the identity and nature of whatever is objectified—whether sense experience, a thinking process as in logical form, or a symbol system.

3. Objectification is positive, i.e. an affirmation of specific properties, qualities, signs, entities, etc.—here is where both existence and substance play critical roles, for they are the ultimate affirmations, i.e. "is" and "is substantive"—it is this which is the source of noun forms and the variables of both class and propositional logics.

In the object tradition one often thinks of objects as entities, (ens, from esse—"to have being, to be, to exist"). An object in this sense is in the external world—something of which one is aware. A civilization too can be treated as an object in this sense and can be compared with other such objects. Zeno of Elea (5th Century BC) claimed that if something is added to or subtracted from some other thing, and this other thing is neither increased nor decreased thereby, then the first thing is nothing. This proposition conceals a problem which frequently resurfaces in the object tradition when it comes to deciding whether mental events and ideas exist or exist as other than physical entities? In the comparison of civilizations from this perspective, one would compare physical events and manifestations, but not mental states—especially the mental state within which one was comparing.

For most of the early Greek philosophers and scientists, the world was a collection of objects possessing properties and qualities. Some of these objects were particular and seemed to change, to come and go. Their objective essence and first principle/s, however, were considered universal and unchanging. Thus one of the problems in modern and classical object logic is the presence of paradox.

It was Parmenides, a Greek philosopher of the Fifth Century BC, who probably first equated being=thought=language, and thus prepared the way for objectification of all three, individually and collectively. In modern social science and education one observes the reasoning process via tests, questionnaires, etc., as objectively as does the natural scientist via equipment and gauges view objectively the natural world. In later Christian theology, the deity will be conceived as the author of this tri-part objectification.

Three traditional approaches to objectification are woven through the occidental tradition: (1) that the objectified is inter-
nal and intuitive, e.g. Plato, Brouwer, Ushenko, and Heyting, (2) that the objectified is external and arrived at via sense data, e.g. Aristotle, and John Stuart Mill, and (3) the objectified is nominal, i.e. names and signs, e.g. Ockham, Carnap, Hilbert, Russell, etc. Each of these positions implies a slightly different objective approach to the study of social science and culture in general and civilizations in particular.

SUBJECT LOGICS

The logic of the Jain school is a superb example of a comprehensive system of subject logic in which one of the functions of the logic is to identify and incorporate the “points of view” from which thinking and statements about experience are made. In this logic, the reasoner’s position is implicit or explicit in all reasoning.

The Jain logic incorporates two techniques nayavada and syadvada. The techniques reflect two different approaches to knowledge, and they clearly indicate that one is not dealing with “subject” in the sense of “subjective” as it is used in the object tradition. Rather “subject” refers to awareness and attention, and thus to a subject who is aware and attentive.

The two knowledge aspects of the Jain logic are NAY AY ADA, the elimination of ignorance, and SY ADVADA, the acquisition of knowledge. The object tradition which focuses upon the objects of knowledge may tend to see no distinction between these two approaches, and thus equate them. Socrates however was clearly aware of this distinction when “knowing many things,” he realized that wisdom consisted of “knowing that he did not know.”

The difference between acquisition of knowledge and the elimination of ignorance is the difference between extrospection and introspection—or as the Jain defines knowledge—understanding of one’s self as the source of attention and awareness, vs the contents and objects of awareness and attention. For the Jain, knowledge of the world is knowledge from a point of view. Implicit in this position are two kinds of awareness: (a) awareness that knowledge is relative to a point of view, and thus awareness of this point of view (subject knowledge), and (b) awareness of that which one claims to know within this point of view (object knowledge).
understand and compare civilizations and cultures would be to understand the point of view from which one would claim such understanding—as well as the perspective from which one compares.

Another way to put this distinction might be to view it within the context of question/answer relationships. To acquire knowledge is to learn answers. To eliminate ignorance is to eliminate one's ignorance of the questions to which these answers are responses, and thus to know the contexts and points of view within which these questions were/are asked. Such an approach leads to acquisition of knowledge and elimination of ignorance in that it places facts within the relative points of view which make them facts. Acquisition of knowledge is world oriented, elimination of ignorance is self-oriented, NAY AV ADA without SY ADV ADA is either faulty reasoning or dogma, or both.

