Cogito ergo sisto, pertino ergo sum. (I think, therefore I exist; I belong, therefore I am.)

In previous issues of this volume, the problem of the human being who places his attention on entities other than himself was proposed.

The solution to that problem identified two actions: perceiving and grouping, which taken together are the same as thinking. In this issue, we deal with the subject of self-perception and that of the perception of others. These two new proposals shall respectively receive the names of the mirror problem and the peer problem. Solving each of these problems—as shall be seen—will lead the thinker to a conclusion.

The Mirror Problem Among the entities that are a part of the universe, there are some that have a special characteristic. Those are the mirrors, meaning that they have reflective surfaces, such as puddles of water or polished metal knives.

It is because of these entities that the human being is aware of his own existence. It is worth mentioning that, while the existence of other beings is directly perceived, the existence of oneself is perceived indirectly. And when man recognizes himself as a being that perceives and groups entities together, he says: “I think.”

The Peer Problem After recognizing himself as a thinking being, a time will come when the human being finds another who is capable of doing the same, his peer.

This will cause him to define a new set, \( H \), of which he is himself an element. Then he says: “I belong.”

All of Aristotle’s senses are involved in perceiving another: the extended sense (tact), the chemical senses (taste and smell) and the wave senses (sight and hearing). Any of these will allow us to detect in another a “slightly different” being, that is, a being “with great similarities.” The first three are those used by a newborn to recognize its mother. The higher senses mature later in life. The proposal made here is relevant to that second stage in a person’s development.

Of these two titles it so happens that, just as thinking of entities other than oneself must be divided into two actions, so does thinking of oneself also need to be unfolded into: (i) thinking of oneself and of the other, and (ii) forming a set with the other.

Conclusions: 1. The solution for the Mirror Problem ends by affirming: “I think.” However, this is followed by the observation that: “I am also on the board”. And, as shown in the previous issue, to be on the board (tabula) is to exist. The conclusion (continued on page 2)

MAIN ARTICLE

Gnoseology

The process of knowledge consists of five stages: one in which the human being passively associates entities at the level of the senses, and four actions (sentio, conglobo, speculo, congrrego) which, in pairs, will produce definitions. The process of knowledge, which is the subject of gnoseology, then consists in perception and definition. The theory presented here borrows several elements from Rene Descartes own theory.

LINGUISTIC NOTE

The Etymology of Being (I)

The verb εἶμαι, which is used by Parmenides in “The Way of Truth,” has two Indo-European roots in its history (“inactively being” and “actively being”), which had been confused before classic times. At the same time, another root, that of the latin verb “to stay”, was re-duplicated to give rise to the verb “to stay present”. The theory of knowledge presented in this article is entirely consistent with this history.

BACK PAGE

INTERVIEW WITH JOTAJOTA

Myth and Opinion

Sitting on a park bench in the French Garden of Independence Park, we speak to Juan Jose Luetich about the origin of myths and of the common elements between myths and opinions.

BIOGRAPHICAL NOTE

Juan José Luetich, teacher

After getting his title as a Music Teacher, his calling led him to explore many levels within the educational system: pre-secondary, secondary, pre-tertiary, tertiary, precollege, college and postgradual.

PRINTING NOTES

About this publication

Transactions is a serial publication by the Luventicus Academy, an NGO created to promote information, education, science and culture. This supplement is dedicated to the dissemination of the works Juan José Luetich.
Gnoseology

In this article, a theory of knowledge is presented based on the definitions used in the “Glossary of Ontology” of the previous issue and on the conclusions of the front page article in this issue.

The whole is perceived by the human mind as being made up of elements of variable diversity. At first sight, elements are associated by mathematical (quantity), physical (status) or chemical (substance) affinity. This affinity is established by ideas that precede sensory experience and can trace their origins to the very structure of the human brain. In order to simplify the problem, let us consider the case of similarity in form, which is a type of mathematical affinity.

(0) From each group of like elements, the mind takes only one, in a passive attitude at the level of the senses (the outermost organs of consciousness) which entails no definition whatsoever.

What follows are the four actions that make up the process of knowledge (see the series of diagrams in the following column). In them the human being quits the passive attitude to intervene and contribute.

