

Introduction to Metaphysics

At the beginning some preliminary notes in order to say something about potency, form and act in terms of Aristotle, Thomas Aquinas, and Lonergan. Why say something about potency, form and act? Answer: without a basic understanding of them, philosophy and metaphysics cannot be understood. Why include Aristotle, Plato and Thomas, thinkers of a time long ago? Answer: without Aristotle, we would not understand Aquinas and, without Aquinas, we would not really understand Lonergan.

There is another reason. If one opens a textbook of a history of philosophy one is confused by the variety of solutions of thinkers to problems of life and philosophy. Going more into detail, one can see that there can be seen a continual progress in the history of philosophy, a progress, however, which goes along with errors as well.

From Myth to Philosophy

The by far longest period of history, human mankind was guided by a common-sense culture, by myth and tradition. The decisive step from a world of common sense, tradition and myth towards philosophy and theory occurred in Greek culture. In Greek culture we can see an awakening of the spirit; questions in terms of What-is-it and Why-is-it are applied to the origin of the universe and things etc.

Origin, Arche; Reality -- Materialism

In the early days of philosophy the solution to the question of origin was that something consists of parts, for example: water, fire, air, earth. This solution was suggested by everyday life: a house consists of bricks, a meal of ingredients; procreation; no life without water etc.

One problem of such a solution is that parts for themselves do not explain anything, only intelligible relations between parts. If we say with the insights of modern chemistry and physics that water consists of one part of oxygen and two parts of hydrogen, then, indeed, something is explained. There remains, however, a second problem, a problem of which, for example, Heraclitus, was fully aware.

Reality -- Movement or Constant Being?

Heraclitus lived about 500 B.C. He is the author of the famous saying that everything is in flow. The gist of this saying is that only from a reference point which is not in flow, one can state that everything is in flow. So, only from the riverbank one can see that water is in flux. One main reason that, in the question of origin, the focus of the early thinkers was on parts and elements was that they were not able to conceive an incorporeal principle or reality.

Parts Presuppose a Unity

Reality: Form, Idea

Heraclitus was aware of the fact that movement can only be understood from a reference point to which the movement can be related. To put it into other words, relations can only be determined from a point of reference which is beyond these relations. In our example of water: first a scientist has to grasp the unity which we call water; only in a second step he can find out the relations between oxygen and hydrogen. In other elements oxygen and hydrogen interact in a completely different way.

The first step in research is always to identify a unity and totality as an object of research. There must be a kind of stable unity in order to discover relations in it. Science and history are not possible without grasping a unity; in history, such a unity is the human being. If the actor of history of the Middle Ages would be a completely different being from that one of our days no history would be possible.

The last step in natural sciences is a concrete unity again. A verification occurs by proofing the hypotheses on it.

Lonergan -- Reality as a Result of Three Different Steps

One problem of the very early thinkers was that they were not able to go beyond their imaginations. One can see that a house is made up of bricks. From such experiences of "looking at" they concluded that things are made up of elements which they conceived of as material elements. Before we go further, let us turn to Lonergan. For him, knowing is not just a matter of "looking at" but of three different internal operations. Using Lonergan's framework will help us to understand better with which problems the early philosophers were struggling. We will understand their failures and shortcomings and we will see that their failures are still main failures of modern thinking.

What Are We Doing when Stating that Reality Consists of Water, Fire ...

Using Lonergan's scheme, we can now analyze what we are doing when we say that something consists of parts. The early thinkers had the correct understanding that things of nature are very complex and that complex things can be reduced to elements. They discovered the way of analysis where a whole thing is reduced to its parts in order to understand the whole thing better. But on the second level there occurs a shift towards imagination because they had no understanding how water and fire etc. are related to each other.

What Are We Doing when Stating that Water Consists of Oxygen and Hydrogen...

Let us take a look at modern physics; in modern physics and chemistry there is an insight into the interaction of parts. The

periodic table, for example, which lists up the chemical elements is based on the insights into the number of neutrons, electrons, atoms etc. and into their relations to each other.

