

Purely Logical Philosophy In An Isolated System

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Abstract

After Parmenides proposed the duality of appearance and reality, details have not been well developed because the assumption was insufficient for logical reasoning. This paper establishes a foundation with an isolated system, which contains all causes and effects within itself. This paper seeks to establish a purely logical philosophy, including reality and phenomena, good and evil, truth and fallacy. Freedom is proposed as the basis for reality. All beings in an isolated system can be classified into two sets: variable phenomena and constant realities. Realities are the only reasons for phenomena, and phenomena are the only results of realities. The sum of certain realities constitutes a reality, and the sum of all realities is good. Good creates most of the phenomenal world. A reality is universalizable; a phenomenon is never universalizable. Good is the only reality which is close to universality and keeps on universalizing. Truth is the simplest knowledge about universal or approximately universal beings. The universality of a reality measures the percentage of phenomena accompanied by this reality. There are two levels of truth: truth about all realities, and truth about the good.

Key words: logic about isolated systems, pure logic, reality, universalizability.

Introduction

This paper is part of the work to unify all logical knowledge into one logical theory. Rationality is the most tested relationship in the world and the foundation of daily experience. For example, the logical relation between eating food and easing hunger has been tested countless times, though it is often unconscious because of habit. Therefore, establishing a purely logical foundation for philosophy and for all logical knowledge is a worthy undertaking.

The author has previously constructed a logic of isolated systems¹ to unify the sciences. An isolated system comprises a set of beings independent from beings outside the system. In an isolated phenomenal system, the causes and effects of every phenomenon exist within the system. There can be no input or output between this and other beings or systems. At present, the Universe is the only observable candidate for an isolated system.

This paper assumes that there is a unique reason for the isolated nature of the Universe and attempts to find the main logical results of this fact in philosophy. From the beginning, philosophers proposed a single cause for the phenomenal world, namely reality. Parmenides discovered the duality of appearance and reality,² which is the starting point of this paper. This assumption greatly simplified the effort to explain the world using pure logic. Then, the discovery of various scientific laws organized the causal laws in the world and partially proved the possibility of explaining the world according to its unique reality. In this paper, reality is a single, closed set, not many sets; hence it is called unique. The set is a continuum of infinite realities.

Metaphysics aims to solve the most fundamental problems logically;³ however, it is unsuccessful because it is not, and never has been, purely logical. Various experiential propositions and illogical beliefs have been proposed as foundations—such as mind, human beings, and god—which came from the deficiency of a purely logical foundation. Hence, metaphysics has never been purely metaphysical. An isolated system is purely logical; hence it provides a purely logical foundation (this is especially effective for *a priori* problems, which usually deal with reality).

Through the other properties shown in the paper,—such as universality, eternity, creativity, and closure—logic about isolated systems provides some clues for discovering realities. For example, phenomena are not eternal and need to be created, otherwise they would be eternal realities. Then, knowledge about realities can be established in two ways. First, from universality, realities can be found by comprehensive induction: summing up all phenomena. The author has described some similarities among the Universe, society, and thinking.⁴ For example, gravitation catalyzes stars in the pursuit of the largest negative action; a similar mechanism catalyzes subjects in thinking in the pursuit of largest knowledge, cities in society in the pursuit of largest happiness, and large companies in economy in the pursuit of largest profit. Repulsion between like charges corresponds to competition in other pursuit systems. System growth corresponds to space expansion, social development, and knowledge progress. An isolated system always pursues the largest possible freedom. However, only the Universe succeeds in its pursuit. The results partially prove the feasibility of science unification, which is a necessity or a decisive experiment for pure logic.

¹ Jiang, K. “Logic about Isolated System—Mathematical Foundation for Science Unification,” *Global Journal of Pure and Applied Mathematics*, 9.2 (2013): 151?168.

² Solomon, Robert C. *The Big Questions: a Short Introduction to Philosophy*. Stamford: Cengage Learning. 2006. 117–122.

