An Immanent Metaphysics

by Forrest Landry

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Introduction

This book contains a summary of those concepts believed to be of maximum value in understanding key areas at the foundations of metaphysics. Rather than attempting to be a final work on the subject, the intent is to provide potent seed ideas for further reflection and development. Concepts presented herein are best treated as points of departure for these deeper considerations on the part of the reader.

It is inherent in the nature of effective metaphysical consideration to emphasize clarity, precision, and essence. A dicipline of clarity and exacting precision is necessary to reveal (and avoid) the traps of hidden assumptions and implicit expectations. This dicipline is best facilitated by direct positive statement with a careful, dispassonate, and sensitive attention to the complete meaning and connotation of each word used.

Therefore, to provide the greatest possible value, a large portion of this book has been formatted as a series of related 'aphorisms' or statements of principle. Although this is not the usual prose form of philosophical literature, it has the significant advantage of ensuring clear access to essential concepts and ideas. Individual aphorisms contain only as much text as is needed to gracefully outline those notions which are of maximum significance and importance.

To allow maximum emphasis on essentials in a minimum of text, this book does not contain much in the way of explanation, historical background, metaphor, or statement of implication. Requiring a reader to wade through too much of this type of content would obscure too much of what is really important. While such content aids understanding *in the short-term*, it often results in long-term misunderstanding (times change, and such external references do not keep up). As such, these aspects are made available in supplemental books, recordings, and transcripts.

By focusing only on those ideas that are of primary significance and importance, the text may seem to some readers to be more intense, dense, and 'technical' than standard prose. In recognition of the need for deep clarity, a certain amount of special terminology must be allowed for. The selective use of appropriate terminology frees the reader (and the author) from painful error, misunderstanding, and confusion. While a simplified and non-specialist terminology may be preferred for general audiences, the hidden and implicit complexity of a "common language" format precludes the distillation of essential notions into precise expressions of concept. Although ultimately the Axioms of this metaphysics *are* very simple, a full knowledge of their meaning, implications, and applications, is much more involved and complex.

The emphasis on precise expressions of meaning is not, however, to be construed as an attempt to prove, logically or analytically, the general validity and applicability of the any of the assertions herein. It is not an attempt to "convince" anyone of anything. Readers who are looking to be convinced that some metaphysical proposition is 'absolutely true' will need to do their own work to determine, prove, and validate their own ideas of truth.

The process of learning and the finding of Truth is more effective when one searches for what is true, rather than for that which is false. It is far less useful and meaningful to "be convinced" of something, or to spend all of one's time to try to find a way to disprove or contradict some assertion that is disliked. Such rejection is usually based on a misunderstanding, and thus fails to attain anything other than a common confusion. It is far more effective to consider, for each assertion made, the insight that it offers, and the manner in which such insight may be applied. It is hoped that the reader will recognize (and eventually come to trust) that there is a reason for every word and statement, every particularity of phrasing in these aphorisms.

To search for meaning is to find it.
To fail to search for meaning is to be without it.

The aphorisms in this manuscript refer to one another and are mutually interdependent. Some aspects of the meaning of each aphorism will only become clear when reading other areas of the text. As such, the reader is encouraged to always continue forward and develop comparisons, rather than become 'stuck' at any particular point in trying to understand one individual statement. The reader should ***not*** expect to immediately comprehend all of the aspects of the various meanings and implications of each statement made. Reading through the entire manuscript more than once is necessary to complete understanding.

Although the aphorisms have been sequenced in such a manner as to encourage a gradual building of understanding and concept, there is no requirement that they be read in a specific order. The reader is encouraged to occasionally skip around and read those sections and areas of the book that seem 'more interesting' in the moment.

Even though the reader may skip many sections in following their interests, those sections that are chosen for reading should be read very slowly and with total feeling and thoughtfulness. Do not try to 'skim' or read quickly through any part of this text. Skipping text is not skimming text. Approach each statement with full attention and when you are otherwise at peace of mind. Consider the meaning (and phrasing) of each statement fully and completely from multiple viewpoints before proceeding to the next.

By design, aphorisms implicitly contain several meanings and concepts in addition to those ideas more overtly stated. In most cases, individual assertions can be interpreted in more than one manner, and many of the statements presented have carefully considered and multi-layered meanings. Wherever possible, each interpretation and connotation has been considered (and assured) to be metaphysically valid in multiple contexts.

Each individual aphorism is intended to be a basis for deep reflective consideration. Such meditation will reveal insights into concepts and aspects which are (for brevity) merely implied. It is better to read a little bit at a time, at some consistent interval (a few aphorisms at least once daily), than it is to attempt to read many pages at once in one sitting (as with a normal book). It is a good practice to meditate for a short interval both before and after attempting to read any portion of this book.

Also, to get more value from the content, the reader is encouraged to consider each passage on more than one occasion, at varying times of the day and season. In re-reading (within a changed context), one is likely to find that points which seemed confusing at first are now much easier to understand. Due to the integrative nature of this metaphysics, some of the deeper implications will only become apparent on multiple meditative reflections and re-readings. Some connections between ideas, reflections, and continuations will only be known when one has read far enough into the text to have encountered alternate ends of the same thought.

The Nature of Metaphysics

Metaphysics is an inquiry into the nature of the relation between self and reality.

Metaphysics is organized thinking that attempts/purports to describe the common aspects of the relations between self and reality. The basic questions of metaphysics include:.

- What is the nature of existence, creation, and interaction?
- What is the nature of the known, the knower, and of knowing,
or between the known, the unknown, and the unknowable?
- What is the nature of causality, of choice, and of change?
- What is the nature of the personal (self, soul, mind, spirit, that which is subjective),
and of the impersonal (world, substance, body, physical reality, that which is objective),
and what is the nature of the relation/interaction between them?
- What is the nature and basis of value, purpose, and meaning?

Physics is organized thinking that attempts/purports to explain the common correlated content of the perceptions of many selves in the context of a particular physical world.

A metaphysics is not a physics. Each has its own means, ends and values. Although metaphysics is often considered as an extension of physics, it is more correct to assert that physics is a particular instance of a more general metaphysics.

Physics (explanations) is an answer to a Why question.
Technology (prediction) is an answer to a How question.
Metaphysics is an answer to a What question.

Physics and technology (when combined together as per the scientific method) refer to a collection of theories, and are thus subject to falsifiability and disproof. Metaphysics, as a description of the nature of meaning, measurement, and interaction, is not a theory, is not scientific, and is not falsifiable, in the conventional sense of these terms. A description (and/or metaphor) is evaluated on the basis of significance, completeness, and relevance, rather than on the basis of a fixed procedure or methodology (a form of logic).

A true metaphysics makes no predictions and provides no explanations; it is merely a description of the foundations of being in terms of patterns of correlations of meaningfulness (a system of metaphors and definitions).

Physics is the study of the interactions within a given domain.
Metaphysics is the study of the relationships between domains.

In common usage, the meaning of the term "domain" is similar to the notions of "objective reality", "world", "universe", and "dimension" (as in the notion of 'a space' in which things happen). Here, the concept of domain extends to include any realm or class of thought, theory, and/or imagination. For example, any single language is a domain. Each system of mathematics or field of scientific study is a domain. Each individual and personal dream is a domain.

However, in more technical considerations, the notion of 'a domain' must be regarded as abstract, rather than as a concrete reference. A domain is *not* a container or context in which a certain type of things are content; rather it is a reference to the combination of a certain set of ideas. A domain (as a notion) does not refer to a total collection of things so much as it refers to a common context (or type) of consideration of three or more mutually associated (and usually fundamental) defining concepts.

The term **Eventity** refers to the combination of the meanings of an entity (thing) and an event. Each interaction, comparison, and being, is an eventity. In some contexts, the meaning of the term 'eventity' is also to be considered as a combination of the concepts of identity and relation.

The Principle of Identity: two eventities which cannot be distinguished by any property, logic, measurement, or interaction, (i.e. two eventities which cannot be distinguished even in principle), must be the same (in both identity and beingness). That which is indistinguishable by any means, mode, or method, **must** be the same. No semantic reference is to be assigned to that which is indistinguishable.

For example, if two "things" are in all characteristics alike (position in space and time, all properties, energies, characters, etc., or any other forms of dimensioned information) or have the same values for all defined/known (dimensional) measures, then, by the principle of identity, they are the same in both consideration and beingness. If they are not two (or different, if one cannot tell them apart) then they are (must be) the same and have common instance.

Foundational Triplication and Type Isomorphism

The philosophical development of this Metaphysics has as its basis two ideas; that of foundational triplication and of type isomorphism.

> The idea of **foundational triplication** is to model all that is real, and particularly the foundation of each and every domain, in terms of at least three essential concepts, which although inseparable, are always mutually distinct.

> The idea of **type isomorphism** is to consider that the essential concepts of each domain are those which have similar patterns of correspondence[1].

Isomorphism: literally "one shape"; a term used to describe two concepts as having a deep sameness because they both belong to the same abstract class or type.

The principles of foundational triplication and of type isomorphism (and the Immanent metaphysics based on them) are in contrast to the prevailing philosophical and scientific heritage of Western Culture, which may also be described as based on two ideas; that of dualism and that of physical monism.

> The idea of **dualism** is to model all that is real in the terms of a fixed Cartesian separation of mind and soul from body and matter; an absolute separation of the subjective from the objective.

> The idea of **physical monism** is to consider as real only that which exists in a manner which can be studied/ evaluated in a quantitative and objective manner (the Scientific Method).

Dualism and physical monism, in combination with each other, are the basis for most of the metaphors and explanations of/for worldly phenomena. They are the basis for most of the attendant assumptions commonly in consensus usage today. These are the very assumptions about which a careful clarity is required when examining the ideas of this metaphysics.

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1. The identification of isomorphisms is not arbitrary, but may depend on the exact context in which the concepts are considered. Considering the same (literal) concept in a different (semantic) context may result in varying associations of aspect and modality. As such, it is especially important to remain aware of the assumptions and perspective in which one considers a given concept.

Three Modalities

Metaphysics realizes greater generality in referring to the 'types' of basic domain concepts and predicates rather than to the concepts themselves. As such, metaphysical thinking often considers the <u>class</u> (or type) of each of the fundamental predicates as they appear in each domain, rather than to be referring only to the specific instances of those predicates in themselves. The fundamental concepts in each domain are seen as instances of a more general set of concept classes (types), which themselves are related to one another in specific patterns.

The term **class** refers to a general category to which many eventities (concepts, beings, relations) may belong. This usage of the term 'class' is borrowed from the language of computer science, and has much of the same meaning as found within the software development process for certain languages.

The term **instance** refers to a specific proper member of a category or class.

> The term class has the connotation of context (a general whole).
> The term instance has the connotation of content (a specific part).

The **modalities** define a terminology for the <u>role</u> that each of the archetypal terms play in each specific domain, rather than to the specific instances of those archetypal terms in some particular domain[1].

The fundamental consideration of any domain can be (must be) resolved into exactly three concepts, each of which are primal and necessary to the very essence of that domain. This is known to be true for all domains.

These three concepts (the modalities), which form the most basic foundation and logic of that domain, have a definite and describable pattern of roles that each plays with respect to the other two, and in the domain as a whole. The basic pattern of roles is common to the foundations of all domains. The *same* pattern of roles between these three fundamental, necessary, and intrinsic concepts will be found as the essence of all domains.

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1. For this initial description (as a rough simplification), the term "domain" refers to any instance of a world (or universe) which may be (is) experienced by a self. There is no world that is completely independent of all selves and there is no self which is completely independent of all worlds.

The term 'modality' is generally used to refer to a specific type of role, as selected from a finite set of available types. Three such types, (or roles), and the relations between them, are both necessary and sufficient to provide a complete description of this metaphysics (The IDM or Immanent Domain Modality metaphysics).

In that the general pattern of relative roles is common to the foundations of all domains, each of the three roles is given a specific name, a modality, which is then used to refer to the class of all concepts that have that type of role.

The three modalities are the three terms used to refer to each of the three primal roles that form the essential basis necessary to the consideration of each domain. To consider the modality of a concept is to consider the essential role that concept plays with respect to other primal concepts.

The names given to the three roles (modalities) that domain primal concepts have with respect to one another are "the immanent", "the omniscient", and "the transcendent".

Within the lexicon of this metaphysics, the term "the immanent modality" refers to the entire class of all immanent modal concepts, (as instantiated within their respective domains). The omniscient and transcendent modalities are similarly defined, as references to classes of concepts.

The absolute description of the relative nature that each of the three modalities plays with respect to the other two; i.e., the pattern common to all domains, is defined by the three Axioms. Insofar as the Axioms define the pattern of the three roles, then it is ultimately the Axioms which define the exact meanings of the three modalities (and also, eventually, of all of the metaphysics itself).

Since the Axioms are formulated in terms of the modalities (since no more primal concepts exist with which to formulate them), the exact definitions of the modalities themselves are necessarily abstract, and thus are not specific to any particular domain, including that of the IDM metaphysics itself. (The modalities are abstract; the Axioms are concrete).

Therefore, no exact and final (closed/complete) definitions can be given for the modalities, aside from those which are implicit and inherent within the Axioms (and all of their pure theorems), in whatever language they are expressed. For this reason, the pattern of the meaning of each of the three modalities must often be expressed in a metaphorical character, in the language of whatever domains one happens to be interested in considering (see appendix). In this manner, eventually, with a large number of role correspondences to known systems, the essential nature of the pattern of meaning of each of the three modalities becomes clear.

Also, it is to be understood that the concept of a metaphor and the concept of an established system of correspondences is essentially equivalent in use (isomorphic) in this context. In effect, the modalities constitute the basis of a system of correspondences, the totality of which, for some large set of domains, will give particular meaningfulness to each.

Three Axioms

Where the foundations of any domain can be subsumed by three necessary and sufficient concepts, known as the modalities, so too does the relationships between these three have a consistent pattern and form. This form/pattern, common to the foundations of all domains/worlds, is described by the three Axioms.
All of the descriptive power of this metaphysics ultimately descends from the Axioms.

Axiom I: The immanent is more fundamental
than the omniscient and/or the transcendent.
The omniscient and the transcendent are conjugate.

Axiom II: A class of the transcendent will precede an instance of the immanent.
A class of the immanent will precede an instance of the omniscient.
A class of the omniscient will precede an instance of the transcendent.

Axiom III: The (classes/instances) of the immanent, omniscient, and transcendent
are distinct, inseparable, and non-interchangeable.

In that the Axioms are statements of the relations between the modalities, the Axioms themselves are also associated (have a one-to-one correspondence) with the modalities. In this manner, the Axioms are fully self-describing.

Axiom I has the nature of the omniscient modality.
Axiom II has the nature of the immanent modality.
Axiom III has the nature of the transcendent modality.

The Axioms are (and represent) the concept of pure form, without quality.
The Modalities are (and ultimately represent) pure quality without form.

These concepts, taken together as different representations of the same fundamental pattern, are the basis of all considerations of the IDM metaphysics.

Relations, Domains, Identities

The being and concepts of relation, domain, and identity are distinct, inseparable, and non-interchangeable.

A **relation** is that which divides, but which is itself indivisible.

An **identity** is that which has distinction, but which is otherwise indistinguishable.

A **domain** is that which contains (includes), but which is itself uncontained and uncontainable.

The concept of relation has the nature of the modality of the immanent.
The concept of domain has the nature of the modality of the omniscient.
The concept of identity has the nature of the modality of the transcendent.

Relation is more fundamental than identity and/or domain. The relationship between the parts (identities, instances) and the whole (the domain, a class) is more basic than the consideration of either the wholes or the parts.

Where domains appear to contain (seem to be contained/nested within) one another, an identity on one level (domain) of conception is a relation in the next level (domain) of conception. Similarly, relations become domains, and domains become identities.

Interaction, Existence, Creation

The concept of 'universe', as a class, is to be understood only and exactly as the combined meanings of the instances of the concepts of existence, interaction, and creation (neither more nor less). The concept of universe itself is *not* to be considered as the total summation of the instances of the beingness of (only) existing things and the (single) space-time that they live in. The meaning and being of 'universe' is abstract, not concrete.

The notion of universe is a specific instance of the more general concept of a 'domain'. The notion of 'a domain' is *not* a 'container' or context in which a certain type of relations and identities are defined as content, so much as it is a placeholder or combined reference to three commonly associated fundamental defining notions. To understand the nature of the universe is to understand fully the nature and implications of only (the class concepts of) creation, interaction, and existence. This is at once necessary, and sufficient.

Creation, existence, and interaction are distinct yet inseparable from one another. The being of one necessarily involves the other two. Any consideration of one implies the (at least implicit) consideration of the other two[1].

The concepts of creativity, interaction, and existence have no opposites. For every domain, there cannot be zero or negative degrees of creativity, interaction, and/or existence (i.e., the degrees of each are always positive).

Interaction has the nature of the immanent modality. Interaction precedes existence.
Existence has the nature of the omniscient modality. Existence precedes creation.
Creation has the nature of the transcendent modality. Creation precedes interaction.

Reality is not prior to perception. Perception is not prior to self.

A multiplicity of self (aspects) yields an event of perception.
A multiplicity of perception (knowing) yields an identity of existence.
A multiplicity of existence (memory) yields an identity of self.

Creation involves the scale of the microscopic.
Interaction involves the scale of the mesoscopic.
Existence involves the scale of the macroscopic.

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1. For example, existence without perception (a special case of interaction) has no semantic value of its own. To hypothesize the existence of a thing for which there is no conceivable interaction, direct, indirect, (that one cannot see it, touch it, sense it, smell it, measure it with any instrumentation, etc), would be meaningless. What does existence really mean if there is no way to personally establish its existence in one's own subjective context? Any form or establishment of an ontological status relies on and implements a relation, an immanent interaction of perception. A claim of existence prior to perception is un-provable and non-demonstrable.

Objective and Subjective

When considering the concepts of interaction, expression, and perception together (as a triple) interaction is immanent modal, expression is transcendent modal, and perception is omniscient modal.

A single comparison, as the simplest form of theory, objectifies a link between a sameness and difference and a content and a context, with respect to a given subject. There can be no comparison which does not implicitly imply the concepts of the subjective and the objective, a content and a context, and a sameness and a difference. Complex theory consists of many comparisons.

The Intrinsics of Comparison: The six concepts of sameness, difference, content, context, objectivity, and subjectivity, when taken together as a group.

Any comparison will assume a sameness of content or a sameness of context as to *be* comparison. Also, the concept of comparison will assume a difference of content or a difference of context. The concept of comparison will also implicitly assume the distinction and instantiation of objectivity (what is) and subjectivity (who is). These are the intrinsics of comparison.

The concepts of content and context represent more about a way of thinking about interaction (subjective), whereas the concepts of sameness and difference are more about interaction itself (objective).

The sameness/difference of eventities is itself always an eventity, one which is always more objective (less subjective) than the eventities which are compared.
Comparison is an objectification of a sameness and a difference.
Comparison is a subjectification of a content and a context.

The very event of perception (observation) itself has (cannot not have) both subjective aspects and objective aspects. Each perception and observation, and each expression and communication event, must (cannot not) create and define both the objective and the subjective (an Axiom III relation)[1]. Everything (and every process) has both a subjective and an objective aspect.

> There is no objectivity that does not end in subjectivity.
> There is no subjectivity that does not end in objectivity.

> Nothing can be purely objective or subjective.
> All experiences have both objective and subjective aspects.
> No experience (or expression) is completely objective or completely subjective.

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1. For example, in communication there is an inherent aspect of subjectivity in the minds perceiving a message. There is an inherent aspect of objectivity in the coordination of subjectivity, as found in the common shared external references (the language used as a basis or "carrier" of communication meaning; the shared context of all participants). Similar considerations apply to comparison, which may also be modeled as a special type of communication event.

The concepts of objectivity and subjectivity are defined in terms of the relationship between self and reality (interaction, perception, and expression). The objective is conjugate with the subjective. The being of the objective and the subjective, and the nature of the concepts of objective and subjective experience, are distinct, inseparable, and non-interchangeable.

The essence of experience has the modality of the immanent.
The essence of objectivity has the modality of the omniscient.
The essence of subjectivity has the modality of the transcendent.

Objectivity is defined in terms of comparable forms.
Subjectivity is defined in terms of non-comparable feelings.

The meaning of objectivity has common basis with the meaning of
'that which is perceived or is perceivable' (physical content).
The meaning of subjectivity has common basis with the meaning of
'that which is invisible or is transparent' (non-physical context).

Objectivity and subjectivity are degrees/metrics, not states of being or condition. Objectivity is not an attribute of any single perception. Objectivity can only be associated with clusters of related perceptions. Perception, observation, experience refer to a single/simple condition of being, without aspect; whereas objectivity can only be considered as an aspect of complexes of many related perceptions.

Objectivity is the product of the degree of

1) the intensity of the self-to-world interaction,
2) the degree of macroscopic consistency of the self-to-world interaction, and
3) the degree of microscopic potentiality in the self-to-world interaction[1].

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1. Un-patterned form, unpredictability, and randomness are as necessary for the establishment of a degree of objectivity to any perceived actuality as are the consistent correspondences formed by a consensus among multiple observers in common communication.

Being, Existence, and Reality

The concepts and the meanings of (objective) 'being' (to be objective), 'to be real', and 'to exist', are considered identically distinct, and non-interchangeable concepts. On any finite or relative scale, these three notions are not synonymous. The concepts of being, reality and of existence are considered distinct concepts, with very dissimilar meanings and definitions. Each of these meanings has a different semantic basis, and as such, to say anything about any one is to have asserted little or nothing with respect to the other two. The scope of application of each is distinct from that of the other two.

To assert existence implies both necessary actuality and necessary potentiality. With any existing thing, there must always be at least a possibility of secondary or additional interactions within that same context with any and all other existing things.

The meaning of the term 'existence' is always relative to a particular world (even if it is considered independent of any specific self). The term existence cannot be considered to have meaning without implicit reference to a world (shared objective context). The term objectivity has no meaning without implicit reference to some (specific) self (shared subjective context) even if it is considered independently of any specific world.

> The meaning of 'to exist' is to make an assertion
> that the omniscient modal aspects of a given set of interactions
> are common and shared for all of those interactions.

> The meaning of 'objectivity' is to make an assertion
> that the transcendent modal aspects of a given set of interactions
> are common and shared for all of those interactions.

The meaning of the term 'objectivity' is in reference to certain characteristics of a (large) collection of perceptual interactions, relative to some implicit self. The meaning of the term 'exists' is in reference to that which is presumed to have (at least the potentiality of) an actuality without any perceptual interactions at all (zero observations).

The meaning of the term 'real' is in reference to the beingness of a single instance of an interaction (exactly one). To be real is interdependent with considerations/references to domains/worlds and selves/observers. This is in contrast with the notions of both objectivity (inherently involves many interactions) and existence (inherently involves no interactions).

The notion of 'Reality' refers to the beingness of an instance of a set of interactions (perceptions, observations, experiences). Multiple instances of that which is 'real' together form the class of that which is 'reality'. The notion of 'to be real' cannot be further analyzed.

Interaction is simple. Reality is complex.

The term 'real' can only be applied to the identity of the beingness of the interaction itself. The term 'reality', then, can refer only to the quality of the instance-beingness of a (an arbitrary) collection of interactions.

The term 'existence' has the nature of the omniscient modality.
The term 'reality' has the nature of the immanent modality.
The term 'objectivity' has the nature of the transcendent modality.

As per their counterparts, 'that which is (objective) being' has the nature of the transcendent, 'that which is real' has the nature of the immanent, and 'that which exists' has the nature of the omniscient.

Existence is characterized in the terms of independence[1].
Reality is characterized in the terms of interdependence.
Objectivity is characterized in the terms of dependence.