As a brief illustration of the Jain systems, I offer the following seven well known steps of the SYADVADA. In these steps the relative nature of knowledge is preserved (non absolutism), while at the same time the certainty of relative aspects of knowledge is possible. Sayadvada permits us to link subjects and predicates in statements in sequences, while at the same time emphasizing that no particular subject-predicate combination is absolute or exists by itself. Any proposition then has seven aspects or seven stages, the truth of any one of which is restricted to that particular stage and is not applicable to any other. Each stage represents a standpoint. The term “sayad” or “sayat” in Sanskrit has a number of meanings and is usually translated with “relatively,” or “just in this sense,” or “let it be” or “it is thus.” Each proposition in the seven part series is preceded by some form of the term “sayat.” In outline, the seven steps are as follows:

1. Sayat, (Relatively, from a point of view, just so) It is so that the frog is a living organism. Here the frog is viewed by the biologist according to its dynamic functioning.
2. Sayat, It is not so that a frog is a living organism. Here the frog is viewed by the physicist or chemist in terms of its basic inorganic elements.
3. Sayat, It is both so and not so that a frog is and is not a living organism. Here the views from #1 and #2 are combined and the frog is both.
4. Sayat, A frog is indescribable. From this point of view, no
statement is a frog and no number of statements about a frog exhausts what a frog is.

5. Sayat, It is so that a frog is a living organism and it is indescribable From this view a frog is a living organism but is indescribable in the sense of #4.

6. Sayat, It is not so that a frog is a living organism and this fact too is indescribable. Here the view combines #2 and #4.

7. Sayat, It is so and it is not so that a frog is a living organism and in both cases is indescribable. Here the view combines #1, #2 and #4.

To understand the 7 part line of reasoning is to identify the sense or aspect in which each sayat is applied—and then to understand the implications of each succeeding sayat for those which preceded and/or follow it. To illustrate the sequence more clearly we could take an exercise that textbooks in semantics often use to show the relativity of experience. If we take three basins of water, one hot, one cold, and one half-way between—if we place our hands in either extreme in turn before placing them in the medium bucket, we will have the Jain sayadvada sequence. One can clearly apply this seven-step technique to the events, forces, trends, etc. that are the basic stuffs of the comparative study of civilizations.

SITUATIONAL LOGICS

Indian Buddhist logic is a logic in which one of the functions is to incorporate the situations within which experiences occur and statements are made, i.e. the situational combination of the one who experiences at a given moment, as well as the world experienced. Here the logic incorporates the synthesis of cognition and recognition, sense experience and imagination.

From both the world view and the theory of intellect in the Buddhist logic, it follows that ideas and inferences of logic are the products of imagination, however they have their origins in some fashion in sense experience. Thus the comparison of cultures and civilizations involves the synthesis of many situations—those in which one acquires the information that makes re-cognition of a civilization possible, and those within which one does the actual comparing, e.g. the writing of books and presentation of scholarly papers.

Inferences and statements are not copies of the world, nor is

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the validity/truth of either dependent upon objects or subjects. Pure cognition (sense impressions) cannot be false. One may mistake a rope for a snake, but the error is within the understanding and interpretation of perception, not in perception itself. This distinction is quite important, for it moves questions of true/false from perception to conception. We cannot see what isn’t there perceptually, on the other hand we always see what isn’t there conceptually.

Inference does not relate our conceptions to our perceptions, but rather conceptions to conceptions, ideas to ideas. Some ideas are closer to actual experience than others, but the closer we are to pure sensation, the less the intellect recognizes and names. Inference arises at that point where we try to become involved in justifications and explanations, to answer the question why or how we know or assume. For the Buddhist, as for most other theories of inference, inference must have at least three parts: a) subject, b) predicate, and c) a reason or justification for associating the subject and predicate the way we do in any particular case.

So far the Buddhist theory of inference is not too different from that of the objectivist, except perhaps the emphasis given to imagination in the former and the emphasis usually placed upon the objects of experience in the latter. However, there are two additional restrictions to Buddhist inference which distinguish it far more sharply: Firstly, because inference arises in imagination and memory, there is a danger that it can become too removed from the immediacy of changing experience, become static, seem to take on a life of its own. Thus valid inferences must reflect or correspond in some way to the momentary and dynamic nature of the world. Secondly, one should distinguish between the immediate experiences which one has as an individual, and these experiences when they have been interpreted so that other individuals can understand them vicariously.

