“Possible worlds and substances striving to existence”

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To investigate how Leibniz’s idea about the **possibilities striving to existence** can be applied to the metaphysical model of the **origins and evolutions of possible worlds**.

Except Leibniz’s doctrine:

- some views on the possible worlds in the modal metaphysics;
- the notion of a possible object a possible history;
- the notion of active substance.
Modal metaphysics of possible worlds

Possible worlds (PW)
Actual worlds (AW)
Pure possibilities (PP)
Dispositions (D)
Modal logic: a necessary statement is true in all possible worlds. A possible statement is true in some possible worlds.

*De Dicto modality* is expressed in a language and logic in the form of characteristics of propositions that differ by a degree of authenticity of the represented states of affairs.

Essentialism: possibility is a kind of essence.

*De Re modality* concerns the modal properties that an object has in virtue of itself, regardless of our language.

An object can be also described with the evolution of its states: world-stories, consistent sets of propositions, scenarios, or possible histories.
Any actual object can be defined by its **successive actual states** in the actual space. Call this set an "**actual history**".

Each actual state combines **actual properties**.

But, the **actual object** is the set of only **consistent** and relatively **stable** actual states and history.

\[
\text{actual states} = \sum \text{actual properties (consistent and stable)}
\]

\[
\text{actual history}
\]
Possible object, possible states, and histories

- A possible object can be defined by its successive possible states in some space of possibilities. Call it a “possible history”.
- Only the consistent and relatively stable possible states and possible histories are able to create the possible objects.

\[
\text{possible states} = \sum \text{possible properties} \\
\quad \text{(consistent and stable)} \\
\quad \text{(consistent and stable)}
\]

- The actual world is not just any set of the actual objects, but only the inherently consistent and relatively stable one.
1. Any objects and worlds are always mere objects and worlds. Only states (properties) and histories can be possible.

2. The number of the worlds is limited only by possible forms of the consistency and stability (or structures).

3. There is a total aggregate of separated, inconsistent, unstable possible states and possible histories having some grade of being. Only some of the possible states and histories being consistent and stable generate existing actual objects united in the actual worlds.
Substance or process?

Are there something before objects and worlds?

- **Realism**: substances are entities independent of our perception; objects are the result of activity and interactions between the entities.

- **Anti-realism**: substances are forms of the relations between the objects or names for object’s perceptions. An object is nothing but a set or bundle of properties, having metaphysical priority.

- **The process philosophy**: instead of the focus on discrete, countable, and static individuals that are, the process approach analyzes becoming and what is occurring as well as the ways of occurring.

What if we combine the realistic and process views?
Active substance

• Assume that the **main property of substances is the ability to act.**

  **Leibniz:** *substances or monads are beings capable of action... they are endowed with primitive active and passive powers...* (Leibniz G.W. Philosophical Essays. R. Ariew and D. Garbe (Eds). Indianapolis, 1989. p. 159, 207.)

• To act means to create, to change, and to maintain possible connections with other substances. The **interactions between substances** are limited by the same activity of other substances.

  **Leibniz:** “... substances impede or limit each other, and ... they act upon one another and are required, so to speak, to accommodate themselves to one another” (Ibid, p. 48).

• These interactions can be consistent or inconsistent, stable or unstable. **But, only consistent and stable interactions between substances can give birth to relatively stable objects in a certain world.**
Leibniz: the striving possibilities


✔ Every essence (possible thing) tends towards existence, but the one that will actually exist is that which has the greatest perfection, or degree of essence, or the greatest number of possibilities at the same time.

✔ Some possible things do not achieve their actualization. From the collision of all possibilities, only those things that contain the greatest number of possibilities will be actualized.

✔ Thus, the world arises in which the largest part of the possible things is actualized.

✔ The more essence or perfection, the more existence. The physical examples of such things: a straight line among all lines and a circle or a sphere among all figures as the most capacious ones.
The striving possibilities and worlds

What if we combine the **model of worlds**, the conception of **active substance**, the theory of the **possibilities striving to existence**?

Every possibility of substance has its essence and tends towards existence in all worlds. However, in one world only one possibility, among the infinite set of possibilities, can exist.

Two modalities of being of substances’ possibilities.

**In the possible modality**, the possibilities **are** in the form of the separated possible states and possible histories.

**In the actual modality**, the possibilities **exist** in the form of the actual states and actual histories of objects in one of many actual worlds.
Potential states and virtual histories

Where are the separate possible states and possible histories before they generate a variety of objects in a certain world?

Let any world is always actual (see above). So, instead of the notion of possible world, let us use a notion of “proto-world” as the set of all separated possible states and as possible histories do not become consistent and not stable yet.

To distinguish between possible states and histories within the proto-worlds with others, let us call them:

“potential states” and “virtual histories.”

Potential – latent and capable to exist actually under the given conditions.

Virtual – having the essence or effect, but without manifestation in actuality.
From possibilities to worlds

**Level I: “pure possibilities”**. There are no worlds and no objects. There are just active self-sufficing substances that possess the ability to create and to change possible relationships with other substances.

**Level II: “proto-worlds”**. All possibilities of substances have different properties. The sets of possibilities having the shared properties unite with each other and create the separated potential states and virtual histories within one of the proto-worlds.

**Level III: “worlds”**. Within one of the proto-worlds, sooner or later, some number of the virtual histories becomes consistent. At the first moment of such consistency, the first actual history arises and leads to the first actual state of the first object. A new world emerges instantly.
The stages of the evolution of worlds

Level I
“Pure possibilities”

Level II
“Proto-worlds”

Level III
“Worlds”

The initial set of possibilities of substances

Proto-world 1
Proto-world 2
Proto-world n

VH + PS
VH + PS
VH + PS

possibilities of objects
objects

World 1
World 1’
World n

Existence
Being
From possibilities to worlds

✓ According to the new view of the doctrine of the striving possibilities, the objects obtain their existence in a certain world due to substances tend towards existence.

✓ Following substances the objects also tend to actualize the maximal number of their possibilities in each state of affairs of a certain world.

✓ In the possible modality of being, the objects as if try or examine the maximum number of possibilities in each subsequent actual state.

✓ To achieve this aim, the objects move simultaneously along all virtual histories that are in a given state of affairs.

✓ Moving along the only actual history, the object can take the maximal number of potential states. So the greatest number of possibilities will be actualized.
The aims of substances

Thus, substances achieve their aims (according to Leibniz):

- to obtain the greatest perfection, or
- to obtain the greatest degree of essence, or
- to actualize the greatest number of possibilities at the same time

in reverse order:

The more various worlds, the more actual objects;

the more actual objects, the more possibilities actualized;

the more possibilities actualized, the more essence and more perfection.