

# The Jocaxian's nothingness

## Abstract

This article explains a theory about the origin of the laws of physics and the Universe.

**Keywords:** universe, origin, nothing, logic, Schizo-creations, Jocaxian-nothingness

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## Introduction

The “Jocaxian Nothingness” (JN) is the “Nothingness” that exists. It is a physical system devoid not only of physical elements and physical laws, but also of rules of any kind.

In order to understand and intuit JN as an “existent nothingness”, we can mentally build it as follows: we withdraw all the matter, energy and the field they generate from the universe. Then we can withdraw dark energy and dark matter. What is left is something that is not the nonexistent. Let us continue our mental experiment and suppress elements of the universe: now, we withdraw physical laws and spatial dimensions. If we do not forget to withdraw anything, what is left is a JN: an existent nothingness.

JN is different from the Nothingness we generally think of. The commonly believed nothingness, which we might call “Trivial Nothingness” to distinguish it from the JN, is something from which nothing can arise, that is, the “Trivial Nothing” follows a rule: “Nothing can happen”. Thus, the “Trivial Nothingness”, the nothingness people generally think of when talking about “nothingness”, is not the simplest possible nothingness, it has at least one restriction rule.

## The Nothingness

Jocax did not define the JN as something in which nothing exists. Such definition is dubious and contains some contradictions as: “If in the nothingness nothing exists, then, nothingness itself does not exist”. No. First, Jocax defined what it means to exist: “Something exists when its properties are fulfilled within reality”. Therefore, JN has been defined as something that:

1- *Has no physical elements of any kind (particles, energy, space, etc.)*

2- *Has no laws (mainly the law embedded in “Trivial Nothingness”).*

Being so, JN could have physically existed. JN is a construction that differs from the “trivial nothingness” since it does not contain the rule “Nothing can happen”. That way, Jocax liberates his JN from semantic paradoxes like: “If it exists, then it does not exist” and claims that this nothingness is SOMETHING that could have existed. That is, JN is the simplest possible physical structure, something like the minimal state of nature. And also the natural candidate for the origin of the universe.

We must not confuse the definition of the NJ with rules to be followed. It is only the declaration of a state. If nature is in the state defined by conditions 1 and 2 above, we say it is a “Jocaxian-Nothingness”. The state of a system is something that can change,

differently from the rule that must be followed by the system (otherwise it would not be a rule). For example, the state “has no physical elements”; it is a state, not a rule because, occasionally this state may change. If it was a rule it could not change (unless another rule eliminated the first one).

Being free of any elements, JN does not presume the existence of any existing thing but its own and, by the “Occam’s Razor”,<sup>1</sup> it must be the simplest state possible of nature, therefore with no need for explanations about its origin. JN, of course, does not currently exist, but may have existed in a distant past. That is, JN would be the universe itself defined as a set of all existing things in its minimal state. Thus we can also say the Universe (being a JN) has always existed.

JN, as well as everything that can be understood by means of logic, must follow the tautology: “it may or may NOT happen”. This tautology absolute logical truth as we shall see, has also a semantic value in JN: it allows things to happen (or not).<sup>2</sup>

We cannot say that events in the JN must necessarily occur. Eventually, it is possible that nothing really happens, that is, JN may continue “indefinitely” (time does not exist in a JN) without changing its initial state and with no occurrences. But there is a possibility that random phenomena can derive from this absolute nothingness. This conclusion comes logically from the analysis of a system without premises: as JN, by definition, does not have laws, it can be *shaped* as a logical system WITHOUT PREMISES.

We shall interrupt a little in order to open up an explanatory digression. We are dealing with two types of “Jocaxian-Nothingness”: the physical object named “JN”, which was the universe in its minimal state with the properties described above; and the theory which analyses this object, the JN-Theory. The JN-Theory, the theory about the JN-object (this text), uses logical rules to help us understand the JN-Object. But JN-object itself does not follow logical rules, once there are no laws it must obey. Nevertheless, I do not believe we will let possibilities to JN-object escape if we analyze it according to classic logic. However, we must be aware that this logical analysis (JN-Theory) could maybe limit some potentiality of JN-Object.