³ Gracia, Jorge J. E. *Metaphysics and its Task*. Albany: Suny Press, 1999. 70–80.

⁴ Jiang, *Logic*.

Second, tracing back to the beginning of the phenomenal world is helpful in making many purely logical derivations. Because there were no phenomena at the beginning, reality must be the creator of all phenomena. The reality creating the most phenomena is called good. This is one of the purely logical definitions of good. The sum of all realities also provides a purely logical definition and, as proved afterward, these two are identical. Free spatial transformation⁵ provides a model to explain this creation. If coordinates in a three dimensional space have the freedom to move, the system shares some common dynamical properties with the Universe. As the preliminary result, the largest freedom is tentatively posited as the good which created the Universe. The continuum from the least freedom to the largest freedom is tentatively posited as the basis of reality and this serves as the starting point for the present paper.

Logic about isolated systems represents pure logic. Pure logic excludes experience and does not contain variables of phenomena; thus it reaches universality and eternity. Experiences are phenomena in the middle of the logical process of phenomena creation; therefore, as the starting point of logic, the beginning of an isolated system is much better than experiences. Human beings have failed to succeed in purely logical arguments because they have not found the correct starting point: the beginning of the isolated system. We have long believed that logic is a mere tool which helps us deduce valuable results from experience. However, using logic in this way, it is impossible to establish a purely logical theory and to correctly deduce the fundamental or metaphysical results, which should be rationality's ultimate goal.

Logic and irrationality cannot coexist logically. The belief that there are some unexplainable experiences, such as the existence of physical matter, is illogical. If the world is composed of two nonintersecting parts, the logical and the illogical, there will be boundaries between the two parts to designate the applicable conditions. Boundaries between phenomena are unacceptable in pure logic, because all boundaries which can be dated back to the beginning of the isolated system must be explained purely logically. Where is the boundary? How precise is it? It is impossible to find a purely logical answer for these problems. Furthermore, how can illogic in the illogical part be limited? Following limitations requires the existence of logic. Therefore, an isolated system must be completely logical or illogical. If science—that is, logical knowledge—is not empty in the Universe, the illogical part must be empty. It is difficult to accept that all successful scientific predictions are illusive or accidental. Therefore, a purely logical theory is a logical necessity for science.

Basic Concepts

In this paper, all beings in an isolated system are classified into two categories: realities and phenomena. Realities are invariant beings. Phenomena are variable beings. All phenomena together form the phenomenal world. Groups of similar kinds

⁵ Jiang, *Logic*. See also Jiang, K. "Free Spatial Transformations—Movability and Decomposability of Point," *Global Journal of Mathematical Sciences: Theory and Practical* 2.3 (2010): 129–141.

of phenomena form phenomenal systems, such as a society, thinking, and the Universe.

The world includes many systems. The Universe is the natural world. Other observable systems include society and thinking. All beings in a system are classified into variable phenomena and constant realities. When accompanying a phenomenon, a reality is called existent reality; otherwise it is called nonexistent reality.

Variation in an isolated system must be logical. If a being becomes another being, neither one is the reason behind the alternation—something accompanying them is. Therefore, a phenomenon cannot change itself, and realities must be the creators of phenomena and the reason behind the alternation of phenomena. Hence, realities must universally exist in all phenomena. For example, freedom can change phenomena and there is some degree of freedom in every phenomenon.

However, this does not mean that reality is unique. If a being is a reality, its opposite ought to be a reality too. It is difficult, if not impossible, to find a being—such as good, freedom, equality, or logic—with no opposite. If a being can be described qualitatively or even quantitatively, there will be opposite ends. It is the result of the closure of realities. So, the combination of the being and its opposite should also constitute a reality. Hence, it is reasonable to suppose that reality is a continuum of realities. For example, freedom, unfreedom, and their combination form the continuum of freedom and limitations.