A common failure of scientists, however, occurs on the third level when they conclude that the very principle of reality is that it consists of material particles which interact according to natural laws and according the laws of statistics. In saying so they fall back to the scheme of knowing as "looking at". They do not grasp that reality is what is understood and sufficiently affirmed and that understanding and affirming always include something which cannot be explained by material particles.

It is true that water consists of parts which are related to each other in a special way; but water as a whole and its existence itself can never be understood in terms of parts. A whole is always more than its parts; it can never be explained by its parts alone. Thinking itself can never be understood just in terms of material parts. Parts are concrete and individual, they are bound to place and time; and something what is concrete and individual and bound to place and time can never explain an insight or understanding which is general and abstract, going beyond place and time.

If scientists reduce human thinking to physical and chemical reactions of our brain, they make the same failure as the early thinkers who concluded that everything consists of water, fire etc. Modern brain research shows how insufficient all the brain models are which want to demonstrate that our thinking can be exactly located somewhere in the brain. What they can demonstrate is the more or less intensive circulation of blood in our brain¹.

No wonder that scientists who remain on the level of a reality-as-looking-at deny the existence of a spiritual reality.

What Are We doing when Stating that Reality Is an Idea

We are still confronted with the problem that, on the one side, a complex thing consists of parts and, on the other side, parts for themselves cannot explain the whole thing sufficiently. For example, all the possible relations between bricks and stones cannot explain why a building, consisting of these elements, has this or that form. Rather, it is the design, the plan, the idea of the architect why bricks and stones are put together in this or that way.

It was Plato who developed wonderfully the shift from a reality on the basis of material parts to a reality of incorporeal ideas. The precondition for this step was that Plato was fully aware of a difference between sensing, imagining and thinking. Feelings and imaginations come and go, the fact that 2 and 2 equal 4 remains through centuries.

1 Unser Denken ist auf das Material der Sinne angewiesen; Beispiel: ein Pinsel erklärt nicht das Bild -- die Tätigkeit des Malers erklärt, weshalb er diesen oder jenen Pinsel verwendet hat.

He was confronted with a problem left by his predecessor Socrates. One problem of Socrates was as follows: If one asks people what they think of what is, for example, love or courage, one will get many different answers. There is a love between parents, a love for God, for one's mother country, for music etc. How is it possible that so many phenomena can fall under the category of love.

This question is similar to the problem: How can it be possible that so many different appearances of people can fall under the category of human being.

Plato had the insight into the fact that bricks and stones cannot explain the idea, the form of a house; he was aware of the difference between sensing and thinking so it was suggested to him that the full reality is on the level of ideas which exist for themselves. By the same token he had to introduce a new way of knowing; knowing is now knowing ideas; how can one come to know an idea? By remembering; this way presupposes that the soul once was able to "see" the ideas. The material reality is nothing but a stimulus for thinking and the capacity of remembering. Analogous to knowing something by remembering an idea, the corporeal things exist by participation in an idea or in ideas.

Comparing Plato to the former materialistic thinkers we can see that, despite his shift to incorporeal ideas, he remained on the level of knowing as "looking at". His idea is nothing but a "reality-out-there", just with the difference that he turned things around; he converted the material parts into an idea and further into a totality, a unity, from which the parts can be explained.

Aristotle's Decisive Step: Matter and Form Are the Same ... (Met VIII, 1075b 17ff.)

Up to now the main problem is the relation between parts of a whole thing, of a unity and totality, to this unity and totality itself. It was Aristotle who could solve this problem.

Is it easy to understand that bricks and stones cannot explain the form of a house. Aristotle, coming from Plato, had to explain that an idea, existing for itself, cannot explain an individual, concrete thing. He had different approaches to prove Plato wrong. One train of argumentation is called the argument of the third man. What does it mean?

