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San Sebastian - Barcelona October 1st - 7th 2014

Special session: A Coruña October 23rd 2014

*Under the Honorary Presidency of **Bas van Fraassen***

PHYSIS

OLD QUESTIONS ON PHYSIS, CONTEMPORARY APPROACHES

- I. THE PROBLEM OF REALISM: STATE OF THE ART (Under the Patronage of **DIPC, Donostia Institute Physics Center**)
 1. San Sebastian – October 1st - 4th
 2. Barcelona - *50 Years of Bell's Theorem: Physics and Reality*, October 6th - 7th
- II. THE RISE OF THE HUMAN ANIMAL (Under the Patronage of **ATAPUERCA Foundation**)
 1. San Sebastian – October 1st - 4th
 2. A Coruña, special session – October 23rd

Some confirmed speakers:

David ALBERT (Columbia University)	Anna ESTANY (UAB)
F. J. AYALA (Irvine, California)	Steven FRENCH (University of Leeds)
Giovanni BONIOLO (Milano)	James LADYMAN (University of Bristol)
Laura CANDIOTTO (Ca'foscari, Venezia)	Tim MAUDLIN (New York University)
Victoria CAMPS (UAB)	Andrés MOYA. (President of the SSBE)
Eudald CARBONELL (URV-ATAPUERCA)	Jean-Michel RAIMOND (École Normale Supérieure Paris)
Anjan CHAKRAVARTTY (University of Notre Dame)	Simon SAUNDERS (University of Oxford)
Alexander CHUMAKOV (FA, Moscow)	Mauricio SUAREZ (Complutense University of Madrid)
Claude COHEN-TANNOUDJI (Nobel Award - ENS)	Luigi TARCA (Ca'foscari, Venezia)
Alberto CORDERO (City University of New York)	Bas VAN FRAASSEN (Princeton University)
José DíEZ CALZADA (UB)	Francis WOLFF (ENS, Paris)



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www.ontologia.net

Call for papers: Registrations including a one page paper proposal should be sent through the website before 30th June 2014. All papers will be read in San Sebastian from 1st to 4th October. See details in the link www.ontologia.net.

In 1948, Nobel Prize winner Erwin Schrödinger interrupted a course in the Trinity College of Dublin arguing that, before continuing to work on physics, it was necessary for him to know the meaning of the word *Physis*. The result of his reflection was a small book, *Nature and the Greeks*. As he greatly admired the Greek invention of scientific view, Schrödinger seemed to think that returning to the roots was the best way of staying faithful to the spirit of science.

Since its first conference in 1993, the aim of the International Ontology Congress has been to breathe new life into the great topics of Greek philosophy, examining them from a contemporary perspective, namely using the tools provided by contemporary science. These problems keep being brought up constantly, either because of the emergence of new scientific data or because of attempts of new philosophic perspectives. Most of the conferences of the Congress have been held under the auspices of UNESCO.

It is obvious that the philosophical and ontological reflection about nature, what was in other times known as *natural philosophy*, cannot take place without the support of the “natural science of our times”, using Heisenberg's words. From quantum mechanics to linguistics, through paleontology and cognitive sciences, contemporary thought represents a dramatic challenge for philosophy, inasmuch as some scientific discoveries of the last century have mostly contributed to the subversion of the classical conception of nature. Thus, we may apply to quantum mechanics, genetics or paleontology what the mathematician Hilbert said about the Cantorian infinite, i.e., that the contemplation of the issues arising from it “far from concerning just the interests of a specialized discipline, affect the dignity of the human spirit”. In this edition, the International Ontology Congress will tackle two problems that have probably haunted the humanity from the beginning but did really become central for the Greek thinkers; the problem of Realism and the problem of the essence of the human being.

1) From Aristotle to Einstein the scientific representation of nature seems dominated by a small set of principles, among which the most important may be the principle of realism, which posits the existence of physical entities endowed with properties that forge their objectivity independently of the perception that a subject is likely to have of them. Well then: It is well known that quantum mechanics challenges our ideas about the mechanisms that govern the elementary nature, and namely the principle of realism. Nevertheless, the epistemological and ontological position according to



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which the elimination of this principle would make physics impossible, at least in the conventional sense of the term, has defenders both among scientists and philosophers, and this is why it is necessary to try to establish a state of the art.

2) Where, when and how has nature led to an animal endowed with the features of the human being? Old question, several plausible scenarios, no absolute certainties.