Within a system without premises, we cannot conclude that something cannot happen. There are no laws from which we can draw this conclusion. That is, there is no prohibition for anything to happen. If there is no prohibition for anything to happen, then, eventually, something may happen. That is, the tautological logics remain true in a system without premises: “something happens or not”. If something occasionally happens, this something must not obey rules and, therefore, would be totally random and unpredictable.

[All of this may sound really weird, and it actually is. But I can put clear evidence that JN is not an absurd: first, go search the following on a search engine on the Internet: “virtual particles” or singular “virtual particle”. Virtual particles occur in our universe as spontaneous creation from the quantum vacuum, from one particle and its anti-particle. Science considers the generation of this pair of particles an event without physical causes, something genuinely random. This is a scientific fact and can be explained by quantum mechanics. Now, let us move a bit from the facts and imagine each one of these particles contains a tiny miniature universe. That way, in this mental experience, we have a clue, a little evidence that the emergence of a universe out of nothing is so out of purpose as we could once believe...]

We call the first JN randomizations *Schizo-Creations*. This *Schizo-creations*, once they come from something without laws, are totally random and, if we could watch them, they would seem completely “schizophrenic”. Of course with the first randomizations, JN is no longer the original JN as now it owns something, that is, the JN transforms. Because JN is not limited by any laws, it may eventually also generate laws, to which its elements - now itself would have to obey.

Let us show how the random generation of laws can produce a logical universe: suppose laws are generated randomly in a sequence. If a new law is generated and does not conflict with the others, all of them remain undamaged in the set of generated laws. However, if a law that conflicts with other laws previously generated appears, it replaces (kills) the previous laws that are inconsistent with it, since it must be obeyed (until a newer law opposes to it). Thus, in a true “natural selection” of laws, only a little set of laws compatible to each other would last. That answers a fundamental philosophical question about our universe: “Why does the universe follow logical rules?”

## Conclusion

Thereby, the Jocaxian Nothingness is the natural candidate for the origin of the universe, since it is the simplest possible state nature could present: a state of such simplicity there would not be the need to explain its existence. And, by logical consequence of this state, anything could be (or not) randomized, even our physical laws and its physical elements.

## Discussion

In the state of nothing there are no Laws, therefore there is NO Parmenides Law: “out of nothing happens”.

### Frequently Asked Question regarding ‘Jocaxian Nothingness’

#### I- What is Jocaxian Nothingness (NJ)?

A: The NJ, different from nonexistent, is something (being) which presents the following properties:

P1-There's no physical elements from any nature (matter, space or energy).

P2-There's no type of law.

#### 2- Does NJ exist?

A: We could say that NJ exists if something has NJ' properties (P1 or P2 mentioned above). Currently, NJ doesn't exist anymore, but it may have been existed in a remote past, before Big-Bang.

#### 3- Does NJ is a “being”?

A: Yes. Once it has properties, it may exist to be the receptor of these properties.

#### 4-The “Jocaxian Nothingness” has no rules or laws, but would it be a rule?

A: No. A rule, somehow, establishes a way of restriction. Example: ‘my car needs be red’ is a rule, but “my car is red” is not a rule, but a car STATE. Eventually, it can be painted of blue and its color has been changed. To establish that the nature state in which there’s no rule is designated as “Jocaxian Nothingness”, which is not a rule to be followed, but a possible state of nature, which can be changed (or not).

#### 5-But to say that everything can happen is not a rule, an imposition to “Jocaxian Nothingness”?

A: It would be. But if you review the text, I highlight that, out of nowhere, Jocaxian nothingness can happen or NOT, and this is not a rule, but a logical TAUTOLOGY- an absolutely truth under any circumstance or setting. This implies that “Jocaxian nothingness”, like everything, follows a tautology (an absolute truth), not a rule.

#### 6-“Jocaxian Nothingness” have neither physical elements nor rules, but does it have any POWER?

A: If we name “power” as a possibility of transformation, the answer is yes. But, we should remember that possibility doesn’t mean sureness and, eventually, it would never become or generate a thing or any other thing.