All perceptions (comparisons in themselves) regardless of their 'type', are simply real. The stable patterns of comparisons of perception are reality. All Interactions are Real. Reality (an experience of a world) is constructed out of consistent sets of comparisons of those interactions (consensus, objectivity).

Only the content of that set of comparisons 'exists'. The context of those comparisons (the self), does not exist, although it is an inseparable aspect of all that is real.

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1. The concepts of dependence, independence, and interdependence are triple. They are distinct, inseparable, and non-interchangeable. Typically, dependence has the nature of the transcendent, interdependence has the nature of the immanent, and independence has the nature of the omniscient.

The specific associations between a triple of concepts and the modalities depend on the specific context of consideration in which that triple is used. Where the context of the usage of a triple shifts, the modal relationships can change. If a given triple frequently occurs or is used in only one context of consideration, the modal associations will *seem* to be constant. Abstract concepts (such as dependence, independence, and interdependence) tend to have more fluid associations.

Interaction neither exists, nor is created. Interaction Is. Interaction cannot not Be[1]. And BEing is always Being-with (and therefore doing, and therefore becoming). Yet interaction itself is not something, nor is it nothing. Interaction is real, but it does not exist. Interaction is the basis of all existence and creation and is more basic/fundamental than either existence or creation. It is in-between, in all that is both being, and becoming[2].

The concept of 'real' refers to an intrinsic aspect of interaction. The concept of reality refers to an intrinsic of stable (with respect to the subjective/self) patterns of comparisons of interaction.

> The concept of 'real' (perception) is inherently simple (an instance).
> The concept of 'reality' (experience) is inherently complex (a class).

To make assertions such as the following: "there exists only one world" or even "there exist more than one world", "many domains exist", etc., would be applying the concept of existence outside of its range of meaning[3]. There is no (single ultimate) ground domain/world in which all other domains are established as either existing or not.

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1. The degree of intensity of interaction is always positive (never zero).

2. Interaction is without any kind of existential status whatsoever. The ontological status of interaction is defined in terms of beingness, but cannot be defined in terms of, or based only on the terms of, existence (i.e., that which is existential). A single interaction cannot be considered to have any degree of (or establish any degree of) objectivity.

3. One can, however, assert "there are many worlds", or "many worlds are real", for the meaning of being is different from that of existing. Being is immanent (or in the case of worlds, transcendent), whereas existing is omniscient.

Errors of Extrema

The Errors of Extrema of Self:

Prejudice: To refer to when expression is ultimately/absolutely independent of perception.

Reaction: To refer to when expression is ultimately/absolutely dependent on perception (where reaction is mechanistic/deterministic).

The Errors of Extrema of World:

Realism: To refer to when perception is ultimately/absolutely independent of expression.

Idealism: To refer to when perception is ultimately/absolutely dependent on expression.

There is neither absolute dependence nor absolute independence; there is only interdependence (interaction). In that only/ultimately interaction is real, **none** of the extrema are valid. In that to be real (interdependent) is more basic and fundamental than both existence (independence) and objectivity (dependence), any existing objective theory of reality must (cannot not) inherently reject the four absolute extrema.

Where reality is complex (many perceptions and expressions as interactions), the transformations of perception and expression (knowing and understanding, attitude and belief), must also inherently involve (cannot not involve) degrees of interdependence rather than (strict/absolute) dependence or independence. There can be no simple attitudes or beliefs; all of them are ultimately complex.

Self spans multiple domains (sets of perception and expression pairs) and they co-influence one another. Consciousness is a higher order (transcendental) coherency linking the transformations of perception and expression.

Symmetry and Continuity

Primary Operators: Where there is assumed a sameness of subjective context,
the following four definitions hold about the nature of the objective:

Continuity refers to where there is a sameness of content and a sameness of context.

Discontinuity refers to where there is a difference of content and a sameness of context.

Symmetry refers to where there is a sameness of content and a difference of context.

Asymmetry refers to where there is a difference of content and a difference of context.

The notions of symmetry and continuity are considered to be truly fundamental to any philosophic, scientific, or metaphysical consideration of the nature of self, reality, and the relation between them. In asserting distinctness, inseparableness, and non-interchangeableness, the notion of foundational triplication asserts that there is a fundamental notion of continuity inherent in the very basis of all considerations of theory or of being. In asserting that the basis concepts of a domain will have similar patterns of correspondences across changing domain contexts, the notion of type isomorphism asserts that there is a fundamental notion of symmetry inherent in the very basis of all considerations of theory or of being.

The notion of foundational triplication is ultimately a notion of continuity. The notion of type isomorphism is ultimately a notion of symmetry.

The Root Tautology

The Root Tautology: Comparison is isomorphic with interaction and relation[1]. The concept of comparison is isomorphic with the concept of interaction and the concept of relation[2]. All relations are interactions and are comparisons. All comparisons are interactions and are relations.

The meaning and essence of perception, as that which crosses the boundary of self, is the same as the essence and meaning of comparison[3]. Perception and expression (each individually and together) are considered to be notions of the most basic type of interaction and relationship between self and reality.

The notions of relation, interaction, and comparison are basic primitive concepts. As per Axiom I, they are the ultimate coordinating basis of the descriptions, metaphors, and definitions of this metaphysics and are the prime examples of the nature of the immanent modality.

> To say that something is objective is to assert that it has both a high degree of symmetry across transformations of perception, and a low degree of continuity across transformations of expression.
>
> To have a perfection of existence is to have complete symmetry in/of all transformations of (personal) perception and zero continuity in all transformations of expression. Existence is an observable, completely independent of the self.
>
> To say that something is subjective is to assert that it has both a low degree of symmetry across transformations of perception, and a high degree of continuity across transformations of expression.
>
> To have a perfection of creation is to have zero symmetry in/of all transformations of (personal) perception and total continuity in all transformations of expression. Creation is unobservable, totally unique, and isomorphic with a totality of self (i.e., a concept of God).

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1. This is an assertion about the very being of comparison, as directly isomorphic with the very being of interaction and the very essence of the nature of relation itself.

2. This is an assertion about the theory of comparison, interaction, and relationship, as a basis of theoretical understanding. As such, anything which is inherent in the nature of any one of these three is in essence also (necessarily) inherent in the others.

3. The concept of comparison is considered to be a special case of the more general concept of interaction. Interaction itself is considered to be a special case of the more general concept of relationship. A measurement (an observation, regardless of kind) is an interaction.

The Basis of Law

All knowledge of law, of dynamic process, both inner and outer, revolves around two fundamental concepts: that of symmetry and that of continuity. Where there is a concept of lawfulness, as a class, instances of this class (laws) will be of (only) two basic/fundamental types. Any instance of a law will either be a law of symmetry, or a law of continuity.

> The basic beingness, nature, and lawfulness of all World
> is defined by, and founded upon, the concept of Symmetry.
> The basic beingness, nature, and lawfulness of all Self
> is defined by, and founded upon, the concept of Continuity.

> Objectivity has its basis in terms of symmetry. Subjectivity has its basis in terms of continuity.

> The law of symmetry is the law of intradomain relations.
> Symmetry is a sameness of content where there is a difference of context.
> It is the law of existence, of world, the law of physics, of substance, and of form.

> The law of continuity is the law of interdomain relations.
> Continuity is a sameness of content where there is a sameness of context.
> It is the law of creation, of self, of change, and of feeling.

Parallel Aspect; 1st: That which is external to the boundary of self, which is objective (has the nature of existence), also has the nature of the omniscient modality. As such, the basis of the lawfulness of that which is the content of perception will be defined in terms of symmetry. The deep lawfulness of the content of perceptions will be defined by the nature of symmetry laws.

Parallel Aspect; 2nd: That which is internal to the boundary of self, which is subjective (having the nature of creativity/ creation), also has the nature of the transcendent modality. As such, the basis for the lawfulness of that which is the context of perception will be defined in terms of continuity. The deep lawfulness of the context of perceptions will be defined by the nature of continuity laws.

> Law of symmetry will apply to all that is of content.
> Law of continuity will apply to all that is of context.

The Two Principles of Ontological Dynamics:

The objective aspects of interaction are defined by
a symmetry of content and an asymmetry of context.

The subjective aspects of interaction are defined by
a discontinuity of content and a continuity of context.

The Four Theorems of Being:

Objective content is symmetric.
(Example: The law of conservation of matter and energy).

Objective context is asymmetric.
(Example: The arrow of time).

Subjective context is continuous.
(Example: The nature and persistence of self identity).

Subjective content is discontinuous.
(Example: The necessary diversity of thoughts and perceptions).

The Incommensuration Theorem: Where applied to an absolute degree,
the following theorems hold for any interaction (any comparison) in any domain:

When something is absolutely symmetric, it must also be intrinsically discontinuous.
When something is absolutely asymmetric, it must also be intrinsically continuous.
When something is absolutely continuous, it must also be intrinsically asymmetric.
When something is absolutely discontinuous, it must also be intrinsically symmetric.

Nothing anywhere at all can be both absolutely symmetric and absolutely continuous.
Nothing anywhere at all can be both absolutely asymmetric and absolutely
discontinuous.

Analysis, as a process of division, emphasizes discontinuity to find symmetry.
Synthesis, as a process of joining, emphasizes continuity, and will find asymmetry.

Analysis has the nature of the omniscient. Synthesis has the nature of the transcendent.

Nothing (no interaction nor comparison) can be both perfectly/absolutely symmetric and
perfectly/absolutely continuous. The concepts of symmetry and continuity are
fundamentally and irreducibly incommensurate. Furthermore, nothing (no interaction nor
comparison) can be both perfectly/absolutely asymmetric and perfectly/absolutely
discontinuous. The concepts of asymmetry and discontinuity are also fundamentally and
irreducibly incommensurate.

No comparison can regard content as both
perfectly symmetric and continuous,
or perfectly asymmetric and discontinuous.
Applies at all scales, as well as for all positions in all domains.

One can conceptually examine the meanings of symmetry and continuity in the terms of parts and wholes.

'Wholes' have the meaning of 'that in the large scales' or of the macroscopic.
'Parts' have the meaning of 'the small scales' or of the microscopic.

Similarly, the concepts of symmetry and continuity can be expressed in terms of microscopic, mesoscopic, and macroscopic.

Symmetry is an assertion about the parts (the microscopic) that is made from the perspective of the whole, (the macroscopic and/or the mesoscopic).

Continuity is an assertion about the whole (the macroscopic) that is made from the perspective of the parts, (the microscopic and/or the mesoscopic).

Choice, Change, and Causality

The very fabric of the universe -- the fabric of consciousness -- is made up of change, causality, and choice. The beingness and reality of (the doing of) a/any/the/all worlds/selves is composed completely and entirely of only change, causality, and choice. Change, causality, and choice are the composition and basis of all-that-is.

Causality is defined as the subjective perception (context) of a consistency between two objective contents.

Choice is defined as the objective expression (content) of a consistency between two subjective contexts.

Change refers to the continuity of content and asymmetry of context of the interaction/definition of the subjective and objective.

Change, causality, and choice are distinct, inseparable, and non-interchangeable concepts. Change, causality, and choice, although having identically distinct natures, are always found in intimate mixture with one another.

Change is never found in the complete absence of both causality and choice.
Causality is never found in the complete absence of choice and change.
Choice is never found in the absence of change and causality.

Change (complexity and consciousness) has the nature of the immanent modality.
Causality (actuality and conservation) has the nature of the omniscient modality.
Choice (potentiality and evolution) has the nature of the transcendent modality.

A class of choices is needed to beget an expression of one instance of change.
A class of changes is needed to beget the perception of one instance of causality.
A class of causality is needed to beget one choice.

Experiences and expressions are more basic than self and reality. Choices lead to changes, which become causes, which beget new choices, etc. All of these are inherently and irreducibly both objective and subjective. Both Reality and Self are inherently and irreducibly both objective and subjective, although reality must appear to be (as causal) only objective, and self must appear to be (in choice) only subjective.

Perception which has an omniscient basis at the (objective) macroscopic limit (theory of physics, particular to a world) will regard all forms of choice as a form of, or derived from, causality.

Perception which has a transcendent basis at the (subjective) microscopic limit will regard all forms of causality (conservation, existence) as a form of, or derived from, choice (creation, in terms of ethics).

Within an immanent basis, at the mesoscopic limit (the boundary of the conscious and the unconscious), all perception will appear to be purely causal, and all expression will appear to be purely chosen (created, in terms of aesthetics). All is ultimately in terms of change.

Comparisons of changes (events) will modify (change) the apparent ratio of the degree that the change has a causal aspect to the degree that the change has a chosen aspect. The more one goes into the world, the more that being seems to be defined by causality. The more one goes into the self, the more that being is defined by (experience of) choice. On the boundary between self and world, one finds only change.

Parallel Aspect; 1st: To the extent that events and dynamics seem remote and external to the self, or are larger in scale than (the scale of) the self, or are regarded as 'unconscious' (as external to the consciousness awareness of the self), these events and dynamics will appear to be causal, objective, or reactive, with respect to that self.

Parallel Aspect; 2nd: To the extent that events and dynamics seem to be close and internal to the self, or are smaller than (the scale of) the self, or of which the self is aware (as internal or within the 'conscious' awareness of the self), these events and dynamics will tend to appear be chosen/ (at least in being stochastic), subjective, or volitional/responsive with respect to that self.

Six Intrinsics

The concept and being of perceiver, perception (the action of perceiving), and perceived are distinct, inseparable, and non-interchangeable.

> The perceiver has the nature of the transcendent.
> Perception has the nature of the immanent.
> The perceived has the nature of the omniscient[1].

In practice, the reality of the perceiver and the perceived depends/descends from the real nature of the perceiving (one cannot not perceive). Perception is more basic than the perceiver and/or the perceived. In theory, insofar as that which is not real is regarded as being illusion, the being of both the perceiver (self) and the perceived (world) must be regarded as illusionary (since neither of these are the action of perceiving/perception itself; the relation between self and world (which is real) is neither self nor world).

> Perception has the nature of the immanent modality.
> Perceiver has the nature of the transcendent modality.
> Perceived has the nature of the omniscient modality.

For example, the event of vision (as an interaction) can be understood as a dynamic of perception, which begets recognition, which begets knowing. This dynamic is consistent with Axiom II.

Any consideration of interaction, perception, expression (between self and reality) will ultimately rest on and resolve into specific meanings of exactly six aspects, irreducibly intrinsic[1] to the consideration itself.

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1. In the IDM metaphysics, the term "intrinsic" is used to distinguish against (and avoid) other possible interpretations/ connotations, (particularly those which indicate ideas of "causality" or of "predication"). The six intrinsics model is a view of the essential meaning of the term 'interaction', and is itself neither more nor less fundamental than the concept of interaction.

1st Intrinsic: The **distinction** of subject and object (patterned and pattern-less, form and feeling)), is an omniscient modal context. In all interactions there is always a difference (discontinuity) between the subjective and the objective.

2nd Intrinsic: The **fixed characteristic** of the structure of the object (i.e., the platonic eternity), is an omniscient modal content. In all interactions there is always a degree of objectivity (symmetry) with fixed characteristics.

3rd Intrinsic: The **irreversibility** of change, is an immanent modal context. In all interactions (continuity) there is always a subjective irreversibility (asymmetry).

4th Intrinsic: The **direction** of the flow (of change) is an immanent modal content. In all interactions there is always a flow (continuity) of change with direction (asymmetry) and degrees of intensity.

5th Intrinsic: The **transformation** of information is a transcendent modal context. In all interactions there is always a dynamic of abstraction and/or instruction.

6th Intrinsic: The **specification** of (addition of non-local and/or non-deterministic) transformation attributes is a transcendent modal content. In all interactions there is always a specification of the details (specified information, gauge values) added or removed.

For interactions which are perceptions, the flow of change is from the objective towards the subjective, the dynamic is one of abstraction, and overall, details (information, gauge values) are removed. For interactions which are expressions, the flow of change is from the subjective towards the objective, the dynamic is one of instruction (to put into structure or form), and overall, details are added.

The intrinsics of distinction and fixed characteristic are defined in terms of causality.
The intrinsics of irreversibility and direction are defined in terms of change.
The intrinsics of transformation and specification are defined in terms of choice.

The concept of a measurement is isomorphic with the concept of an observation, a perception, and an interaction. Comparison is more than a comparison of 'things'; a comparison is a comparison of interactions. There are no purely static things; there are only interactions. All of these have (and are) being.

One cannot observe just one thing.
One cannot not (must always) observe at least one something.
One cannot completely observe any one thing.

Anything which has being, has as its being six distinct and intrinsic aspects. There can be no being which is incomparable. As with the intrinsics of comparison, all being will always have content and context, sameness and difference, and subjectivity (quality) and objectivity (form).

Any concept of an event of measurement will involve six intrinsics. These are inertia (here used with the combined meanings of mass, pattern, form, shape, and/or structure), space, force, time, probability, and possibility. All six of these will be considered, at least implicitly, in any consideration of any measurement.

The six intrinsics of a measurement can be grouped into two common classes, those which represent content aspects of a measurement and those which represent context aspects of measurement. Pattern, force, and probability are content aspects of measurement. Space, time, and possibility are context aspects of measurement.

Content triaxial: With the concept of physicality, the class concept of 'content' is composed of the instance concepts of force, inertia, and probability.

Context triaxial: With the concept of physicality, the class concept of 'context' is composed of the instance concepts of time, space, and possibility.

Where pattern, force, and probability are the content of a perception,
these will be defined by symmetry law.
Where space, time, and possibility are the context of a perception,
these will be defined by continuity law.

Where the incommensuration theorem asserts that the fundamental basis of consideration cannot regard anything as being both wholly symmetric and wholly continuous, then that which is known or defined as symmetric must also be discontinuous. The concept of discontinuity is isomorphic with the concept of quantization[1].

The concept of content has common basis with the concept of quantization (symmetry). The concept of context has common basis with the concept of non-quantization (continuity).

At the scale of the absolute microscopic scale of a domain,
the pattern, force, and probability aspects of a perception must be quantized (symmetric, discontinuous).
At the scale of the absolute macroscopic scale of a domain,
the space, time, and possibility aspects of a perception must be continuous
(non-quantized; asymmetric).

The metrics of Force in time have the nature of the modality of the immanent.
The metrics of inertia (pattern) in space have the nature of the modality of the omniscient.
The metrics of probability in possibility have the nature of the modality of the transcendent.

The six intrinsics of interaction have direct one to one correspondence with the six intrinsic metrics of any physical domain. In that the essential nature of all measurement (as in the method of science) is itself necessarily an interaction, so does each of the six intrinsics of interaction provide the essential foundations of the metrication basis of all measurements.

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1. The concept of quantization is here used in the same manner as it would be used in the science of Quantum Mechanics: to break up into distinct and discrete units or parts.

1) The metric of space corresponds to a difference between the subjective and the objective[1] (discontinuous with each other, yet in symmetric relationship to each other).

2) The metric of mass/inertia/pattern[2] corresponds to objective content with fixed characteristics (symmetric and discontinuous).

3) The metric of time corresponds to subjective irreversibility[3], a subjective flow of asymmetric continuous change without (physical) direction or intensity.

4) The metric of force corresponds to an objective asymmetric flow of continuous change with direction and intensity[4].

5) The metric of possibility corresponds to a dynamic of abstraction and/or instruction[5] (instruction as 'to put into form').

6) The metric of probability[6] corresponds to the specification of gauge[7] values added or removed.

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1. The concept of space is an abstraction of the meaning of the distinction between subject and object. While the concept of space may relativize the nature of origin and scale (the subjective position and size of the self, i.e. the distance from "here", or one's 'point of view'), it does not (cannot) remove the necessity of the application/ instance of origin, scale, and distance altogether.

2. The concept of mass (inertia) is an abstraction of the meaning of the fixed characteristic (pattern, form, structure, and content) of the objective. The concept of 'information' (i.e., fixed pattern) which is perceived is itself inseparable from the essence of the meaning of measurement.

3. The concept of time (the arrow of time) is based on, and is an abstraction of, the characteristic irreversibility of the being of an interaction.

4. The concept of force is based on and is an abstraction of the concept of the aspect of direction in interaction. There can be no force which is not without direction. Within the context of the objective and subjective (see space above), this distinguishes between perception, as an interaction, and expression, as an interaction.

5. The concept of possibility is an abstraction of the meaning of transformation, as an intrinsic aspect of all interactions (i.e., the mediation of the interaction itself). In the context of perception, the transformation is referred to as abstractive; in the context of expression, the transformation is referred to as "instructive".

6. The concept of probability is based upon the concept of the specification aspects (complementary to transformation) of interaction. The probability of an event within the domain is not defined by the domain, but is rather defined by adding information/ detail to it.

7. 'Gauge constants' refer to that 'information' which is added or removed in the process of either abstraction or instruction (together having the meaning of transformation).

The difference between the subjective and the objective, and the objective content with fixed characteristics, are the aspects of interaction which have the nature of the omniscient modality.

Subjective irreversibility and the flow of change with direction and intensity
are the aspects of interaction which have the nature of the immanent modality.

The dynamic of abstraction and/or instruction and the specification of gauge values added or removed, are aspects of interaction which have the nature of the transcendent modality.

As a fundamental relation (simple), interaction, perception, expression is (are) not in itself (themselves) further analyzable. Relations such as these cannot be analyzed except into terms of other dependent and secondary relations (made complex), implementing the model elements listed above. For example, there is no "medium" of perception (light needs no aether to propagate), as a form or substance (mass/ inertia/ pattern) which is more basic than the perception itself.

Interaction can only BE interaction when it directly and intrinsically involves all of the model aspects listed above. All other "interactions" are, and can only be, assumed (they are not known). For example, it is not possible to 'see' a ray of light that is not intersected by the eye. There are no "interactions" which are between "objects" which are only objective. All interactions are between a subjective subject and an objective object.

In considering space, time, and possibility, as defined in terms of the interaction itself, these concepts cannot be considered as an independent context in which events occur, but rather must be thought of as coordinating contexts occurring as an aspect of the beingness of the event. Time is relative to perception; perception is not relative to time. Time is defined by perception, perception does not occur in time (it 'creates' time)[1].

Space, time, possibility, probability, force, and pattern are aspects of interaction. The beingness of an interaction establishes the beingness of space, time, and possibility. Interactions do not "happen in a context", rather, there is a context (that context *is*, has being/reality) to the degree that there is an interaction.

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1. As an extension of this, events do not happen in a place, at a location, in a given moment of time. Rather they have (as aspects of themselves) position, duration, and possibility, which may be aligned via coordination/comparison with these same aspects of other events (eventities) so as to create a common context of comparison (what most people think of as these metrics -- as an objective context).

Actuality and Potentiality

Intradomain relations are always relations of actuality. Interdomain relations are always relations of potentiality.

There is no meaning of the concept of a 'force' between domains. The concept of force is only applicable within domains, never across them. Only probabilities exist between domains. To consider the 'between-ness' of domains is to consider a transcendental relationship, whereas 'force' is a concept derived from an immanent modality.

Where the potentiality of an eventity is the same, it must be distinguished by its actuality. Where the actuality of an eventity is the same, it must be distinguished by its potentiality.

Potentiality and quality increase as measure and scale decrease.
Actuality and form increase as measure and scale increase.

Anything that is actual will be quantized. Anything that is potential will be continuous.

The degree of potentiality is measured in terms of
the number of, and degree of, interdomain relations.
The degree of actuality is measured in terms of
the number of, and degree of, intradomain relations.

The concept and being of potentiality, actuality, and complexity are distinct, inseparable, and non-interchangeable. Potentiality has the nature of the transcendent. Complexity has the nature of the immanent. Actuality has the nature of the omniscient.

Parallel Aspect; 1st: Dynamics which tend to increase the degree of objectivity in the self-to-world relation will result in a proportional increase in the degree of actuality of that world, and a decrease in the degree of potentiality of what that world could be. These are processes which tend to place the self in a more omniscient modal relation to a world.