Realities are composed of goods and evils. If good and evil are defined as social concepts, they are not universalizable and must be considered phenomena. However, the fact that reality is not unique provides room for the co-existence of good and evil. If good is absolute and invariant, its variable must be reality only.

Good is proposed to be the sum of all realities, (close to the symmetrical centre of realities.) It is the simplest construction from realities, but it is also the best because all realities are equal in the construction. In an isolated system, there must be reason for every limitation. There was no reason, and therefore no limitation, before the beginning of an isolated system, therefore, it is reasonable to suppose that all realities existed at the beginning. Moreover, reality at the beginning must have created phenomena, and it is reasonable to suppose that good is the most creative reality. It is possible to create phenomena from good. For example, a reality might be the same as its corresponding phenomenon initially, and split into two different things afterwards. The creation of phenomena represents the creation of freedom. It is reasonable to suppose that good is the best reality for creating phenomena. If the largest freedom is good, and good creates increasingly more phenomena, good is self-enlarging. This is in accordance with the largest freedom principle.⁶

Freedom is largest in an isolated system. However, the details of this principle are complex and some problems remain unsolved. For example, in order to pursue freedom, there must be interaction between individuals, whereas there is a best distribution for the field of interaction, and the Universe is the only system reaching the maximum, as shown in the least action principle. By this definition, the action of a

⁶ Jiang, *Logic*.

particle is normally a negative number; hence the largest freedom becomes the least negative freedom.

Realities other than good form various evils. A phenomenal system accompanied by pure good is a perfect phenomenal system; one that is accompanied by evils is an imperfect phenomenal system. For example, if the greatest possible degree of freedom represents good, every limitation is an evil. In fact, every evil can be interpreted as the imposition of various limitations.

Good and Evil

Because reality is not unique, there will be various combinations of realities, and it is possible to treat good as one of them. A combination of realities is still a reality. Therefore, realities must be either singular or continuous. For example, a combination of limitations (as a sort of reality) is still a limitation, and the sum of all limitations is freedom.

If the good is invariant, it must be a function or combination of realities. If there were only one reality, good would be identical with the reality, and there would be no evil. Therefore, proving the existence of evil partially proves the existence of more than one reality, if good and evil belong to reality. The subjective world is also part of the phenomenal world. If there were no evil, it would be impossible to think evilly. The fact that one can think evilly proves the existence of evil.

Both good and evil belong to the continuum of realities from extreme evil to good, such as from non-freedom to freedom. Realities that are not explicitly good ought to be classified as evil, because their universality is close to zero. Freedom helped the author establish the property. The Universe reaches the good, or the largest freedom, and although systems like society do not reach the good, good overwhelmingly prevails over evil.

There are two important characteristics of good. First, as mentioned, good created the world. Second, good is the most universal reality. Good interacts with everybody whenever and wherever; hence it is reasonable to suppose that it is simple and familiar to everybody. However, its consequences are unimaginably complex, because it is responsible for the creation of most of the phenomenal world (as will be shown in a later section, evil does create some phenomena). Freedom satisfies these conditions. (This experiential method is helpful in discovering good but not recommended here because the existent familiar beings in society are full of evils.)

Phenomena accompanied by good are much more common than those accompanied by evil. In reality, every individual reality is equal. However, in the phenomenal world, inequality between good and evil grows with time. If good were the most important property for reality, there should be no evil, and all realities should have the same universality. However, the fundamental task of reality is the creation of phenomena. For the phenomenal world, since good is not a certain choice, the best possible result is arbitrarily close to good. That an imperfect system can be improved toward the good, together with the fact that the Universe expands, constantly broadens the gap in universality between good and evil. Hence, 100% is the upper limit for universality of good.

