

6.4 The Fundamental Constituents of the World: Individual Substances

6.4.1 Readings and Study questions

- Readings: Leibniz, *Discourse on Metaphysics* 8-12 + 14-15
- Study questions:
 1. What is the “nature of an individual substance” according to Leibniz? Explain with the example of Alexander The Great
 2. How do you understand Leibniz’s claim that: “every substance is a complete world and like a mirror of God or of the whole universe, which each one expresses in its own way”?
 3. Why does Leibniz think that we should not despise the scholastic notion of substantial form? For which domain of knowledge can such a notion be useful? Why?
 4. If each of us, being an individual substance, is a complete independent world, how come that we believe that we all live together in the same world according to Leibniz?
 5. If each individual substance is a complete independent world, in what sense can we say that substances interact with one another within Leibniz’ metaphysics? What is it really for a substance to act or to be acted upon by another substance?

6.4.2 Individual Substances as the Subject of Predication

We have already discussed the notion of substance, with both Descartes and Spinoza. Just as his contemporary rationalists, Leibniz holds that the fundamental constituents of the world are substances.

- We have already discussed the following two notions of substance:
 1. Substance as a being whose existence does not depend on anything else

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Example: the color of your hair is not a substance: it does exist independently of your hair.

Note that this was Descartes' and Spinoza's notion of substance: self-sufficient being

2. Substance as what remains constant under accidental changes

The idea is that any being is characterized by

- essential properties – or primary qualities
- accidental properties – or secondary qualities

Example: Aristotle would say being human is essential to us. However, that our hair is brown, blond or blue is accidental. It does not define our essence, our fundamental nature.

Accidental properties can change without the essential properties being affected (you can die your skin). What remains the same under all changes is the substance.

This is the sense of substance that Descartes used in the analysis of the piece of wax

- Leibniz adds to this a third notion of substance, i.e. the notion of substance as **the subject of predication**

– Predication:

Even if you may not know the term, you know what to predicate is:

Examples:

Jalisco is black

Jalisco is a cat

Cats are vicious animals

Sentences like the above contain a subject (Jalisco, cats) and a predicate (is black, is a cat, are vicious animals)

→ *To predicate is then simply to assign an attribute to a subject.*

– Predication and Substance

It is an old idea that *substances are referred to by these subjects which cannot be predicated.*

Consider the term 'black'. It can be a subject, as in 'black is beautiful'. However it can also be a predicate, as in 'Jalisco is

black'. This is sufficient to say that the term 'black' does not refer to a substance, because the terms referring to substances cannot be predicated of anything.

Similarly for the word 'cat', or 'animal'

By contrast, the term 'Jalisco' cannot be used as a predicate: nothing can be said to be 'a Jalisco'. All you could do is to point at Jalisco (the actual cat), and say: "this is Jalisco". But this is not a predication, rather, this is just identifying Jalisco as such. The reason for this is that the term Jalisco does not refer to a class of beings but to a single individual.

—→ *If then we accept the idea that substances are whatever correspond in the world to the terms which cannot be predicated, then substances are individual particulars, like Jalisco, you, me, this particular table and tree.*

—→ *For Leibniz, one way to recognize which are the fundamental constituents of the world is to look into the structure of our language. Substances are then the beings which we refer to with terms that cannot be predicated. That is to say, the fundamental constituents of the world are individual particulars.*

6.4.3 Individual Substances as the fundamental constituents of the world

So, individual substances as the ultimate constituents of the world.
What does it imply for the nature of such substances?

1. Each individual substance is unique of its kind: Principle of identity of indiscernibles: Two substances cannot have the same properties and yet differ in number.
2. Individual substances are indivisible
Individual substances lay at the end of the division of the universe into individuals.
3. Individual substances do not perish, do not appear naturally – only by creation of God.

4. In fact, individual substances are independent of everything else than God

This means that there is no interaction between substances. As an individual substance, you are neither acting on, nor acted upon by other substances.

5. Individual substances depend on God: continual production and preservation

Individual substances do not perish, do not appear naturally – only by creation of God

Analogy: God produces the substances as we produce thoughts – substances emanate from God when he decides to actualize his thought.

—→ *If we understand correctly the notion of individual substance, we understand that an individual substance is what remains stable at the fundamental level. Individual particulars, or individual substances do not suffer change, even less any kind of influence from a supposed external world: they are the building blocks of reality which always remain exactly what they are.*

6.4.4 Individual Substances are “Self-Contained”

How can the individual substances be autonomous in the way described above? Isn't it the case that individual substances, you, me, the tree outside and Jalisco undergo some changes? We learn, we get old, we love and then stop loving, in short we live!

So, how does an individual remain the same while always seeming to undergo changes? In being “self-contained”.