Parallel Aspect; 2nd: Dynamics which tend to increase the degree of subjectivity in the self-to-world relation will result in a proportional increase in the degree of the potentiality of that world, and a decrease in the degree of actuality of what that world is. These are processes which tend to place the self in a more transcendent modal relation to a world.

Content of World

Where there is a context of perception, there must (cannot not) be a content of that perception. This remains true regardless of the nature of the shift of objective context.

Wherever attention is moved, one shall always find substance. Where there is the feeling of mind, there cannot not be the form of world. Mind negates absence, separation, discontinuity. Consciousness and subjectivity can only be continuous, can only have continuity.

Within the context of a world, from the perspective of a present moment (the now), there shall always be a past that one remembers. Where one moves to consider any place beyond one's current limits of vision, one shall always find content there. No world will ever have an 'edge' for which there is nothing beyond. Where one changes scale to consider the small details of something in the world, one always finds finer and finer details. Where one looks for other possibilities, other sequences of events, one always finds other sequences.

There cannot not be other possibilities, probabilities, and potentialities.
Any potentiality can be made actual.
There cannot not continue to be creation (evolution), in all worlds, in all domains.
Creation is an aspect of events, rather than their source.

No interaction in perception can be so asymmetric as to be (completely/absolutely) without possibility (and means) of expression. Where one perceives and has feeling, one cannot be fully silent (secret). In all the worlds in which one perceives and has feeling, there cannot not be a possibility of expression, a form and a symbol of the self (body) projected as substance within that world.

The Known, the Unknown, and the Unknowable

As per the intrinsic and irreducible nature of being itself, with the being of knowing and the known, there must also always be the unknown and the unknowable.

When considered from the perspective of the impersonal, the objective, the concept of the known has the nature of the omniscient, the concept of the unknown has the nature of the immanent and the concept of the unknowable has the nature of the transcendent.

When considered from the perspective of the personal, the subjective, the known is immanent, the unknown is omniscient and the unknowable is transcendent.

Only the being of interactions in the immanent modality can be known. The being of interactions between eventities viewed in the omniscient modality can only be hypothesized, never known. The absence of interactions between eventities in distinct transcendent domains can not be hypothesized or known, and are unknowable.

The known, the unknown, and the unknowable are distinct, inseparable, and non-interchangeable. The concept of the unknown is more basic than the concept of the known and/or the concept of the unknowable.

There can be no firm or absolute line drawn between the known and the unknown. There can be drawn a fixed and absolute logical line between the unknown and the unknowable.

Many experiences of the unknown precede one experience of the known.
Many experiences of the known precede one experience of the unknowable.
Many experiences of the unknowable precede one experience of the unknown.

The Great Mystery

The Great Mystery refers to the unknowable as well as the unknown. The true mystery, the deeply mysterious is that which is inherently inexplicable but which is <u>not</u> therefore paradoxical (nonsense). Although elements of the Great Mystery cannot be explained or reduced to pure reason, it is that from which all reason and reasonableness arise.

The limits of knowing, the boundaries of a domain and of the self, are three. These three limits or mysteries, are distinct, inseparable, and non-interchangeable. They define the boundaries and distinctions between the known, the unknown, and the unknowable.

The **Mystery of the Horizon** refers to the macroscopic limit of a domain, beyond which is the unknown and unknowable; that place which is so far away in time and space as to be into the absolute elsewhere.

The **Mystery of the Infinitesimal** refers to the microscopic limit of the domain; that scale at which knowledge of definite state or quality becomes impossible (Heisenberg uncertainty limits).

The **Mystery of the Subconscious** refers to a mesoscopic limit in the nature of the knowledge of one's subjective self; that quality of which oneself is.

The Mystery of the horizon has the nature of the omniscient.
The Mystery of the infinitesimal has the nature of the transcendent.
The Mystery of the subconscious has the nature of the immanent.

The Mystery of the subconscious is more fundamental than the mystery of the horizon or the mystery of the infinitesimal. Any consideration of the mystery of the horizon, or the mystery of the very small (the infinitesimal) presupposes a consideration (at least implicitly) of the mystery of the subconscious. In that consideration presupposes consciousness, it involves also the subconscious and the unconscious.

The unknowable, Mystery (awe) does not have or admit measure, degree, quantity, or value. Mystery cannot be regarded as finite.

Mystery is neither conserved nor diminished by any degree of knowing, understanding, reason, or science. While knowing can affect the unknown, it cannot affect the unknowable. The quality of the mysterious (that which is awe inspiring) in the universe is unchanged regardless of one's degree of knowing (or unknowing) of the dynamics of worldly causality.

Irreducible Uncertainty: No amount of communication or interaction (familiarity) in any domain or world will ever allow one to predict with certainty what will be said next, what will happen next. Communication and self are emergent. There are always some aspects of the content of these which are indeterminable and surprising.

The Veil of Secrecy: The omniscient cannot ever contain, or view/observe, the transcendent. In that the process of knowing is itself immanent, one cannot directly know the transcendent from within the perspective of the omniscient. It can only be that transcendent can perceive/know the omniscient, never the reverse.

Theory of Creation

Context has no source. Context has no position, no location. Context is not observable. Only content can be 'observed'. Context can be made 'observable' only by 'converting' it into content. For example, one never observes objective time; rather, one observes a clock.

Creation is real, yet it does not exist. The ontology of the class of creation is distinct from the ontology of the class (concept of) existence. The concepts of being real and of existing are not the same; nothing about one implies anything about the other.

Creation is not actual. As Creation/creativity is neither a pattern, nor a space, it is also neither a force nor a time. Creation/creativity has the nature of probability and possibility. Creation is potentiality, rather than actuality.

Creation (creativity) is not observable. It cannot be seen or measured and has no definite properties. Creation, by its very nature, must always *seem* to have happened somewhere else, or at some other time. Creation in itself is always and necessarily invisible, transparent, and ultimately unknowable.

Creation is like the silence between the words, the space between the letters; always present within looking, but never (available to be) directly observed.

Creation does not have a source. Creation does not have a location. Creation IS, without coming from somewhere, or from someone, or from something. Creation is the objective context of existence as a content.

There is (and can be) no single self which is the sole source of (all) creation (for any domain, world, or universe). Imagination, knowledge, healing, and creativity are eventualities that are without source. They never come from just one place or from any one single person/self. They come from many places, many times, and many people. No one ever does anything completely by themselves.

Creation does not have a measure or degree. Creation is formless and structureless. Creation consists of, and has being purely in terms of, quality.

Creation is not conserved and is not subject a to law of conservation. Without form, the concept of conservation (as a symmetry of form or measure) cannot be applied to creation.

Both creation and choice are necessarily/fundamentally cooperative processes. In the same manner that all of causality is existential, all of choice is creative. Personal choice is the participation of self in the universal aspect of creation.

Creation is unbounded and formless. Creation cannot be constrained or modified by anything which exists. Nothing which exists can prevent creation from being. Creation IS, and cannot not be.

Creation is not repeatable. Creation has no process, and is not causal. Creation always and inherently involves domain/world transcendent relationships.

The concept of creation is isomorphic with the concept of potentiality. As such, creation/potentiality cannot ever be fully subsumed or contained within a/any space.

Creation is not an event, but rather is an aspect of all events. Creation does not have a time. Creation does not have a location. There has been (and there can be) no event which may be called 'the creation of the universe'. Rather creation is an aspect of events. All events have creative/ creation aspects. There is no event that does not have potentiality (creativity, novelty) as a fundamental and inseparable aspect of that event.

Creation is not a process, and it is not a being. It does not have dynamics or components (or personality). Rather creation is an aspect of all process. All components are creative, not created.

The question of whether something is 'created' or 'found/discovered' is dependent on the placement/position of the arbitrary boundary of self. Depending on how one chooses to consider the totality of all being (all that is real) and divides it into aspects which are to be considered as self and not-self, one also chooses to consider that one has either "created" or "discovered" something in any given image/domain. If, as an extreme view, one were to consider all of beingness as subjective (an idealism), then one may assert that one has 'created everything' (self as deity). If one were to consider an opposite extreme (a 'realism'), then one may assert that one has created nothing (self as only substance). In the IDM metaphysics, neither extreme view is considered valid.

To be a realist is to consider that subjective content is continuous with objective content. To be an idealist is to consider that objective content is symmetric with subjective content.

Creation, although not a process, typically involves the microscopic boundary of a domain. The entrance of creative potentiality occurs through the scale of the very small, but at no particular position/locus in time and/or space.

The strength of a potentiality, or creative manifestation, is defined in terms of the degree of organization and coherency of large numbers of microscopic eventualities. The examination of any small finite collection of microscopic eventualities will have a lesser appearance of potentiality than that of the entire aggregate, proportional to the degree of rectification used.

To be clear is to allow creation. The degree of creation aspect is proportional to clarity, transparency (emptiness/potentiality), and inversely proportional to simplicity. Events of greater degrees of synthesis and complexity have stronger aspects of creation/creativity.

The quality of positivity has the nature of the immanent modality. The quality of constancy (symmetry, equality, conservation) has the nature of the omniscient modality. The quality of increase (continuity, inequality, evolution)) has the nature of the transcendent modality.

The nature of creation is to always be increasing.
The nature of interaction is to always be positive.
The nature of existence is to always be constant.

The law of the constancy of heat is omniscient modal.
The law of the positivity of temperature is immanent modal.
The law of the increase in entropy is transcendent modal.

Self of Choice

The concept of energy is isomorphic with the concept of changes of state.
To refer to objective energy is to refer to the potentiality of changes in actuality.
To refer to subjective energy is to refer to the actuality of changes in potentiality.

Existence (the universe) abhors a vacuum (the absence of mass).
Consciousness abhors stasis (the absence of force).
Spirit (deity) abhors fixation (limitation, closure, boundary; the absence of probability).

One's being, the eventity of **self**, is the product of
the sum of all of the choices that one has made, and
the sum of all of the choices that one could make.

Self is the appearance of the aggregation of that aspect of interaction which is choice.
Reality (world) is the appearance of the aggregation of that aspect of interaction which is causality.

The being of the world is realized (as actuality) in terms of symmetry and discontinuity.
The being of the self is realized (as potentiality) in terms of continuity and asymmetry.

In the same manner that world, existence, and causality are mutually inseparable, the concepts of self (consciousness), creation, and choice are mutually inseparable.
Experience (perception, causality), and creativity (choice and expression) are together more basic and intrinsic than both self (belief and personality) and reality (objective otherness).

The existence, reality (being), and objectivity (and subjectivity) of both self and world are created out of interaction.
All experience and expression (interaction) is known and understood in the terms of choice, change, and cause.

A/any/the/all worlds and selves change. There can be no world or self, nor any part of world/self that does not have some non-zero positive degree of change and evolution. One cannot not change. Nothing cannot not change.

The essence of the concept of choice is resolved into exactly three necessary and sufficient concepts.

Choice is a process of potentiality, selection, and consequence[1].

Without any of these, there is no choice (an impossible condition).

The strength of feeling that one has choice is the (multiplicative) product of
a) the degree to which one perceives (the form of) that they have a range of options to choose from,
b) the degree that each option has actuality/consequence (power), and
c) the degree that the selection of such option is perceived to be unconstrained[2].

Choice, freedom, and potentiality although real, have no position or substance.

Choice/freedom/potential have no size or location and cannot be analyzed, deconstructed, or decomposed into simpler parts.

Self does not own or have choice; rather self is the evolving context of many choices.

The self arises out of the many common contexts of choice[3].

The nature of choice is more basic, more fundamental, than the nature of self.

A/any/the/all worlds will contain some degree of selfness, and these selves will always have some positive (non-zero) degree of effective choice with/within/in that world/domain. All effective choice will have causal consequences and implement real/actual changes.

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1. For choice to be choice, it must have consequences. A choice that has no effects, or whose effects can be completely undone, is not actually a choice at all (i.e., is meaningless, by Principle of Identity).

Note: If there is a potentiality and selection of "not choosing", when such selection has real consequences and effects, such selection must necessarily also be considered a choice.

2. The beingness of choice, the idea of free will and self-determination, is the feeling sense that one has of choosing something without external influence, without reason, without any external or logical compulsion, aside from the feeling of desire from deep within the self.

Ultimately, there will always be an aspect of personal choice which is not dictated by anything external to oneself. From an external perspective, there will always has a certain irreducible degree of non-determinism (appearance of randomness) in one's choices.

3. Technically, it is better to assert that 'choice makes self' or that choice has Self. Self is an intrinsic of choice. The IDM metaphysics regards the idea 'self has or makes choice' as inherently inaccurate. Choice is not 'owned' or 'had' by the self so much a singularity of self (the common context of selection) is the outcome of a multiplicity of choices. In the terminology of Axiom II, Self is Truly Owned by Choice, rather than the reverse.

There is no particular 'source' (no location, no scale) for the content (specification) of a choice. Choice is not 'a property' of any system (domain or self), so much as an intrinsic of all systems.

Neither choice, nor change, nor causality, has the nature of being deterministic and/or completely logical.

Choice cannot be explained. It can only be described.
Choice can never be a subject of physical theory; it can only be a topic of metaphysical theory.

Choices must appear, at some level of abstraction, to be fundamentally unpredictable to all others, and thus, indistinguishable from pure/true randomness in the domain. The actuality of the perception of "an-other's" choice (as choices not made by the self) is also (must be, must appear to be) indistinguishable from pure randomness. Choice is not random, however, in that it is subjectively meaningful, whereas true randomness is not.

Six Paths

The totality of the relationship between self and reality is understood in terms of six subjects, six paths[1]. These may be known as spirituality, religion, science, technology, mysticism, and magic.

Art is the combination of technology, religion, and the working of magic.
Philosophy is a combination of science, spirituality, and mysticism.
Metaphysics is the integration (and unifying basis) of all six paths into a common whole.

Greatness has aspects of form (as in ideas) and feeling (as in arts).
The most effective philosophies, the greatest ideas of an age,
have equal components of science, spirituality, and mysticism.
The most effective arts, the greatest works of art in an age,
have equal components of technology, religion, and magic.

The greatest ideas of an age involve a scientific perspective, in that there needs to be a discipline, rigor, and clarity of thinking. A great idea involves spirituality, in that it requires high degrees of acceptance and openness, (a beginner mind), to be appreciated in the context of one's previous assumptions, presuppositions, and beliefs. A great idea involves deep insight, intuition, and the qualities of feeling, dreaming and the unconsciousness of a mystic, as much as it does of thought and work. Only when significant degrees of all three (science, spirituality, and mysticism) are used together is there any chance of developing a new, great philosophy.

A great work of art involves technology in the effective execution and skill of the artist (the artist's technique). A great work of art involves religion as a source of the archetypal symbols and languages needed to convey an insightful meaning. A great work of art involves magic in its deep ability to change the perception, attention, and consciousness (state of feeling) of anyone who experiences/perceives that work of art. Only when all three (technology, religion, and magic) are present in significant degree is a new, great work of art able to be created.

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1. All other subjects and studies are combinations or fractions of aspects of these six.
All domains (worlds) will (at least implicitly) involve some aspects of each of these six in all cultures.

Spirituality is a way of perceiving which begins with the transcendent modality (soul), transitions to the immanent modality (life), and completes with the omniscient modality (integrity).

Religion is a way of expressing which begins with the transcendent modality (ideals), transitions to the immanent modality (action), and completes with the omniscient modality (community).

Science is a way of perceiving which begins with the immanent modality (observation), then transitions to the omniscient modality (description/theory), and completes with the transcendent modality (experiment).

Technology is a way of expressing which begins with the immanent modality (decision), transitions to the omniscient modality (design), and completes with the transcendent modality (implementation).

Mysticism is a way of perceiving which begins with the omniscient modality (body technique), transitions to the transcendent modality (diffusion of self), and completes with the immanent modality (realization/enlightenment).

Magic is a way of expressing which begins with the omniscient modality, transitions to the transcendent modality (ritual), and completes with the immanent modality.

The Path Transformations of Question:
The essential question of spirituality is Who.
The essential question of religion is Where.
The essential question of science is Why.
The essential question of technology is How.
The essential question of mysticism is When.
The essential question of magic is What.

The Essence of Theory:
Spirituality is a description/explanation of change; the world in terms of a self.
Religion is a proscription/prediction of change; self in terms of a world.
Science is a description/explanation of causality.
Technology is a proscription/prediction of causality.
Mysticism is a description/explanation of choice.
Magic is a proscription/prediction of choice.

The Essence of Practice:
Science is an exploration of objective value.
Technology is an expression of objective purpose.
Spirituality is an exploration of subjective meaning.
Religion is an expression of objective meaning.
Mysticism is an exploration of subjective value.
Magic is an expression of subjective purpose.

Path Essence of Action:
Science is about the description and theory of objective eventities.
Technology is about the definition and creation of objective eventities.
Spirituality is about the integration of objective eventities into a subjective eventity.
Religion is about the integration of subjective eventities into an objective eventity.
Mysticism is about the description and theory of subjective eventities.
Magic is about the definition and creation of subjective eventities.

What Comes Before, What the Means are, and What the Outcome is:

There must be acceptance before there is learning.
There must be learning before there is spirituality.
There must be spirituality before there is acceptance.

There must be knowledge before there is method.
There must be method before there is science.
There must be science before there is knowledge.

There must be wisdom before there is divination.
There must be divination before there is mysticism.
There must be mysticism before there is wisdom.

There must be symbol before there is ceremony.
There must be ceremony before there is religion.
There must be religion before there is symbol.

There must be understanding before there is engineering.
There must be engineering before there is technology.
There must be technology before there is understanding.

There must be meaning before there is ritual.
There must be ritual before there is magic.
There must be magic before there is meaning.

Axiom II Process of Means:

The processes of Learning, Wisdom, and Science, have in common the essential dynamic of beginning with perception in the immanent, continuing with interaction in the omniscient, and completing with expression in the transcendent.

The processes of Method, Acceptance, and Mysticism, have in common the essential dynamic of beginning with perception in the omniscient, continuing with interaction in the transcendent, and completing with expression in the immanent.

The processes of Divination, Knowledge, and Spirituality, have in common the essential dynamic of beginning with perception in the transcendent, continuing with interaction in the immanent, and completing with expression in the omniscient.

The processes of Ceremony, Meaning, and Technology, have in common the essential dynamic of beginning with expression in the immanent, continuing with interaction in the omniscient, and completing with perception in the transcendent.

The processes of Engineering, Symbol, and Magic, have in common the essential dynamic of beginning with expression in the omniscient, continuing with interaction in the transcendent, and completing with perception in the immanent.

The processes of Ritual, Understanding, and Religion, have in common the essential dynamic of beginning with expression in the transcendent, continuing with interaction in the immanent, and completing with perception in the omniscient.

The Functional Basis of the Six Paths:

The theory of Spirituality always involves (is) knowledge of divination.
The practice of Spirituality always involves (is) learning of acceptance.
Being spiritual enables one to divine knowledge (have knowing).

The theory of Religion always involves (is) understanding of ritual.
The practice of Religion always involves (is) ceremonies of symbol.
Being religious enables one to ritualize understanding.

The theory of Science always involves (is) learning of symbol.
The practice of Science always involves (is) method of knowledge.
Being scientific enables one to learn wisdom.

The theory of Technology always involves (is) meaningful ceremony (i.e., procedural mathematics).
The practice of Technology always involves (is) engineering of understanding
(i.e., to regard engineering as the design of transformations of form).
Being technical enables one to designate meaning.

The theory of Mysticism always involves (is) acceptance of method.
The practice of Mysticism always involves (is) divination of wisdom.
Being mystical enables one to implement acceptance.

The theory of Magic always involves (is) symbol engineering.
The practice of Magic always involves (is) rituals of meaning.
Being magical enables one to engineer symbols.

The Transitional Transformations:
Acceptance is the statement aspect of perception.
Knowledge is the structure aspect of perception.
Wisdom is the semantic aspect of perception.
Symbol is the statement aspect of expression.
Understanding is the structure aspect of expression.
Meaning is the semantic aspect of expression.

The Correspondences of the Practice of Path:
Learning and ceremony have the nature of the immanent.
Method and engineering have the nature of the omniscient.
Divination and ritual have the nature of the transcendent.

The Action of the Six Paths:
The practice of spirituality is the process of
using learning to create acceptance within the self.
The practice of science is the process of
using method to create knowledge within the self.
The practice of mysticism is the process of
using divination to create wisdom within the self.
The practice of religion is the process of
using ceremony to create symbols within the world.
The practice of technology is the process of
using engineering to create understanding within the world.
The practice of magic is the process of
using ritual to create meaning within the world.

The Basis of Law:
The Lawfulness of physics, the being of religion, and the implementation of technology,
are all based on the concepts of proximity and symmetry.
The Principles of magic, the being of spirituality, and the implementation of mysticism,
are all based on the concepts of similarity and continuity.
The Axioms (foundation) of metaphysics (correspondence patterns, isomorphisms,
triplication), are based on the concepts of inclusion and comparison.

Simplicity, Clarity, and Metaphor

The concepts of simplicity and clarity are distinct, even though they may often appear in the same context. In thinking about metaphysics, one must proceed with an emphasis on a clarity of essence rather than submit to a desire or drive for a simplicity of appearance. As a metaphor for how the concept of simplicity is distinct from clarity, and of how clarity can sometimes be more valued than simplicity, consider a sphere of pure black coal as compared to a large multi-faceted diamond. The sphere of black coal perhaps represents the simplest possible physical object. In contrast, the large diamond represents a clear, yet complex, physical object.

The sphere, although very simple, will not let light pass through it, for coal is not transparent. Despite the complexity of the diamond, however, it does pass light. In this way, one can see that the ability to transmit light (a metaphor for understanding) is not dependent on complexity, nor on the materials used, for both coal and diamonds are made of just carbon. The beauty of the diamond, and how it makes prisms and sprinkles of light, depends on a detailed technology of careful faceting (very complex). Light, which typically represents love and spirituality in symbolic terms, is made beautiful by the clarity, and to some extent the complexity, of the diamond. Simplicity cannot, therefore, be the one and only end of all considerations of metaphysics (nor of spirituality, enlightenment, etc). As another similar metaphor, consider that the important aspect of a chandelier is its clarity, and not its simplicity. A chandelier is made more impressive by the degree that it is complex and consists of many multifaceted parts.

The value and sophistication of a metaphysics is in the power and insightfulness of its metaphors (the clarity of its descriptions and definitions).

The power of a metaphor is proportional to the dis-similarity and diversity of the perceptions, ideas, and concepts the metaphor links across different symbol systems, languages, or levels of self.
The power of a metaphor is proportional to the degree of completeness by which these perceptions, ideas, and concepts are linked together.
The power of a metaphor is inversely proportional to the amount of subjective time that it takes to make the necessary connections between perceptions, ideas, and concepts.

The clarity (potency) of a metaphysical description, definition, or metaphor (and of the whole of a metaphysics) is measured by the degree to which the understanding of the essence of being is reflected in one's innate knowing of the essence of being. Assertions of metaphysics are 'meta-physical' only insofar as they transparently connect and reflect an essential personal knowing of being with an essential impersonal understanding of theory (the physical with that which is not physical). Therefore it is essential to the nature of metaphysics itself to be a clear description of the nature of the connection between the personal (self) and the impersonal (world), in both theory *and* in being.

In the practice of spirituality, philosophy, and art, <u>clarity</u> (not simplicity) is the more essential value. This is particularly true when examining and presenting the deeper concepts of metaphysics. To say that a concept of metaphysics, or a theory of physics, has 'elegance' and grace, is not to say that it is demonstrably simple so much as it is to say that it is profoundly clear.

