

## Soviet scientists and academics debate Creation-evolution issue

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### Historic debates about Creation and evolution

In December 2000 a scientific debate was held in Kiev, the capital of the Republic of Ukraine, between creation oriented and evolution oriented scientists. This debate was a first for academics in Ukraine and Russia, and focused on the topic, *The phenomenon of coexistence of two paradigms: creationism and evolutionism*.

As a result of that debate, a very significant audience (including many scientists who held an evolutionary view of science) was exposed for the first time to the real arguments of scientists who accept the Biblical account of Creation. Even though some evolutionary scientists argued at the beginning that we should 'not waste time discussing stupid ideas', it was decided to continue the debate and to publish the proceedings. This outcome was in no small measure due to the initiative of the organizer, Anatoliy Lisovsky, and the gracious support of I.G. Emelyanov, Dean of Biology, Solomon International University,<sup>1</sup> Kiev.

So, on 24 May 2002, a second debate was held at Solomon International University on the question, *Are macroevolution and progressive evolution real?* Those participating in the second debate received a copy of the proceedings of the first debate. The evolutionary presenters were all from the Institute of Zoology of the National Academy of Sciences of Ukraine (NASU).<sup>1</sup> The creation oriented presenters were from a number of institutes in Ukraine and Russia. The conference was also attended by representatives from other secular institutes in Kiev, the Kiev Bible Institute, the Society for Creation Science of Moscow (Russia), and the Christian Center for Science and Apologetics (Simferopol, Ukraine).

The skillful moderation by Victor Petrovich Turov (senior researcher, Institute of Geochemistry of the Environment, and assistant professor, International Solomon University) helped keep the focus on presenting the evidence for each view. This prevented participants attacking the weaknesses of the other view or disparaging scientists of the other camp. He also emphasized that to decide between the two paradigms testable hypotheses were required, rather

than conceptual arguments only.

It was encouraging that some of the participants moved in their views from dismissing creation theory as unscientific, toward recognizing that both evolution and Creation are theories rooted in metaphysical worldviews. It was heartening also to see that after the presentations some scientists began to understand how the data regarding biological origins can be reasonably interpreted in a creation framework. The first debate resulted in the formation of the Kiev Creation Research Society, consisting mostly of students in biology. We hope that the second round of debates will increase the number of scientists who accept creation science. Proceedings of the debate will be published, and a third conference is anticipated in 2003.

An interesting example of a testable hypothesis was provided by a new bee species recently discovered by the presenter V.G. Radchenko. This bee eats decaying animal remains, like wasps do, yet has leg-hairs similar to those used by other bees for collecting pollen. These leg-hairs are considered an evolutionary pre-adaptation in the transition between wasps (less-evolved) and bees (higher evolved). Future genetic studies could show this species to be a true genetic intermediate, giving a credible inter-familial example of evolution. Conversely, a genetic mosaic of bee and wasp traits would fit the creationary expectation, although the explanation of convergent evolution would no doubt be invoked. Nevertheless, this bee species provides a welcome test between the predictions of the two theories.

### Summary of reports presented

The titles and presenters of the specific reports delivered at the 2002 debate by both the evolution oriented (E) and creation oriented (C) scientists are listed below together with a brief description of their content.

***The empirical basis of the Theory of Evolution—P.V. Puchkov (E)—Institute of Zoology, NASU, Kiev, Kandidat<sup>2</sup> of Biological Science***

Puchkov emphasized that scientific theories should provide testable predictions that serve to move science forward. He insisted that evolution is empirical science and creation is religious faith, which underscores the difficulty we creationists have in getting people to understand that all evidence is interpreted by one's worldview. He did not appreciate that both excluding the possibility of a creator, and allowing for the activity of a creator, are worldview assumptions.

***Spontaneous macroevolution with increasing complexity or intelligent design: what does science show?—V.S. Olkhovsky (C)—Institute for Nuclear Research, NASU, professor, D.Sc.<sup>3</sup> in Physics and Mathematics.***

Olkhovsky considered whether the basic laws of the fundamental sciences permit macroevolution to occur. He concluded that physics, mathematics, and other scientific disciplines say 'No!' He showed that thermodynamics, chemistry, and information science all argue against the spontaneous origin of life, and against the spontaneous increase in complexity from the prokaryotic cell to the higher animals.

**Cladistics, helper of creationists, and real macro-evolutionary processes.—V.G. Radchenko (E)—Institute of Zoology, NASU, Kiev, Doctor of Biological Science.<sup>3</sup>**

Cladistic analysis often produces hierarchical groups that change drastically depending on the details of the characters included in the analysis and how these traits are measured. Even when groupings are stable, they rarely produce unambiguous evolutionary lineages. Therefore, most cladists have pragmatically allowed the groupings to reflect the empirical data independent of evolutionary assumptions, unintentionally providing support for the creationist view.

**Matrices of life—a non-conventional approach to traditional problems.—A.S. Khomenkov (C)—M.S. from Biology Department of Moscow State University.**

All varieties of living creatures can be explained as special transformations of a general initial 'matrix of life' (perhaps represented by the concept of baramins). The report was a good example of how creation oriented scientists not only criticize evolution, but are also developing their own theories to organize life's diversity.

**Some methodological principles in the study of evolution.—A.B. Kornusin (E)—Institute of Zoology, NASU, Kiev. Kandidat<sup>2</sup> of Biological Science.**

Science progresses by proposing multiple hypotheses and then selecting the hypothesis that best fits the data, leading to the formation of new alternative hypothesis, and so on. Modern phylogenetic trees are developed from multivariate analyses of various measures of similarity between species. Although Kornusin believes that evolution explains the pattern of similarities better, he acknowledged that evolutionary speciation was an unobservable historic event, and that creation could be responsible for the similarities.