- This is one of the most controversial, most intriguing, and most interesting thesis that Leibniz holds: *the concept of an individual substance contains in itself all the predicates that the substance has, has had, and will have:*

... the nature of an individual substance or of a complete being is to have a notion so complete that it is sufficient to contain and to allow us to deduce from it all the predicates of the subject to which this notion is attributed. (p. 188)

- Examples:
 - Jalisco
 - Alexander the Great
 - Caesar
- This implies that, according to Leibniz, *there are no accidental properties*. All the properties a substance will have are contained in its complete notion.

—→ *So, for Leibniz, a substance is an individual, concrete and complete being, which, which, when completely understood, contains all its predicates. Of course, our finite understanding does not allow us to grasp the complete notions of individual substances. God, however, has an infinite understanding and chose to actualize these individual substances which he understood would together make the best possible world.*

6.4.5 Individual Substances Are Defined by their Substantial Forms

Leibniz defends an old scholastic notion in order to give an account of the nature of the individual substances: the notion of substantial form. What is it and why does Leibniz want us to reconsider this notion?

- What is a substantial form?
 - This is an old notion that the Scholastics inherited from Aristotle.
 - For example, consider a cat. The ancient philosophers and the medieval philosophers after them took that what fundamentally makes a cat a cat is its form “cathood”.
 - Another example: Socrates. What does make Socrates what he is? His “Socrateshood”
 - *The substantial form of something is what makes it what it is.*
- Why was it despised by the founding fathers of the new science?
 - Appeals to substantial forms were considered vacuous by the modern philosophers concerned with the new science:
 - Moliere’s mockery: *The imaginary invalid* 1673

FIRST DOCTOR:

Most learned bachelor

Whom I esteem and honor,

I would like to ask you the cause and reason why

Opium makes one sleep.

ARGAN:

...The reason is that in opium resides

A dormitive virtue,

Of which it is the nature

To stupefy the senses.

CHORUS:

Well, well, well, well has he answered!

Worthy, worthy is he to enter

Into our learned body.

Well, well has he answered!

—→ *The notion of substantial form seems to have no explanatory power whatsoever. Appealing to the “X-ness” or “X-hood” of X does not explain the way in which X works.*

- Why does Leibniz hold that it is necessary to appeal to substantial forms in metaphysics?

- Leibniz admits that, within the domain of physics and natural science, appeals to substantial forms is unsatisfactory:

Leibniz’ example: the workings of a clock are not properly explained by its “clockness”, but by its internal mechanism

That said, he maintains that the notion of substantial form is still useful in the domain of metaphysics. Why?

- *A principle of unity is necessary to give an account of individuality in our world.*

According to Leibniz, the mechanical explanation of the world does not allow us to make sense of the way the world is. Extension, figure and movement (Descartes’ notion of bodies) are just not enough to give an account of the intrinsic unity of individuals. But the world is fundamentally made of individuals, not of extension and movement. So, if metaphysics is about explaining what the

ultimate nature of reality is, it should give an account of what individuals are and how they exist.

On the side: remember that Spinoza gave an account of individuals.

- Leibniz thinks the notion of substantial form can do the job.

It is useful in order to give an account of things that appear to possess an intrinsic unity, by contrast to things that are mere aggregate, collections of elements.

For Leibniz, every individual has an intrinsic principle of true unity. This applies to everything: not only humans, but to everything.

panpsychism: everything has a soul (even if, of course, not everything has a mind and consciousness)

- From substantial forms to monads:

While in the *Discourse on Metaphysics*, Leibniz appeals to the notions of substantial forms and souls, he will dub his own term to refer to it later: *Monads – literally solitary units*.

—→ *While an account of the world in terms of extension and movement is satisfactory for the natural sciences, it is enough for metaphysics. If metaphysics is about giving an account of the fundamental constituents of the world, and if the world is made of individual particulars, then a satisfactory metaphysical account of the world must give an account of individual particulars. The mere mechanistic view of the world fails to do so. Leibniz holds that the notion of substantial is appropriate for giving an account of individual particulars.*

6.4.6 Individual Substances as Independent Mirrors of the Universe

The problem

1. According to Leibniz, the world is made of independent and complete individual substances, which can be said to remain what they are because they contain all what they were, are, and will become right from the outset;

2. A crucial requirement for any metaphysical account is that it has to recover the appearances. That is to say, he has to explain how the world appears to us as it is given that it is fundamentally made of individual substances;
3. Now, the appearances are that we live in constant interaction with the external world. We don't seem to be independent or autonomous, but rather intimately embedded in a complex universe.

How is this possible?

Individual Substances as Independent Mirrors

An individual substance expresses the entire universe: it is a perspective on the entire creation

Each individual substance is like a movie theater, in which the entire story of the whole universe is played. This is how Leibniz accounts for the fact that you and me, as individual substances, seem to have some kind of contact with the world even if we are independent substances.

Leibniz: comparison with a performance in the theater – multiple perspectives of the spectators

This is a radical claim: individual substances (you and me and Jalisco) perceive the entire universe. This idea will be fleshed out by Leibniz in the *New Essays* with the notion of small perceptions. You can read the Preface to get an idea.