Thinking about metaphysics and philosophy will tend to encourage the reader to frequently examine implicit and hidden assumptions. Clarity is especially important when examining one's underlying assumptions. The reader is advised to exercise discipline in their thinking, and to maintain a clear openness. When allowing a release of expectations, it becomes possible to gain new and valuable insights.

The essence of what it is to be in a domain is the same as the essence of what it is to use a language. Events occur within domains in the same sense that messages occur within communication.

Just as the synthesis of multiple languages grants the speaker a deeper knowing (including a knowing of the essential nature of language), so also does the use of multiple levels, channels, and interchanges of interaction with a reality grant a deeper knowing (including a knowing of the essence of reality). The depth of such knowing obtained is greater than the sum of its components. The self which is knowledgeable about many worlds has greater wisdom in each of them.

In that there will always be limitations in translating the fullness of some ideas in one language into terms of another language, so also will some qualities of being in one domain be particular to that domain and none other. The domain of an Immanent metaphysics has aspects particular to itself.

To be able to think about, within, and upon, different types of foundations is important. The choice of the language (assumptions, subjective context) used in consideration has a profound effect on the trend and effectiveness of one's thinking.

The Observation of Metaphysics

Metaphysics is at once the most abstract and theoretical form of study imaginable, and yet also the most concrete and practical form of knowledge possible. In considering only essence, metaphysics has very general applicability. In being about essence, it is at the center of everything, at the core of the very nature of being itself. The knowledge and truths developed from metaphysics are more certain, firm, unchangeable, and substantial than literal physical 'concrete'. The descriptions and correspondences of metaphysics are absolute, even while they are also relative.

For example, metaphysics is abstract in that it considers expression and choice independently of who is choosing or what is chosen. A knowledge of metaphysics cannot be used to describe any particular perception, expression, or experience, for the study is not about specific people, places, or things. The descriptions of metaphysics do not cover anyone's personal viewpoint, or the individual basis of anyone's choices. However, the concepts, descriptions, and principles of metaphysics are applicable to any and all instances of choice; they apply to all choices, made by everyone, everywhere. Metaphysics is specific in that anything that is inherent in the essential nature of choice itself is applicable to every choice that one makes. In that choices are involved in all aspects of life, a true knowledge of metaphysics is inherently and eminently practical, potentially influencing and enhancing the process of life itself.

Metaphysics is a search for fundamental symmetries (invariants) and continuities (intrinsics) in the relation between self and reality. For example, the invariants and intrinsics of experience would be those notions and descriptions which remain applicable even when changing either the content or the context (or both) of experience (as in the definition of symmetry).

For example, as soon as someone makes an assertion "I experienced X", some aspects of metaphysical principle and insight are immediately applicable regardless of how rarified, special, spiritual, or mystical that experience may be. Anything which inherently intrinsic to the nature of any experience is validly applicable to all experiences. For descriptions of essence to be applied, it only matters that a notion of "experience" has been used at all. It does not matter who (as a subject), or what (as an object), the assertion regarding experience happens to refer to.

However, to develop the concepts of metaphysics, a metaphysicist must do more than simply "have experience", she/he must also intellectually think about and reflect on the nature of experience in itself. Rather than being a reflection on what is (or has been) experienced, a metaphysicist would reflect on the 'fact' *that there are these events* called 'experiences' at all.

The reflection of a metaphysicist is more than the practice of the scientific method. As aspects of knowing and experience, the metaphysicist must also consider the nature of measurement, observation, and objectivity, prior to assuming the usage of these notions in a given practice of thinking and reflection. As such, to study metaphysics is to seek the intrinsic, essential, and invariant aspects of experience (perception, measurement, observation, causality, etc). It involves a consideration of the very basis on which knowing itself rests, including that particular method of knowing which is called 'the scientific method'. For example, one cannot use the scientific method to 'prove' and 'validate' the correctness of the use of the scientific method itself. Metaphysics extends beyond, and yet provides a semantic foundation for, a more conventional physics.

To study metaphysics is to consider and describe the essential nature of perception, expression, knowing and knowledge, etc., as they are in themselves. It is an attempt to develop comprehensive and essential descriptions of these notions. For example, part of the aim of metaphysics is to consider experience, regardless of 1) *who* is having that experience (i.e., as the subjective context of experience), 2) *what* they are experiencing (i.e., as the subjective content of experience), 3) *why* they are having that experience, and not some other, 4) *when* they have it, 5) *where* they have it, or even 6) *how* (i.e., the process, method, or sensory channel, by which) they have that experience.

An interest in metaphysics is an interest in the nature of experience as a relation between self and reality. Questions like "What is experience?", and "How is the process/concept of experience related to other processes/concepts?", are central to the study. Where considering perception, it does not matter how rare or dis-similar the content of a person's perception is relative to the norm, the nature of the inherent aspects of the process (and concept) of all of perception will be the same.

The Reformation of Metaphysics

Metaphysics begins as an inquiry into the nature of the relationship between self and reality (world). It is this relationship which is the essence of the study. Insofar as this relationship is not a 'thing' this conception of metaphysics is in keeping with tradition as the study of that which is 'beyond' the physical.

As a generalization, the concepts of self and world (reality) can be considered as 'the subjective' and 'the objective'. Metaphysics is, therefore, a study of the relationship between subjectivity and objectivity. A successful metaphysics (as contrasted with a successful physics) will be one which provides a clear description of the essential nature of this relationship. Metaphysics emphasizes description (*what* relationship is), rather than explanation (*why* relationship is). It is a consideration of the being of the relationship between the subjective and objective in terms of intrinsic aspects: those characteristic descriptions (and patterns of description) which are both necessary and sufficient (complete) for that relationship to be semantically meaningful in all contexts. Metaphysics does not attempt to account for how or why these intrinsic patterns of description have the form and qualities that they do.

To consider the nature of what the essence of a relationship *is*, it is necessary to consider it in terms of what it *does*. This is, in effect, a methodology by which being is considered in the terms of doing. The study of metaphysics is, therefore, directly involved with both ontology and epistemology.

Ontology is the study of beingness. It considers the nature of what something is in itself. Epistemology is the study of knowing and the nature of knowledge. The essential questions of epistemology are "how does one know?" and "what is knowing, known, and knowledge?". Insofar as epistemology is about methodology and process (a doing; the process of knowledge), then metaphysics is effectively the application of epistemology (a technique of knowing) to ontology (being in itself). Thus, metaphysics studies (a doing) the being of relationship (the relationship between self and world).

More generally, metaphysics extends to consider the relationship between being and doing itself. As such, metaphysics (as a being) considers (as a doing) the being and doing of relationship (a relationship which is itself between 'things' which are also in themselves a being and a doing). Therefore, for a metaphysics to truly be effective, the scope of its description must include a description of the nature of the process of its own description (metaphysics is a relationship as well as being about relationship). Metaphysics must be able do coherently describe itself; it must be as semantically complete when it is its own subject as well as when it is its own object.

As a case example of the above, consider the nature of consciousness (as in relation to 'the subjective' above). Consciousness is never 'just consciousness', rather it is always 'consciousness of'. It is always a consciousness of something, even when that something is itself. The subject (the observer, consciousness) is never without an object (the observed; that which is regarded as being other than self). Being, as the being of consciousness, is never without doing, ('consciousness of' is an activity). Thus, as an observation (a description) on the nature of consciousness, metaphysics can include a concept of inseparability between being and doing; that the being of something (in this example, of consciousness) can be described in terms of its doing (in this example, the action of consciousness as being always 'consciousness of').

As a second example, consider the nature of existence (as in relation to 'the objective' as used above). Historically (until very recently) the connotations associated with the term 'existence' implicitly included an idea of independence: that something will 'be existing' regardless of anyone's observation of it (a doing). In actual practice, however, the independent significance of the term 'existence', or the absolute independent existence of any 'thing' has never been directly substantiated. Insofar as practice in itself (pragmaticism) must ultimately be considered as more significant (more real) than the philosophy of realism, metaphysics must consider the nature of the significance of this term 'existence' (the being of that which exists) in terms of the manner by which it is pragmatically established (in other words, a doing). Metaphysics cannot consider ontology (being and existence) independently of (without relationship with) epistemology (a doing), the manner by which the metaphysicist (as a subject) comes to *know* about the existence of the object (as objective).

Therefore, insofar as the nature of relationship itself is primal to the study of metaphysics (by these examples and many others; hence the definition), the significance of a concept or a description (a being) cannot be considered independently of the manner by which it is arrived at (a doing). In order to consider significance, or something as being significant, it must be positively distinguished from non-significance (that which is non-significant). In this essay, this requirement is known as the 'principle of identity': that which cannot be distinguished **must** be the same. The significance of a term, concept, or state of being can only be established by some method or activity (a doing) which can, at least in principle, distinguish between it and that which is not it. A definition which does not distinguish between that which is defined, and that which is not (everything else) is not a definition (it has zero semantic content; it is not meaningful). Minimally, the actuality of an identity must be defined in terms of the possibility of its distinguishability (being *is* comparison; comparison is a doing).

As such, Metaphysics must consider (it cannot not consider) 'that which exists' (being) in terms the manner by which that existence is established (a doing). In more pragmatic terms, the actuality of the semantic meaningfulness of the concept 'X exists' cannot not be defined by (at a minimum) the real possibility of interacting with X. To claim that X exists is to claim, at a minimum, that it is at least possible in principle to interact with X. In other words, X must have measurable properties (a potentiality of interaction) in order for the assertion 'X exists' to have any semantic meaningfulness.

Suppose, for example, that someone were to propose that there is this substance 'Q'. Suppose that they were to further claim that even though they had some of this Q on hand, that it was in the nature of Q to have no measurable properties: "Q has no shape, color, or density" and "Q is invisible and undetectable to all instruments, scientific or otherwise, directly and indirectly". If no one has any means by which they could interact with Q, by what basis can it be claimed to exist? What is the personal functional significance of something which, by never interacting with anything, will never interact with oneself. When there is no possibility of distinguishing between the states of "Q exists" and "Q does not exist", there is no significance in the difference; pragmatically, they are the same.

The actuality of existence cannot be considered independently of the possibility of interaction. Furthermore, it is the action of measurement (a doing) which is the very basis of the meaning of 'X exists' (a being). The significance of the concept of existence, therefore, is not independent of interaction, but is rather <u>dependant</u> on the concept of interaction. The concept of existence cannot be considered without having already (at least implicitly) involved the significance of the concept of interaction. The concept of interaction is fundamental to the concept of existence. The notion of interaction (doing) is more fundamental than the notion of existence (being). These two notions (being and doing) cannot be considered separately (in either being or doing).

This idea of relationship and inseparability is so basic to the nature of these examples (and many others) that it is regarded as an Axiom of this metaphysics:

   Axiom I: Relationship (doing) is more fundamental than identity (being).

In returning to the relationship between the subjective and the objective, Axiom I asserts that the nature of both the subjective and the objective must be considered, understood, and defined in the terms of the relationship between them. Axiom I asserts that to consider the being of the subjective, the objective, and their relationship, there must be a 'doing', a methodology; that beingness cannot be, or even be considered as being, independent of doing. There is no true independence; there is at best interdependence or dependence.

As the primary example of a methodology of this type, consider the philosophers program (a process) by which only those things which cannot be doubted would be considered as 'truth'. By defining Truth as "that which cannot be doubted", Rene Descartes established a basis of methodology (a doing) specifically designed to cut away all that was false leaving only (the being of) Truth as the remainder. This methodology is an epistemology -- a theory of truth -- which when enacted and implemented would identify to the philosopher all of those truths which could be known with certainty; those things which would provide a basis for all other forms of knowing. Truth in this sense is intended to be the 'bedrock foundation' (an ontology, a being of Truth) upon which all other forms of knowing (itself as a process) could be built.

Note that this theory of truth (an epistemology) posits as a principle that there are only two ontological states of being: a dualism of truth and falsity. Furthermore, the concept of 'having doubt' in Descartes' methodology included the notion of 'can be doubted in principle'. As such, anything which could be doubted on the basis of any principle (reasonable or not) would be regarded as 'doubtful' and therefore as 'not-truth' (possibly false, and therefore as not-certain). By this methodology, Descartes was searching for that which could be known with absolute certainty, without any possible doubt -- anything which could not, even in principle, be doubted.

After much examination (books on the history of philosophy can describe the details), Descartes arrived at his famous dictum: "I think, therefore I am" as being the only thing which could be known with absolute certainty. In effect, the dictum is a description of a relationship between doing (thinking) and being ('I am') which is so infinitesimally small that it cannot be disturbed (a doing) without inherently damaging its very nature (its being). It is a ring between the subjective and the objective (between epistemology and ontology) which is so infinitely microscopic as to be atomic ('inherently un-splitable', as per the etymology of the term 'atom'). At this scale of relationship which is infinitely microscopic, the relationship between being ('I am') and doing ('I think') is described *as* a being in itself (that self as an object, the perceived, and self as a perceiver are the same as the process of perception; a relationship). Descartes concluded that this monism of identity (the dictum itself, or rather, what it represented) was the only thing which could be known with certainty, and therefore as absolute Truth (that which cannot be doubted, even in principle).

However, in the context of the present essay, it is noted that there are in fact at least three other absolute certainties of truth. In particular, anything which is inherent in the very process of doubt itself, which is intrinsic to that process -- or more generally, to any process at all -- *must* also be (cannot not be) considered as Truth. For example, the being of doubt -- as a process (a doing) -- inherently involves an assumption of both truth and falsity as notions in themselves. Doubt (as a process) also assumes that there are two subjective states: unknown and known. Doubt, as a method of enacting and instantiating a theory of epistemology (a theory of knowing in the terms of both knower, as subjective, and known, as objective) is understood to distinguish between truth and falsity, as aspects which are objective (things as they are in themselves), and known/unknown as aspects which are subjective (things as they are perceived to be). Finally, the dynamic of doubt must also implicitly assume that there is a distinction between doubt as a process and that which is doubted as a being.

These intrinsic aspects of doubt can be described in various terminology. For example, the concepts of truth and falsity can be considered as being about, in essence, the concepts of sameness and difference. Truth is where there is a sameness of being and principle. Falsity is where there is a difference between being and principle. The epistemology of doubt can also be regarded as a transition, a movement, from the unknown to the known in terms of time. Doubt (and Descartes' method in general) can be regarded as a means from moving from antecedent states (the unknown that is before) to consequent states (the known which is after). Also, in distinguishing between the action of doubting and the being of that which is doubted, there is a distinction between content and context, the subjective and the objective.

All of these notions are inherently involved in the process of doubt. Insofar as these notions are intrinsic to the being of doubt as a process (a doing), any action of doubt cannot not instantiate (already pre-assume) these notions *as* objective, as things other than doubt, and which therefore are not -- in themselves -- doubtful. Thus, the intrinsics of doubt cannot be doubted, for the very action of doubting them requires that they have already been established as assumed (not doubted). The intrinsics of doubt are beyond doubt and therefore, by Descartes' own definition, they cannot be regarded as other than absolute Truth (as that which cannot be doubted). There is more to absolute truth than one's own thinking about one's own being.

The action of doubt and its intrinsics as a process, can be understood more exactly as an instance of the process of comparison. The concept of comparison involves as its intrinsics three pairs of other concepts: sameness and difference, content and context, subject and object. These intrinsics, which are inherent in the relationship between doing and being (between subject and object) are generally inherent in the nature of relationship itself (and therefore of both being and doing). They provide the basis of metaphysical description and are at the root of both epistemology and ontology. The persistent presence of these sets of concepts at all levels of consideration is formalized as its own Axiom:

> **Axiom III:** Intrinsic in all relationship, being, and doing are three concepts (being, doing, and relationship themselves being examples) which are distinct, inseparable, and non-interchangeable.

As a last example of this relationship between being and doing, (a metaphysics of the relationship of subject and object; self and world), consider the process by which these concepts themselves are developed. It is an examination of the being of metaphysics in the terms of the doing of metaphysics.

A detailed examination of metaphysical process (for example, as written in this essay) begins with a consideration of the relationship between being and doing. Eventually, this relationship itself is defined as a being, a being which is then (by inseparability) related to a doing. For example, epistemology can be considered as a theory about the nature of theory, including itself among the theories to be so considered. At this point, the relationship between the being of relationship and the doing of relationship may itself be considered as a being, which again is related to a doing. This process of regress proceeds through multiple levels of consideration until it is realized that the dynamics of explanation at a given meta level are exactly isomorphic (the same as) the dynamics of explanation at a previous meta level. In actual practice of meta-theorization, there is a point at which the description 'wraps'; that the method of description includes a description of the method of description.

This type of regressive structure, where multiple levels of meta-consideration are involved, is inherent in the nature of process, and it occurs frequently. Comparison can be a comparison of comparisons, which are themselves comparison of comparisons, etc, etc. There is a common mutual reciprocity between doing, being, and the relationship between them (the concept of comparison can easily hold all three roles in succession). Insofar as this relationship is known to be basic and inherent in the nature of process itself (the doing and being of truth; a being of sameness across multiple levels of consideration), it also is considered to be an Axiom of this metaphysics:

> **Axiom II:** The concepts of being, doing, and relationship undergo a definite sequence and progression of transitions when moving from one level of meta-consideration to the next; this sequence forms a closed ring of exactly three such steps.

The manner in which the Axioms are described here can be further refined by additional progressive applications of these concepts to themselves and to other domains of consideration (extending the space of examples). Insofar as the dynamics of the Axioms are themselves directly tied into the nature of both epistemology and ontology, the Axioms themselves have a direct epistemological and ontological status. Insofar as it is not possible to not involve the three Axioms in all process (doing) and being (relationship) they are necessarily considered to be 'Absolute Truth' as the basis inherent to the nature and consideration of truth itself. As such, these Axioms form the most basic level of the metaphysical consideration and description of the nature of the relationship between self and reality.

The Meaning of the Modalities

Introduction

This essay will present metaphorical and connotative descriptions of the modalities. Although such general purpose descriptions of each of the modalities are inherently imprecise, they are helpful in gaining an initial understanding of the typical usage of each modality. These metaphors and common language descriptions can be used to gain deeper insight into the more abstract meanings and patterns of relationships inherent in each modality. **On the Refinement of Modality Semantics**

Throughout most of the IDM metaphysics, these particular terms -- omniscient, immanent, transcendent -- are used in somewhat nonstandard ways. They each have special meanings and semantic qualities in addition to those more commonly assumed. Further, their usage is specific to their roles.

The terms for the three modalities were chosen from the whole of the English language due to the fact that these three words happen to have connotations fairly similar to those ultimately required by the Axioms. Because they are each 'semantically near' to the necessary meaning, they were 'borrowed' and then recast with new meanings.

This policy of using existing language terms and then recasting and refining their meanings has significant advantages, despite the inherent risk of additional confusion. Coining completely new terms would have made much of the IDM metaphysics more difficult to understand. By using terms which are near approximations to the required meanings, the reader may at least gain some initial understanding of what is intended by the author. Then, as understanding develops with additional exposure, the meanings of the modal terms will take on additional refinements.

To help dispel some of this potential confusion, this essay will consider the conventional usage and definitions of the three modality terms, (as found in most dictionaries), and compare these to their usage in the IDM metaphysics.

The Semantics of the Immanent Modality

Within common dictionaries, one may find these two definitions.

Immanent: As existing or remaining within. As present throughout the universe.

Imminent: As about to occur; impending.

The term immanent as used within the IDM metaphysics takes something of the meaning of both of the terms 'immanent' and 'imminent' as defined above. In that the concepts of relation and interaction are inherent within all events, there is a strong correspondence to the conventional meaning of 'immanent'. To the degree that 'that which is of experience' (itself a process of interaction) involves an infinitely small duration of time, or is a reference to that which is in one's immediate experience in the here and now, the IDM use of the term immanent strongly corresponds to the meaning of 'imminent'.

The metaphysics adds to these conventional meanings the idea of the immanent as being a defining concept (i.e., as a basis of definition) when considered in the sense of being (i.e., as when used in theory), and as central when a part of a process (i.e., the action of doing).

The term immanent is often used to refer to that which is immediate and intrinsic in one's own perception or expression. The immanent reflects a sense of being within a world, as a participant, and of experiencing it directly in first person terms. The immanent modality is often used to connote the simplest possible concept of interaction or of relation between self and a world (i.e., either a dreaming or 'waking' world/reality). The idea of the basic "here and now experience" (or expression) between self and reality is generally regarded as immanent modal, the emphasis being upon the concepts of 'basic' and of the absolute immediacy of time.

The concept of the immanent often is used to refer to the center of a continuum, coordinate system, or transformation. Immanent descriptions start with what is most known, and move towards that which is most unknown (i.e., things that are very small or very far away). The quality of knowing (and of understanding) is itself often considered to be of an immanent modal character.

The Semantics of the Omniscient Modality

Within common dictionaries, one may find something similar to this definition for the term 'omniscient'.

> **Omniscient**: As having total knowledge; knowing everything.
> As a referent to the quality of having infinite knowledge.

The redefinition of the term 'omniscient' is consistent with the original meaning in that one is indeed "all knowing" when perceiving a domain from a frame of reference that is external to it. In the metaphor of the photograph for example, one can see the entire photo at once, and thus has total and complete knowledge of the image that is the photograph. As another example, if one were to have the perspective of a god, as used in western religious theology, one would be able to see, and have access to, this entire reality "at once". This would be perspective, and therefore a knowing that is omniscient. The central aspect that allows this type of knowing is the difference in frames of reference.

The term omniscient carries the connotation of a point of view which includes all of the domain viewed, where the perceiver is <u>not</u> (a part of/in interaction with) the thing(s) so perceived. A perception/description of any thing is omniscient modal when it is defined in terms of structure and when it has an external viewpoint. The action of description, naming, explanation, etc., are all omniscient activities. For example, the classical scientific perspective is a largely omniscient perspective. The theories of science are often posited in omniscient descriptions and explanations (i.e., as the formulations of science).

Another example of the omniscient is found in the religious idea of a deity (God) that created the world. To say "god has made and has total control over this world" is to assert an omniscient 'God' in relation to this world. Also, any concept of deity that created the world and departed, (i.e., that god is not still here creating this moment), is an omniscient concept of theology.

The term omniscient carries the connotation of something that is considered without time, and has fixed form/ structure. For example, a photograph is a perception of something in an omniscient manner, as the content of a photograph is considered unchanging. The things and events in the photograph are timeless.

Omniscient relations typically have only matter and space (static structural) components.

Omniscient descriptions begin with the largest scales and tend towards the unit size (i.e., a movement from the macroscopic to the microscopic boundaries of the domain). Omniscient systems are defined externally to themselves.

Any statement that defines the relationship between two specific/particular things (things which are not of the self of the observer), or that applies in a well defined context, is a statement of the omniscient mode. (Note: The qualifier of 'distinct specification' is important to this association).

The Semantics of the Transcendent Modality

Within common dictionaries, one may find definitions, and aspects of definitions, similar to these found for the term 'transcendent'.

Transcendent:
> As to exist above or independently of (material experience of the universe).
> To rise above or across; surpass, exceed.
> As designating knowledge that is beyond the limits of experience.
> As that which is concerned with the a-priori or intuitive basis of knowledge.
> As asserting a fundamental irrationality or supernatural element in experience.
> As a referent to that which is above and beyond the ordinary experience.

Transcendent (as used in mathematics):

> As not capable of being determined by any combination of a finite number of equations with rational number coefficients. As not expressible as an integer or quotient of integers.

Each of these definitions of transcendent carries the connotation of being outside or completely removed from the frame of reference that is one's given world. In this respect, the IDM usage of the term 'transcendent' is consistent with the original meaning in that it refers to any relation mode where the context of the relation is completely outside of the frame of reference that defines the domain. These relations are not experiential (that would be immanent) but are beyond the consideration of the experiential altogether, not being dependent upon the frames of reference that they connect.