To accommodate the first problem the Buddhist adds an example step to the logic. This fulfills the requirement that the moment be incorporated into the line of reasoning. To accommodate the second, the problems of vicarious vs. personal experience, the Buddhist distinguishes between the nature of inference for oneself and inference for others. “I know there is a fire on the mountain because there is smoke there, and where there is smoke there is fire, as in the kitchen, etc. The underlined portion of this inference
is the example without which the proposition “where there is smoke there is fire” is invalid. It is this example which forces us back into specific situations, and at the same time makes it clear upon what specific observations and situations, our generalizations and definitions depend.

For the objectivist trying to translate a line of reasoning in which this inductive example step is ignored, into Buddhist logic where it is essential, one of the difficulties is remembering appropriate and acceptable examples to indicate the situations upon which the imagination is relying for its inferences. In studying and comparing civilizations and cultures this step requires that all abstractions upon which such comparisons are based must be related back to the specific experiences from which they have arisen as interpretations of events.

A further modification of the example step insists that one must supply both positive and negative examples as well, for as Buddhist knowledge theory has it, we know what something is only when we also know what it is not. Anyone who has ever tried to identify something he or she knows with a positive and then negative list is probably aware, that the positive list is easier. In our above example of the fiery mountain and smoke, the negative example given by the Buddhist would run as follows “and where there is no smoke, there is no fire, as in the case of a lake, etc.”

The other element of inference upon which I would like to touch is the difference between “inference for self and inference for other.” In the experience of the individual, immediate cognition in a situation is internal and non-verbal. It is the source of genuine knowledge and helps us to survive and interpret the moment. Once we have experienced the moment, interpreted it, and verbalized it, we are beyond immediate experience and increasingly into the problems of concept, i.e. desire to convince, etc. As a result the structure of inference for others possesses a very different form—one which at its best is designed to both convince and to call attention to the moment in which the experience which is now vicarious, was original. Inference for one’s self emphasizes cognition and discovery, inference for others emphasizes re-cognition and communication.

The inference in inference for self and inference for others, is of three sorts for the Buddhist—categorical or identity inference, caus-
all inference, and negative inference. In the first sort we establish something's identity, in the second we establish its causes, and in the third we establish what it is not and/or what did not or cannot cause it.

**Aspect Logics**

Chinese systems, especially as a synthesis of Taoist and Confucian/Neo-Confucian philosophies, provide the basis for what I would call *aspect logics*, i.e. systems of thought which incorporate both contradiction and non-contradiction. These are logics which make distinctions and at the same time incorporate insight into the distinctions from which these distinctions have been made. Such an approach is most closely approximated in the west in the concern with meta, meta-meta, meta...n languages and logics. It has become increasingly clear that any logical system has both an inside and an outside. Chinese logics provide techniques for reasoning both in and about the world, and in and about reasoning systems. Thus complementarity/paradox is either implicit or explicit in them.

These logics might be viewed, in a sense, as a synthesis of basic aspects of the other three systems—though developing historically, independently from them. For the comparative study of civilizations and cultures, these are logics which developed from the insight that any statement about either a culture or civilization is made within a culture and civilization, and that its author is responsible for an awareness of the synthesis of about and in which has made the statement itself possible.

Aspect logic is an inferential vehicle, not for formally relating classes and signs, but for relating aspects of knowledge and understanding, as these develop in a dynamic dialectic of Way, Mind, Knowledge, and Attitude. In this tradition when we use logic as a knowledge technique, we are not relating classes but aspects of thinking and awareness. I see no conflict between a propositional logic and an aspect logic. They complement one another. To understand propositional logic, one must view it from aspects which are not and cannot be formalized. One of the great uses of aspect logic is that it enables us to understand and utilize the precision and efficiency which propositional logic can offer.
The logical techniques of the Chinese epistemological tradition are analogies, metaphors, stories, aphorisms, and admonitions, etc. Within these techniques certain inferential aspects are always involved and I would suggest there is a core of at least six such aspects which forms a common and consistent inferential system:

1. **An aspect of naming.** It is this which is reflected in the Chinese concern for "rectification of names." Hsun Tzu felt:

Names have no intrinsic reality. One agrees to use a certain name and issues an order that it shall be applied to a certain reality, and if the agreement is abided by and becomes a matter of custom, then it may be said to be a real name.\(^{17}\)

2. **An aspect of distinguishing.** In every set of inferences in aspect logic there is a distinguishing aspect. To make distinctions is to concentrate attention upon similar and dissimilar aspects of experience. However to focus upon similarities is to place out of focus an equal or greater number of dissimilarities between and among actual experiences, and vice versa. To gain is to lose. To distinguish also implies to create a distinction which is other than that which is being distinguished, e.g. the definition of true is not true, the distinction of color is not colored. Thus every distinction presupposes a second distinction which is outside the first distinction and is its source.

