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Molecular biology and Alexander Dubček? Opening

Marta Kollárová and Ladislav Kováč

We are happy to have you, our distinguished guests, here and we are looking forward both to fruitful exchange of information about research in our respective institutions and to our discussions which may be a start of our closer research and teaching collaboration.

This endeavour has been possible by creating the Alexander Dubček's chair at Comenius University by generous financial support of Spain. Why Alexander Dubček? How is a politician connected with a research on molecular foundations of life?

In politics, Dubček has become a symbol. A symbol of a politician who – however pragmatic in pursuing the interests of his own and of his political group – has specified a limit in political activity that cannot be transgressed under any conditions: No politician can ever accept humiliation by force, which is an assault on a dignity of himself and of the citizens of whom he is a representative. It is irrelevant whether Dubček himself acted consciously and with intention or whether it was just an inevitable course of events that made him a hero. Politics may not be applied ethics. They are rather aesthetic standards in politics the breaking of which should not be allowed under any conditions, as it should have as a consequence disastrous loss of integrity of individuals and of the society as a whole. Politics, hence, is more aesthetics than ethics.

For us, the scientists, Alexander Dubček is a symbol of another kind. His life has been a proof that politics, and social life in general, are no exceptions to the general law of evolutionary progress: There is only one way of achieving progression – by trials and errors, by the ability to generate hypotheses, to make experiments, by the ability to evaluate the trials, the unsuccessful even more carefully than the successful ones, to learn from failures, drawing conclusions from the previous attempts and to come up with new trials, at a higher level of learning and knowledge. This is what Dubček did in his life, first when he was able to abandon his naive communist creed in favour of his „Socialism with the human face“, and the second time in the period after November 1989, when he was slowly and painfully realising that even this idea was an utopia and was gradually moving toward favouring the established European model of open society with market economy and traditional political democracy.

It is in this sense, in considering Dubček as a symbol of the principle that democracy is just a special case of the fundamental evolutionary wisdom, just as another case is our research in science, that we are happy to have the Alexander Dubček's chair at our University and to share our conviction of the creative role of trials and errors, and thus, of liberty of all kinds of enquiry, with you, our Spanish friends.

Molecular biology and Alexander Dubček? Closing

Ladislav Kováč and Marta Kollárová

This has been a successful session - we listened to important research communications and we had fruitful discussions. Yet, an external observer may ask with scepticism: What is

the relevance of research on yeast molecular biology for those urgent problems of humanity to which the name of Alexander Dubček can be symbolically linked and which, implicitly, should be the targets of the Alexander Dubček's chair?

Some of us may argue: The relevance is mediated by the importance of the current yeast research for biotechnology. Our sceptic may go on: Modern biotechnology is a great achievement of the human mind and is likely to change the world in a revolutionary manner. But: By manufacturing human growth hormone in yeast will we improve growth of children of the world that suffer of undernourishment? By engineering yeast to synthesise enkephalins will we reduce human suffering, which is due to injustice and prejudices? By building up biocomputers in which yeast cells would be parts of biochips will we replace ignorance, with its twins of intolerance and arrogance, by understanding and wisdom?

The answer is: No.

Then what, may say the opponent. Why do you bother? And he might go on by asking: Can the study of the yeast plasma membrane ATPase be of any use for our understanding of human behaviour? Can the knowledge of yeast virus killers help us in avoiding human killing, in curbing human aggression? Is there any connection between the detailed examination of mating in yeast and human love and hate?

The answer now is: Yes.

In the turmoil of the contemporary world, we badly need understand human behaviour. We urgently need understand social dynamics. But, in fact, human and social sciences may still be in their prehistory. We stand in face of the appalling ignorance of our own nature and of social forces just as our ancestors in the Stone Age were facing with fear and myths the nature of Nature around them.

But to understand social and psychological phenomena we have to understand the working of the brain. And to understand the brain we have to understand individual cells, to understand exocytosis, endocytosis, information processing at the molecular level.

Darwin was aware of it. This is why he expressed, more than a century ago, this important idea: „Whoever achieves understanding of the baboon will do more for metaphysics than Locke did, which is to say he will do more for philosophy in general, including the problem of knowledge.“ We can paraphrase his statement in our modern terms to say that whoever achieves understanding of the yeast will accomplish more than all those who just speculate and permute the millennia old myths about man and society.

Thank you for participating at this session. Thank you for doing work so relevant for the urgent issues of humanity.