

# The World is a Point: Physical Application of the Law of Identity

**【Abstract】** When we research the essence of the world, antinomy is found, which goes against the law of identity. In fact, antinomy shows the contradiction between experience and essence, and the law of identity is the most important tool to research the essence of the world. According to antinomy we can establish the incompleteness theorem in physics, which requires that the world model cannot contain any physical difference. According to identity we can get homoorganicity theorem, which requires that any part of the world is same with the whole. Here we show that the world can only be a point.

## 1. Law of identity

The law of identity is the first one in formal logic. It looks the simplest. It shows that A is A and is not B.

However, after the emergence of the antinomy, it becomes the most difficult law to understand. Then A is not A, and there is no A at all.

It looks like sophistry. But in fact, the law of identity is the most important tool to recognize the essence of the world and it was not used correctly.

## 2. Antimony

Antimony means two contrary propositions which are both true. The antinomies made by Kant are most famous, which show that the world is both infinite and finite, both divisible and smallest composition existing.

Antinomy are related to many difficult problems in physics. Why is the universe expanding, why can't we find the smallest particle, why are the universe and particle mostly empty, and is the world empty or essential? To solve these questions, building more high-powered telescopes and particle accelerators is not a reasonable way, because they belong to the field of natural philosophy.

Antimony is inevitable. Our human observe the difference of the world and make concepts and experiences. According to the law of identity, our world is the same one and it is the essence of the world. Therefore, the propositions based on experience and logical reasoning are contrary inevitably, which produce antinomy.

## 3. Godel's incompleteness theorem

We can find that antinomy and Godel's incompleteness theorem are unified, and they reveal the inconsistency between human experience and the essence of the world.

The philosophical meaning of Godel's incompleteness theorem is that any theory based on human experience cannot prove that the experience is true. When the theory is used in macrocosm or microcosm, it must make antinomy.

We can also establish incompleteness theorem in physics. If a physical model contains the difference of physical quantity, it can't prove the existence of the difference.

For example, if a physical model contains two colors of black and white, it can't prove that there is colorful difference or not. On one hand, we see black and white things and make the concept of color, so the difference exists. On the other hand, the black world and the white world are the same world, so black is white and there is not difference between white and black. Similarly, we can say that there are no difference of amount, size, speed, direction and so on.

According to incompleteness theorem, any model or hypothesis in theoretical physics is not perfect if it contains difference in physical quantity. It is not sophistry. For example, in string theory it's supposed that the world is made of closed strings and open strings, then we can't prove the difference between ring and line. We will never find the smallest string and so many spatial dimensions.

#### 4. Homoorganicity

According to the law of identity, we can get another character of the world, which is homoorganicity.

Proposition 1: Every part of the world is the same as the whole world.

If there are two different parts, then they should belong to two different worlds. It's against the law of identity.

Proposition 2: The smallest composition of the world is the same as the whole world.

According to proposition 1, we can get proposition 2.

Every part of the world, even the smallest one, is exactly the same as the whole world, and can grow into the whole world. This is a developmental view, and is different from the holographic universe theory which is a static view.

#### 5. The world is a point

Now we will make a physical model of the world. According to to incomplete theorem, there is no difference in physical quantities. According to homoorganicity, it can explain universe, real world and quantum. Then we get two logic reasoning about the world.

Proposition 1: The world is equal to zero.

The world is infinite, so the whole world is infinitely great. The world is also infinitely separable, so the smallest part is infinitely small. According to the law of identity, the whole world is the same as the smallest part. So how big is the world?

To make infinitely great equal to infinitely small, the world must be equal to zero.

Proposition 2: The world is a point.

If you are a point in the world, is the world on your left or right, above or below?

According to the law of identity, the world on your left, right, above and below are all the same world.

An object cannot be left and right, but it can be neither left nor right, so the world is just in your point.

Here we show that the world is a point without size.

The point is different from the singularity of Big Bang Theory. I think that the world has always been a point, now and in future. The physical concepts such as time and space are not real in the point.

#### 6. Conclusion

The world is not a ball, but a point. My paper is both a logical reasoning and a joke, which is also an antimony.