Good dominates the phenomenal world. Living creatures on the earth belong to the few phenomena associated with evil. The majority of phenomena are associated with good. Human beings are not the centre of the world. We try to find our truth, to make ourselves higher than other phenomena, (as shown in the expression ‘intelligent life’), even the aim of other phenomena. Consequently, we have chosen many evils, some even deliberately, such as the delineation of nations and the use of violence, (the former limits our freedom of motion; the latter endangers life itself, which represents the total freedom of a person). On the other hand, there is no corresponding phenomenon in the Universe. In order to create a perfect society, we must broaden our view from the narrow scope of our own lives to encompass all phenomena in the world and learn what good is.

Human beings usually link reality and good with various gods, leading to some illogical beliefs, such as the following. The advantage of good does not come from forbidding evils; moreover, it is impossible to list all evils. Legal systems based on prohibitions never establish a perfect society. Justice and administration usually fight evil with evil, and sometimes fight good, too. Good does not force phenomena to be good, because enforcement is a phenomenon and good does not contain any phenomenal value. In fact, good helps evils unintentionally. When good creates phenomena, it also creates an environment in which evil systems can develop and grow. When a new system originates in an isolated system, the latter might limit the former to being evil (as if some phenomena in the latter become reality in the former). For example, senescence and death limit our freedom, forming part of the inborn defect that makes society imperfect.

However, all evils can be overcome. The isolated system provides resources for both good and evil. For example, although spatial distance is a disadvantage for human beings’ freedom, society has been advancing toward the good by improving transportation technology and communication technology.

Good and evil are not pure opponents. They may also help each other. Evils help create more phenomena. For example, an economic system fraught with evil still creates phenomena and sometimes even achieves economic growth. Evil systems will eventually turn to good. The condition is that every system will pursue good finally, either by instinct or by evolution, as the evolution of the human species has shown. If time and conditions allow, any given species will evolve into a perfect system one day. That most of the observable systems are not successful in the pursuit of freedom does not mean most systems are imperfect, because our observation is too limited. Good creates imperfect phenomenal systems, which will turn to good finally if they exist long enough.

Because of its uniqueness and invariance, there is no room for good to play games with infinite evils. In society, evil is embodied in countless discriminations which limit freedom. Some are well known, like racial discrimination. Most are under cover, like the traditional sanctions against many behaviours, such as improper clothing. Acceptable styles are fairly similar to each other, and most styles cannot enter daily life (such as ancient styles and the costumes of other nations).

Every reality is independent. There are no allies among realities; hence they offset each other. Individual evils might even help good to triumph over evil. For instance,

personal discrimination toward others' interests is called selfishness, and each person provides a unique selfishness, a unique evil. With all these billions of evils competing with each other, the resulting balance is not too far from no discrimination at all. This explains the invisible hand in market mechanism, the mechanism by which a free market may benefit a society; however, such a society is still imperfect, because every person is accompanied by evil. This example shows the variety of evils, (considering that the sum of several selfishnesses, like altruism, is still an evil).

If the largest freedom is good, the return of good is more freedom and the return of evil is more limitation. However, the return is systematical. It is not certain that the return will be distributed according to personal good, although freedom in whole system increases. No matter how good individuals are, if there is evil in the system, it is not certain that they will get their reward. For example, evils often lead to the plunder of rewards. Some plunders are unintentional, like mortality (the dead cannot be rewarded), but many are malicious. For example, personal equality is an evil plundering freedom. Equality of personal freedom, or income (as in communism), clearly violates the good, the largest freedom. The correct equality is equality of unit freedom: every unit of freedom is equal, wherever or whoever the freedom is located. (Money is a measurement for freedom, but full of flaws.) The chosen evils in society reduce some freedom from each person—the sum is equal to the loss of thousands of lives every day—and the value of a life is roughly measured by a person's total freedom in his or her whole life. However, few grieve for the lost freedom. This example shows how common evil is in society.

