

Relational Logic in a Nutshell

Planting the Seed for Panosophy The Theory of Everything

We begin at the end and we shall end at the beginning. We can call the beginning the Datum of the Universe, that which is given. The Datum, also called God or the Absolute, is without form, utterly empty and featureless. It is from this Emptiness or Void that all forms in existence arise. The Datum is thus the Alpha point of evolution. The Datum is present within all beings, from a Latin word literally meaning 'before being' or 'prior to existence'. All forms in the Universe are therefore merely abstractions from the Datum; no form is separate from any other or from its Divine Source.

These forms relate to each other in a multitude of ways to form structures. A structure thus consists of forms and the relationships between them. These structures, forms, and relationships form patterns of data, all arising from the Datum of the Universe, the Ground of Being.

All these physical and nonphysical data patterns are the totality of existence. We can therefore call them all beings. Beings are anything that exists, any object, event, process, system, organism, state, feeling, relationship, field, concept, class, character, symbol, religion, discipline, ism, cosmology, theory, language, culture, or any other way that a knowing being might wish to classify these beings.

In relational logic, the word *being* represents anything whatsoever, rather like x can represent any number in the domain of complex numbers in mathematics. Beings are not restricted to the so-called real world. The term *being* includes any fictional or mythical character or place, indeed, anything that any being can imagine or believe in.

As already mentioned when introducing the concept of being, we can consider one of the beings abstracted from the Datum of the Universe as a knowing being. It is now the task of this knowing being to organize all these beings or data patterns into a coherent whole, to bring about a sense of universal order. The being writing these words is one such knowing being. So I will now refer to this being as 'I', as is conventional.

This task of bringing order to the totality of existence is the action of an energy that arises from the Datum of the Universe. In general, I call this energy Life, but in its organizing role I call it the Logos. What results from this organizing process is a conceptual model of the totality of existence, showing how all concepts that represent the various data patterns in existence relate to each other. The model or map is a being just like any other in the Universe.

The Logos first provides me with four guiding principles for the task it has given me. These are consistency, simplicity, clarity, and integrity. The last three of these are reasonably self-explanatory. But the first needs to be clarified.

What I mean by consistency is that every data pattern in the Universe should be treated in exactly the same way as every other. For if I treated some data patterns differently from the others, then I would be using some preconceptions by which to do so, thus distorting the model and preventing it from providing me with a true representation of the Universe.

In particular, space, time, matter, and energy are treated in exactly the same way as all other concepts. Also, I make no distinction between my inner and outer worlds, between subject and object, or between the map and the territory. For the map I am developing is a part of the territory being mapped. In relational logic, all these concepts are treated identically.

It is now time to start interpreting these data patterns, which are informing me of their existence. The act of interpretation turns data into meaningful information and knowledge. For data, in itself, has no meaning. Data patterns only acquire meaning when interpreted in relationship to all other data patterns within context.

The overall context for all interpretations is the Datum of the Universe. When data is interpreted in this way, there are no preconceptions, assumptions, beliefs, or axioms that get in the way of seeing existence just as it is. Interpretation is thus an act of Divine Intelligence, of what is often called in spiritual circles the Witness.

As I am not separate from the Divine, I am thus the Witness. This is the vantage point from which I view my learning, the way concepts arise and are organized in consciousness. Because the Witness is the Divine, this is the lowest level in the foundations of omniology. It is called the gnostic level, meaning direct, immediate knowledge of God.

As the Witness, I notice that there are similarities and differences between all the diverse beings in the Universe. When beings have similar properties, I group them into what mathematicians call a set. And when they have different properties, I put them in different sets.

I have thus made the first distinction in the process of interpretation. I differentiate between beings and their properties. As the word *being* denotes anything whatsoever, including the properties of these beings, I introduce the word *entity* to mean a being that has a property, which I call an *attribute* in relational logic. The word *entity*, which is cognate with *ontology*, also means 'being' for it derives via Latin from the Greek verb 'to be'.

We are thus now working at the ontological level of the foundations of omniology. The ontological level describes the underlying structure of the Universe prior to interpretation applicable in all cultures and disciplines. The ontological level is thus the data model in relational logic.