3. **An aspect of double negation.** In every inference in aspect logic there is an aspect of negating negation. This aspect is essentially complementary to the aspect of distinction. For example, if Tao cannot be divided, named, and distinguished, then to do so when we speak and think (in fact we must do so when we think and speak) is to negate the essence of its nature. However, to assure that this negation does not in turn become an affirmation, it too is negated. A similar example can be found in western monotheism when the theologian asserts that nothing can be said about God, and that this statement itself says nothing about God.

4. **An aspect of self-awareness.** It is this aspect of inference which reflects the sense of choice and responsibility in Chinese aesthetic and ethic. But its consequences go beyond ethic and aesthetic, for it also means the thinker chooses or has chosen the names and distinctions upon which s/he focuses. Perhaps no other tradition has placed so much emphasis upon the ideal, as the sage whose mind is both full and empty, and it is this self-awareness aspect of
inference which keeps the mind aware of its relationship to thought content.

5. An aspect of limit. This aspect reflects the practical and pragmatic side of all inferential knowledge. It is, as Hsün Tzu tells us, the essence of concentration: “As a basis for action, diversity is impractical. Hence the wise man selects one thing and unifies his actions about it.” He felt that “Learning must always have a stopping place.”

6. An aspect of volition. Any line of inference has a volitional aspect. That is, any inference expresses an attitude which reflects the like and dislikes of the reasoner who has chosen to think and express himself in a certain way. As Hsün Tzu wrote of the mind:

Of its own volition it prohibits or permits, snatches or accepts, goes or stops. . . . What it considers right it will accept; what it considers wrong it will reject. . . . Inevitably it will see things for itself.

If we combine these aspects into a logical system, we can say that the meaning as well as the nature of any inference is a synthesis of these aspects, and to understand it, agree or disagree with it, prove or disprove it, will in turn involve us in a limitless sequence of inferences utilizing these very same aspects—though the interpretations processed through the aspects may vary.

Conclusion

If one applies these four systems to the study of and resulting statements about and commentaries upon civilizations, we can see that each emphasizes a different ingredient in the knowing process—from the civilizations compared, to the point of view from which the comparisons are made, to the situation within which they occur, to the aspects that have been selected for comparison—and, of course, each of these as they apply to the individual who would compare.
NOTES


2. Tat tvam asi: “That art thou.” This is the succinct expression of spiritual monism or pantheism of the Upanisads. See especially the Chandogya Upanisad, vi.ix-xiii.

3. Opening line of the first chapter of Lao Tzu: The Tao te Ching.


5. “w/man” and “s/he”—these two terms are my solution to the awkward use of “man or woman” and “he or she,” when the collective, genderless noun or pronoun is intended.

6. “Once Chuang Chou dreamt he was a butterfly, a butterfly flitting and fluttering around, happy with himself and doing as he pleased. He didn’t know he was Chuang Chou. Suddenly he woke up and there he was, solid and unmistakable Chuang Chou. But he didn’t know if he was Chuang Chou who had dreamt he was a butterfly, or a butterfly dreaming he was Chuang Chou.” Watson, Burton (trans.) The Complete Works of Chuang Tzu, Columbia University, New York, 1968, p. 49.

7. In The Dialogue Concerning the Two Chief World Systems, Galileo has his hero, Salviati explain: “Motion, in so far as it is and acts as motion, to that extent exists relatively to things that lack it; and among things which all share equally in any motion, it does not act, and is as if it did not exist. Thus the goods with which a ship is laden leaving Venice, pass by Corfu, by Crete, by Cyprus and go to Aleppo. Venice, Corfu, Crete, etc. stand still and do not move with the ship; but as to the sacks, boxes and bundles with which the boat is laden and with respect to the ship itself, the motion from Venice to Syria is as nothing, and in no way alters their relation among themselves. This is so because it is common to all of them and all share equally in it. If, from the cargo in the ship, a sack were shifted from a chest one single inch, this alone would be more of a movement for it than the two-thousand-mile journey made by all of them together.” Galileaeo Galilei: A Dialogue Concerning the Two Chief World Systems—Ptolemaic and Copernican, Stillman Drake Trans., U of California Press, Berkeley, 1967, p. 116.