Within the IDM metaphysics, the term transcendent carries the connotation of situations where a relation has no time or space components at all, but is based upon other measures of similarity and difference altogether. A transcendent relationship is one that has "no position" or no specific point of reference or context. For example, a statement that is "true" at all locations is a transcendent statement. Other examples of "transcendent type" relationships include the relation between the position of the hardware and the position of the software in the "same" computer. The structure that exists in a transcendent relationship is completely "from the inside towards the outside", or from the microscopic domain boundary towards the "unit size" (and/or the macroscopic domain boundary) of the domain. Transcendent systems are defined internally to themselves and have no external structure.

Transcendent relations have typically only possibility and probability (or pure strength type) components.

The traditional concept of transcendence does not just mean moving into another 'dimension', but rather to getting outside of a given frame of reference altogether.

A Computer Science Metaphor

For an example of something of the nature of the transcendent modality as used within the IDM metaphysics, consider the relationship between a typical computer program and some component of the hardware of the computer.

Consider that from the perspective of the software, the hardware has no locus, no position. A programmer does not find physical transistors in the data and files representing the program logic. Where the hardware is invisible to the program, and yet supports it "at all points" the relation to the program to the hardware is effectively transcendent, as viewed from the perspective of the program code.

Additionally, from the point of view of the hardware, the "location" of the software is similarly in-specific and invisible. This concept of having no relative position in time or space, (i.e., of being another frame of reference altogether), is characteristic of the transcendent modality.

The fact of having no common relative position is not to say, however, that the software and the hardware of a computer are completely independent. The program code affects/determines the connectivity and state of the hardware, and the hardware implements the software. A change of state in the hardware can definitely affect the state of the software (for example, if one were to turn the computer power off). This relation of two domains, one of software and one of hardware, is said to be one of conjugation.

Additionally, neither one completely controls the other; there is an interdependence of causality. The software does not completely determine the state of the hardware, and the state of the hardware does not completely define (at the level of description native to the software) the internal state of the software.

In that both hardware and software descriptions must be used to characterize the whole system, each has an equal "degree of realness" associated with it. They are both worlds unto themselves, and the being of one world does not exclude the internal reality of the other.

All of these aspects of the relationship between software and hardware are characteristic of the transcendent modality as used within the IDM metaphysics.

A Photographic Metaphor

Insofar as the IDM metaphysics is an inquiry into the relationship between the self and the world, the modalities of the IDM metaphysics refer to the various types of relationship that selves can be in with respect to their worlds. As such, the three modalities are essentially 'names' of basic relationship types.

Consider, for a moment, the sorts or types of relationships involved in looking at a photograph. Imagine, for example, that one had a picture of two people sitting on a beach.

The relationship between the viewer and the photograph, as an object in the hand, is an immanent one, in the frame of reference of the the viewer.

The frame of reference of the person holding the photograph is different than the frame of reference the photo depicts. For example, a person depicted within a photograph cannot "see" the person viewing the photo. One cannot see those people who will later be looking at the photo when the photo is taken. Insofar as the viewer has a "position" that is external to the frame of reference depicted within the photograph, the viewer is in an omniscient modal relationship to the depicted contents of the photograph.

Additionally, the structure depicted by the photograph, i.e. its frame of reference and everything within it, is defined from the outside only, by the material of the photograph itself. This structure is completely determined/specified, is fixed and static, and has no vector of time. These situational attributes typically characterize the omniscient modality.

The relation between the viewer and the photograph itself is an immanent mode relation. The relation between the viewer and someone depicted within the photograph is an omniscient mode relation. Note however, that the relation between someone within the photograph and someone else who is also within the photograph is an immanent mode relation.

Imagine that there is another/additional photograph of the same scene, taken from a different position (i.e., that there were two photographers that day). For a moment, imagine that there is one photograph in each hand, and that one can see both of them at once. The relation of the sameness of someone depicted within the first photograph to someone depicted within the second photograph would be a transcendent modal relation.

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1. However, a caution in thinking in this way is that, by Axiom I, the immanent mode defines both the omniscient and the transcendent modes relative to the immanent. If the omniscient was totally fixed structure (as pure stasis), and the transcendent is total absence of structure (or pure dynamism), and these were considered as extreme end points of a single continuum with the immanent in the middle (as the origin), then the origin would define the end points, and not the other way around (as one would ordinarily assume).

The relations between two photographs are determined by the content of these photographs only, (i.e., they do not depend on the particular context of the photographs, where they happen to be, etc). There is no specific frame of reference defined between the photos, for it makes no difference how far or near the actual photos may be (in the frame of reference of the viewer). As such, there is no structure, specification, or vector of space necessarily "including" both photographs at all; any such context is purely dynamic. These situational attributes characterize the transcendent modality.

One could think of the relations between the self and the photograph (the immanent mode) as being a mixture of the transcendent and the omniscient[1]. One's relation (i.e. perceptual interaction) to any given photograph has both time and space type vectors. Such a relation contains elements of both staticism (it remains the same photo) and dynamism (no photograph lasts forever), and has both context (one cannot view a photograph in the dark) and content (a blank photograph is not worth looking at) dependencies. The structure of the relations is only partially specified and has some latitude for change, depending on the purposes of the viewer.

A Dream of the Modalities

To deeply understand the nature of the three modal concepts as used in the IDM metaphysics, it is especially helpful to consider the process of dreaming, as a metaphor. This process of dreaming is something which everyone experiences, and as such, provides a common semantic basis for the understanding of metaphysics. However, in that the nature of one's dreaming is intensely personal, there is something of this metaphor which extends beyond the merely metaphorical. The nature of the modalities as expressed here is about one's very being, and thus immediately applies in a totally literal and individual sense. As such, rather than just reading this essay as a metaphor to understand the semantics of the three modalities, one may also recognize that this describes an entry point for the application of metaphysics directly to one's own actual life.

There are three perspectives, or ways of experiencing, one's dreams:

The first perspective is that of the dreaming person, the one who experiences the dream directly, living within it. Within the IDM metaphysics, this way of experiencing/perceiving is called an immanent modal relationship between the dreamer and the dream.

The second perspective is that of the dreamer, the one who 'created' the dream, and is standing outside of it. For example, consider a daydream: The aspect of the person who feels that they are 'in control' of everything (all events) that occurs in/within/with the daydream[1]. This aspect of self is the one who knows for sure what is going to happen next, and may attempt to awaken the self from dreaming if that outcome is not liked. The IDM metaphysics defines this all knowing or controlling aspect of self as being or operating in the omniscient modality with respect to the dream.

The third perspective is that of the 'awake self' who remembers the dream the next morning. This aspect of self stands apart from both the dreaming aspect of the self, and dreamer/creator aspect of the self. When one remembers a dream in the morning, one usually remembers from the perspective of the dreaming self, rather than that of the dreamer self. However, if the dream had been especially lucid, then the person remembering the dream in the morning will have a memory in the omniscient perspective as well (usually combined with the immanent perspective). Note, however, that the perspective of the person remembering the dream is neither that of the dreamer, nor the dreamed. The IDM metaphysics refers to this third perspective or aspect of self as being/operating in a transcendent modality.

Relations between selves and worlds have intrinsic aspects and modes. Any given self can have, or be in, any one of the three modes, (relative to the framework of a given world/ domain) depending on the point of view (relation) of the self. In the IDM metaphysics, these aspects have been classified into three types and given a specific modality terminology. All three modes are always present.

As an example of the use of these perceptual modes consider the process of daydreaming. Part of the self is creating the daydream and "controls" all that goes on within (one has the freedom to imagine whatever they want). This overseer is the omniscient fraction of self. The part of self that is <u>within</u> the daydream as a character or participant (in full dreaming one experiences that reality) is the immanent fraction of self. The part of self that may remember "other" daydreams and sees the connections between these, that has an experience of both the waking world and the dreaming world, is the transcendent fraction of self. All three fractions together compose the "complete self", which straddles all three of these characteristics.

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1. In a similar manner, the conventional description of "A God who watches and creates everything in this reality" is a classic description of a 'self' operating in the omniscient mode with respect to this domain or reality. It is especially interesting to note that both of these examples are valid comparisons to dreams under the Domain Continuum Hypothesis (that domains differ only in degree, never in essence).

The Modalities of Imagination

As another metaphor, consider the act of imagination in the statement "One (can) imagine oneself imagining what is imagined". Note that some form of the word "imagine" is used three times, in three different ways.

In imagination, there are *three* distinct levels of experiencing referred to: 1) the passive experience of oneself imagining that one can or does imagine something/anything, 2) the active experience of oneself imagining something, and 3) the passive experience of whatever content is 'actually' imagined.

Each of these levels of experience is always implicit in a/any/the/all acts of imagination, regardless of who is imagining or what is being imagined, or even when/where this action/event occurs. Each of the three represents an instance of a modality of the IDM metaphysics.

The first experience of imagining is the perspective of the transcendent mode. It posits the possibility of a class of possible imagination actions/events. This is the perspective of the person who is common to, and yet apart from, all imaginative acts. It may, for example, represent the aspect of self currently in the action of reading this paragraph now.

The second experience of imagining is the perspective of the omniscient mode, which represents an instance of actualities. It is the part of self which is active in the process of imagination itself. It is the part that "does" the event of imagination.

The third experience of imagining is the immanent perspective, which experiences the content of whatever is imagined in any given event of imagination.

In all acts of imagination, these three modes, experiences, and aspects are inherent, intrinsic, and inseparable from the process/event of imagination itself.

Note that an aspect of this metaphor is the implicit idea that the modes are not places or things. The modes are ways of seeing and are not 'things' in themselves. There is no 'thing' or 'place' or 'self' that is 'the transcendent' for example.

Also, none of the modalities ever occur in isolation. One can always shift the perspective to change the mode of any relation. Returning to the dreaming metaphor for a moment, while it is true that with respect to the 'awake self' within this Earth Object domain the domain of dream is transcendent, it is also true that with respect to the 'dreaming self' within the dream domain, the waking reality is transcendent. This relativity is inherent in the specifications of the modalities, and is often considered in terms of a conjugation as described by Axiom I.

An Optical Metaphor for the Modalities

Consider an arrangement where one may in one hand hold a photograph and in the other hold a modern hologram. Although both represent images, the nature and applications of each is very different.

To demonstrate this difference, consider, for example, what would happen to the seen image were each to be cut in half and discarded. The photograph, as expected, would show only part of the original image. The remaining part, would suffer no loss of detail. The hologram, in contrast, would continue to show the whole image (albeit distorted to match the new frame shape), but there would be some loss of detail. The hologram image would seem a bit more fuzzy. In effect, the photograph lost macroscopic structure and retained the microscopic, whereas the hologram lost microscopic detail but retained macroscopic structure.

In terms of the modalities, the photograph has the nature of the omniscient. The hologram has the nature of the transcendent. The light used to view each of these, has the nature of the immanent. In the sense that both the hologram and the photograph are complexes, the light used to view them is structurally simple. For the photograph, light, through the agency of a lens, has point source and point destination (i.e., simple structurelessness). This is similar to the use of a laser for the making of a hologram, which is also structureless (in color as well as in origin). These three -- light, photographic representation, and holographic representation -- make good examples of the natures of the modalities immanent, omniscient, and transcendent, respectively. **Identifying Modality Correspondences**

To effectively identify those concepts which are the modes of an arbitrarily given domain, it is necessary to establish that the selected concepts are exactly essential to that domain (i.e., to have selected the correct number or quantity of concept), and that well developed (tested) role correspondences have been observed for each (i.e., to have selected the correct quality of concept).

Often this is a process of iterative trial and error, where conceptual aspects of a given domain are abstracted and tested against the modal templates for a good fit. To show correctness, each of the abstracted concepts needs to be demonstrated as being necessary to any possible consideration of the domain, and that the three concepts together are sufficient for any such consideration (being careful to have well scoped domains). Then, the role of each of the concepts with respect to the other two is considered in detail, particularly as they are used in careful (complete) descriptions of the process of the domain being considered. Where both the implicit connotations and strict lexical formulation of all such descriptive statements remain correct when substituting instances of terms of equivalent modality for some other domain, then the modalities of each of the three domain essential terms is said to be well associated.

Ultimately, it is the Axioms which define and distinguish the modalities, even while the Axioms are best described in the terms of the modalities. To consider the (meaning of) Axioms as being defined/described in terms of (the meaning of) the modalities is <u>the practice of theory</u>. To consider the Axioms as defining/describing (the meaning of) the modalities is <u>the theory of practice</u>. To know and understand the IDM metaphysics requires both the practice of theory and the theory of practice.

The Theory of Practice:

Axiom III (as the being of Foundational Triplication) is an assertion that there <u>are</u> three modalities, or three terms/concepts, which together subsume the essence of a domain, and which fill (or have) the roles of the modalities of immanent, omniscient, and transcendent. Axiom III does not in itself identify which domain essential concept is associated with which modality, but only that such associations are always strongly definable.

Axiom I (as the essence of the Practice of Theory) distinguishes the immanent modality from the omniscient and transcendent modalities. The immanent modality is that term which (in a context which is both objective and non-temporal) is used as the necessary basis for the definition/description of both the omniscient and the transcendent terms, and/or that which can only be (completely/accurately) defined/described in terms of both the omniscient and the transcendent terms. Axiom I has the effect of naming/identifying the term with an immanent modal association, even though it does not identify which of the two remaining terms are to be associated with the omniscient and transcendent modalities.

Axiom II (as the essence of the Theory of Practice) distinguishes the omniscient modality from the transcendent modality. The omniscient modal term is identified by being that term which in practice (in a context which is both subjective and temporal) necessarily follows from the being of the term with an immanent modal association (that term already identified by Axiom I). The transcendent modal term is identified by being that term which in practice necessarily precedes the being of the term with an immanent modal association.

Presuming that the three essential foundation concepts of a domain have already been resolved and identified into three named concepts, the modal class of each of the domain predicates may be identified by a close match to the structure of the usage (and relations) of that concept with that of the generic modality. For each modality, the pattern of usage will typically be some analogue of what follows:.

An immanent modal concept is that concept which, in the context of theory, has the role of either defining **both** of the other two concepts, or which can only be fully defined by statements in terms of both of the other two concepts in a theoretical/model context domain external to the domain so described and modeled.
In the context of practice, the immanent modality will be that aspect of all instances of the domain fundamental dynamic which subjectively follows (in time) the occurrence of a transcendental aspect and which precedes an omniscient aspect.
In the context of metaphysics, the immanent modal concept will be the one which has a pattern of the structure of its relations which most closely match that of Axiom II.

An omniscient modal concept is that concept which, in the context of theory, has the role of referring to that which is a (known/necessary) static (fixed) consequent to/of a class of the processes described by, or referred to by, the immanent modal concept in the action context of process within a domain.
In the context of practice, the omniscient modality will be that aspect of all instances of the domain fundamental dynamic which subjectively follows (in time) the occurrence of an immanent aspect and which precedes a transcendent aspect.
In the context of metaphysics, the omniscient modal concept will be the one which has a pattern of the structure of its relations which most closely match that of Axiom I.

A transcendent modal concept is that concept which, in the context of theory, has the role of referring to the (unspecified or incompletely specified) class of implicit assumptions/process which is/are a necessary precondition(s) to the class of processes described by, or referred to by, the immanent modal concept in the action context of process within a domain.
In the context of practice, the transcendent modality will be that aspect of all instances of the domain fundamental dynamic which subjectively follows (in time) the occurrence of an omniscient aspect and which precedes an immanent aspect.
In the context of metaphysics, the transcendent modal concept will be the one which has a pattern of the structure of its relations which most closely match that of Axiom III.

The Practice of Theory: The modal types for domain predicates can (usually) also be identified with a construction by analogy (type isomorphism). When a series of common semantic relations are established between the basic predicates of one domain to the fundamental predicates of other domains (which have known and well established modal correspondences) the modality correspondences may be identified by their common implications.

The degree of confidence (the strength associated with the technique of establishing transitive modal correspondences) is in proportion to the product of the number, difference, and degree of the domains mutually corresponded.

More specifically, the degree of confidence in any given allocation of modal roles to (presumed) domain essential concepts is defined as the integral of the product of the degree of correctness of both the connotative and formulaic aspects of domain descriptive statements (in terms of those essential concepts), across all possible instances of modal isomorphic substitutions of those essential concepts, and the relative degree of dissimilarity of the domain which provides these substituting instances.

The total degree of the semantic resolution of the meaning of the pure modal concepts themselves, (and also the total degree of confidence in all other developed (domain) modal correspondences), is considered to be (very strongly) proportional to the total number of identified correspondences between the identified three domain essential concepts and the three modalities.

On the Nature of Objectivity

Abstract

This essay is an expansion and explanation of the meaning of the term objectivity. It is possible to comprehensively define the term 'objectivity' (and its usage) purely in terms of the concepts of interaction/comparison.

In defining objectivity, this essay specifies a comprehensive criterion for the phrase 'objective reality' that is general to *all* domains. In this way, the following specification provides a template for the establishment of 'what is reality' in a way that resolves the formal nature of the 'subjective' to 'objective' split identified in conventional interpretations of the mind body problem.

The Three Rings of Verification

To consider metaphysics is to consider the question "What is the relation between 'the world out there' and my experience of it?". A core aspect of the question is "what is required in one's subjective experience for one to regard something as objective, and therefore as being 'real' and external to one's perceptions of it?". In answering this latter question, (and in this way, providing some clarity about *what* is considered 'real'), the following three (subjective) metrics (aspects of all experience) are to be considered.

The Three Rings of Verification:

The degree of the 'intensity': the intensity of one's experience relative to other experiences of the self.

The degree of 'consistency': the degree that aspects of the experience can be formed into 'closed consistent rings'.

The degree of 'novelty': the degree that the experience is potentially surprising, unpredictable, or novel relative to all the subjectively prior experiences of the self.

The first component, intensity, (called the first ring of verification), identifies the necessity of at least <u>some</u> subjective experience and interaction for something to be regarded as objective.

For example, if one were to simply declare that one has an imaginary friend named Fred, others would have very little reason to believe in the 'reality of Fred' because their only interaction and knowledge of Fred is via the claim of only one person. In this example, if one cannot see, hear, touch, smell, or detect Fred using any ordinary senses, then the 'degree of impingement' of 'Fred' upon one's 'total subjective experience' consists of only a statement of claim and an awareness of the claimant[1].

Note that another's perception of Fred is not completely absent, but is very indirect. In effect, the claimant may (apparently) see Fred, and then tell others. In that anyone else would have no direct perception aside from the claim of perception, the perception of Fred is indirect, and dependent on a trust in the assertion of the claimant.

In a similar manner that the perception of Fred is in doubt, the attempt to express something <u>to</u> Fred would also be in doubt. How could one know that Fred was ever aware of anything expressed towards him? In these circumstances, the sum of 'all interactions' of oneself and Fred would have a very low apparent degree of intensity. Low intensity equates to 'not very real'.

For sake of explanation, consider how the situation would be different if one could personally interact (see, touch, smell, hear, and converse) with Fred (i.e. by being in a suggestible state, under hypnosis, taking drugs, etc.). If one were to 'see' Fred often, (i.e. that the frequency of contact was high), or if Fred was somehow especially obvious in ones experience (by being very nearby, yelling loudly, etc., i.e. that the density of contact in sensory channels was high), then the <u>intensity</u> of the experience would be quite large (as compared to the total intensity of all other subjective experiences). As a marked 'hallucination', Fred would be considered more 'real' due to the more direct nature of one's experience.

As may be remarked, this first requirement for something to be considered as objectively real is not enough, by itself. To this degree, Fred as described to this point is still only an illusion, perhaps merely a hallucination, that only one person can see. To have some sense of contact, interaction, or perception is necessary, but it is not sufficient to consider something as objectively real.

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1 In the example using Fred, the author is **not** attempting in this essay to discuss 'selves', 'minds', or 'consciousness'. While all of these are concepts that one would naturally associate with 'human people' (Fred), the example is intended only to introduce and describe the deeper metaphysical implications of the concept of objectivity. It is not necessary to consider the concept of objectivity in 'human' or 'personality' terms at all, for the concept of objectivity has a deeper basis than that which would be found in any particular type of self or reality (world). Concepts associated with mind and human consciousness are described in their own terms elsewhere in the IDM metaphysics.

In summary, objectivity (the reality of something in a world of experience) is in part defined in terms of the degree of the intensity of interaction. Intensity is a function of the frequency of interaction, (the number of incidences of a perception per unit of subjective time), and the density of interaction, (the number of sensory channels affected, and the subjective degree/completeness to which each channel is affected). An intensity of experience is necessary, but not sufficient, (as the first criterion) for something to be considered objectively real.

The second component, consistency, (called the second ring of verification), identifies the necessity of some type of 'closed rings' through which all interactions are consistent.

In continuation of the example above, to hear Fred say something, and then to ask what someone else heard Fred say, and they described essentially the same statement, then one would feel fairly confident that even though Fred may be a hallucination, at least it was a *shared* hallucination. There is a ring (triangle) of consistent interactions between Fred and oneself, Fred and another, and that other and oneself. If there were several other people present, and they all reported the same things about Fred, then the 'degree of consensus reality' increases in proportion to the number of closed and consistent rings of interactions that are so formed (one for every active triple of people present).

Furthermore, the 'type' or 'size' of the rings is also important. For example, a photograph of Fred forms a triangle of consistent comparisons of experience between the camera's view of Fred and one's own view of the camera, and one's own view of Fred. A larger degree of 'reality' is conferred upon Fred by a photograph due to the larger amount of information in each visual experience that is consistently matched (which is much larger than the information content found in the simpler linguistic statements that one may hear others make).

The triangle/ring of comparisons formed with a photograph also cross time as much as they cross space. A photograph represents Fred 'as he was' at the time the picture was taken. This can then later be compared to Fred 'as he is now'. In part, the permanence/reality of Fred is in proportion to the amount of subjective time between 'when the photograph was taken' and 'when one presently sees Fred'.

In summary, greater degrees of objectivity are proportional to the size of the closed rings of interaction (in either time or space), the number of component interactions (the amount of information) in each ring, the number of such consistent interaction rings which are formed, and the degree of diversity (the number of different types) of the rings formed (i.e. a set of interaction rings encompassing many levels and channels of perception are preferred over a set that has only a few different types of interaction). Each of these aspects/proportions (singly and together) is also necessary, but not sufficient, to regarding something as objective.

The third component, novelty, (called the third ring of verification), identifies the necessity of some type of inherent unpredictability (surprise) in all that is to be considered objective (a part of the world, and not a part of oneself).

In continuation of the example above, if Fred did nothing that one did not expect, then there would be little reason to suppose that Fred was *not* something in the direct control of one's own mind. For example, if Fred exhibits no novel behavior, makes no decisions of his own, performs no creative or unpredictable actions, develops no self determined properties (such as personality) that one could *not* have predicted beforehand, and if one *always* and *already* knew what 'Fred was going to do', then there would be no reason to regard Fred as *not* being some aspect of one's own subjective being. If the state of one's own knowingness of 'Fred' is so complete, how would one know that Fred was not external to oneself at all?

In part, the root meaning of 'to be objective' is to assert "whatever that thing is, it is not a part of oneself". Therefore, it is also a requirement that Fred' must exhibit aspects of being, behavior, and properties (details) that oneself <u>cannot</u>, and could not have predicted, expected, or otherwise known in advance. Fred has to do (and be) things that one did not expect, for one to have a sense of 'otherness' in connection to Fred. Otherwise one would not know Fred as a being not a part of oneself.

Novel and unpredictable behavior is a necessary criterion to distinguish 'reality' from 'a simulation of reality'. To declare that there is something <u>independent</u> of one's own mind is to ascribe to it properties and characteristics that are <u>not</u> of one's self, in order to make it <u>different</u> than the self.