Let us take the definition of man as rational animal. In terms of Plato it would mean that there is something which participates both in the idea of reason and in the idea of animal. These ideas exist for themselves and are different from each other; if they are separated from each other, how then can they explain the unity and totality which is a human being?

In order to explain the uniqueness of a human being one would have to introduce the idea of uniqueness; such an idea, however, would remain to be a general idea being separated from other ideas and one would have to introduce another idea which could explain the

uniqueness of a human being. An idea which is always general can never explain the individuality and uniqueness of a concrete thing.

How did Aristotle solve this problem? I quote now from his *Metaphysics*, book VIII (1075b ff.): "But, as has been said, the proximate matter and the form are one and the same thing, the one potentially, and the other actually... for each thing is a unity, and the potential and the actual are somehow one."

Hence, form and matter express in a way the same unity just from different points of view: matter is what can be a form, it is the potency of form, form is the actuality of matter. Insofar as matter exists only in relation to a form, it is already form and form is nothing but the actuality of the matter which can be actuated by this form.

This sounds very strange. How did Aristotle come to find such a solution? He was able to do so because he was clearly aware of the different steps of coming to know which centuries later were worked out systematically and beautifully by Lonergan.

The difference between matter and form is according to the first and second level of knowing. In sensing and experiencing we grasp something which is individual and concrete, bound to place and time. Understanding is always an understanding of something in the data of experiencing.

Can this "philosophical" matter exist by itself? No, it only exists in its ability to be a form. In "doing" so it is already form. Can a form of a material thing exist by itself? No, since the form is nothing but the actuality of the matter.

Is reality on the side of matter or on the side of form? Neither nor! What is then reality? Reality is the individual, concrete thing which is experienced in its individuality and concreteness, which is understood in its unity and form and which is verified and affirmed again on the concrete, individual thing.

What are then form and matter or potency? They are principles of explanations of the concrete thing; the form is the principle "by which" or "through which" something which can be a concrete thing is actually this concrete thing; matter is the principle of individuation of the concrete thing.

As to terms like form and matter, we must be very cautious, because we tend to conceive of them as if they were "entities" existing for themselves. We tend to imagine matter as a kind of fine material which then is formed by something in a similar way as we cut out biscuits from a dough or form a dough to a leaf etc. In our thinking, we still have something of the attitude of little children. For them, reality is first what they can grasp with their fingers and later what they can see etc.

Aristotle de Anima

In the context of matter, potency and form it is very interesting to read what Aristotle and Thomas wrote about soul. I mainly refer here to Thomas Aquinas's *Treatise on Man* which we can find in the first part of the *Summa Theologiae*. As source for this treatise, Thomas used most frequently Aristotle's book (De Anima) on the soul.

The starting point for our consideration is the experience of the difference between a living and dead human being. From this experience questions arise:

What causes this difference? What makes a human body to be a living body? The answer to the second question cannot be a material principle, a sort of corporeal reality, because one wants to know why a body, a corporeal identity, is alive.

Plato would now make the shift towards an incorporeal idea in order to explain why a human body is a living body; he would further have to introduce other ideas in order to explain why a human being is able to perform so different operations as there are sensing and thinking. We already mentioned that in terms of Plato the uniqueness of *this* man cannot be understood.

Thomas, with Aristotle, as to the problem of a living body, remains strictly on the line of experiencing, understanding, deliberating and making a final statement.

It is a basic experience of us that there is a difference between a dead and living human body. We experience ourselves as sensing, thinking etc. We need an explanation for these data of experience.

Is, for example, a beating heart the cause for a body to be a living body? It cannot be because then we would need again to have an explanation why this heart is a living heart and not a dead one. Physical and chemical processes cannot explain life; we can only detect that, in a dead body, there are different chemical processes from those in a living body. But these processes for themselves cannot explain life. We know already that parts for themselves cannot explain a complex unity. We have first to identify a complex unity before we can investigate the physical and chemical reactions in it. Strictly limiting us to the level of physical and chemical processes, we could not distinguish, for example, between the different species of animals.