#### 7-Could the Trivial Nothingness, where nothing can happen, be more likely than “NJ”?

A: No. The nothingness that people generally imagine, and I named as “trivial nothingness” (NT), is infinitely more likely to occur as the origin of the universe than NJ. This happens because “trivial nothingness” has COUNTLESS rules to be followed. Example: it could neither generate fields, nor space, nor a chair, nor the physical laws, nor the gods, nor the big bang, nor the life, nor the particles, and so on.

#### 8-Does “Nonexistent Nothingness” is more “pure” than NJ?

A. The “Nonexistent Nothingness” (NI) is a “nothingness” where there is nothing, either itself! So, it is intrinsically contradictory, because if it doesn't exist, it could not have properties, but he *has* properties of having nothing, it should exist. So, if “NI” exists, it could not be nonexistent, and if it is nonexistent, it can't exist. It's something contradictory, and, for this reason, it wasn't used as cosmos generator.

#### 9- What is the difference between “Universe” and “Cosmos”?

A. Universe is a set of everything which exists. So, for every possibility of “Bubble universe” or “Multi-universe” is, actually, part of the same Universe. So, it's more correct to name each one of it as “Bubble universe” or “bubble-cosmos”. So, a cosmos would be a region of universe followed by its own physical rules, alone and without interconnection with other cosmos.

**10-Does NJ is a Universe or has originated the Universe?**

A. Strictly speaking, by definition of the Universe, as a set of everything which exists, NJ would be the universe itself. We could say the universe at its “minimal” state, the simplest possible state. So, NJ couldn’t originate the universe, because it is the universe itself, where time doesn’t exist. Then, it could have randomized one or more cosmos.

**11- So, wouldn't NJ is limited to our logical? Could it be illogical?**

A: We should notice there are two concepts regarding Jocaxian Nothingness, which are interconnected: Jocaxian Nothingness Object (NJ-Object) and Theories regarding this NJ-Object (NJ-Theory). The NJ-Object is designated as something with properties regarding NJ (P1 and P2) described above. The theory regarding NJ (NJ-Theory) is a theory based on logic, which explains how NJ-Object can randomize our cosmos. You can argument if NJ-Object doesn’t have laws, so, it won’t need to obey this logic, and this, indeed, is correct. However, when we are analyzing NJ-Object with our classical logic, we aren’t including new possibilities regarding NJ-Object, but on the contrary: in fact, we can limit our possibilities of NJ-Object, which means, maybe, it can be even more “totipotent” than we can imagine.

**12- When NJ is randomizing something, it is not a NJ anymore, and it could lose its capacity of randomization?**

A: The NJ randomization is named “schizo-creations”. The Universe was in NJ form. The first NJ schizo-creation makes the NJ not being NJ because, now, the universe has, at least, one element: its first schizo-creation. If this first schizo-creation it not a law which prevents the randomization of other things, for example, a law which turns something into “nothingness-trivial”; so, this schizo-creation, which is the evolved NJ (NJE), could be, eventually, generating its schizo-creations. Only the generation of laws which restrict the own generation of laws could avoid new schizo-creations.

**13- Could we isolate a part of cosmos and transform it into a NJ?**

A: Hardly. Once our cosmos has been already “bathed” by physical laws to create a NJ, we have to eliminate all physical laws of that region. No one knows if that would be possible and how this could be done.

**14-For a natural selection of laws, shouldn't the laws be ordered temporally, i.e., the time would no longer have to be a prerequisite?**

A: According to Jocaxian’s Time definition<sup>3</sup> the time is the number of events that have occurred. So the time arise from the first schizo-creation.

**15-Which are the evidences that our cosmos comes from a NJ?**

A: The evidences would be a logical universe, where there were no physical contradictions among the elements of this universe.

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None.

**Conflicts of interest**

The authors declare that there is no conflict of interest.

**References**

1. Duignan B. Occam's razor. *Britannica*. 2024.
2. Barcellos JCH. Jocax's razor. *Open Acc J Math Theor Phys*. 2018;1(5):190–196.
3. Barcellos JCH. Jocaxian's time definition. *Aeron Aero Open Access J*. 2023;7(1):13–16.