(I) The mind focuses attention on some of the elements that have been identified. In this action (sentio = to perceive), the universe is defined.

(II) The mind groups together the elements of the universe by involving mental processes that result in the definition of concepts (cogito = to group).

(III) An element with a reflective surface allows the human being to become aware of his own existence. This action (speculo = to look into the mirror, to contemplate) places the thinking being himself upon the board also and the universe is broadened.

(IV) The presence of another being who is capable of perceiving and grouping elements, and who can be seen reflected in the same mirror (second broadening of the universe), will cause the thinking being to define a new set in which he is also included (congrego = to gather).

These actions are simple actions that can be associated to produce other, more complex ones and simplify the statements. Thus, for example:

sentio + cogito = cogito.

The complex action of thinking (= cogito) results from the sum of perceiving and grouping. On the other hand, belonging (= pertino) results from the sum of seeing oneself in the mirror and gathering together with the peer:

pertino + speculo = pertino.

It is then clear that, in this context, the verb “to belong” identifies an action.

(continued on page 3)
The Etymology of Being (I)

The Greek verb εἰμί (εἰμί = I am, εἰ = you / thou are, εἰσαι = he is, εἰσίν = we are, εἰσίναι = you / ye are, εἰσίναι = they are) had the same two senses in ancient times as the verb "to be" has in English today, that is, those mentioned in the "Glossary of Ontology" of the previous issue (1a and 1b). [The from used for the third person singular, could use an n (εἰσί) at the end, as in the stanzas of Parmenides' poem that were included in the first issue.] In Latin this also happened sometimes with the verb esse (sum = I am, es = ess = you / thou are, est = he is, sumus = we are, estis = you / ye are, sunt = they are).

The forms for this verb, which arise from the Indo-European root *h₁es-mi, The second and third person singular are regular:

- *h₁es-mi = sum (εἰμί)
- *h₁es-si = es (εἰ)
- *h₁es-ti = est (εἰσί)
- *h₁es-sómi = sumus (εἰσίν)
- *h₁es-thම = éstis (εἰσίν)
- *h₁es-sénti = sunt (εἰσίν)

The second and third person plural followed a longer route:

- *h₁es-mi > *h₁es-mi > es,
- *h₁es-ti > est.

What happened to the first person plural is harder to reconstruct. According to the suggestion made by Leonard R. Palmer (1906–1984) in his book, "The Latin Language", changes in the third person plural would have had an influence over the evolution of the first person plural:

- *h₁es-mi > *h₁es-sómi > sumus,
- that, in turn, would have dragged the first person singular along with it:

* *h₁es-mi > *h₁es-mi > sum.

Howssoever this history might have been, it is obvious that the plural and singular first persons have interacted. Nonetheless, no irregularities appear in the Greek verb.

Another very important Indo-European root in philosophy is *steh₁-, from which the Latin verb stāre = to stay, (stā is I stay, stās = you / thou stay, stat = he stays, stāmus = we stay, stātis = you / ye stay, stat = they stay) derives. No Greek verb is directly derived from this root. But for the form that resulted from the reduplication, *sísteh₁ = to stay present, *sísteh₁-mi = I stay present, *sísteh₁-si = you / thou stay present, *sísteh₁-ti = he stays present, *sísteh₁-mos = we stay present, *sísteh₁-thₑ = you / ye stay present y *sísteh₁-sénti = they stay present), there is one. It is the verb εἰσώμαι (εἰσώμαι < εἰσόμαι < εἰσίναι < διάρκεια). The root could be translated as "to stay present" from "to stay" [in English today, that is, those words which actively are]. For those beings that perform the action speculo (those which inactively are), there was another root, *bh₂u- < *bh₂uH-. Both roots were already being confused in the late Indo-European, that is, the difference (which was much more than just a subtlety) between the action of appearing of inanimate entities (those that inactively are) and the action of appearing of animate beings (those that actively are) was not noted by that time. The Greek verb φέων (φέω, φέος, φέων, φέος, φέοντα, φέοντα), is derived from the root *bh₂u- which had the meaning of to arise, to emerge. In Latin, traces of this root are still found in the form fiel of the verb esse.