For example, the properties of a rock must be discovered, and not created, if the rock is to be considered a part of 'reality'. If the self determines or specifies (i.e. by decision, choice, creativity, etc.) all of the properties and characteristics of a rock (i.e. its color, weight, fine surface details, etc.), then that rock is imagined, a part of a dream, and not objective at all. A real rock must have properties and aspects that are somehow determined by the rock itself, regardless of what one may wish, expect, or choose.

Surprise is a function of the difference of expectation and realization. The degree of surprise is the (multiplicative) product of the degree of expectation and the degree of realization. One must <u>both</u> have an expectation (i.e. as a prediction of a subjective experience anticipated in the 'future' of the self), and some manifest realization in experience (that can be compared to one's former expectations), to determine surprise. Without a degree of expectation and a degree of realization, no comparison of surprise is possible.

If Fred's actions are somewhat unpredictable, exhibiting personality characteristics of his own (characteristics that one cannot see the origins of), then Fred is to be regarded as an 'independent being', inherently separate from self.

Any novel behavior and properties (which are not self determined) contribute to an 'objective external independent reality' of that 'thing'. An objective something will seem more real, exactly *because* one cannot automatically control or define it. The extent that something is *not* under one's own personal/subjective control (influence) is proportional to the degree that it is independent of one's own personal existence.

In summary, greater degrees of objectivity are proportional to the number of surprising details, and the degree to which they are surprising/unexpected (as measured with respect to the expectations of a 'self'). The greater the number and diversity in these interactions, and the greater the degree that they seem to be defined by criterion not affected by the choices of the self, the more 'real' that something will be with respect to oneself.

Finally, the total degree to which something is considered 'an objective part of a world' is the product of these three individual measures/degrees (rings of verification). Where any one of these three necessary and sufficient aspects is completely absent, the degree of 'objective reality' of the 'thing' is considered to be completely absent (i.e. as totally subjective or 'not real'). Only the three together are sufficient for the concept of a fundamental objectivity/reality to be defined.

Reality Via Comparisons

As a practical example of the use of the three rings of objectivity, consider the action of reading and writing posts to an Internet email group (a world of interaction). Consider what would be necessary to determine that some other correspondent was in fact a real member of that email community (i.e., an objective part of the email list world).

Under first ring considerations, one may know that they have had some degree of correspondence (subjective interactions) with another member of the list. One can read posts and one can add posts to that list, (and if anyone answers or comments then one can know that one has been heard as well). With respect to the totality of all information that one can perceive using the 'sensory channel' of an Internet email box, the posts from the email list constitute a definite positive nonzero percentage of all sensory input (i.e. as a measure of relative intensity).

Under second ring considerations, one can established closed 'rings of interactions' in the form of email posts and replies. For example, someone can quote a portion of a letter that they also received from the email list and forward it back to the list, or to their own email box, at which point they can compare that 'copy' with the posts that they have received 'directly'. Correlations of this type can be extended in number where such a quoted section passes through many email forwardings before reaching one's own email box, (where several different people all send quoted mail from the list).

One could also use another channel of interaction altogether. For example, one might call another correspondent on the phone. If in listening to their discussion of the email list one finds points of correspondence which are consistent with what one has oneself perceived about that list, there would be strong grounds for believing that the list, (or rather the posts upon it), were/are real.

Under third ring considerations, one cannot (ever, even in principle) totally predict what anyone is going to say, or what type of response one will receive from the email list as a result of one's own posts. One may expect that one will receive posts from the list, and one's expectation may be met in the realization of posts 'actually subjectively perceived (i.e. read), but the potential to be surprised will always persist. The properties and characteristics of the email list are, (in the inability of oneself to know them, or determine them beforehand), therefore considered to be 'external' to oneself. If everyone on the email list wrote only and exactly what one expected them to say, and posted precisely when one felt that they would post, then one would begin to wonder if the computer was somehow reading one's mind, or that one was dreaming, or that one was going crazy and therefore hallucinating all of the posts (i.e. not seeing what is 'actually there'). Absolute and total precognition leads directly to a sense of unreality.

Considering that all three rings of verification are met (to varying but nonzero degrees) one can ascribe a fairly strong degree of reality to all of the readers upon the email list, and to the list itself. One would hope that each of the correspondents, using similar considerations, would also regard one (as the author of posts to the list) as being a real and (to some extent) free and independent personality.

Thus, in conclusion to the above metaphor, one may assert that the three rings of verification do provide a coherent, complete and realistic method of defining 'the external, objective, and independent reality'. Any perceptual experiences which (within systemic comparisons) are consistent with the three rings are necessarily regarded as 'objective' and 'not part of self'.

Implications

The definition of 'objective reality' is inherently and fundamentally based upon interaction, in the form of perception and comparisons of perception, and is therefore partially and intrinsically relative to the perceiver/interactive self, even though the definition is itself absolute. This method of consideration makes a strong implicit claim that it is possible to consistently define objectivity in terms of interaction (i.e., as partially subjective), in a manner that is coherent with the conventional assumptions associated with those terms.

Although the above presentation of a definition of objective reality uses the terms 'communication' or 'sensory channel' and 'self' as if these terms were well defined and static, it is not necessary to the definition of objectivity as presented here to make these assumptions. If the above definition were posited in terms of a 'self' that 'had' some 'boundary of self across which sensory information flowed' then the boundary of self would be a variable, and not at/in a/some fixed 'position' or locus.

The above definition, although presented in terms of this "world", is really general to all possible communication channels, subjective interactions, domains, realities, etc. In other words, the above three rings of verification can be used to establish the 'reality' of anything, regardless if it is apparently a part of the/this 'normal physical universe' (whatever that means) or not. Thus, this definition, by being 'domain general', is properly a component of a foundational metaphysics, which applies to all domains, and is therefore not just a part of physics per se, as a subject applied to only 'this' domain/world. Note that none of these rings required any specialized definitions of 'time', 'space', 'matter', or 'energy' for example.

Finally, where the above definition of 'objective reality' is defined in terms of the various aspects of subjective interactions with the self, consciousness as the communication/sensory channels themselves cannot be objectively defined (something cannot be defined by that which it defines). The term consciousness *cannot* be defined in terms of either 'real' or 'not real' (as where one or more of the three degrees have a metric of exactly zero, or the 'absence/negation of reality').

Incommensuration Theorem

Statement of the Intrinsics of Comparison

Where discussing the concept of comparison in the common usage terms (i.e., where holding the terms subjective and objective as implicit), it is apparent that exactly four other concepts are both necessary and sufficient for the formal consideration of the concept of comparison. These concepts are 'sameness', 'difference', 'content', and 'context'. Any process of comparison involves all four of these terms as intrinsics. Where there is comparison there must be sameness, difference, content, and context. No comparison can be defined without implicitly making reference to all six of these concepts. As such, the collection of these six abstract concepts will be hereafter referred to as 'the intrinsics of comparison'.

Concept Inseparability

In consideration of the meanings of the intrinsics of comparison, certain statements of inseparability are apparent. For example, it is clear that the concepts of sameness and difference are inseparable. Whenever one appears, the other is implicit. Where there is sameness, there must also be difference. Where there is difference, there must also be sameness.

Further, the concepts of content and context are inseparable. Where there is content, there must also be context. Where there is context there must also be content.

This inseparability of the concepts of content and context, and the concepts of sameness and difference, is assumed as being fundamental to, and irrevocably inherent in, all discussions of the concept of comparison, or of anything that is defined in terms of comparison.

Where the above concepts of comparison, sameness, difference, content, and context, are inseparable, it is also clear that they are distinct concepts with distinct meanings. For example, the meanings of these terms are not interchangeable in any formal statement, without changing or altering the fundamental meaning of that statement.

It is understood that similar aspects of distinctness and non-interchangeability will apply similarly to any terms that are defined in terms of these.

The Mutual Applicability of the Intrinsics

It is clear that some of the intrinsic concepts of comparison are applicable to one another. In particular, the concepts of sameness and difference can be applied to the concepts of content and context. Also, (the concepts of) content and context can be applied to (the concepts of) sameness or difference. As it turns out, there are four primary concepts which are formed from these specific applications (i.e., as second order compounds and conjugations).

Where there is a sameness of subjective context, the following definitions hold about the objective.

continuity is a reference to a sameness of content
where there is a sameness of context,

discontinuity is a reference to a difference of content
where there is a sameness of context,

symmetry is a reference to a sameness of content
where there is a difference of context,

asymmetry is a reference to a difference of content
where there is a difference of context,

On the Formation of the Tertiary Compounds

Clearly the concepts of symmetry and continuity are not the same, for 1) there are discrete and non-continuous things which are symmetric, and 2) twisted continuous things that are non symmetric. For this reason, it is valid to consider the formation and inter-applicability of these compound concepts of the intrinsics of comparison, and their opposites, to one another. However, in considering the mutual compatibility and applicability of the secondary compounds to form tertiary conceptual compounds, certain conflicts become immediately apparent.

For example, some of these tertiary compound candidates can be rejected since the duplicate application of the same concept to itself is of no semantic value. In this way four potential candidates are discarded from the list of potentially valid mutual applications.

Another of these conflicts concerns the mutual applicability of the types of comparison to one another in the terms of 'opposite meanings'. Some of the pairs of these concepts are mutually incompatible as they are clearly opposites of one another. For example, the concept of continuity with the concept of discontinuity asserts that for the same context, something is both identically the same as and identically different than itself. Clearly something (in this case content) cannot both be the same and be different in the same way at the same time.

In the same way that the formation of a single compound concept out of 'sameness of content' and 'difference of content' would be invalid as it violates concept distinctness (as defined earlier). A compound that assumes that the context is both the same and different violates distinctness. For example, it would be problematic to assert that for the same content, its context is both the same and different. Thus, there is the limitation (in the formation of compound concepts of the four types of comparison) that something cannot be both the same and different in the same way at the same time.

Insofar as there are two pairs (of the four concepts which are available) which are opposites to one another, then clearly they will not be mutually compatible or applicable. In this way two additional potential third compound candidates can be dropped from the acceptable list of mutual applications. Other potential candidates will also be dropped where they violate the requirement of distinctiveness.

In addition, due to the inseparability and distinctiveness of the intrinsic concepts of comparison themselves, the formation of the compounds of using these are subject to certain limits. In particular, one of these limits is 1) where the concept of content appears, the concept of context must appear also, and 2) where the concept of context appears, the concept of content must also appear. This, however, is not a problem as the definitions of the terms always ensures that there will be an even matching of a content with a context and a context with a content, wherever these appear.

However, in a very similar manner (as in the immediately above paragraph), two more candidates for tertiary compound concepts must be rejected. This is a more subtle limitation. In the same manner that the concepts of content and context are inseparable, conceptually distinct, and non-interchangeable, the concepts of sameness and difference are also inseparable, distinct, and non-interchangeable. In particular, where the concept of sameness appears, the concept of difference must appear also, and vise versa. The 'number of appearances' of each concept must match the number of appearances of its opposite.

Fortunately, all of these limitations can be accounted for fairly easily by noting that when any one of the concepts in each of the concept axis domains appears, its mate must appear also. All that is needed to determine whether the third order compounds of the intrinsics of comparisons are valid is to check that all of the concepts 'add up' or 'cancel out' under the inseparability relationships. In this way, the four compounds formed by the four types of comparison can be checked rather readily.

In summary form, the above limitations could be organized into three basic sets: where [!x] indicates an invalid application to self, [!y] indicates an invalid mutual application of opposites, and where [!z] indicates an invalid assumption of the separability of sameness and difference. As such, the results of the consideration of all candidates for the formation of the third compounds of the intrinsics of comparison may be listed as follows.

Table of Tertiary Conjunctions:

[!x] continuity   and continuity   (ss & ss)
[!z] continuity   and symmetry   (ss & sd)
[!y] continuity   and discontinuity (ss & ds)
       continuity   and asymmetry   (ss & dd)
[!x] symmetry   and symmetry   (sd & sd)
       symmetry   and discontinuity (sd & ds)
[!y] symmetry   and asymmetry   (sd & dd)
[!x] discontinuity and discontinuity (ds & ds)
[!z] discontinuity and asymmetry   (ds & dd)
[!x] asymmetry   and asymmetry   (dd & dd)

From the above list, it is clear that there are only two remaining combinations which are mutually compatible; 1) continuity with asymmetry and 2) symmetry with discontinuity. All other combinations are, for various reasons, incompatible with one another.

The Incommensuration Theorem

Concept inseparability and the associations as defined, require that an eventity/comparison is either 'continuously asymmetric' **OR** it is 'discontinuously symmetric'. An eventity/comparison cannot be 'discontinuously asymmetric' nor 'continuously symmetric'. This constitutes the fundamental result of this essay, and is called the 'Incommensuration Theorem':

The concepts of symmetry and continuity cannot both be simultaneously and fundamentally applied to any eventity/comparison.

The concepts of asymmetry and discontinuity cannot both be simultaneously and fundamentally applied to any eventity/comparison.

Any absolute application of the concept of comparison must ultimately be continuous and asymmetric, **or** symmetric and discontinuous.

Symmetry and Continuity

The concept of symmetry is about invariance of content with transformations of context. To make this abstract definition a little easier to understand, consider the following metaphors and examples.

Consider a black square drawn on an otherwise blank page. Imagine that the paper is now rotated so that the top becomes the bottom. In this transformation, flipping the square end over end, the context of the square has changed. Imagine the perspective of the square looking out at the room. In this view, the ceiling becomes the floor and the floor becomes the ceiling. The context of the square has changed, but the square remains visually unchanged. The content remains the same, but the context has changed.

Consider the basis of any scientific theory (a knowledge of this world). The fundamental laws are all derived from, and based upon, the concept of symmetry. For example, the scientific experiment of measuring the boiling point of water will discover that it is 100 degrees Celsius. The results of this experiment do not depend on whether it is done somewhere in the USA or somewhere in France. It is reasonable to expect to get the same result regardless of the location in which the experiment was performed. The content (the result of the experiment) is the same even though the experiment is done in different places (a different context). The universality of the 'natural laws of science' is thus an implication of the concept of symmetry.

As another example, consider something which is in a closed and sealed bottle for one day. With the passage of time, the bottle is still the bottle, and the materials inside will remain there. There persists the same amount of material, even though the context of time has changed. This symmetry of material content in the context of time is the law of conservation of matter. The basic physical laws of conservation of matter and energy are symmetry laws. The very dynamics of the equations that serve as the foundations of technology, are all ultimately based on concepts of symmetry.

To assert continuity is to state that an infinitesimal change in context will always and necessarily result in an infinitesimal change in content. Continuity is where the content of a change is not (is never) 'drastic' or sudden, given any arbitrarily slight change in the context. It is an assertion that changes in content are only partially sensitive to changes in context.

For example, in ordinary mathematics, a "continuous function" is one where the curve is everywhere connected to itself. A discontinuous curve refers to a function that will make a jump from one value to another, with no intermediate steps. Such a curve is disconnected. One could describe a discontinuous function by saying that there exists an infinitely small region along the X axis (a sameness of context), where the value of the function (the content) changes abruptly. The ratio of change of content over change of context is infinite, indicating a break. Discontinuity is an abrupt shift of content while the context is the same.

To consider a continuity of self is to assert a wholeness to the self; that there is no part of self that is disconnected from, or rejected by, another part of self. To say that one has continuity of self is to essentially be a healthy, whole integral being.

Consider the work of a therapist. The main job of the therapist is to help the patient to know and accept all parts of self. A good therapist helps one to nurture and love oneself fully (in all aspects). This may require learning how to live well, and how to coordinate and balance all personal behaviors, beliefs, feelings, and attitudes. The primary job of the therapist is to get one to love, nurture, and accept all aspects of oneself into an integrated and healthy functioning whole.

Consider a phone conversation where one person abruptly, with no indication or forewarning, hangs up. One second, one is pleasantly involved in a conversation and in the next, silence. There is no significant environmental difference between the instant when the conversation was alive and the instant that it was not (i.e., the context is still much the same). The infinitesimal period of time that it took for the disconnection to happen (a sameness of context), is not in itself different, even though the content (the conversation) has shifted a lot (from being to not being).

To recognize how implicit this idea of continuity is in a culture, consider the use and language of the many ideas deeply held within religion, mysticism, and spirituality. Some of the deepest values, mythos, and beliefs relate to how one connects to deity, spirit, and the land. Continuity in a culture is about how one connects to one's ancestors and heritage through shared practices and rituals (rites of passage).

Quality and feeling are best considered in terms of continuity. For example, one could think of a spectrum of colors. Each color fades into the next. There is no boundary between them, no discrete place where one begins and another ends. All colors have a common spectrum and come from a common energy. The commonality is a form of continuity. Additionally, they are all part of the electromagnetic spectrum, which is always a continuous field of energy without exact boundary.

Law and Locality

Although most of the examples for continuity have an inherently subjective nature, this is not to imply that the concept of continuity and of discontinuity are absent from formal consideration within the objective physical sciences. The quantum theory, for example, considers an inherently non-continuous process called 'the quantum jump'.

There is a parallel between the incommensuration theorem and the Bell Theorem of physics. In essence, the Bell Theorem states that any physical theory of reality cannot both assert that reality is "lawful" and that reality is "local". According to the Bell Theorem, reality can be either completely lawful and somewhat non-local <u>or</u> it can be completely local, and somewhat non-lawful. The concepts of lawfulness and of locality can be regarded as special cases of the more general concepts of symmetry and continuity (respectively).

It is an inherent assumption of science that, given similar environmental conditions, the results of a physical procedure performed in one place and time will be the same as the results of the same procedure implemented in other places and times. This constancy of the results of empirical experiments (a sameness of content) performed in different times and places (a difference of context) is an expression of the concept of symmetry. Science assumes that the essential nature of the dynamics of physical process is everywhere the same in the universe.

Science regards the 'laws of physical process' as invariant under transformations of changing times and position. In that the methodology of science itself depends on the notion of repeatable observations, the scientific method itself inherently involves an implicit assumption of symmetry. As such, the mathematical expression of the laws of nature (as discovered by the methodology of science) are all based on notions of symmetry. For example, the conservation of matter and energy is a symmetry law. The foundations of the theories of relativity are based on ideas of a sameness of various types of relationship under circumstances of changing position and momentum. The ultimate assertion of symmetry of science is to assert that the *same* physical laws (as content) apply everywhere (an invariance) in the universe (a context). As such, for science to regard the universe as lawful is to assert a fundamental notion of symmetry[1].

The notion of locality as used within science is essentially an assertion that no physical influence, interaction, or signal can travel faster than the speed of light. To assert locality is to assert that all physical process involve dynamics which do not have instantaneous transits across space (a jump between arbitrarily separated points in zero time). If an interaction spans any distance, then it must also span some nonzero duration.

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1. Any aspects or process of the physical world which are real and yet which are inherently not repeatable (or observable) would be non-lawful and non-symmetric in time and space and therefore ultimately outside of the scope of study available to the method of science. To assert that something is real is different than asserting that it exists or that it is objective.

The metrics of time and space are contextual metrics, and interaction and substance (physical matter) is regarded as being a 'content' within that context[1]. This notion that there is no influence, interaction, or signal (all of which are content) which can instantaneously cross an arbitrary distance of space (a context) is equivalent to the notion of continuity. For any small *change* (a process, interaction, or signal, as a content) there must be a corresponding change in the context of that interaction (in time and space). The notion of locality, in asserting that there can be no abrupt instantaneous changes, is a special case of the concept of continuity[2].

However, the incommensuration theorem regards symmetry and continuity to be mutually inconsistent. They cannot be simultaneously applied to the same immanent modal identity. A theory of reality is a theory of being, and thus must be formulated from an immanent, rather than omniscient, basis. Therefore, the notion that reality is absolutely lawful is inconsistent with the notion that reality is absolutely local. In effect, a conception of reality must either allow 1) multiple mutually inconsistent sets of different physical laws which are applicable in different places and times (failure of lawfulness and symmetry), *or* 2) inherently non-local interactions and changes which are fundamentally non-deterministic (failure of locality and continuity). No theory of reality can assert both total generality, and total determinism.

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1. Technically, it is incorrect to identify the concept of interaction directly with content. By the root tautology, the notion of interaction is equivalent to comparison, and therefore both content and context are to be regarded as intrinsic aspects *of* interaction. Thus, neither content nor context can be identified as interaction and comparison itself. The concept of change (in the sense of physical process), however, can be directly regarded as a content, thus restoring the logic of this essay.

2. To assert absolute locality is to assume a total continuity of interaction at all scales, down to and including the (microscopic) scale of absolute zero in both distance and duration. It is to require that theories of physical reality are defined in terms of deterministic law rather than in terms of causal law. However, the scientific method can only make observations about causality. It inherently cannot (even in principle) make any direct observation or assertion about continuity or locality. The scientific method cannot make any direct observation about symmetry either, even though it must implicitly assume an inherent symmetry in reality in its practice. No single experiment could ever possibly validate the absolute and universal truth of either continuity (the all interaction and change is local) or symmetry (that reality is lawful).

Consistency and Completeness

In considering each and every statement P defined within a formal system, the notion of consistency can be defined as "that there is no statement P which is <u>both</u> true and false". Similarly, the notion of completeness can be defined as "that there is no statement P which is <u>neither</u> true or false".

The notion of consistency is a special case of the more general concept of symmetry. To assert that a given statement P is consistent is to assert that the content, the truth or falsity of P, does not change with changes of context, the method by which P is considered (a method of derivation using other statements of the same formal system). To assert that a formal statement is 'internally consistent' is to assert that, for all statements within that formal system, that there is no statement which is true when derived by one method and then false when derived using another method. When considering the truth and falsity of a statement as its content, and the method of derivation as context, the notion of consistency is strictly equivalent to the concept of symmetry.

The notion of completeness is a special case of the more general concept of continuity. To assert that a given formal system is complete is to assert that there are no discontinuities of content. An inherent discontinuity is an implied (sharp) boundary between statements which have content, a truth or falsity value, and those which do not have a truth or falsity value because they cannot be proven by any method (using any sequence of other statements in the formal system). To assert completeness of a formal system is to assert that there is a continuity of content; that all expressions within the language of the formal system (the context) have a truth or falsity value (the content).

Insofar as the incommensuration theorem asserts that the concepts of symmetry and continuity cannot be simultaneously applied when making comparisons of statements within the language of a formal system, the concepts of absolute consistency and absolute completeness are also mutually incompatible.

Causality and Determinism

The concepts of causality and determinism are distinct.
They cannot be used interchangeably.

The notion of **determinism** (as per the inherent nature of the concept) is to assert that there can be a complete and absolute specification of all values of the three content metrics (pattern/mass, force, and probability) for all values of the three context metrics (time, space, and possibility).

The notion of **Causality** refers to persistent perceived relation of association between three events: the observing self, the observed cause, and the observation of the effect.

The concept of <u>objective causality</u> applies to the degree that both the antecedent and the consequent are themselves objective. The concept of <u>subjective causality</u> applies to the degree that either the antecedent and/or the consequent is subjective.

To assert determinism is to assert that there is a fixed, exact, and well-defined microscopic structure/pattern to all eventities in a domain. Unlike the concept of causality, the concept of determinism does not require any reference to basis concepts of observability, observer, or temporality.

To assert causality is to assert a consistent pattern of observations of relations between mesoscopic eventities using the basis concepts of observer and temporality. Unlike determinism, the assertion of causality is to make no claim as to the nature, being, pattern, or degree of structure/form of the microscopic aspects of eventities in a domain.

The concept of causality requires the aspect of an observer self to be present, whereas the concept of determinism does not. The concept of causality is time asymmetric (with respect to the observer self), whereas determinism requires no unique (non-spatial) concept of time, The concept of causality does not require a detailed microscopic specification of all events (including that of the observer self), whereas the concept of determinism does require such specification (to be possible, at least in principle).

