

Tudengikonverents 2008
Teadus ja elu. Sisu ja siht.
 12/09/2008

HANSJÖRG BALDINGER

MA saksa ja prantsuse kirjanduse ja filoloogia erialalt. Pidanud loenguid kirjanduse ja kristlike väärtuste teemadel Šveitsis, Lätis, Leedus, Valgevenes, Venemaal ja Eestis. Abielus, nelja täiskasvanud lapse isa.

Friedrich Dürrenmatt: Füüsikud

Komöödia raputavalt tõsise sõnumiga. Mõtted Dürrenmatti dramaturgiast (21 teesi füüsikutele). Seejuures räägitakse teadlaste vabadusest ja vastutusest. Miks on reaalsus ja teater paradoksaalsed. Valitud lõigud Piiblist võivad anda ootamatuid vastuseid. Maailma paradoksaalsusel on oma põhjused...

KORRALDAJAD:



TOETAJAD:



Tudengikonverents 2008 Tartu, 12/09/2008

(PPT 1)

FRIEDRICH DÜRRENMATT: THE PHYSICISTS - a passionate warning against the hubris of feasibility

(PPT 2)

1. INTRODUCTION: HOW TO FIND ORIENTATION IN THE „GLOBAL VILLAGE“

“Freedom and responsibility in science” is a very wide and complex topic. It is fundamentally connected with the ethical question of “right” and “wrong”. How to find orientation in the various areas of scientific research and in the fast process of transformation in our society?

Please, let me summarize the characteristics of our époque, at least in Western Europe:

- Global communication + global concurrence
- Primacy of economy with all it's implications, Materialism/consumerism (in all areas of life)
- A lifestyle canalised and controlled by computer-systems
- Loss of common values, traditions, standards
- And last but not least: “gender mainstreaming”, the ideology that proclaims the freedom of gender identity.

(PPT 3)

- The main challenge in this context is to know what is “right” and “wrong”, what is “good” and what is “evil”.
If we think about freedom and responsibility in science we need to find answers to these simple but fundamental ethical questions.

The basic premise of post-modernity is very simple: there is no absolute truth. Truth can be found only in a permanent discourse. Such a discourse can define truth only for here and now. What will be true tomorrow, elsewhere, we can not know now.

How to find out “right” and “wrong”?

In my opinion the question of “right” and “wrong” is even more important than global warming or social justice. It is controversial what I say, I know. (I grew up in a family where protection of environment was maybe the main topic 55 years ago already. My father was the first director of the Swiss office for protection of the environment. I am more “green” in my practical life than many politically “green” people. Global warming, protection of environment, promotion of peace are very important topics). But if there is any absolute truth, if there is God, then all other problems in heaven and on earth will find a solution through the

(PPT 4)

obedience toward this truth. The conflict and the challenge in this area are enormous big. Jesus said: “I am the way, the truth and the life.” (cf. John 14,6). Jesus, the risen Lord, is the centre of our topic. Jesus expressed a deep interdependence between truth and life. Both truth and life are concentrated in HIM. If we are thinking about science and life, about content and purpose of science and life, we have to put this challenging word into the centre of our reflection.

Jesus Christ is the fundament, the point of departure and the aim of all sciences and of all knowledge. Jesus was before the foundation of the universe, Jesus was, is and will remain the same until the end of it. Jesus exists beyond time and space.

(PPT 5)

Paul writes in his letter to the early church in Colosse (2,3):

“In Christ are hidden all treasures of wisdom and knowledge.”

If Christ really is the way, the truth and the life, then all truth is concentrated in him. The main aim of sciences is to find truth in the visible (empirical) world and in the invisible world. Even the question to know whether or not there is water on Mars is in principle motivated by the question of truth. (Was there water, was there life, if there was life, what implication does it have to the origin of the universe...??) The famous question of Mephisto in Goethe's “Faust” is still very current: After having studied all kinds of sciences and humanities Faust expresses his existential longing: “to know what the world (universe) keeps in existence”. What is in the most inner centre of the world? This is the question to know what is true beyond time and space.

The modern theory of knowledge is focussed on empiricism. The focus to the empirical world has brought fascinating results in all areas of modern sciences but is nevertheless a arbitrary premise.

It remains the question of “good” and “evil”. This ethical question can not be answered only by empirical sciences. For these kind of science is limited to the materialistic world. Absolute truth, however, includes the immanent and transcendent reality. This represents a wider understanding of reality than empirical sciences can provide.

(PPT 6)

Conforming to the word of Jesus, there is only one absolute truth. If Jesus is the unique (absolute) truth, he is relevant in all areas of existence. That means Jesus, his life, his deeds and his teaching, his crucifixion and resurrection is relevant in all areas of sciences, humanities and art as well. The claim of Jesus is not only for Christian believers but includes the whole universe in space and time.