Everything that has been said so far is shown in the following diagram, where the theory of knowledge that was described in the main article can be seen to be entirely consistent with the structure of Indo-European verbs: (1) to be and to stay are independent ideas (roots) [in the "Glossary" it said: "the elements in the grey region] stay there but they not are"; (2) the verb "to exist" arises from the reduplication of the verb "to stay" (differentiation between to be and to present) and therefore the idea of "to exist" is a subsequent idea to that of "to be", which probably served to distinguish "to stay present" from "to stay" [in the "Glossary" it said: "essence is more than mere existence"]; (3) in Indo-European there were two verbs for "to be", one for inanimate entities and another for animate entities [in the front page article a different proposal is made for each one of them, cogito versus pertino, which resolves three, by no means minor, issues: the sense that should be given to the words inanimate, when associated to «Nature», «soul» and «thinking»).

The article was summarized in the diagram.

Ask Jotajota (cont.)
Send your question to: jjluetich@luventicus.org

Alexander from Medellín (CO) asks:
—What is the difference between semantics and semiotics?
—Semantics is the study of the relationship between words and their meaning. Since, therefore, words are a kind of sign and their sense is a kind of meaning, semiotics enclose semantics. Taking into account what was said in the "Glossary of Ontology" of the previous issue, semantics is also closely related to ontology. For example, when we ask: "What is a sport?" both, semantics and ontology will provide answers. The first tends to be a dictionary-like definition while the second is more rigorously, encompassing and clarifying.
Myth and Opinion

During a beautiful early spring afternoon at the beginning of September, we find ourselves in the French Garden of Independence Park, in Rosario. We are here to speak with Juan Jose Luetich about philosophy, sitting on a park bench, surrounded by meticulously trimmed bushes, close to the fountain head.

—We have received many new comments and questions regarding the subjects covered in the first two issues. It is encouraging to see that so many people are interested in philosophy. I am one of those who believes that a system of ideas that overcomes the current ways of thinking can improve the world.

—I share in that hope, and I am going to invest all of my strength into making this project a reality.

—What is the origin of myths?

—Myths are the products of a time in which accounts were not recorded in writing. The problem then was how to preserve them. And tradition had shown us that writing songs was a good solution for that, since musical rhythm and rimes—both of them, repetitious in nature—would cause you to remember the words (the lyrics). On the other hand, the subject of a song is better remembered when it is presented in the form of simple ideas joined together in unusual ways. The art of ingeniously stating complex ideas in simple terms is that of the poets. That is why rhythm (and/or rhyme) and poetic language have been joined since then. The problem with poems is not in the rhythm/rhyme—in spite of the artificiality of that recourse—but in the poetic language itself. Because if whoever receives the message that was coded by the poet has no knowledge of the code technique used, he may decode it in his own way and interpret almost anything from it. A good poet tries to avoid this by allowing only the interpretations he wants, but it is clear that this is not always accomplished.

—What do myths and opinions have in common?

—Their multiplicity. Myths have multiple interpretations, those that are wanted and those that are unwanted by the poets. While opinions are, by definition, numerous. And multiplicity—which may come from reproduction, in the case of something that can be reproduced (for example, an article that is mass produced), or by counterfeiting, in the case of something that is irreplaceable (for example, a work of art)—entails devaluation. Observe that diversity (the existence of many different things) is wealth; however, multiplicity (the repetition of the same) is abundance, not wealth. The concept of abundance is more encompassing. Let us consider two real-life examples: currency, compared to the goods and services for which it can be exchanged, will lose value during an inflationary process; a counterfeit statue, while its falseness remains unknown, will have a certain value, but that value will be lost as soon as it becomes apparent that it is counterfeit, because there could be thousands of counterfeit statues, while the original one is unique.

—Is it then simply a matter of quantity?

—Yes, in principle. But then there is a matter of names. We can give a name to the original sculpture: for example "the lastest of Gerbino's Venuses." [I say this because I am looking at one of the sculptures in the fountain from here.] But if we were to replicate that sculpture, what name would we give each replica? If I raise a rabbit, I can give it a name. If the rabbit reproduces and I find a thousand, almost identical rabbits in my yard someday, I may be able to recognize him, but I would not be able to name the others. They would be hidden in the crowd. That is why the ancients speak of "what is hidden" in the sense of "that which is unnamable."