So, there must be something through which a human body is a living human body. This "through which" or "by which" is called soul. Thomas solves the problem of what makes a body to be a living body in terms of matter, potency and form. The form of a living body -- that is, soul -- is nothing but the actuality of a natural, structured body which has the ability, the potency, to be a living body. Body and soul cannot be separated from each other. As light is the actuality of a luminous body so the soul is the actuality of a body which is in potency to be a living body.

Such a definition of the soul sounds very strange to us. We can understand it, however, by being aware that body as matter or potency and form as principle "through which" a body is alive correspond exactly to our different operations of coming to know: experiencing, understanding, affirming. Thomas and Aristotle do not fall into the realm of imagination and fantasy; in their investigations, they remain in the traces of intelligently understanding and reasonably affirming something. For them, reality is what is intelligently understood and reasonably affirmed.

In his *Treatise on Man* Thomas makes a lot of fine distinctions with regard to the human soul. For us it is enough to get a first glimpse of his solution to the problem of life in contrast to Plato and the materialistic thinkers.

Unity of Potency, Form and Act

We heard that the terms matter and form suggest themselves to be imagined as a sort of formed material. But they can only be understood as terms of relations. They are related to each other and they can only be understood in their relations to each other. They have not a static meaning; their meaning becomes clear within a relation.

For, example, the word "animal" can be both matter or form depending on the set of relations in which "animal" is used. If a paleontologist finds out that a petrified structure of a tissue is so complex that it must be the tissue of an animal, then, in terms of Thomas, the petrified tissue would be matter and the statement *It must be an issue of an animal* would be the form. In the ancient definition of man as rational animal, man would be matter and rational would be form.

The essential thing to grasp is that matter and form are not something by itself but expressions which correspond -- to say it in a metaphor --to one part of the way which we have to go if we want to understand or affirm something.

Let us exemplify it with Thomas' (and Aristotle's) definition of the soul: Soul as actuality of a natural, structured body which has the ability, the potency, to live. In this definition there are included: Potency/matter, form and act/actuality; they are defined in relation to each other:

Matter is what can be formed; only from the level of form it becomes manifest what can be formed.

Form is the reason through which a body is actually a living body; it is related to potency/matter and act.

Act is the existence of the whole living, structured body which includes again potency and form.

Potency, Form and Act Comparison: Aristotle/Thomas -- Lonergan

There remains to say something about what Lonergan has in common with Thomas and Aristotle with regard to potency, form and act and where he differs from them.

Lonergan knows with Thomas and Aristotle that there is no increase in knowledge without a reference point to which the increase of insights can be applied. Let us think here again of Heraclitus' insight that, only from a riverbank, we can see that water is in flux. An increase of knowledge of how a cell works is only possible if scientists apply their increasing insights into the chemical processes of a cell to one and the same subject of their research which is, in this case, the cell. The cell is that unity in which all the changes occur; and it is that unity at which all the insights can be verified. If everything is in flow, no verification would be possible. We already mentioned that history is only possible if there remains, throughout the centuries, a stable unity which is the human being.

Such an ultimate unity of every research is, in terms of Aquinas, called substance. A definition of substance could be that substance is that ground in which a bundle of relations, which are intelligently and reasonably unified, have existence.

In this definition we have again matter/potency, form and act. *Bundle of relations* as matter, *intelligently and reasonably unified* as form, and *existence* as act.

The tradition speaks with Aristotle and Thomas of substantial potency, form and act. Instead of substantial, Lonergan speaks of central potency, form and act.

There is another set of relations which is named by tradition accidental potency, form and act. Here, Lonergan speaks of conjugate potency form and act.

To use Heraclitus's metaphor, one could say that the substantial sets of relations refer to the riverbank, the ultimate unities of research and verification, and the accidental sets of relations refer to what is in flow, to what occurs within or on the ground a substantial unity.