As in economy and thinking, an isolated system is a series of conversions between reason freedom, (or present freedom, called 'cost') and result freedom (or future freedom, called 'revenue'). Good permits conversion when return (revenue minus cost) is not only positive but also the largest it can be, so that freedom increases forever. The optimal behaviour is this: when cost and revenue are fixed, time is the least; when time and cost are fixed, revenue is the highest; when time and revenue are fixed, cost is the least. Good systematically enhances the rate of return; evil reduces it. Economic returns come from good, not just from factors of production. Products turn into some other products through production; hence production represents a form of product freedom. However, there are many possible evils which might destroy the freedom. Perfecting the economy will push the natural growth rate of economy to a much higher level.

There are two ways for a phenomenal system to defend the good. First, everyone chooses good. Second, if accompanied by all realities simultaneously and equally, every phenomenon will be associated with good. This is just a theoretical possibility for society, whereas it is the mechanism behind the perfection of an isolated system. By treating realities equally, society can avoid the imperfections that derive from nurture, like discrimination, whereas it cannot avoid those from nature, like death, where technology is decisive.

Universalizability and Universality

Universalizability and universality are different. A being is universalizable when it is applicable to every phenomenon. Universality of a given reality measures the percentage of phenomena accompanied by this reality. For example, both equality of unit freedom and equality of an individual are universalizable. The former is good and close to universal; the latter is evil and only exists partially in society. Every reality is universalizable; good is arbitrarily close to universality; a phenomenon is not universalizable. The converse propositions are also true, and thus it is possible to distinguish phenomenon, reality, and good. As a whole, realities are universal. Nevertheless, a single reality can never be universal. If realities do not contain any variables of phenomena, they cannot change with phenomena. Time is a phenomenon; thus, reality is eternal. In fact, eternity manifests universality across time.

An isolated system is a whole. Unification is part of good; hence there are phenomena linking any two sets in the system. All reasons and results in an isolated system must interconnect with each other and form a whole; otherwise, there will be more than one isolated system. Therefore, logical knowledge in an isolated system must be unified, and subjects cannot be separated. Because realities are universalizable, realities in different subjects must be interchangeable. It is impossible to give a purely logical reason for the boundary between subjects, including both position and precision. Without experiences to provide the initial concepts, how could the differences between subjects be defined? And how many independent subjects are there? It must be one of the most important numbers in the world, because it would be an eternal number in pure logic, therefore belonging to reality. The most tempting answer is 'one', because pure logic studies an isolated system, and one is, by far, the only number with privilege in pure logic. Moreover, it is impossible to find a purely logical principle guiding the distribution of realities among these subjects.

For the same reason, realities have no power in relation to phenomena. For instance, prediction is never an ability of realities. Prediction involves discerning which phenomena are predictable, and the only logical choices are either 'all' or 'none'. Otherwise, it would be necessary to give purely logical reasons for boundaries between predictable phenomena and unpredictable phenomena, which is unacceptable. If the phenomenal world had been predictable at the beginning, prediction would be good and exist nearly universally in the phenomenal world. This is certainly untrue, (we cannot see the future at least). Furthermore, if quantitative prediction belongs to reality, its precision must be a reality too. What degree of precision could be considered purely logical? The clear answer to this question is '100% accuracy', but this has never happened and hence precision cannot belong to reality.

There are some misunderstandings about universality. An evil can be universal in a system at a moment, but never eternally. Present universality and real universality are different concepts. If a being is eternal in a system after some time, or universal after any given time, it is real universality and must belong to good. Present nonexistence might be the true universal being. For example, nations exist universally in contemporary society; however, they are evils because they limit freedom and will be nonexistent in the future. Unification of nations and markets, which is the best method

for the pursuit of freedom, belongs to good and will be the only form in future society. Even if a reality does not accompany any observable phenomenon, it is more important than observable phenomena. For example, knowledge about an unobserved evil is more important than knowledge about traffic at a given crossroad. Every reality will be accompanied by some phenomena, despite the fact that most cannot be observed by humans.