It is on this second level that we build the epistemological level, from the Greek meaning 'study of knowledge' or 'knowledge about knowledge'. The epistemological level describes the structure of meaningful interpretations of the underlying data patterns in the Universe. This level is thus the semantic model.

It is not possible to describe these two metaphysical levels of the foundations separately from each other; they are closely intertwined. The data model and semantic model form a coherent conceptual model of the Universe. The conceptual model thus provides the framework or system of co-ordinates for a synthesis of all knowledge in all cultures and disciplines at all times, past, present, and future.

Because every being in the Universe is related to every other, there is a relationship between entities and their attributes, or rather attribute names. For example, an attribute might have a name 'colour' or 'height'. The relationship in these cases is a 'hasa' relationship. For example, 'this sweater has a colour' or 'John has a height'. In turn, there is a relationship between attribute names and their values called an 'isa' relationship. For instance, 'colour is red' or 'height is two metres'.

Entities can have multiple attributes. For instance, in a child's toy, blocks might have various shapes and colours. So the child can learn the basic way of differentiating shapes and colours by grouping blocks with the same shape and colour together.

There are many different types of entity, some of which I listed earlier when describing the universal concept of being. In order to distinguish all these different types, entities have an attribute called 'name', whose value is the name given that entity. For instance, a person could have the name 'Anne', a country 'Sweden', a religion 'Buddhism', a language 'Chinese', and so on and so forth.

These examples illustrate another key concept in relational logic. Entities with similar characteristics are grouped together in classes. The entities are then instances of those classes. For instance, 'Anne' is an instance of class 'person' and so on.

Attributes themselves can also be classified in various ways. Some types of attribute that we can easily identify are name, identity, defining, nondefining, prototypical, and derived.

We have already seen examples of the name attribute.

An identity attribute is one that uniquely identifies an entity, such as a social security number.

A defining attribute is an expression of what makes this entity different from other entities. For instance, the number of sides of a polygon is a defining attribute for polygons. Whether or not an animal suckles its young is a defining attribute for mammals in contrast to other animals.

A nondefining attribute is one that entities just happen to have as a consequence of being what they are. For instance, the population of a country is a nondefining attribute, as is the age of a person.

A prototypical attribute is one that is characteristic of most entities within a class, but not all. For instance, most birds fly, but not all of them do.

A derivable attribute is one that can be derived from other attributes in some way. For instance, given the defining attribute of polygon as the number of sides, it is possible to derive the sum of the internal angles of the polygon.

All these classes and entities are related to each other in a wide variety of ways. In relational logic there are two principal ways of depicting these relationships, either in tables or in graphical form. While it is possible to depict the relationships between classes and their attributes in graphical form, it is generally more convenient to depict them in tables. Graphical representations are most useful in depicting the relationships between classes, and sometimes between instances of classes.

Both these symbolic structures can be expressed in mathematical language. But that does not concern us here as we are working with the foundations of omniology, below the foundations of mathematics.

The most familiar example of a table is a telephone directory, whose rows are entities, instances of the class subscriber. The columns in the telephone directory are attributes of subscriber, whose names are typically name, address, and telephone number. The attribute values are contained in the cells of the table, where rows and columns intersect.

The set of all possible values that a particular attribute can take in the context of a class is called the domain of values. For instance, the domain of values that the length of a river can take might have a minimum value of 10 kilometres and maximum value of 6,700 kilometres. As a nonnumerical example, the domain of values for pictures of a human being would be the set of all pictures that look like human beings.

Domains of values provide a means of measuring a class. Thus in relational logic, quantitative and qualitative measurement are treated equally. These domains of values are dimensions of the Universe, as *dimension* means 'measurable extent of any kind'. As there is no limit to the number of domains of values in relational logic, we can see that the Universe has an infinite number of dimensions, rather than the four of Hermann Minkowski or the ten dimensions of superstring theory.

In relational logic, all these tables relate to each other in a wide variety of ways, rather like the relational model of data in computer science, introduced by Ted Codd of IBM in 1970. These relationships are of two types, hierarchical and nonhierarchical.

There are two principal types of hierarchical structure between classes, generalization and aggregation. The most familiar example of a generalization hierarchy is the classification system of the species, introduced by Carolus Linnaeus. Thus human is a subclass of primate, which in turn is a subclass of mammal, and so on.