A/any/the/all worlds are to some non-zero and positive degree causal.
No world/domain is purely and completely deterministic and/or logical[1]. Neither experience nor creativity is determined (they are not deterministic).

The (form of the) content of experience is at once proscribed by causality and described by choice. The (form of the) content of expression (creativity) is at once proscribed by choice and described by causality.

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Note; Science is based upon observation. As such, it can only establish assertions of causality. It cannot establish or validate any claim about the determinism of any eventity. Determinism cannot be perceived or observed, and as such, any claims about absolute possibility are ultimately unscientific. Despite popular misconceptions, the natural law of science is always causal law, not ever deterministic law.

Science and Mathematics

Mathematics is organized thinking about the interactions and interdependencies of pure relations.
Mathematics is an inquiry and description of the nature of pure abstract relationship.

In this way mathematics is distinct from physics, which considers interactions (not relations) within a specific domain. Mathematics is considered in a manner which is purely omniscient modal, whereas physics is considered in a manner which also has elements of both the immanent and the transcendent modality. Science is immanent when involved in experiment (in the scientific method) and transcendent when asserting a relationship between theory and reality (a belief that a mathematical model corresponds to natural law).

Scientific knowledge is not mathematical knowledge. Scientific knowledge is based on the scientific method. The scientific method is based upon experiment (expression and perception), and measurement, whereas mathematics requires no experiment (is deterministic).

All scientific knowledge is of the causal type. There is, and there can be, _no_ scientific knowledge of the deterministic type (due to the very nature of the scientific method itself). In that experiments are always finite (bandwidth limited), the infinite specification necessary to establish determinism can never be obtained. Insofar as experimentation involves a scientist (observer), science can only establish causal relations.

Physical and Non-Physical

The concept of 'the physical' refers to *an existence which is both actual and deterministic*. A deterministic existence is a concept that an actuality has a definite and specific form (objective content) pattern in all levels of detail (in scale) for all times and places, regardless and independent of the subjective context in which that pattern is observed.

The concept of the physical is an assertion that the total space-time structural pattern of a world is completely defined in all aspects (regardless of the frame of reference of one's perspective on it), and that this world is an actuality (for it can be perceived). In other words, the structure of the physical is completely defined at all scales and for all observers, regardless of their position in time or space or of motion through time and space; and that furthermore, this structure is objectively perceivable (i.e. is an actual observable).

The concept of 'the non-physical' refers to *a creation which is both potential and non-deterministic*. A non-deterministic creation is a concept of a potentiality that has a definite and specific subjective context in all levels of abstraction for all times and possibilities, but which has absolutely no specific or defined form (objective content).

The concept of the non-physical is an assertion that the total possible-time semantic meaning of a world is completely defined in all environments, regardless of the structure of one's expectations of it; and that this world is a potentiality (it cannot be perceived). The semantics of the non-physical is completely defined at all abstractions and for all expectations, regardless of the position or motion in and through time and/or possibility. The semantic of the non-physical is not objectively perceivable (i.e. it is a potentiality).

Cartesian Dualism

In distinguishing causality from determinism, there is established a strict difference between the nature of causality and the nature of the physical. Determinism and physicality are consistent with one another in that both (implicitly) involve infinite detail of (microscopic) specification. As such, the consideration of science (finite) can extend only into the nature of reality and causality. It cannot consider the nature of the physical (infinite) in any direct sense (nor can science consider creation (also infinite), nor even choice (non-visible, non-repeatable)).

In that there is a distinction between causality and the physical, there is also a distinction between choice and the non-physical. Choice is to some extent personal, and though it involves the random and dynamic, it is not absolutely chaotic. Choice is personal, whereas the pure non-physical (creation) is ultimately impersonal. In comparisons within any given domain, the energy (potentiality) involved in a choice is always finite, whereas the energy (potentiality) involved in creation is always infinite (the ratio of any number to zero (the "empty domain prior to creation") is always infinite).

To the degree that there is an assumption of interaction (finite), 1) reality is different from physicality and 2) self is different from pure non physicality/dynamicism, creation. In considering interaction, there is the idea that the self (soul), which to some extent resembles the non-physical and non-deterministic, can interact with a reality, which to some extent resembles a physical and deterministic system. The resemblance between the self (soul) and the non-physical, and the resemblance between reality and the physical, are <u>inversely</u> proportional to the degree of interaction assumed between self and reality.

The degree of interaction between self and reality, however, can never be zero or infinite. Therefore, interaction and consciousness are neither purely physical nor non-physical; neither deterministic nor non-deterministic, and are (to some extent) both causal and non-causal (i.e., a composition of choice).

Consciousness, in itself, belongs neither to reality nor to the self exclusively, but is shared between them in the form of interaction. Consciousness is not an illusion, nor is it in conflict with conventional science. It is both the absolute deterministic physical model and the absolute indeterministic non-physical models that are illusions.

As such, neither the realistic nor the idealistic arguments can ever be resolved by (any) logic, perception, experience, or experiment. This is due to the fact that no sensory interaction, fact of experience or objective measurement could ever encompass the infinitely small or the infinitely large equal to the presumed absolute nature of the reality itself.

Knowledge and Understanding

The concept of <u>knowing</u> is distinct from the concept of <u>knowledge</u>, for the former refers to the nature of one's being in relation to a world, whereas the latter refers to the content of one's subjective state. To say that one has knowledge of something is to say that one has information about something (static), but is not to say that one is in the process of knowing (dynamic).

Knowing and understanding are distinct, inseparable, and non-interchangeable. The phrases "to know" and "to understand" cannot be used interchangeably; they are not the same.

Knowing is the selective abstractive transformation (filtering) of perception.

Understanding is the selective instructive[2] transformation (filtering) of expression.

Perception is simple. Knowing is complex.
Where perception is defined by a single form (simplicity),
knowing is defined by many feelings (complexity).
Expression is simple. Understanding is complex.
Where expression is defined by a single feeling (simplicity),
understanding is defined by many forms (complexity).

> **Knowing** is a transformation of outer form into inner feeling.
> Any process that converts from an outer/ external form into an inner/internal form (feeling) is a process of abstraction (as "from structure"). *Knowing is fundamentally a perceptive process.*

> **Understanding** is a transformation of inner feeling into outer form.
> Any process that converts from an inner/ internal form (feeling) to an outer/external form, is a process of instruction (as "into structure"). *Understanding is fundamentally an expressive process.*

No degree (even a very large degree) of knowing is equivalent to any degree (even a very small degree) of understanding. Similarly, no degree of understanding is equivalent to any degree of knowing. Understanding cannot replace, or create, knowing[3]. Knowing cannot replace, or create, understanding.

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1. The concept of falsifiability is applicable to questions of why and of how, but it cannot be applied to questions of what (description). Metaphysics, insofar as it is descriptive and definitive, is generally not so much itself the subject of logic or of proof, as it is an attempt to provide a <u>basis</u> for logic and proof.

2. The term 'instructive' is here used in the manner of "to in-struct" or as in 'to put into, add, or create structure').

3. Due to the nature of communication, this book can only convey understanding; it cannot convey knowing.

Zero Positive

The essence of an act of measurement constitutes a domain. Domains are zero positive. All numerical (zero-positive) measurements involve as their concepts a zero, a unit, and an extent. These concepts correspond with position, scale, and direction, respectively.

Position has the nature of the omniscient modality.
Scale has the nature of the transcendent modality.
Direction has the nature of the immanent modality.

The zero is representative of the limit of the microscopic boundary of a measurement domain.
The unit defines the nature of the meaning of the mesoscopic scale.
The extent is representative of the limit of the macroscopic boundary of a measurement domain.

Zero has the nature of the transcendent.
Unity (the unit) has the nature of the immanent.
Infinity (extent) has the nature of the omniscient[1].

In any scale of measurement, the absolute microscopic corresponds to the infinitesimal number (continuity), zero, the mesoscopic refers to the unit (one), and the macroscopic refers to infinity (symmetry).

For example, light is zero positive. There is an absolute limit (zero) to 'how much dark' is possible in any given space, yet there is no limit to how much light is possible in that same space. The two concepts 'light' and 'dark' cannot be considered/defined using equivalent contexts of meaning, and thus, cannot be considered as being in symmetric opposition to one another. Only various degrees of light-ful-ness (being) are defined; there is no "dark" (non-being, zero semantic value). Where no meaning can be given to the contrast class of that which is infinite, the concept of dark can have no independent meaning (definition, semantic basis) of its own.

The concept of similarity has common basis with the concept of continuity
(via their basis in definition with the concept of "being the same").
The concept of proximity has common basis with the concept of symmetry
(as "to be near one" is to equally have one be near the other).

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1. Due to a shift in the context of consideration (Axiom II), the modalities of the position, scale, direction triple are phase shifted with respect to the triple of zero, unit, and extent.

Theory consists of an object domain, a model domain, and a correspondence domain (the set of correspondences between the object domain and the model domain is itself a domain).

The object domain has the nature of the transcendent.
The correspondence domain has the nature of the immanent.
The model domain has the nature of the omniscient.

The object domain is described in terms of interactions.
The correspondence domain is described in terms of comparisons.
The model domain is described in terms of relations.

The notions of relation, of comparison, and of interaction are themselves also distinct, inseparable, and non-interchangeable. All three are zero positive metrics.

The Nature of Inquiry

Within a language domain (within communication), there are exactly six classes of question:
'how', 'why', 'who', 'what', 'where' and 'when':

Questions of who are resolved in terms of a class of the subjective.
Questions of what are resolved in terms of a class of the objective.
Questions of how are resolved in terms of an instance of a subjective content.
Questions of why are resolved in terms of an instance of a subjective context.
Questions of when are resolved in terms of an instance of an objective content.
Questions of where are resolved in terms of an instance of an objective context.

Questions of why, how and who are always relative (in relation to) to a particular self. Questions of what, where and when are always relative (in relation to) to a particular world.

Questions of why and how have the nature of the transcendent modality.
Questions of who and what have the nature of the immanent modality.
Questions of when and where have the nature of the omniscient modality.

The six types of question have direct one-to-one correspondences with the six types of primary domain metrics.

A why type question corresponds to a consideration of possibility.
A how type question corresponds to a consideration of probability.
A who type question corresponds to a consideration of force.
A what type question corresponds to a consideration of mass (inertia/pattern).
A where type question corresponds to a consideration of space.
A when type question corresponds to a consideration of time.

The six question types group into three axis pairs which represent convolutions of two other primary concepts. These pairs are abstraction and instruction, the subjective and the objective, and the spatial and the temporal.

An answer to a question of why always refers to an abstraction.
A 'why type assertion' is one which, given a specified instructed eventity X, provides/specifies/corresponds/defines an abstract eventity Y.

An answer to a question of how always refers to an instruction.
A 'how type assertion' is one which, given a specified abstract eventity X, provides/specifies/corresponds/defines an instruction eventity Y.

An answer to a question of who always refers to that which is subjective.
A 'who type assertion' is one which, given a specified objective eventity X, provides/specifies/corresponds/defines a subjective eventity Y.

An answer to a question of what always refers to that which is objective.
A 'what type assertion' is one which, given a specified subjective eventity X, provides/specifies/corresponds/defines an objective eventity Y.

An answer to a question of where always refers to that which is spatial.
A 'where type assertion' is one which, given a specified temporal eventity X, provides/ specifies/ corresponds/ defines a spatial eventity Y.

An answer to a question of when always refers to that which is temporal.
A 'when type assertion' is one which, given a specified spatial eventity X, provides/ specifies/ corresponds/ defines a temporal eventity Y.

The process and being of the questions of how and why, of abstraction and instruction, expression and perception, and possibility and probability, refer to (and are specified in terms of) relations of similarity between domains.

The process and being of the questions of who and what, of the objective and the subjective, statement and self, and inertia and force, refer to (and are specified in terms of) relations of inclusion between eventities and domains.

The process and being of the questions of when and where, of space and time, and the proscriptive and the descriptive, refer to (and are specified in terms of) relations of proximity between eventities.

Inclusion, Proximity, Similarity

The three concepts of inclusion, proximity, and similarity provide the necessary and sufficient basis for considering the type of any instance of a comparison, perception, or relation. There is no perception, relation, or comparison which cannot be completely represented in and resolved into at least one or more of these pure types of "relations of similarity", "relations of proximity", and "relations of inclusion". For example, all comparison can be ultimately and fundamentally resolved into the three aspect types of "comparisons which establish inclusion" (i.e., containment; one thing inside of another), "comparisons which establish proximity", and "comparisons which establish similarity".

The concepts of similarity, proximity, and inclusion are distinct, inseparable, and non-interchangeable concepts. All three notions are zero positive metrics. Relations of inclusion are more basic than relations of proximity and/or relations of similarity. Similarity and proximity are conjugate[1].

The relation type of inclusion (containment) has the nature of the immanent modality.
The relation type of proximity has the nature of the omniscient modality.
The relation type of similarity has the nature of the transcendent modality.

The essence of the meaning of similarity is always (at least implicitly) in reference to a collection of transformations (operators on forms/states). These transformations are typically across (transcendent to) domains. Similarity can have no meaning independent of these transformations.

The essence of the meaning of proximity is always (at least implicitly) in reference to a specific domain (a context of form). Proximity cannot be considered independently of this domain basis.

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1. Expressed mathematically, the concept of conjugation may be expressed as $I = O * T$ where I, O, and T are all strictly positive ($I > 0$, $O > 0$, $T > 0$). The implications of changing the relative values of these three variables with respect to one another express the dynamic of conjugation. For comparison, the concept of opposition would be formulated as $I = O + T$, with the only limitation being that $I > 0$ (with a possibility of O and T taking negative values or zero).

The Axioms are a defining basis for, and are defined by, the triple concepts of inclusion, proximity, and similarity.

Axiom I is a statement of proximity.
Axiom II is a statement of inclusion.
Axiom III is a statement of (dis) similarity.

The concept of relation can be understood in terms of the concept of proximity.
The concept of identity can be understood in terms of the concept of similarity (an instance).
The concept of a domain can be understood in terms of the concept of inclusion (a class).

Triplication

The Law of Three: A relation is always a relation of at least three. For every pair of concepts, there is always at least one more. For every interaction or comparison, there are always at least three intrinsic aspects.

For every sameness there is a difference. For every difference there is a sameness. For every way that there is for something to be the same, there are at least two ways for it to be different. For every way that it is different, there are at least two ways in which it is the same.

Every instance is an instance of at least two classes. Every class has at least two instances. Where the immanent is a class, the omniscient and the transcendent will be instances. Where the immanent is an instance, the omniscient and the transcendent will be classes.

For every whole, there are at least two parts. For every part, there is always at least two wholes.

For every context, there are always at least two contents. For every content, there are always at least two contexts. There shall always be (at least) more than one content, or more than one context, or both. Where context is singular, content must be plural. Where content is singular, context must be plural.

When positing only one context,
the context shall be defined as
more fundamental than the two contents.
When positing only one content,
the content shall be defined as
more fundamental than the two contexts.

Where there is a form of symmetry, so must there also be two forms of asymmetry.
Where there is a form of asymmetry, so must there also be two forms of symmetry.

Where there is one aspect of simplicity, there are always at least two aspects of complexity.
Where there is one aspect of complexity, there are always at least two aspects of simplicity.

Where there is one way in which something is clear,
there are at least two ways in which it is obscure.
Where there is one way in which something is obscure,
there is always at least two ways in which it is clear.

Every choice has at least two meanings, and every meaning arises from at least two choices.

Every effect has at least two causes, and every cause has at least two effects. Every action has at least two reactions, at least two consequences (irreversible changes in the world).

There is never just one relation for any identity; every identity is always involved in at least three relations. There is never just one thing. Eventities are always plural. Where there is one, there is always at least one more.

To be real is singular. Reality is never singular. Reality is always plural (worlds). An eventity (complex) is always a part of a reality (perceptions and expressions of eventities are always real). For every being, there are at least two ways of doing; and for every doing, there are at least two ways of being.

For all that is real, there are at least two ways in which it is an illusion.
For all that is illusion, there are at least two ways in which it is real.

Intercompositional and Interexclusionary

Parallel Aspect; 1st: **External (position) Unicity**: where the unique context of an eventity is necessary and sufficient to define that eventity as being unique.

Parallel Aspect; 2nd: **Internal (pattern) Unicity**: where the unique content of an eventity is necessary and sufficient to define that eventity as being unique.

Parallel Aspect; 1st: **Interexclusionary**: that class of eventities for which existence in one place/time prevents/excludes any similar eventities from existing in that same place/time.

Parallel Aspect; 2nd: **Intercompositional**: that class of eventities for which existence in one place/ time does not prevent/exclude any number of similar eventities from existing in that same place/time.

The meaning of interexclusionary is to assert
that where there is a plurality of contexts,
there must be a singularity of content.
The meaning of intercompositional is to assert
that where there is a singularity of context,
there may be a plurality of content.

When viewing from an external perspective, to be intercompositional is to imply a discontinuity in being and an asymmetry in doing. To be interexclusionary is to imply a symmetry in being and a continuity in doing[1].

Parallel Aspect; 1st: Eventities which have an interexclusionary nature can only have their existence described in terms of external unicity[2]. Anything which can only be defined as unique by external measurements must have an interexclusionary nature[3].

Parallel Aspect; 2nd: Eventities which have an intercompositional nature can only have their existence described in terms of internal unicity. Anything which can only be defined as unique by internal measurements must have an intercompositional nature[4].

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1. Nothing is either purely and absolutely interexclusionary or purely and absolutely intercompositional. Everything (every eventity, interaction, relation, or comparison) is to some extent interexclusionary and to some extent intercompositional.

2. **Unicity**: In reference to the *quality* of being unique, rather than to the degree that something is relatively unique (uniqueness).

3. Example: Where all electrons have the same measurable properties, distinct instances of electrons can be distinguished only by their position.

4. Example: Photons can only be distinguished by their properties, where many photons can be in the same space at the same time.

Eventities which have an intercompositional nature are distinguished
(as unique instances) only by their content (inner pattern).
Eventities which have an interexclusionary nature are distinguished
(as unique instances) only by their context (outer pattern).

All interactions are unique, either by content or by context.
Where content is identical, context must be different.
Where context is identical, content must be different[1].

Form is interexclusionary. Feeling is intercompositional.
Objectivity is interexclusionary. Subjectivity is intercompositional.

With respect to the self, the concept of 'instance' is regarded as a content,
in terms of a difference, and as being unique and interexclusionary.
With respect to the self, the concept of the class is regarded as a context,
in terms of sameness, and as being non-unique and intercompositional.

All that is qualia is intercompositional,
has the nature of non-local context,
and is understood in terms of continuity.
All that is quanta is interexclusionary,
has the nature of local content,
and is understood in terms of symmetry.

Perception is interexclusionary in space (position) and actuality.
Expression is intercompositional in possibility and potentiality.

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1. For example, the concept of a 'particle' is isomorphic with the concept of an interaction. Interactions have two aspects (two types), the intercompositional (fermions) and the interexclusionary (bosons). The interexclusionary have the aspect of the omniscient (existence, actuality), are quantized, and are defined by symmetry. The intercompositional have the aspect of the transcendent (potentiality, creation), are asymmetric (directed waves), and are defined by continuity. The actuality of the boson grows out of the virtuality of the fermion, much as the virtuality of the fermion grows out of the actuality of the boson.

Ontology

On the basis of the Root Tautology, the following three principles may be established:

The Absolute Ontology Principle: Interaction is considered to be ultimately and independently 'real', in some irreducible sense, in all formulations of theory[1]. There IS, in some irreducible sense, always interaction.

The Principle of Absolute Unity: There is always some method of considering interactions as being the same, identical, or equivalent, in all formulations of theory[2]. There IS, for each interaction, in some irreducible sense, a manner in which it is part of an (at least two, arbitrary) abstract whole(s).

The Principle of Absolute Unicity: There is always some method of considering interactions as being different from one another (i.e., as at least 'distinctly instanced') in all formulations of theory. There IS, for each interaction considered as a part of an abstract whole, in some irreducible sense, a manner in which it is distinct from all others (unique) in that abstract whole. All identity is distinct, every distinction is an identity.

The absolute ontology principle establishes the nature of the concept of instances of interactions within some class, while the principle of absolute unity and the principle of absolute unicity establish the nature of comparisons of interactions within that class. All three principles are necessary and intrinsic within any concept or consideration of comparison. In that the concept of an interaction and the concept of a comparison are isomorphs, the three principles could be stated more formally for all contents and contexts, explicitly in terms of comparison and its near allied predicates.

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1. The meaning of the term ontology is usually taken to refer to the philosophical study of the nature of beingness in itself.

2. This principle asserts that for any instance of a thing, there has to be some manner in which the thing is like, or comparable to, any other thing. There is always some manner by which to regard any two things as being similar, or the same as, one another.

The Absolute Ontology Principle: There is assumed to be a class of instances of comparable comparisons.

The Principle of Absolute Unity: There is assumed to be a class of instances of comparisons of comparisons such that all instances of the comparisons are the same.

The Principle of Absolute unicity: There is assumed to be a class of instances of comparisons of comparisons such that all instances of the comparisons are different.

While the principle of unity and the principle of unicity may initially seem contradictory, there is always a sense in which they are consistent with one another for any given pair of interactions. Interactions are always implicitly compared in terms of their various aspects. The interactions themselves are considered to be complex rather than simple. As such, there may simultaneously be a sense in which various aspects of a pair of interactions are the same and in which the various other aspects of those interactions are different. The difference and sameness of interactions are the differences and sameness of aspects of those interactions. The concepts of difference and sameness are relative concepts (with respect to the various selected aspects of interaction), and not absolute ones. The IDM metaphysics regards these concepts (difference and sameness) as being self evident.

> The absolute ontology principle has the nature of the immanent modality.
> The principle of absolute unity has the nature of the omniscient modality.
> The principle of absolute unicity has the nature of the transcendent modality.

The concepts of existence, reality, and objectivity may be resolved by the principles of the IDM metaphysics.

The concept of **the real** is taken to refer to an application of the absolute ontology principle, independently of its possible associations with any particular self or domain.

The concept of **existence** is taken to be an application of the principle of absolute unity, relative to a specific domain, and independent of its possible association with any particular self.

The concept of **being** is taken to be an application of the principle of absolute unicity, relative to a specific self, and independent of its possible association with any particular domain (world).

Interactions are always in some sense (omniscient) the same, are symmetric, and are constant. Interactions are also always in some sense (transcendent) distinct (as different), and are asymmetric (as non-constant, in-equivalent, or increasing).

The Scope of Theory

Where theory is defined most immediately in terms of the mesoscopic, the concept of symmetry becomes an assertion about the macroscopic made from the perspective of the mesoscopic, and the concept of continuity becomes an assertion about the microscopic made from the perspective of the mesoscopic.

Empirical measurement happens only at the scales of the mesoscopic. Extrapolation of theory is used to consider the scales of the microscopic and that of the macroscopic. As such, effective theory is developed from the middle outward, rather than from the top down (religious ideas of emanation, philosophies of idealism) or from the bottom up (atomic physical monism, philosophies of realism). Life happens between. Effective theory also begins between.

Eventities within domains are considered in terms of both scale and location. The concept of scale is equally as fundamental as the concept of location (position in the domain, defined by proximity, relative to other eventities). The concept of a scale is not a position or a thing, nor even a direction in conventional spatial terms.

The degree of lawfulness of the microscopic aspects of a domain are conjugate with the degree of lawfulness of the macroscopic aspects of a domain. No domain/world can be regarded as completely lawful at both the microscopic and the macroscopic scales of being. No theory/description of the real can be both correct across the whole span of the world and also assert finite dependence of its elements.

No theory will ever be able to completely explain, predict, or model, all observable behavior and phenomena (interactions, change) in a world (domain)[1]. An assumption of local consistency must eventually result in a realization of global inconsistency. Perfect continuity must preclude perfect symmetry[2].