Hence it is necessary to establish some rules for judging the good. If a proposition belongs to good or truth, the necessary condition is that both its universal form and its eternal form must be true. For example, the eternal version of the formula 'zebra belong to the Equid family' is 'zebra will, after some time, belong to the Equid family eternally, and the universal form is 'zebra belong to the Equid family in almost every phenomenal system'. These statements are not true; thus they are not part of good or truth. Therefore, a relationship of subordination between any two phenomena cannot be eternal or universal, unless it is a definition. For example, if the Equid family is defined as the set of zebra, donkeys and so on, even if a zebra becomes a bird in the future, it still belongs to the Equid family. In a cause-and-effect relationship, if the cause does not belong to the good, the relation can be neither eternal nor universal. For example, the sun is the reason for daylight on earth, whereas the sun can be replaced by another star or even artificial device. On the other hand, good is the unique reason for a perfect system.

A correct understanding of eternity and universality helps unveil the good. No phenomenon can be the creator of reality. Human beings ought to have a common sense of the following: realities, let alone good, cannot be invented or created. There is no special good for human beings. Imitating the Universe,⁷ therefore, is a way to approach the good. The limit of human ability is to create a phenomenal system, like society, or even a man-made system, like artificial intelligence. Because of the infinity of evil and uniqueness of good, trying to construct good artificially is almost sure to end in evil. For most traditions and laws, it is impossible to find their counterparts in the Universe. For example, from experience, particles do not behave politely; hence, courtesy is an evil. From pure logic, courtesy reduces behavioural freedom, although it helps to reduce violence—an evil which seriously restricts freedom. This example also shows two methods of selecting good.

Obviously, few traditions belong to good. Because of its inherent accumulation, history always includes more and better thoughts than modernity. If the half-life of evil is two hundred years, during an average life-span of seventy years, seventy-eight percent of evils will be preserved. It is fairly stable. On the other hand, after a thousand years, ninety-seven percent of evils will be displaced. If a being—including traditions, arts, buildings, laws, thoughts, and so on—does not belong to good, any effort to maintain it forever will fail in the end. However, people cannot improve their abilities in selecting good and escaping evils before discovering what good is.

Although society is presently full of evil and short on good, good constitutes the majority of history. When observing social history after a billion years, it would be

⁷ Jiang, K. *Truth Evolutionism—Imitating the Universe to Establish a Perfect Society*. Hong Kong: Science Education Publishing Company, 2005 [in traditional Chinese]. 43–47.

obvious that good and its results formed the trunk of history, while evil and its results formed many burrs at the beginning of history, and vanished quickly. By selecting good or evil, human beings can expedite or defer the process. For example, they can accelerate or delay the unification of the market, the end of a war, and so on.

There are two explanations for the sheer perfection of the Universe. First, the Universe might be the original isolated system; therefore, it must be good. Second, it might reach perfection by overcoming all evils. Invariance of individual realities does not mean invariance of the actual reality. Some phenomena can choose realities to accompany itself, such as society and thinking. The mechanism is unclear, perhaps in relation to the fact that human beings participate in several phenomenal systems simultaneously. However, the possibility that every phenomenon can choose realities for itself cannot be ruled out, because if the chosen reality is good, it is unnecessary to change it. The Universe neither shows itself to be alive nor proves the failure of determinism. It shows its perfection. It cannot be disproved that the Universe can choose other natural laws or be imperfect, because the largest freedom is the only mission of good and an isolated system.

Truth About Realities and Good

Realities and phenomena form logical loops. Phenomena are results of realities; realities offer phenomena reason. Nothing can have reason prior to reality or results after phenomena.

Identical hypothesis:

For two beings, A and B, if A provides the only reasons for B, and B provides the only results for A, they ought to be different aspects of the same thing.

If this is true, both phenomena and realities should be the details, or local structures, of good.

According to importance or universality, beings can be classified into three classes: good, evil, and phenomena. Thus, there is different utility for propositions. Propositions with universality are the first class; those approaching universality are the second class; those with universalizability are the third class; those about phenomena are the fourth class. Fallacies are not accounted for here, as they are not directly pertinent to our discussion.