And: He not only shows the truth, but he says: I am the truth. This is unique.

How to get orientation between freedom and responsibility in scientific work in a society that rejects the existence of absolute truth on principle?

(PPT 10)

2.2. The question of freedom and responsibility in sciences

(PPT 11)

Moebius says:

„... What we think, has it's consequences. It was my duty to think about the effects of my scientific discovery. My conclusion was disastrous. The results I have found would allow man to develop a new technology which was beyond all imagination. I had to prevent that my scientific results got known.”

(PPT 12)

Einstein:

“This will unavoidably happen.”

Newton:

“The question is only who will get this information **first**”.

What or how we think is very important. That's why the question of world-view is of first priority. What we think we will pronounce and what we will say we will put into practice. It is like a seed. Afterwards it grows and bears fruit. That's the reason why the Bible gives so strict warnings to control what we think and speak.

...

(PPT 13)

Newton:

“... we wanted to bring back the most famous physicist of all times into the community of physicists. To reach this aim, the support of every General Staff is o.k. [litterally: “holy”] for me. It is the matter of saving the freedom of sciences [f.eg. physics] and of nothing else. Whoever can guarantee this freedom of science doesn't matter. I am serving every system, as long as this system let me quiet.”

This is a very dangerous attitude: I am serving every system as long as it lets me quiet. This is the self-centred, irresponsible attitude. As long as I have my peace (my salary, my social security, my personal freedom) as long I am serving every stream, ideology, political system. Politically spoken this is the attitude which supports dictatorship, maybe corruption, unjust economical systems a.s.o.

(PPT 14)

“I know, today people speak about the responsibility of the physicists. Suddenly fear came up inside us and we became moralists. That's nonsense.

Our duty is to do pioneering work and nothing else. Whether or not humanity will be able to walk on the way we are preparing that's humanity's matter, not ours.”

Newton expresses some major arguments for unlimited freedom in science. He represents absolute freedom in science. His attitude rejects every responsibility of scientists.

Moebius represents responsibility, consciousness about the consequences of scientific discovery:

(PPT 15)

Moebius:

“At the university I could become famous, the industry would have payed much money for me.

Both ways, however, were too dangerous. I would have had to publish my manuscripts, ...

Responsibility forced me to choose another way.

I stopped my academic career, sacrificed a top position-job in industry and abandoned my family to it's own destiny.

I chose “the jesters cap and bells” [Narrenkappe].

I pretended King Salomon was speaking to me and immediately they put me into the psychiatric hospital.”

(PPT 16)

Moebius:

“We know a few exactly ascertainable (erfassbar) facts and laws,
We know a few fundamental relations among incomprehensible phenomenon. That’s everything.
The huge rest remains hidden, inaccessible to reason.
We reached the end of our way, but humanity remains widely behind us.
We were pioneers but no one followed us, we advanced into emptiness.
Our science became terrible, our research dangerous, our knowledge mortal.”

(PPT 17)

My unique chance to remain undiscovered was to feign to be mentally ill. Only in the psychiatric sanatorium we are free. Only in the madhouse (Irrenhaus) we are allowed to think. In freedom our thoughts are dynamite.“

(PPT 18)

Mrs. Dr. Zahnd says about Moebius:

“He tried to hide what could not be hidden,
His revelation was not a secret, for it is thinkable. What we can think will be thought one day. Now or in future.”

Möbius:

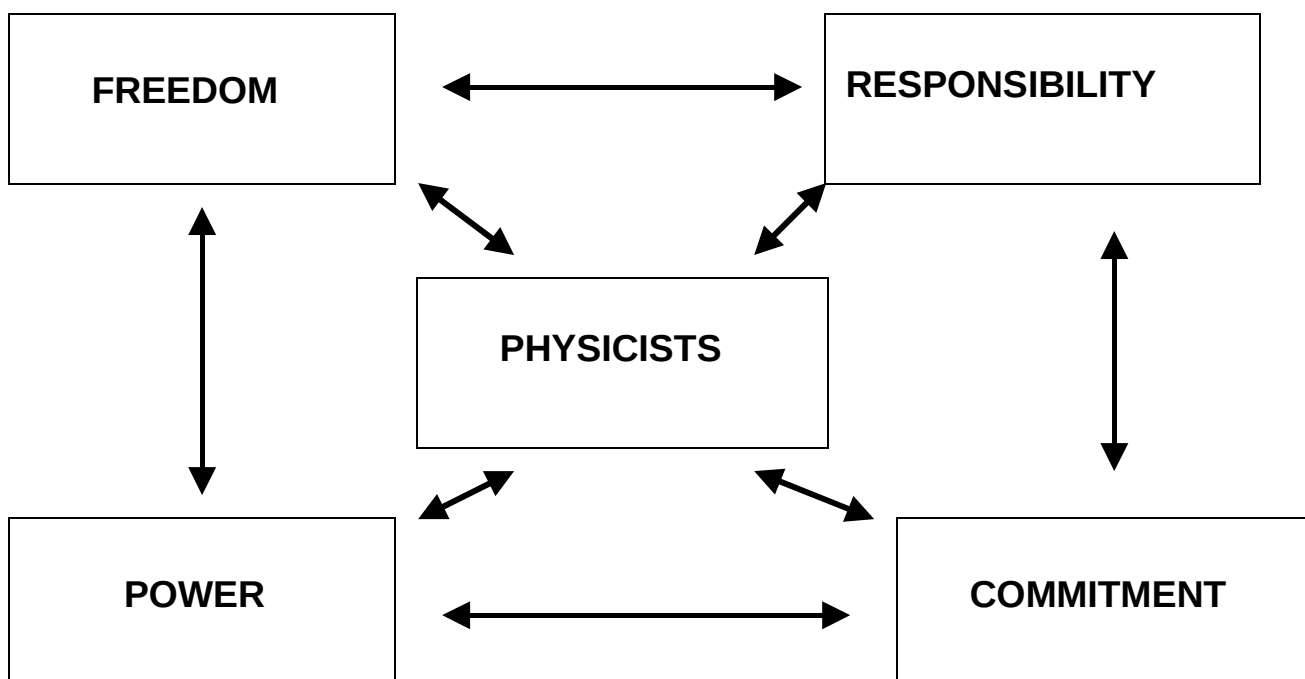
“What once was thought, cannot be taken back.”

This is a crucial problem: If I do not think or make some scientific discovery someone else will do it instead of me. So, it doesn’t make sense for me, not to pioneer new scientific areas, even if they are dangerous. If I don’t do it, someone else will do it.

It is an expression of resignation and conformism (adaptation to the mainstream). And this kind of resignation and conformism become like a self-defence / self-justification.

(PPT 19)

Diagram about freedom and responsibility:



The diagram explains how the physicist acts between 4 different areas. It shows us the balance of forces / challenges.

Newton / Einstein represent power and freedom, Moebius responsibility and commitment.

(PPT 20)

2.3. Comedy and paradoxical reality

The literary form of Dürrenmatt's physicists is a comedy. The comedy makes us laugh. It seems the action in the comedy is ridiculous. In fact it is, however, deeply tragic. Moebius wants to avoid the catastrophe his scientific discovery could provoke for humanity. But exactly what Moebius desperately wants to avoid happens.

At the first moment the action appears ridiculous but basically the end of the comedy is paradoxical. This contradiction makes us laugh.

In the 21 theses Dürrenmatt wrote in connection with "the Physicists" he explains that the nature of reality is paradoxical.

Moebius tried to hide his knowledge but it was published and applied. What he desperately wanted to avoid happened.

If we look to history we see that reality is in fact paradoxical. Dürrenmatt wrote his comedy about 15 years after the first atomic bombs were devastating the Japanese towns Hiroshima and Nagasaki. Nuclear power should be used for civil aims but first it was used in war.

Paradoxical fruits is a characteristic of all ideologies.

To understand the reason for this paradoxical nature of reality (including sciences) we have to go back to a very old text:

(PPT 21)

2.4. The original reason for a paradoxical world: The original fall (1.Moses 3)

This passage is a key-passage for understanding reality and human nature.

Eve did not eat an apple as most of the people think but she took a fruit from the tree of knowledge (distinction) of good and evil.

Before Eve and Adam ate of this fruit, everything was perfect, a perfect relation between God and men, between husband and wife, between men and creation. There was no paradoxical nature in creation.

Eve and Adam went beyond a limit set by God. The consequence was obvious: broken relation between God – man – nature and last but not least: the broken identity of man.

Genesis 3 is a key-passage to the understanding of man and reality.

Man and reality are broken. That's the reason why reality appears paradoxical. Man wants to improve the world and ends often up by destroying it. Mostly all ideologies in history and presence bear this paradoxical nature in itself.

Moebius represents responsibility and duty. He pays a high price to hide his knowledge. He sacrificed even his life. But Moebius ends up in a paradoxical way: His knowledge has been abused by Dr. Mathilde von Zahnd.

The final reply (sentence) of Moebius as King Salomon is very instructive:

(PPT 22)

Möbius:

“I am Salomon. I am the poor King Salomon. Once I was rich beyond measure, wise and full of fear of God...