Each individual substance has something of God's omniscience and omnipotence

- omniscience: expresses the entire – even if from a limited perspective
- omnipotence: is part of all other substance and influence their being – even if never by direct action

What does it mean that they share some of the omnipotence of God?

Individual Substances are active – Whenever an individual substance evolves, it does it itself. Individual substances are never influenced by other individual substances. They are independent of one another. Each individual substance unfolds actively its own individual nature. This is how they share with God's power.

—→ *So: Individual substances are unique, active, concrete and complete being. An individual substance's life is nothing else than the independent unfolding of its intrinsic nature. In their unfolding, each of them deploy the entire world. Each of them do it uniquely, that is, from one of the infinite possible perspectives on the universe.*

6.4.7 Pre-established Harmony

With the above idea that substances individually and independently play the entire story of the universe from a particular perspective, Leibniz has not yet recovered all the appearances. In particular, he has not recovered the appearance that we substances interact in a commonly share and external world.

The Problem

1. Leibniz wants to argue that the fundamental constituents of the world are individual substances or monads, which are completely independent of one another;
2. A crucial requirement for any metaphysical account is that it has to recover the appearances. That is to say, he has to explain how the world appears to us as it is given that it is fundamentally made of individual substances;
3. The world as it appears to us, however, seems to be constituted of *interacting systems*. We naturally construe the world as made of a common background in which a set of systems (particles, atoms, or larger systems) are interacting causally.
4. Such causal interactions appear to us as following some order – what we call the laws of nature.

—→ *If all substances are self-contained and independent beings, how come that they appear to be interacting within the same, ordered world? In other words, how come that we feel that we are not watching movies independently but rather playing all together in the same movie?*

Correlations and causation

How do we deal with correlations between phenomena?

- What are correlations?

There is a correlation whenever two events occurs more often together than independently.

Examples: Tom and Bill and their hats

- How do we deal with correlations?

- either direct causal relationship

- or pre-synchronization

In both cases, we take that there is a causal explanation.

- Of course, not all correlations are relevant:

Alsace: amount of storks and natality rate are correlated

→ *We usually interpret correlations in terms either of direct, last-minute direct causal influence, or as the result of a synchronization in the past.*

Leibniz's notion of pre-established harmony

Leibniz' idea is to consider that the correlations between each of the worlds of each of the individual substances are due to an synchronization at the beginning of time.

- All the correlations that we take to be indicative of causal relationship are really due to a common cause: God's decree.
- Every single individual substance is independent, but all individual substances have been synchronized at the beginning, like independent clocks.
- The appearance of a causal order at the level of phenomena is the result of the synchronization of all the otherwise independent individual substances.
- In other worlds, God has made sure that our various movies be coherent with one another.

→ *We all watch the same movie after all, but independently and from different perspectives.*

What it is to act and to be acted upon

- The problem:

At the fundamental level, the only real things are individual substances, their perceptions and thoughts.

At the level of the phenomena, we perceive and think that we act upon the rest of the world and that we are acted upon

Leibniz has to give an account of this too.
- To act, or to cause is to pass to a more perfect expression, and to be acted upon is to pass to less perfect expression.
- We attribute to ourselves just what we express the most perfectly
- What we call a “causal influence” consists:
 1. in the cause, in an augmentation of what it expresses the most perfectly, and
 2. in the effect, a diminution of what it expresses the most perfectly
- Hence:
 - to act is to expand the domain of expression which is more perfect
 - to be acted upon is to have this domain diminished
- Further: to act, expanding and change for the better is accompanied with pleasure, whereas to be acted upon, shrinking, and change for the less perfect is accompanied with pain

6.4.8 Conclusion on Individual Substances

At the end of the day, Leibniz’ metaphysical account of the world contains two levels of reality:

1. At the fundamental level, all there exists are the independent, self sufficient, self contained, unique of their kind, indivisible and unchanging building blocks of reality: the individual substances, which emanate from God. There are best characterized by their intrinsic principle of unity: their substantial form. The substantial form of an individual substance contains right from the outset all the developments that the

individual substance is going to express. When expressing itself, each individual substance expresses the universe from its particular, unique perspective.

So: At the fundamental level, there is no physical world made of causally interacting physical systems. Instead, there are independent individual substances.

2. At the level of the phenomena, we perceive and conceive the world as constituted of physical systems causally interacting with one another and that such interactions follow the structure of a causal order. This is because all substances are synchronized by a decree of God. So, whenever we appear to interact, in fact, the action and the reaction are nothing but the two synchronized ways in which the same action is conceived from different perspectives.

—→ *The existence of causation and of a causal order are illusions in the sense that it does not correspond to anything physical in the world. That said, they are well grounded illusions, for they emerge from the harmony between all individual substances that God has pre-established.*