To give you an example: As human being I am an ultimate unity. I can say I am a human being; but I cannot say I am a finger. I have fingers but I am not myself a finger; there are even people who, after a car accident, have no longer any fingers but who are nevertheless human beings. So, finger is a part of the ultimate unity or substance which is man -- it "falls on" this unity; this is the meaning of the Latin "*ad-cadere* -- but it is not a unity by itself. But also a finger has a form and with it a potency and act and this set of relations is called accidental or conjugate potency, form and act.

As to the first set of relations -- substantial potency, form and act -- Lonergan fully agrees with Aristotle and Thomas.

There is a difference between them as to the accidental set of relations. This difference does not concern the main insights of Aristotle and Thomas that there is a correspondence between reality and our different internal operations of coming to know but the mode of explaining and describing.

In order to understand the difference, I have shortly to explain the difference between two ways of understanding and thinking, between the describing mode and the explanatory mode (I will more say about it in my second talk). In the describing mode we refer things to ourselves. For example, I say water is cold or hot according to what I feel when I put my hand into water. In the explanatory mode we try to fully understand things in their relations to each other. For example, we do not consider the sun in relation to us that it makes us feel comfortable etc. but strictly in its relation to other celestial bodies. Or as to water, we do not remain on the level of how we feel it -- i.e. in relation to us --, but we explore the relations which are characteristic for water, for example the relation between oxygen and hydrogen. In a describing mode we simply speak of movement, in an explanatory mode we speak about movement in terms of meters and velocity.

In Insight, chapter 15, we can find Lonergan's definition of form: "'Form' denotes the component of proportionate being to be known, not by understanding the names of things, nor by understanding their relations to us, but by understanding them fully in their relations to one another."

In this definition Lonergan emphasizes that form is not known by *understanding the names of things, nor by their relations to us, but by understanding them in their relations to one another.*

In contrast to it, Aristotle and Lonergan continuously use names of things in relations to us in order to express their understanding of potency form and act. For example, matter is to form and form to act as the eye is to sight and sight to seeing. It is not wrong but it might be an excuse for thinkers to put Aristotle and Thomas aside as not worthy reading.

First Cause

Comparison: Aristotle/Thomas -- Lonergan

A wonderful example of how Lonergan differs from Aristotle² with regard to the principles mentioned above can be seen in their different argumentation for the existence of a first cause.

Aristotle applies potency, form and act to movement. A moved body needs an explanation, a cause for being moved. If the cause of this movement is moved again, another cause of movement is required.

² Thomas knows five ways of proving the existence of a first cause. In two of his ways, he goes beyond Aristotle.

There is a chain of causes of movement till there is a first mover which moves without being moved. A mover which moves without being moved cannot be imagined but it is a necessity of thinking.

This train of thought is correct with the exception of one weak element. This weak element is movement. Movement here is a common sense expression, it is a complex descriptive form. It would have to be understood, however, on an explanatory level that is it would have to be understood in the relations which explain what we call movement. It is not an essential failure which proves the argumentation wrong but it causes difficulties for a dialog between such a kind of philosophy and modern science.

Lonergan applies potency, form and act to intelligibly understanding and reasonably affirming itself. In our reflection on our own understanding and affirming we come to understand two options. Either there is an ultimate intelligibility existing by itself or not. If we opt for no, we contradict ourselves in all our intelligent and reasonable operations. Every search for understanding would be nonsense because of the lack of intelligibility. If we opt for yes, then we affirm an ultimate intelligibility which exists by itself.

In order to explain Lonergan's proof of a first cause in detail, we would have to introduce his understanding of existence. For our consideration, however, in order to show the difference between Aristotle and Lonergan, it is enough to see that Aristotle grounds his argumentation on movement whereas Lonergan grounds his argumentation on a reflection on our own intelligent and reasonable operations. Both thinkers, however, achieve an understanding that there must be an ultimate intelligibility existing by itself as the ground of the intelligible structures of the universe.