—I have always admired the acuteness of the ancients. The image of something hidden is a good one. I cannot think of one better for the numerous.

—I like to think of that which is hidden as "that which is forgotten", that is, "that which cannot be kept." If something is hidden, it cannot be named, therefore, it cannot be kept and is forgotten. This is what happens with false structures. You quickly forget they exist. They return to the chaos of the unnamable things.

—I liked that image very much. Thank you for sharing it.

We walked several meters, to the corner of Balcare and Pellegrini avenue. We said goodbye and I returned to my studio to make a clean draft of my notes. Juan Jose Luetich, once again, left me in thought. I think the subject of this dialog deserves a space in the next one.

About this publication

Transactions is a serial publication about the foundations and philosophy of science of The Luventicus Academy, an NGO promoting information, education, science and culture. This supplement is dedicated to the dissemination of the works of Juan Jose Luetich. The articles published in this issue are: "Cogito ergo sum, pertino ergo sum" (2005), "Gnoseology" (2006) and "Mythology of Being" (1996 –2006). Página web: www.luventicus.org/publications. Correo electrónico: transactions@luventicus.org.

Juan José Luetich, teacher by vocation, by choice, by training, by certification and by exercising the trade, began his career when, while still very young, he received the title of Music Professor (specialty: The Piano), recognized by the Superior Government of the Province of Santa Fe. While taking his specialization courses he taught Music Theory at the "Josefa Prell" Conservatory. During his time as a university student, he served as a teacher in the "Rosario Study Center and worked as a private tutor. The subject matters he covered were: Language and Mathematics for introductory high school courses; Mathematics, Physics, Cosmography, Chemistry, Meteorology, Biology, Language and Literature, for high school and precollege level; Algebra, Analytical Geometry, Calculus, Differential Equations, Numeric Methods, Discrete Mathematics, FORTRAN Programming, Statistics, Probabilities, Mechanics, Calorimetry, Acoustics, Optics, Electricity, Magnetism, Quantum Physics, Astronomy, Electrical Engineering, Digital Circuits, Biological Physics, Statistics, Meteorology, Chemistry, Radiotechnology, Installations, General Chemistry, Inorganic Chemistry, Organic Chemistry, Biological Chemistry, Analytical Chemistry. Thermodynamics, Physical Chemistry, Chemical Kinetics, Transport Phenomena, Reactor Design and Control Theory, for students in various faculties and for university students seeking careers in engineering, systems, architecture, agricultural sciences, veterinarian sciences, medicine, dentistry, pharmacy and biochemistry. During his postgraduate studies he also gave private classes in Partial Derivative Calculus, Calculus of Variations, Fluid Mechanics, Continuum Mechanics, Statistical Physics, Thermal Machines, Quantum Chemistry and Organic Synthesis. After founding the Luventicus Academy, he gave various online courses: Numbers Theory, Geometric Inequalities, Finite Differential Equations, Differential Geometry, Topology, Atomic Models, Solid State Theory, Computational Chemistry, Non-Linear Systems and LiSP Programming. In other institutions he currently teach or has taught the following subjects: Physics, Chemistry and Information Technologies, i.e. in a mid level school (for Administration and Humanities); Research Paper and Presentation Techniques, at a Philosophy school (pre-tertiary level); Algebra and Geometry, Professional Techniques and Chemical Technologies for a higher technical degree in Electronics; Quantitative Techniques (Operational Investigation) and Research Methodology, at a Business Sciences faculty (university level); Unitary Processes (Reactor Analysis), at a Chemistry and Engineering faculty (university level); Air Transport of Contaminants, for a Master in Chemistry (postgraduate level). Juan Jose Luetich also became interested in didactic matters and wrote countless articles that encompass his observations and proposals, among them one regarding the teaching of chemistry to blind students. He has given classes in English for scientific and technical subjects. He is the author of various textbooks and has directed a great many graduate and postgraduate theses. He has also worked in creating and modifying study plans. In that respect, he has been consulted by institutions within the country and abroad.