We can reduce Galileo’s ideas to the following two laws of motion: Relative motion (in systems) is “absolute,” and absolute motion (between and among systems) is “relative.” In these two principles we have the essence of “living in world views” that in turn “live in us.”

8. This in part accounts for the hostility in the occidental tradition toward both the sophists and skeptics, e.g. Protagoras’ proposition that “man is the measure of all things, of things that they are, and of things that are not that they are not”; or Gorgias’ three tenets: a. there is nothing, b. if there were something we could not know it, and c. even if we could know it, we could not communicate it.

9. The Samkhya developed a dualistic theory of evolution which ac-
counts for both the physical world, prakriti, and consciousness, purusa. This solves the problem of explaining the mental/spiritual evolution of evolutionary theory itself, that haunts western monistic materialism.

"All experience is based on the duality of the knowing subject, purusa, and the known object prakriti. Prakriti (usually translated "Nature") is the basis of all objective existence, physical and psychical. . . .

"The evolution of unconscious prakriti can take place only through the presence of conscious purusa." Sarvepalli Raldhakrishnan & Charles Moore: A Sourcebook in Indian Philosophy, Princeton, 1973, p. 424.

The Jain dualism is quite different, encompassing two qualitatively unique kinds of atoms—Jiva, which is spirit and whose basic characteristic is the potential for consciousness, and Ajiva, which is the physical source of the objects of experience, much as developed in the Greek/modern occidental tradition.

"The category of Ajiva is divided into matter (pudgala), space (akasha), motion (dharma), rest (adharma) and time (kala). . . . An atom (anu) is supposed to be the smallest part of matter which cannot be further divided." Chandradhar Sharma: A Critical Survey of Indian Philosophy, Motilal Banarsidass, 1973, pp. 63-4.

In both of these systems knowledge of the world and its explanation represents some intrinsic synthesis in human thought of matter and consciousness. The Jain have no deities, and the deities found in Samkhya in no way alter its basic view of purusa/prakriti. Thus in both of these systems any claim to "know the world" must accommodate both "knowing" as a characteristic of a subject consciousness, and the "known" as an aspect of the non-conscious, object world.

10. Thus the fundamental framework for all experience is a synthesis of immediate cognition with memory which produces what we call "recognition." The Buddhist position at this stage is quite close to both the extreme empiricism of Hume and the modern occidental existentialists. The Buddhists, as does Hume, suggest that we tend to stabilize the constantly changing dynamic of experiences via concepts and language constructs. The negative theory of concept formation of Apoha is an excellent illustration of this insight, and differs radically from the positive principle of the passive/active intellect found in Aristotle.


12. "The Chinese principle of complementarity arises in change, and via change, in non-being. The way in which something is at a given time—if existence is change or process—is relative to change, i.e. non-being. This idea of complementarity is quite different from that in the west which builds its logical foundations upon a principle of unchanging existence, with the two absolute values of "existence/non-existence." If things change, they do so within the framework that "things exist" and not that "existence is things." The experience of "changing things" will have very different implications within these two possibilities, and in the occident complementarity is lost in the principles of
non-contradiction and excluded middle. In the Taoist view the "ten thousand things" are constantly coming into and going out of being—here the principle of complementarity occurs in non-being. "Benesch, Walter & Krejci, Rudolph, An Introduction to Logics, U. of Alaska, 1985, p. 58.

13. The great contemporary Chinese thinker, Fung Yu-lan expressed it thusly:
"... The totality that lies in one's thought does not include the thought itself. For it is the object of the thought and so stands in contrast to it. Hence the totality that one is thinking about is not actually the totality of all that is. Yet one must first think about totality in order to realize that it is unthinkable. One needs thought in order to be conscious of the unthinkable, just as sometimes one needs a sound in order to be conscious of silence. One must think about the unthinkable, yet as soon as one tries to do so, it immediately slips away. This is the most fascinating and also most troublesome aspect of philosophy." Fung Yu-lan, A Short History of Chinese Philosophy, Free Press, New York, 1966, p. 337.


19. Ibid., p. 129.