**Molecular similarity of pseudogenes—evidence of evolution?—Paul Gibson (C)—Dnepropetrovsk State Agrarian University, Ph.D., Genetics and Plant Breeding.**

Drawing heavily on the excellent article *Are pseudo-*

*genes 'shared mistakes' between primate genomes?* by John Woodmorappe, (*TJ* 14(3):55–71, 2000), Gibson showed that the molecular data do not fit the evolutionary expectation of nested hierarchies. When phylogenies are created from such data, they often, or even usually, conflict with each other and with traditional phylogenies.

**The relationship of chordate body plans and various types of animals.—I.V. Zagorodnyuk and D.C. Koroleva (E)—Institute of Zoology, NASU, Kiev. Kandidat<sup>2</sup> of Biological Science.**

Thirty chordate body plans are known from the fossil data and existing organisms. Each differs from the others in multiple major characteristics. The multitude of missing intermediates needed to bridge these large gaps are presumed to have existed only for short periods because of genetic or morphological features incompatible with long-term persistence. Thus these intermediates presumably bridged the gaps, but failed to be fossilized or survive to the present.

**The theory of predestined systems.—V.P. Zhalko-Titarenko (C)—Kiev. D.Sc.<sup>3</sup> in Medical Science, microbiologist.**

All systems must have either developed spontaneously or have been developed for some purpose (predestined). Comparison of the properties of these two systems shows that living creatures belong to the predestined group.

**Various comments about various questions.—N.M. Akulenko (E)—Institute of Zoology, NASU, Kiev, Kandidat<sup>2</sup> of Biological Science.**

Hematic tissues occur widely dispersed through the body and through divergent branches of the chordates. There are numerous such examples of tissue types that occur discordantly with the apparent evolutionary lineage. These could either be explained as parallel evolution or as created design. Akulenko claimed that ontogenesis places certain limits on the developmental possibilities and therefore can channel evolutionary changes in a certain direction, causing parallelism to be more common than expected.

**Geological age of the Earth in light of modern catastrophism: is evolution real from the point of view of modern geology?—A.V. Lalamov (C)—Kandidat<sup>2</sup> in Geology, Director, Geological Research Laboratory (ARCTUR), Moscow, Russia.**

Modern sedimentology affirms that the real features of sedimentary strata that are visible and available for research (as opposed to the gaps between strata, which are not avail-

able for observation and research) are evidence for brief and intensive deposition. Therefore modern sedimentology testifies against a billion-year age for the Earth. Thus, modern sedimentology testifies against biological evolution also by removing the time needed.

### Concluding remarks

Our hope is that others around the world will organize similar opportunities for discussion. Our experience shows that such interaction can be very worthwhile, especially where the opposing views are treated respectfully. A moderator who is fair and respected by both sides is very important, and we were blessed with such. We need to genuinely try to understand our opponents, and respond to the best of their arguments, rather than to respond superficially to ‘straw-men’. For example, rather than say there are no known mechanisms of increasing genetic complexity, we need to acknowledge that genome and gene duplications occur, and then address the possibilities and difficulties of subsequent divergence. We need to admit where we do not have all the answers. We also need to keep the discussion focused, gently coming back to the key issues.

In our view, some of the key issues that need to be communicated patiently but definitely are:

- 1) both evolution and creation theories have underlying metaphysical assumptions,
- 2) similarity itself is not an evidence for inheritance, but can also be explained by design. In order to argue for one’s position from similarity, one must compare the observed pattern of similarities to the pattern predicted by evolution and that predicted by created design,
- 3) treating macroevolution as an extension of microevolution fails to deal with key issues, including:
  - the morphological and physiological limits of selection,
  - the lack of a conceptual basis for large increases in complexity,
  - the lack of experimental evidence for macroevolution,
  - the lack of transitional fossils to bridge major groups of organisms and,
  - geological data that testifies to the young age of the Earth precludes sufficient time for evolution from pre-biotic chemicals to the present complexity and diversity of life.

That such debates occurred between academics is a very encouraging development for creationists in Ukraine and Russia. That it occurred among the academics of our countries could be considered surprising, in view of the long adoption of atheism as official government policy, and evolution as the ‘scientific’ justification for that position, until the fall of communism in the late 1980s and early 1990s. Yet, we hope that similar debate will be possible within the prestigious universities of the West, and that the alternative

interpretations provided by creationists will not continue to be suppressed and ridiculed.

### Notes

1. All of the institutions named in this report have more or less standard English names, which are often used and are unambiguous. The alternative Cyrillic script has not been included in this report because few readers would be able to recognize it and Russian speakers who are fluent in English would easily recognize the name from the English.
2. The Kandidat (Кандидат) Degree usually requires comprehensive subject exams and a substantial thesis. It usually requires 3–4 years almost exclusively devoted to research after a 5 year Specialist degree. The Specialist degree is 4 years of coursework after secondary school, followed by a 5<sup>th</sup> year devoted primarily to a diploma thesis. The Kandidat degree ranges in rigor between an M.Sc. and a Ph.D. in the U.S. system.
3. The Doctor of Science Degree (Доктор Наук) in the Former Soviet Union is distinctly higher than the Ph.D. in the USA. It usually requires at least 10 years of research beyond the Kandidat Degree, numerous research publications, the proposal of some new scientific theory, and strong respect from one’s peers. It is roughly equivalent to a full professor rank in the U.S. system.

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