In this paper, truth is defined as the simplest form of knowledge about all beings. There are two parts to truth. One is the simplest expression of general relations between all phenomena and all realities, like the existence of reality and evil. The other is the simplest knowledge about the good. Truth should not be defined as all true propositions, because the value of propositions about particular phenomena and evils is too little. Truth ought to be at least close to universality. Recognizing this will help human beings to distribute their effort correctly to earn the largest return. Good is the only invaluable being because its usage approaches 100%.

It is reasonable to suppose that truth should be composed of finite propositions. Then, the utility of each truth proposition must be infinitely high because total phenomena or freedom are infinite. (Even if truth includes infinite propositions, if it is

countable infinity, as natural numbers are, the utility of each proposition is still infinitely high.) However, a proposition with infinite high utility is not guaranteed to be truth; it might be an inference of truth instead. Knowledge about certain beings is the most valuable when these beings exist eternally and everywhere, and when infinite knowledge can be simplified into finite expressions.

There are two categories of science. In the first, a subject studies a phenomenal system using the scientific method. In the second, the most important subject, close to ontology, studies truths using the scientific method, and its utility is infinitely higher than that of the other subjects. However, the most important is often also the most difficult. In pure logic, a scientific topic is weighted by utility. If the utility is high enough, it merits more time, patience, labour, money, attention, and so on. For example, ontology has been long underdeveloped because there have been few forcible results, whereas the reason is not convincing in pure logic: the weight of utility is ignored.

Relative to evil and fallacy, good and truth are scarce. Hence it is difficult to discover them. Sociologists and economists ought to look for a social system which will last forever, but most of them are studying present and historical systems, which are full of evils. Research about evil cannot be the most valuable. By now, human beings have accumulated a lot of knowledge; but only truths should be preserved forever. For any subject, asking the following questions would be helpful: (1) are discoveries in this subject universal or universalizable? And (2) can they be established purely logically? These questions can be employed to keep researchers from studying mere phenomena and evils.

In the process of discovering truth and good, logic is superior to experience, because phenomena often show the opposite of reality. From experience, humans discovered that the Universe is fully controlled by natural laws, and that society will be a mess without laws. However, it was logic that revealed that the greatest freedom requires precise laws.⁸

Conclusions

To understand the basic attributes of an isolated system, logic is uniquely necessary. This paper has endeavoured to reach truth in a purely logical way. Many properties of realities are conducive to the discovery of truth, including universality, eternity, creator, closure, and symmetry. Philosophers have treated reality as one or two beings (that is, through monism or dualism), while it is more logical to treat it as one continuum of multiple realities.

The theory detailed in this paper can be simplified into the following propositions:

- a) In an isolated system, beings include and only include realities and phenomena.
- b) Realities are the only reasons for phenomena.
- c) Phenomena are the only results of realities.
- d) A phenomenon chooses one reality guiding it to the next phenomenon.

⁸ Jiang, *Logic*.

- e) The sum of any two realities is a reality.
- f) Realities include and only include good and evils.
- g) Good is the sum of all realities.
- h) Good is arbitrarily close to universality in phenomena.
- i) Good creates phenomena better than anything else does.
- j) Truth—the simplest expression for knowledge that is arbitrarily close to universality—is finite.
- k) An isolated system cannot be separated into two or more unrelated parts.

For phenomenal systems that are able to choose realities, such as society and thinking, following these logical rules can guide them away from evil and wrong knowledge. Meanwhile, some fundamental problems remain. The most important of these is the establishment of physics on pure logic, such as why there is 3-D space. In addition, the relationship between reality and phenomenon is not clear enough. Are they two different beings or different aspects of one being? The latter helps solve the former, because sufficient knowledge about truth is prerequisite to deducing precise laws about an isolated system.