I was the prince of peace and of justice.

But my wisdom has destroyed my fear of God,

and when I started not to fear God anymore

my wisdom destroyed my wealth.

Now my towns are dead, which I was ruling over, my kingdom is empty, which was entrusted to me, a bluey shimmering desert,

And somewhere around a small, yellow nameless star turns, senseless, permanently the radioactive earth.

I am Salomon, I am Salomon, I am the miserable King Salomon.”

Imagine the scene: After these last words Moebius, the unique actor on the platform leaves the place, and the stage remains empty.

In this reply Moebius (and I dare to say) Dürrenmatt explain the reason for this catastrophe:

“... my wisdom has destroyed my fear of God,

and when I started not to fear God anymore

my wisdom destroyed my wealth.”

This sentence looks like a frightening literary prophecy.

Wisdom and wealth beyond measure have destroyed the fear of God.

The term fear of God is the key-word in this passage.

(PPT 23)

2.5. “Fear of God” and science

To fear God means

- To honour him as creator and ruler
- To honour him by listening to what the Bible says
- To glorify him through scientific work (studies and research as worship and Christian [church-]service
- To recognise and accept man’s limits
- To use scientific knowledge conforming to God’s creation and for the advantage of men

It is not less scientific or less intelligent to make scientific research from the Christian point of view.

In research Christians and atheists observe the same scientific phenomenon, but the interpretation/explanation of the scientific facts is different. Scientists who believe in by chance guided evolution or scientists who believe in God’s creation work with the same methods but they explain the question of the origin of the universe differently. The consequences of these interpretations are, however, fundamentally different. If man is only a by-product of by chance

guided evolution we handle each other differently as if man is the crown of creation and originally created by God and responsible to Him. It's a question of dignity of man as history shows us. There is no reason for Christians to be ashamed to connect scientific research with fundamental Christian values. By the contrary: They must proceed in this way and bring advantage for individuals and society.

If scientists fear God the creator, they work scientifically in the framework of his word and will. "Good" is to do what corresponds to the will of God. "Evil" is to follow once own interests, to follow God of money (Mammon). Let me make a personal remark: Money, with the biblical term God Mammon, rules over Europe and the world. We have to make a decision: Either we follow the Trinitarian God as it is described in the OT + NT, and as we know him through our personal relationship, or we serve Mammon, the global money-system. And as Dürrenmatts comedy showed clearly, freedom in science is not real freedom but sciences are directed by money and power much more than we may think.

The fundamental question to know what is "good" and what is "evil" ,I raised at the beginning, gets an answer through the words of a modern author.

Human knowledge without the knowledge of God will bring us to a negative end. A nuclear catastrophe is possible every day. Global warming will transform our planet, the inner psychological devastation of the inhabitants in Europe brings enormous problems. The "inner environment" (soul and spirit) is as much in danger as the natural environment. Reason for itself, as the century of illumination pretended, cannot help us to make the right distinction between "evil" and "good".

"Good" is, what corresponds to the word of God (Bible) and what is advantageous for men. "Good" is what promotes and supports life. Abortion f.eg. or global economy or abuse of environment or military industry is not in favour of life.

Freedom in sciences, humanities and in arts, disconnected from "fear of God" is negative for men. The orientation away from the God of the Bible will have negative consequences.

To know what is "right" and "wrong" in our post-modern society, to find orientation in sciences we must fear God again and reflect the consequences of our scientific activities: Do the results correspond to God's creation, to his will for this world or not? Do they promote and support life or not?

(PPT 24)

In Switzerland there was professor for physical chemistry. His name was Max Thürkauf. He made a very honourable career as leader of an institute of the university of Basle. The French government called him to lead a project in France, but when France let detonate it's first atomic bomb Max Thürkauf realised the dangerous dimension of this development and gave up his academic career and became a Christian. He raised his voice against the blind believe in sciences. He paid the high price to stand up against the mainstream of "scientific correctness" (mainstream). He became a well known spokesman of Christian faith. He went this way in the same time as Dürrenmatt wrote his comedy.

(PPT 25)

Science and life. Content and purpose.
Content and purpose of science and life:

Jesus says: I am the way, the truth and the life.
And:

Christ contains all treasures of wisdom and knowledge.

If this claim of Christ is true then it is true for all areas of sciences, humanities and arts.

Your challenge is to apply these two verses into your studies and later in your scientific work. What does it mean in medicine, in law, in psychology, in sociology, in education...?

My prayer is, that God will raise a generation of Christian scientists who make intelligent and pioneering research, fearing God and connecting all scientific results with the Christian fundamentals. This will be a blessing for the world.

May the living God bless you on this way!

Thank you for your attention.