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1. Note: this also includes the IDM metaphysics. A metaphysics is not a theory of everything so much as it is a comprehensive description of the foundations of domains.

2. An assumption of global consistency will also eventually force a realization of local inconsistency. An assumption of consistency cannot hold at the absolute extrema of all scales (from the scale of identically zero to the scale of identically infinite). An assumption valid for one scale of being is not therefore valid for all scales of being.

There Is No Universe

In that all members of the class 'that which exists' must have a non-null possibility of interacting (i.e., there is a non-zero positive potentiality of interactions (direct or indirect) between any pair of existences), so must the concept of continuity (of potentiality) be commonly applied to all members, and to the class itself.

In that the nature of the beingness of any member of the class of that which is existing is the same as that of any other member, so must the concept of symmetry (of actuality) be commonly applied to all members and to the class itself.

In that the concept of perfect symmetry and the concept of perfect continuity are themselves fundamentally incommensurate, so must the class of existence be itself incomplete and non-absolute (i.e., finite and indefinite). Thus, there can be no single all embracing class of "universal" existence.

In that the conventional concept of 'universe' is taken to be the abstract class of all abstract classes of unity (i.e., a presumed totality of all existences within all domains), 'the universe' explicitly *cannot* be given an ontological status of its own, in terms of being, reality, or existence, as defined[1].

There is no single context that encompasses all other contexts and contents.
There is no single domain that encompasses all other domains.
There is no single frame of 'the all of reality'.
There is no one single material universe containing and subsuming all.
There is no single root substance that is within all other substances.
There is no single final fundamental actual substance in any world or domain.
There is no fundamental unit or atom of substance.
Nor can all of existence be made of any finite set of things, materials, substances, or existences.

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1. The concept of 'the universe' implicitly requires an assumption of an omniscient modal concept containing a transcendent modal concept. In that the concept of universe is in direct contradiction to Axiom II, it is considered to be 'ill formed' and internally inconsistent as a metaphysical concept.

As such, metaphysics cannot ever consider 'the universe', but can only consider 'creation', 'interaction', and 'existence'.

There is no 'super-domain' which includes as members all other domains as sub-entities. The idea of 'a universe' cannot be fully realized, even in principle. Any attempt to formulate such will result in paradox. The transcendent cannot be contained within the omniscient.

There is no single fundamental ground of being. There is no single fundamental lawfulness common to all causality, in any world, domain, or universe. There is no one single 'real' reality/ universe.

There is no universal context. There is no universal domain. There is no universal language[1].

There is a universal content. There are universal symbols (the three modalities). Each modality is exactly one primary universal symbol. Of universal symbols, there can be no fewer than three, and when three, they will always correspond to the three modalities.

No possible experiment done within a domain (the universe) can demonstrate the closure of the domain (universe). Neither the universe, nor any part of it, can be regarded as a closed system, immutable to change. There are no worlds or domains with fixed and immutable boundaries. No domain is ever fully closed. There are no closed systems. There are no 'complete' domains. All domains are open[2].

The universe is locally consistent but globally inconsistent. For any domain, there will be laws of local conservation (symmetry base principle). No concept of domain global conservation, however, can be so consistently defined[3].

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1. In considering that there is no absolute (all encompassing) context, a universal language would necessarily be defined as a language in which all statements made using that language would be understood in a manner completely independent of (both objective and subjective) context. However, in that all representations are a content of a domain and therefore at least minimally (objective) context dependent, there can be no absolute universal language.

2. These statements are to be regarded with the related implications regarding monism and cosmology. This lack of closure applies to all of the domain metric variables, without exception.

3. The concept of conservation cannot be validly applied to anything which has a purely transcendental character. For example, love is not conserved. Value is not conserved. Having one love or value does not carry any necessary impact on the possibility of having more than one love or value.

There Is No Control

All interactions have co-lateral aspects. No interaction (or energy) is ever perfectly or completely co-lateral, and no interaction is not at least partially co-lateral.

Co-lateral energy: in the ideal case, this refers to an interdomain relation in which a change in the state of one domain implies and defines a change in the state of another domain, in a manner which depends only on the <u>form</u> of the change (i.e., is completely independent of the relative strengths of the energies involved in the respective domains)[1].

Interaction cannot prevent interaction, but only beget it. Choice always begets choice.

No form of control is absolute; all process has some aspect of a cooperative nature. There is no control, there is only influence. It is fundamentally impossible to completely and/or absolutely control or constrain anything, in any domain, under any circumstances, ever.

There are no absolutely asymmetric interactions. No interaction, no relation, can ever be fully and completely asymmetric. While it is possible for relations and interactions to be nearly asymmetric, it is impossible for such relations to be fully, absolutely, and wholly asymmetric. Every action has at least some reaction.

No perception is perfectly omniscient (or objective).
No expression is perfectly transcendent (or absolute).

Choice cannot (completely/ absolutely) fix or limit other choice.
Choice can only enable other choice (both within domains and across them).

Nothing within a world can prevent the creation of new events, the creation of a/the world(s). Instances of relations cannot ultimately limit the beingness of other instances of relations.

The entrance of any new life into a world/reality always occurs through the microscopic boundary. All birth begins at the smallest scales of existence.

The universe is open and unbounded at the microscopic scales,
even while it must appear to be closed and bounded at macroscopic scales.

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1. For example, consider a conventional light switch; an event within the domain of the mechanical will define the pattern of energies (state) in the domain of the electrical, even though there is no relationship between the amount of mechanical energy required to set the switch and the amount of electrical energy which is controlled by the switch.

Subjectivity and Consensus

Subjectivity is irreducible. One cannot consider subjectivity purely in terms of objectivity. The/an/any/all action and concept of observation/perception is inseparable from the action and concept of subjectivity and objectivity.

As an aspect of perception, subjectivity is not observable. There shall always be some part of subjective experience which cannot be accessed (or perceived or observed) by any other (regardless of the method used or the technique practiced). There shall always be some part of subjective experience which is not available by/to any other, and cannot be perceived, accessed, or observed in any other, in any manner, even in principle.

Within the context of theory, neither subjectivity nor objectivity can be described or explained purely in terms of the other. Subjective experience (or choice) does not arise just from objective being (causality) any more than objective being (causality) arises just from subjective experience (or choice). Neither is more fundamental than the other. The interaction between the subjective and the objective (perception and expression) is more fundamental than either the subjective and/or the objective.

A context of subjectivity cannot be defined purely in terms of content objectivity. No objective content can be defined purely in terms of subjective context. Both subjectivity and objectivity must be considered as (and in terms of being) inherent and irreducible aspects of all events, all interactivity, all communication.

There can be no objective theory (theory of physics) that will completely account for all (and all aspects of) subjective experience. There can be no subjective theory (religious revelation, mysticism) which can account for all (and all aspects of) objective experience.

No amount of objective process will replace any amount of subjective experience;
no amount of subjective choice will replace any amount of objective expression.
They are of equal value.

All Interactions (perceptions, expressions) are inherently unique in their instance.
No interaction can replace, or take the place of, any other. No experience can replace any other experience. All experiences (interactions) are equally valued.

No degree (even a very large degree) of knowing is equivalent to
any degree (even a very small degree) of understanding.
No degree of understanding is equivalent to any degree of knowing.
Understanding cannot replace, or create, knowing.
Knowing cannot replace, or create, understanding.

There is no world that is completely independent of all selves and there is no self which is completely independent of all worlds. No single domain can account for, or be the source of, all subjective/self experience.

The concept of consensus (a degree of objectivity of a world) is isomorphic with the concept of a consistency of comparison. To create this consistency, there must be defined a correspondence of the content of experience between multiple selves. To create (to know that there are) alignments in the content of experience, a different order, level, or meta-perception (experience) is necessary (intrinsic)[1]. A multiplicity (at least more than one) of domains/worlds is necessary to create alignments of experience (objectivity, consensus) in any specific world.

All of objective reality is constructed via correspondences. There is no concrete absolute ground of all being. There are only varying levels and degrees of correspondence between experiences of consciousness[2].

In that a multiplicity of differing levels (domains) of interaction are necessary to establish a consensus reality/world, correspondences of subjective experience (subjective because of their inter-domain character relative to any specific domain) are as much inherently a part of the foundation (composition basis) of objectivity as is any material aspect, (i.e., what is defined on an existential basis, perfectly intra-domain). The degree of objectivity (an alignment between various multiple domains of self and world) is in part proportional to, and in part conjugate with, the degree of alignment in subjectivity[3].

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1. This is consistent with the second ring in the concept of objectivity (See Page 13). The meta-perception is a coordination point (agreement) for the formation of an objectifying comparison. A constellation of such coordination points provides a basis for the formation of stable consistent worlds.

As an example, consider as a metaphor a spaceship engaged in a docking procedure with a stationary space station. The pilot will use visual feedback (i.e. interactions in the domain of electromagnetism) to guide the craft to/towards the dock, so as to couple the ship and the station into one mechanical unit (i.e. a mechanical alignment in the domain of physical materials). In this example, the electromagnetic domain acts as a meta-domain for establishing a correspondence in the domain of physical material.

2. To understand the nature of consensus reality, consider a metaphor of sending e-mail from one computer to another. An e-mail message is not transmitted by sending the physical computer, hard drive, etc. Rather there is established a temporary correspondence between what the sender sees on the computer screen and what the reader sees on their computer screen.

3. Synchronicity, and co-incidence, are as much a part of what establishes (is necessary to establish) a consensus universe (domain) as physical (i.e. as having substance). The part which is proportional is defined by the contribution to the second ring of objectivity. The part which is conjugate is defined by the third ring of objectivity.

Mass and Energy

To refer to a measure of energy is to refer to a difference of potential states. The concept of a state, structure, or configuration/pattern, and ultimately the concept of matter/mass itself, has the nature and essence of the modality of the omniscient. The concept of a relation between states, a comparison of possibilities in terms of probability, (potentiality) and ultimately the concept of energy itself, has the nature of the modality of the transcendent. The concept of measurement, interaction, transformation of states, force, power (and strength) and ultimately the concept of observation itself (light) has the nature and essence of the modality of the immanent.

Only things of Actuality can be measured/determined objectively. Potentiality, and anything of its kind (class/modality of the transcendent), can never be measured or determined (defined) objectively. Assessments of potentiality and improbability are of an intrinsically subjective nature.

An instance of observation (structured in no dimensions immanent) resolves an instance of an actuality (structured in one dimension; omniscient) from a class of potentialities (structured in two dimensions; transcendent). The event of selection itself does not have position within either of the dimensions of the class of potentialities or within the dimension of the selected actuality. The selection/observation in itself is more basic than either the selected or the selector.

The more confined and isolated, the more dynamicism and potentiality will be developed. The smaller and more confined an interaction is, the more energy will be required to perceive it.

Domain Constants

The Planck constant and the speed of light are fundamental metrics of a domain in that they define the microscopic and macroscopic limits of a domain[1]. These constants define the very limits of what can be known *as a part of* the domain from a perspective within the domain (i.e., what is within the context of the domain as its content). Both of these constants define and separate that which is actually known and potentially knowable from that which is ultimately and irreducibly unknowable[2].

The degree to which a domain (and all eventities existing within that domain) will admit a degree of objectivity (for an observer within that domain) is proportional to the span (in terms of orders of magnitude) between the C constant to the H constant of the domain.

The C constant is the omniscient modal macroscopic domain limit, (the analogue of the speed of light, generalized and abstracted to any arbitrary domain). It defines that limit (boundary) at which changes in actuality (position/form) are no longer definable as being purely within the domain.

The H constant is the transcendent modal microscopic domain limit, (the analogue of the Planck constant, generalized and abstracted to any arbitrary domain). It defines that limit (boundary) at which changes in potentiality (abstraction/scale) are no longer definable as being relevant to the domain.

The speed of light defines what is unknowable in terms of context. In that time and space are context metrics, the speed of light defines a boundary between which times and spaces are knowable (static) and which are (intrinsically) unknowable. The Planck constant defines what is unknowable in terms of content. In that dynamic and static aspects of pattern (energy/mass; momentum and position) are metrics of content, the Planck constant defines a boundary between which dynamics are knowable, and which are (intrinsically) unknowable.

The degree of difference -- the span in orders of magnitude between the speed of light (the macroscopic/context domain limit) and the Planck constant (the microscopic/content domain limit) -- defines the total degree of structuralization of the domain, the total subjective intensity or bandwidth that the domain has in communication involvement with the self.

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1. The concept of 'this universe' as it is commonly used, is an instance of a domain (regardless of the (incorrect) assumptions of 'specialness' or 'singularity').

2. These constants are intrinsic to all domains; every domain will have some representation of these two constants in some manner or other. However, each domain may have their own specific values for these constants, particular to itself.

Aspects of Time

The degree to which time is regarded as objective is proportional to
the degree that time seems to resemble a dimension of space.
The degree to which time is regarded as subjective is proportional to
the degree that time seems to resemble a dimension of possibility.

The linear model of time has three aspects, past, present, and future. The image of the past as known in the present has the nature of the omniscient. Perception in the present has the nature of the immanent. The expectation of the future, as defined in the present, has the nature of the modality of the transcendent.

From the perspective of the immanent self (the scale of the mesoscopic, the absolute boundary of consciousness and unconsciousness), past and future are asymmetric and conjugate to one another (and are defined in the terms of continuity). From a perspective which is purely omniscient (at the scale of the absolute macroscopic limit of a domain) past and future will appear to be symmetric. From the perspective of the absolute microscopic limit of a domain, past and future are identical, and are defined in terms of a strict discontinuity of moments.

For all self perception in the present it must seem (cannot not seem) that the past is static, fixed, has fixed form, and could, at least in principle, be fully knowable and known[1]. For all self perception in the present, it must seem (cannot not seem) that the future is dynamic, free, unknowable, and has no form. It must appear to all in the present that the future cannot ever, even in possibility, be fully known.

The past is the known. The present is the unknown. The future is the unknowable.

The single actuality of the one present arises out of a multiplicity of potential futures. The one single existence of the past arises out of the multiplicity of interactions in the present. The quality of one's future arises from the plurality of one's past.

Time is an aspect of all events, as an intrinsic of those events. Energy (potentiality, relations of system states) is an aspect of perception, rather than perception being an aspect of energy. All of perception/experience involves time. An experience does not happen in time; time is an aspect of an experience.

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1. Even the past cannot be fully known: a person born into a life can only rely on "histories", "signs", and "records" of what came "before", all of which are incomplete abstractions of the "original real events". Beyond this indirect level of certainty, no definite meaning can be assigned to the past having an exact and definite (knowable) state. Varying degrees of probabilistic prediction can be reached, but only with an accuracy which diminishes the farther away one tries to extrapolate from the current here and now, in time, space, domain of abstraction, and scale.

Time is an aspect of events in the same manner that a horizon is an aspect of perception (one cannot not have a horizon). One's perception relative to one's self is always zero motion. In the same way, the 'speed of light' is always a constant (consistent).

Where the incommensuration theorem asserts that the fundamental basis of consideration cannot regard anything as being both wholly symmetric and wholly continuous, that which is known or defined to be continuous must be asymmetric.

Context and potentiality are asymmetric, and have direction/directivity. Aspects of interaction/measurement/comparison which are contextual will have directivity/asymmetry.

Within perception, there is (cannot not be) an arrow of time that distinguishes past from future. Within perception, there is (cannot not be) an arrow of space, which distinguishes near from far. Within perception, there is (cannot not be) an arrow of possibility.

The essence of the concept of evolution has the same basis as the essence of the necessary asymmetry of potentiality.

On the Nature of the Being of Time

Basically, asking whether or not time does or does not exist is similar to asking whether the horizon does or does not exist. When one asks the same conventional questions about the existence or non-existence of time one has the same sort of problems that one would find if one would ask those same questions about the horizon.

With respect to self, the horizon is always in the same place, somewhere far away. When one tries to move toward the horizon, it moves with one's perspective, because it is an element of one's perception. The horizon is created out of perception, more than it is created out of anything that "exists" apart from ourselves.

In the same way, time is created "out of perception". With respect to a person, time is always moving exactly in one direction, straight forward. When one tries to "catch up" with time, or change the direction of the flow of time, one has the same sort of problems that one would if one were trying to "catch up" with the horizon. The net effect is that the horizon is in the same "place", no matter how fast one is moving or where one is standing. In consideration of theories like general relativity, the same sort of phenomena shows up. Regardless of the motion of the observer, his sense of time is always exactly the same, always straight forward.

In the same way that the horizon exists as an aspect of one's perception on the surface of a world, time exists as an aspect of one's perception in a domain. In the same way that the horizon does not have any sort of substantial or objective nature beyond an effect of the event of perception itself, time does not have any sort of substantial or objective nature beyond being an aspect of perception itself.

Where considering from a transcendental perspective, as assuming that one is standing at 'all locations at once', there would be no effective concept of 'a horizon'. Similarly, when in a transcendental orientation with respect to a domain, time becomes 'simultaneous' and has no effective realization. However, it is intrinsic to the nature of being in interaction with a domain to have a self at a locus. Similarly, it is intrinsic to the nature of having an interaction with a domain that time will be an aspect of one's experience. Any act of perception will create a (subjective) sense of time, in the same way that the simple act of perception creates a personal horizon.

In a similar manner as with the horizon, one cannot extend the concept of time to be considered as an objective context (i.e., independent of one's subjective perception). For example, map makers do not extrapolate 'the horizon' to any particular location on the map. On modern maps, one does not usually find a circle or a line with the label 'the world ends here'. As such, it is unreasonable to try to extrapolate from one's personal sense of time to a framework more inclusive of other people (or anything outside of ourselves) in some fundamental manner. Similarly, to regard the external frame of reference of time as in some way more basic than the time frame of reference that is within self is to allow the real existential difficulties to begin. Instead of taking one's own natural, internal frame of reference and using that as the basis of time, one is expected (conventionally) to start with an external reference, and then try to derive a sense of time from the external reference.

As an inherent aspect of interaction, (i.e. of both perception and of expression) time is inherently both subjective and objective. Wherever self is, wherever self interacts (and has being), that self will have time (and the arrow of time).

Time cannot be found in an equation, or in anything more "objective and solid", than the process of the perceptual interaction itself (which is rather insubstantial). What physics must assume to implement the scientific method itself (including the assumption of subjective time) cannot be studied by physics. Physics cannot study the assumption and technique of (and the correctness of the assumption and technique of) the scientific method by using the scientific method. Physics cannot study that which it must assume.

In that measurement, as realized in the scientific method, is an interaction, it therefore has and assumes all of the intrinsics of interaction. Along with notions like content and context, the subjective and the objective, notions like force and time are intrisnsics of interaction. In that it is inherent to the nature of time to be a common context of both the subjective and the objective, the concept of time is of a purely metaphysical nature (if time were only the context of the objective, it could be claimed to have a purely physical nature). Time is not another dimension of space. It is a common coordinating aspect (context) of directivity in interaction. Time is not only physical, it is also metaphysical. Physics, as the study of the physical, cannot define, or study, that what it must assume to be before it begins.

If one defines time with respect to the interaction between self and world, there is a "time" basis with respect to each self in whatever domain that self happens to be "in". The above scenario follows easily because each "self" has its own frame of reference that is "made" out of the very process of perception (as a special case of interaction) itself. Because time is defined with respect to the interaction, each interacting self will have its own past, present, and future.

One cannot "run away" from this frame of reference any more than one can run away from the horizon. Similarly, one may understand why the speed of light is a constant if one compares it to one's horizon (as a metaphor), because both of these terms are defined with respect as a relation of (interaction to) self.

The "linear time" stream that one may call 'the consensus universe' is a reconstructive alignment of all of these "times", in the same way that a common space is constructed out of all of the immediate interactions to form the/a "consensus domain structure".

Table of Modality Correspondences

Note: Some of these correspondences are context dependant and will shift depending on the mode of consideration.

Transcendent	Immanent	Omniscient
associative	.	logical
becoming	doing	being
bosons	.	fermions
bottom up	.	top down
choice	change	causality
clarity	.	opacity
coherency	structure	significance
comparisons	interactions	relations
complexity	.	simplicity
connotative	.	denotative
consciousness	perception	attention
consistency	.	completeness
content	.	context
continuity	comparison	symmetry
correspondence	object	model
creation	interaction	existence
creativity	.	experience
deeply	well	fully
dependence	interdependence	independence
descriptive	.	proscriptive
diversity	plurality	unity
doing	.	being
dreamer	dreaming	dreamed
dynamic	.	static
dynamicism	.	stability
empirical	.	analytic
energy (strength)	force	power
entropy	temperature	heat
epistemology	.	ontology
ethics	.	morality
expansive	.	constrictive
expression	.	perception
faith	.	reason
feeling	.	form
freedom	.	limitation
frequency	.	density
future	present	past
h_constant	.	c_constant
hologram	point/light	photograph
idealism	.	realism
identity	relation	domain
implicit	.	explicit
induction	.	deduction
inequality	positivity	equality
infinite	.	finite
infinitesimal	subconscious	horizon

Transcendent	Immanent	Omniscient
influence	.	control
instance	.	class
instruction	.	abstraction
intercompositional	.	interexclusionary
interdomain	.	intradomain
internal	boundary	external
intuition	.	intellect
invisible	.	apparent
joy	intensity	pain
knower	knowing	known
limitation	stasis	vacuum
metaphysical	.	physical
microscopic	mesoscopic	macroscopic
modalities	.	axioms
multiple (plural)	.	single
mysticism and magic	religion and spirituality	science and technology
mythic	.	factual
novelty	intensity	consistency (rhythm)
objective	real	exist
observer	observation	observed
open	.	closed
originality	effectiveness	generality
part	.	whole
passive	.	active
perceiver	perception	perceived
perfection	.	permanence
personal	.	political (impersonal)
photons	.	electrons
Planck constant	.	speed of light
possibility	selection	consequence
potentiality	.	actuality
precision	.	accuracy
prediction	description	explanation
private	.	public
probability	potentiality	possibility
probability in possibility	force in time	mass in space
probable	potential	possible
quality	.	quantity
question	directive	assertion (answer)
relative	.	absolute
respond	act	react
sameness	.	difference
scale	direction	position
self	relation	world (reality)
significance	communication	information
similarity	inclusion	proximity
simultaneous time	linear time	cyclic time

Transcendent	Immanent	Omniscient
subject	.	object
subjective	.	objective
sufficiency	.	necessity
symbolic	language	literal
synthesis	.	analysis
through	.	across
to create	.	to find or discover
transformation and specification	irreversibility and direction	distinction and characteristic
transparency	reflection	adsorption
transparent	illumination	opaque
trine	monism	dualism
understanding	consciousness	knowing
unknowable	unknown	known
value	meaning (significance)	purpose
well	.	fully
why and how	who and what	when and where
within	.	without
work through	work with	work on
zero	unit	extent

Endnote: A Readers Covenant

The author asks that the reader not attempt to simplify this material for re-presentation to others. Beyond a certain natural point, a concept cannot be simplified further without damaging its essence. Most of the content herein has already been distilled to the maximum extent possible and cannot be further simplified. Each word of each statement has been carefully considered and selected for maximum correctness and utility of meaning. The omission of a single word, via misquoting, or even a slight change of ordering, can subtly damage and distort the intended meaning.

Distortions of significance (a loss of clarity when attempting to oversimplify an idea) can occur in ways that remain unnoticed, even though they eventually cause much misunderstanding, and if unchecked, mis-application. Therefore, the tendency (and the common desire) to simplify these concepts must be avoided. <u>Keep the aphorisms intact</u>. To realize the best possible long term benefit of these ideas (in our culture), leave the aphorisms and essay concepts as is, unchanged.

Index and Concordance

Note: The abbreviation ICW means 'in contradistinction with' OR 'in correspondence with', depending on the context.