Alex Dely reports 7/1/77

on his participation in the interdisciplinary research group at Ghent State University, on a nuclear research seminar at CERN, and on the philosophy club he has started at Illinois Central College.

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At the end of '75, after receiving my bachelor in philosophy at Ghent State University -- I am a native of Belgium -- I decided to visit the United States, which turned out to be so fantastic, I decided to immigrate to America.

However, in the meantime, I realized philosophy ought to become much more aware of science, and since Einstein proved $E=mc^2$, I decided to devote future efforts to the exploration of a philosophical system of "Cosmic-Humanism", the energy philosophy to which I devoted a book. This new system, based on new forms of mathematical calculus and Buckminster Fuller's general systems theory, will try to integrate all sciences and religions, and create a continuum of an evolving man. Thus far my background.

In June '76 I was invited to participate in a 6-month interdisciplinary research group effort of specialists from 9 fields: education, psychology, religion, logic, nuclear engineering, general philosophy, biology, and the physical sciences.

We worked a 6-day week of 14-hour days. In short, here are some of the results of the GSU seminar: the establishment of two new philosophy periodicals, "Philosophica Gandensia" and "Communication and Cognition," of which 12 issues have already been published: "Dimensions of Rationality", "Justification Problems concerning Science", "Metaphilosophy" 1 and 2, "Inductive Logic", and a "Theory of Legal Concepts".

We constantly progressed from abstract theoretical views to concrete applications. Analyses were worked out within our 10 committees, each chaired by an eminent scholar. Thus we started with logic, where Russell and Whitehead's "Principia Mathematica" was heavily employed, together with conflicting views by Carnap and Popper, conflict which we resolved as published in "Philosophica 6", pp.5-27, with the following conclusions:

a) Popper's deductivism must be rejected;

b) Carnap's C-function is a good PC function, valuable in assessing the the probability/viability of a hypothesis, but not a TC-function (Truth Function);

c) a new function, used to determine the degree of confirmation of a hypothesis, ought to replace TC_a and TC_b. Such a new K-function we have developed.

It's obvious Russell's contributions on basics were very necessary in understanding these technicalities.

We developed a new form of Calculus (same issue, pp.75-101), a theory of legal concepts (using the "framework" concept, aiming at the legal unification of the world under law, only viable through axiomatization, however hard to understand.) Further, we analyzed the concept of structure (pp.101-137), working with horizontal and vertical dynamics and variabilities, drawing upon Chomsky.

Shifting towards scientific contributions (work on latest field developments, and interdisciplinary coordination), we then tackled more socially-oriented problems, such as the theories of Karl Marx re-evaluated (pp.137-175), ecology (contributions by Barry Commoner), science and values, science and political power, Marcusian sociology and artificial intelligence related to current U.S. DNA research. Other subjects, yet in manuscript form, will cover Marx, medical ethics, collective action, concepts of meaning, and violence as a means to social change.

Specifically related to Russell,we discussed his views on socialism as outline in Proposed Roads to Freedom, criticized the mysticism of Russell's logic, and built upon his "religion of thought" and his concept of infinity, followed by symbolism in his analysis of matter, in physical terms (on which I concentrated later, at CERN).

Of course, this report makes our activities look like horrid scholasticism which in reality they were not.

All articles mentioned are available through me upon request.

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In the Philosophy Club I founded at Illinois Central College, which we want to form into a Russell Chapter, we'd like to expand discussion, analysis, and synthesis of any of the problems touched upon above or others of concern, and I cordially invite all BRS members to participate by writing. Articles or comments will be published, if possible, in our monthly journal,"Essence".

The purpose of our club is to functinn as a "systems group", treating concepts which are internally linked or are linkable to each other and are in linkage with the "environment of life". Thus we want to develop a synthesis of terminology, method, action and thought.

Our activites will be as follows:

1.1 Formation of committees
1.2 Committee consultations
1.3 Publication
1.4 Organization of courses, confenences, etc., made available to institutions or individuals
1.5 Contacts with natinnal and international organizations and invite guest speakers

Committees:

2.1 System terminology: compile information + publication of the most used concepts
2.2 Abstract models: compile information on current theories and models of mathematics and physico-chemical sciences
2.3 Empirical models:
  a) The industrial system:management principles
  b) Education: goals and methods
  c) Health, environment, etc.
  d) Social systems
  e) Biological systems

Communication and Cognition:

3.1 Study of learning processes, such as developed in psychology and cybernetics

Executive branch

4.1 Establishment of a library and compilation of "systems"literature and catalogue
4.2 Organize courses and coordination of the other committees.

Momentarily, we have 15 full-time co-workers and 80 part-time, both at Illinois Central College and at Bradley University. These institutions offer both faculty and monetary support. I cordially invite and even urge you to participate in these programs.

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The last few months, I've been increasingly interested in the "energy-world-situation", and have taken up the study of nuclear engineering and physics, both for their theoretical value on the origin and composition of the universe, and their practical applications. I had the occasion to remain at CERN, Europe's largest nuclear research facility, to talk to numerous physicists and participate in research on elementary particles, where I got to meet several MIT professors currently working there.

This was all summed up in a one-week symposium, where the ideas of all the greats in the field were discussed, and attempts were made to integrate them. "Quantral formalism" was one of our topics, as it was in 1926 between Heisenberg and Bohr. Bohr's distinction between object and subject has enormous philosophical implications.

The study of Schrödinger's wave mechanics theory explained his fundamental assumption that nature is comprehensivle. Einstein's paradox exhorted the view that the concept of objective reality is an"a posteriori"one. Ernst Cassirer, a major influence in Europe, argued that quantum physics conforms to the principles of Dialectical Materialism and can be expressed within a neo-Kantian framework. Oppenheimer was treated, as of course was Russell with his theories on Atomism and his relation to the empiricist, Hume.

The most hotly debated subject however was, surprisingly, the issue of freedom or determinism, the former being defended by A. O. Heisenberg's supporters, the latter by Nobel Prize-winner Louis de Broglie, who has developed a new thermodynamics theory based on an earlier version of his wave dynamics of particles.

To summarize the issue at the '27 Solvay Conference, Bohr, Heisenberg, Dirac and Pauli proposed to base quantum physics on probability, opposed by de Broglie, Schrödinger and Einstein. In today's schools, the former idea is taught, the latter isn't, though both groups have compiled new data and correct mathematical theories. Thus the issue needed, and needs, to be re-evaluated, which is being done at CERN, Stanford, Chicago (Fermi Lab), and N.Y. (Brookhaven).

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From these projects, I returned with hundreds of books, magazines, articles, and tens of note pads, enough for years of further study. Obviously this account is very random and confusing,since hundreds of ideas keep popping into my head as I write, enough to fill a column for "Russell" for years. I strongly encourage anyone interested in any of the subjects mentioned to contact me.

I have finished another book on logic (covering the triangle dispute, Russell-Carnap-Popper), one on religion and one on physics, plus numerous essays and articles. As I said, enough material to keep me busy for years.

My best greetings and wishes to all members of the Society. It's Russell's spirit, his quest for truth and justice through courage, that we must promote!