The elaboration of a philosophical anthropology in line with the demands of our time begins today with the understanding of the astonishing discoveries about the origin of humans resulting from contemporary paleontology, itself rooted in contemporary genetics. And if linguistics may also play a crucial role, it must be recalled that today's linguistics is also linked to genetics, as became clear some years ago with the enormous interest arisen by the discovery of a possible link between a mutation in gene *foxp2* (short for *forkheadbox p2*) and the emergence of language. The discovery of the fact that the Man of Neanderthal also showed this specific mutation makes it more difficult to know where exactly to place the frontier between human beings and other hominids.

An unavoidable aspect linked to this problem is that of technique. Indeed, the anthropological relevance of the problem of technique (the Greek *techne*, that can also be translated as Art) achieves huge proportions in a moment when the alliance between technology and genetics make it possible for our species to exert a decisive influence on the traits that configure it. This perspective has profound ethical connotations and is disturbing for some, in spite of the recognition of the positive role of technique, e.g. through the advances made possible in the medical field thanks to virtual modeling.

3) The conference will try to establish the state of the art concerning the problems of Realism and Human Nature and this with the aid of the scientists themselves. But philosophy is a discipline that can never be dissociated from its own becoming. That is the reason why the congress expects a broad number of presentations with a historiographical and philological approach. Contributions emerging from the debate in the occidental Philosophy, but also from other cultural traditions will be highly welcomed and a special attention will also be paid to works on the evolution of the concepts of *Reality* and the concept of *Human* due to scientific findings as well as to the rise of new ideological or religious stances.

In short: following the example of Erwin Schrödinger, we try to join scientists of several disciplines, historians of Thought and linguists, with the aim of doing Philosophy together.



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Precedents of the subject matter proposed in previous editions of the International Ontology Congress:

Out of the ten previous editions of the Congress, five of them are related to the subject matter of the current edition:

On the one hand, the third and fourth congresses, entitled *Physis From Greek Thought to Quantum Mechanics* and *Meta tà Physika: A Tribute to John Bell*. They were both organized under the auspices of UNESCO, and relevant personalities of philosophy and physics took part in them, among others the French Alain Aspect and the American Nobel Prize winner Willis Lamb (both members of the Permanent Scientific Committee).

On the other hand, the V International Ontology Congress, under the auspices of UNESCO and with the geneticist Francisco Ayala as an honorary president, was entitled *Genetic Homology and Human Singularity*. Outstanding philosophers and biologists participated, among which we can mention the Nobel Prize winner Christian de Duve. The reflections were extended, once language was explicitly considered as the core of the problem, in the sixth congress. The latter was also organized with the support of UNESCO; with Hilary Putnam as honorary president, and the presence of researchers in language formation like Steven Pinker.

The X edition (*Physis. From Elementary Particles to Human Nature*) focused on the *Physis* that Aristotle wondered so much about, using that single term to refer both to what explains the apparent behaviour of inanimate matter as well as to the traits that characterize living species. Men, that singular animal species are not an exception, having a *nature*, as Aristotle tells us, that makes them inclined toward knowledge. Problems keep being brought up constantly, either because of the appearance of new scientific data or because of attempts of new philosophic perspectives.

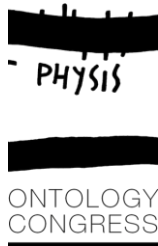
Programs, texts, and detailed information available under: www.ontologia.net

Registration deadline

Registration of communications deadline: **June 15th 2014**. Proposals are reviewed within four weeks after submission.

All papers will be read in San Sebastian between the 1st and 4th of October.

If you need a registration certificate or the confirmation of the acceptance of your proposal (one page abstract) in order to obtain a visa, institutional help, etc., do please register before May 2014. Otherwise, it might be difficult to process it on time. Proposals are reviewed within two weeks of submission.



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Selection Criteria

The utmost priority of the International Ontology Congress and its publication, the Ontology Studies Journal, is the fidelity to the original project of rethinking the great questions of fundamental philosophy, using the tools provided by contemporary thought to that end. For that reason, we will value clarity in the presentation of the problem in the first place. Erudition will be valued just as long as it is instrumental to that end.

Consequently, the evaluation committee of the 11th Congress will take into account a clear link with the congress subject in its different aspects besides from the general scientific and philosophical quality of the paper.

Sections

- I. The problem of realism: state of the art
 - 1) The realist-antirealist debate in contemporary philosophy.
 - 2) Quantum Mechanics and Scientific Realism.
 - 3) 50 Years of Bell's Theorem.
 - 4) The roots of the problem in Greek Thought.
 - 5) The debate of realism through the history of thought.

- II. The rise of the human animal: state of the art
 - 1) The emergency of the language.
 - 2) Neanderthals and Homo sapiens. State of the Art.
 - 3) Genetics and Humanism.
 - 4) Philosophical anthropology and Contemporary Science.



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Coordinator: Victor Gómez Pin (UAB).