The names of classes in a generalization hierarchy are thus broader or narrower terms, depending on whether we are moving up or down the hierarchy, respectively. In relational logic, there is one class that is the broadest of all classes. This is the class being. All other classes are subclasses of being. The class being in relational logic plays a similar role to the class object in the programming language Smalltalk and class frameworks developed by object-oriented programmers.

The most familiar example of an aggregation hierarchy is in the physical universe. Atoms are parts of molecules, which are parts of cells, which are parts of organs, and so on. Another, nonphysical aggregation hierarchy, is the organization chart of a business. Teams can form sections, parts of a department, division, company, and conglomerate.

There are also hierarchical structures between instances of classes. The most familiar example of such structures are family trees, showing ancestors in one direction and descendants in the other direction.

The limitless number of nonhierarchical structures defy classification. For if they could be classified, they would form hierarchical structures. Nonhierarchical structures are thus rather like a plate of spaghetti, difficult to make sense of. Nevertheless, these nonhierarchical structures contain most of what we think of as relationships between beings from the love between two people to the attraction between the Earth and the moon.

In systems theory, these nonhierarchical structures are called the Web of Life. In physics, the relationships in these structures are called fields, most notably the gravitational, electromagnetic, and strong and weak nucleic forces. In biology these relationships are morphogenetic fields, a concept introduced by Rupert Sheldrake.

All the classes and attributes in the conceptual model can be represented in tables, just like the way entities can be represented. These tables contain knowledge about knowledge, just as the system catalogue in a relational database contains data about data, often called metadata. This metaknowledge is the epistemological level of the conceptual model.

When we look at the way that all concepts relate to each other, we can see that the underlying structure of the manifest Universe is an infinitely dimensional network of hierarchical relationships. This statement is true independent of any interpretation. It thus forms the first part of the data model, the ontological foundation of relational logic.

The other part of the data model arises because whenever a concept is formed, its opposite is also formed. These dual concepts are thus like the two sides of a coin, inseparable from each other. I can thus say that my conceptual model of the Universe consists entirely of dual sets. This statement is called the Principle of Duality, also expressible in the statement *Wholeness is the Union of all Opposites*.

The Principle of Duality shows that Aristotle's laws of contradiction and excluded middle are not universally true. This fundamental principle thus enables us to embrace paradoxes and self-contradictions in relational logic. For paradoxes are an inherent feature of the Universe and if we reject them, as is normally done by the Western mind, we cannot possibly create a true representation of the totality of existence.

The Principle of Duality is a universal truth, independent of all interpretations. It thus forms the second part of the data model in relational logic. Or rather, the Principle of Duality is at the mezzanine level between the gnostic and ontological levels. For the Principle of Duality enables us to unify the formless Absolute with the relativistic world of form.

To see how this ultimate union can be achieved, we note that there are three main ways that we deal with opposites, which we can call dualism, duality, and nonduality.

In dualism, we identify with one of a pair of opposites, rejecting the opposite. There is thus a wall between opposites that leads to all the wars and conflicts in human society. It is this separation that causes us so much suffering and agony.

When we remove the wall, we see that opposites are not contradictory; they are complementary. It is thus more appropriate to talk of complementary sexes rather than opposite sexes. It is in this way that we can begin to heal the deep divisions that exist in society today.

We can complete this healing process by recognizing that duality has an opposite, nonduality. Nonduality is a property of the Absolute, which provides the overall context for our lives. We can thus see that there is a primary-secondary relationship between nonduality and duality. For if nonduality is the thesis, and duality is the antithesis, nonduality is the synthesis, an example of Hegelian logic.

We now allow all the concepts and their relationships to dissolve in Consciousness, leading to complete union with the ineffable Cosmos. By transcending the categories in this way, we realize that Consciousness is the primary reality, not the physical universe, as is widely believed today. This understanding is the fundamental principle of panosophy, the science of everything, defining *science* as a coherent body of knowledge that corresponds to all human experience, from the mundane to the mystical.

The exquisite sense of Wholeness that arises from this synthesis of everything enables us to see that we have reached the Omega point of evolution, the Datum of the Universe. For when all opposites are unified in the ultimate yoga, we can say, with John the Divine, "I am Alpha and Omega, the beginning and the end, the first and the last".