Неопределенность в описании биосоциальных явлений, норма и раскол между сторонниками профилактики и моралистами

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The schism between preventionists and moralists over what the correct strategy of HIV/AIDS control should be is evident internationally. We suggest that the roots of this schism have a fundamental nature.

What they suggest

“Preventionists”:

The more sexual education and harm reduction, the better.

“Moralists”

As little sexual education and harm reduction as possible.

Preventionists and moralists use complementary descriptions of the same biosocial phenomenon.

Preventionists attempt to exactly describe and fix biomedical parameters

Moralists attempt to exactly describe and fix social and moral parameters.

The usage of two complementary descriptions of the same biosocial phenomenon is the reason of schism between preventionists and moralists.

Preventionists and moralists use complementary descriptions of HIV/AIDS epidemic, sexual behavior and drug addiction. That is why they do not understand each other.

Uncertainty in descriptions of dual-natured phenomena

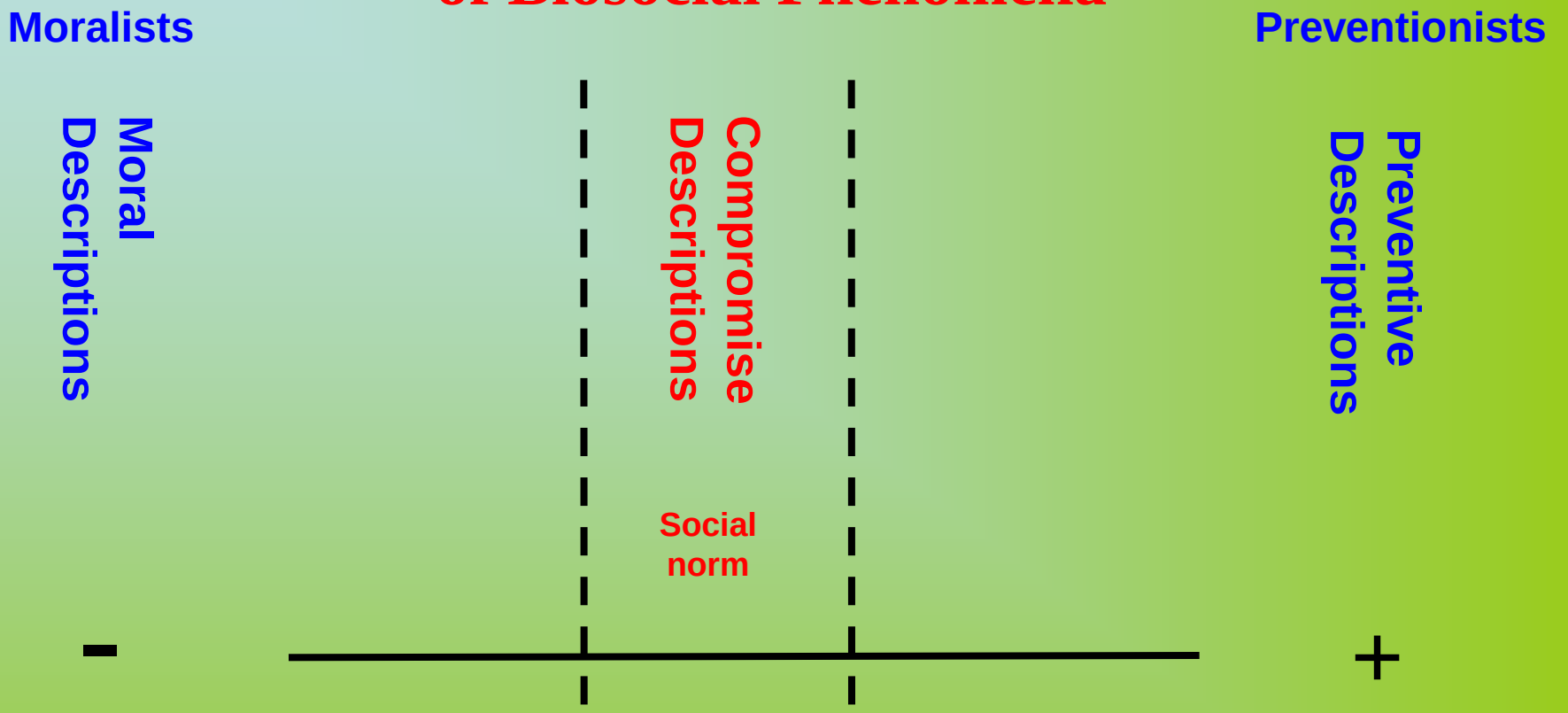
It is not possible to measure both moral and biomedical parameters of any biosocial phenomenon exactly and simultaneously. It is also not possible to adhere strictly and simultaneously to both prevention and moral descriptions (theories) in practice.

Approximate descriptions of dual-natured phenomena

If we still want to use both types of descriptions simultaneously it is possible only in approximate form. Approximate values of biosocial parameters lay between the extreme values of alternative complementary descriptions.

The compromise may be defined as the approximate description (measurement) of biosocial parameters.

Uncertainty in Descriptions of Biosocial Phenomena



Sexual education in schools, harm reduction, methadone therapy, HIV screening, abortions

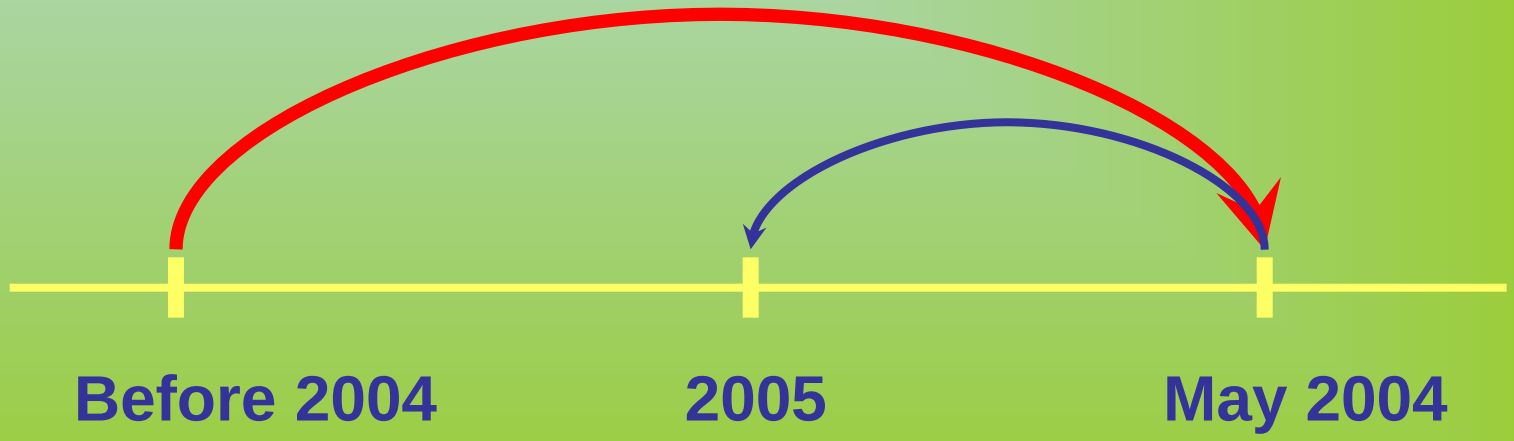
How do we reach a compromise?
(How do we approximately measure biosocial parameters?)

Mechanism of compromise is parliamentarism in a broad sense of the word.

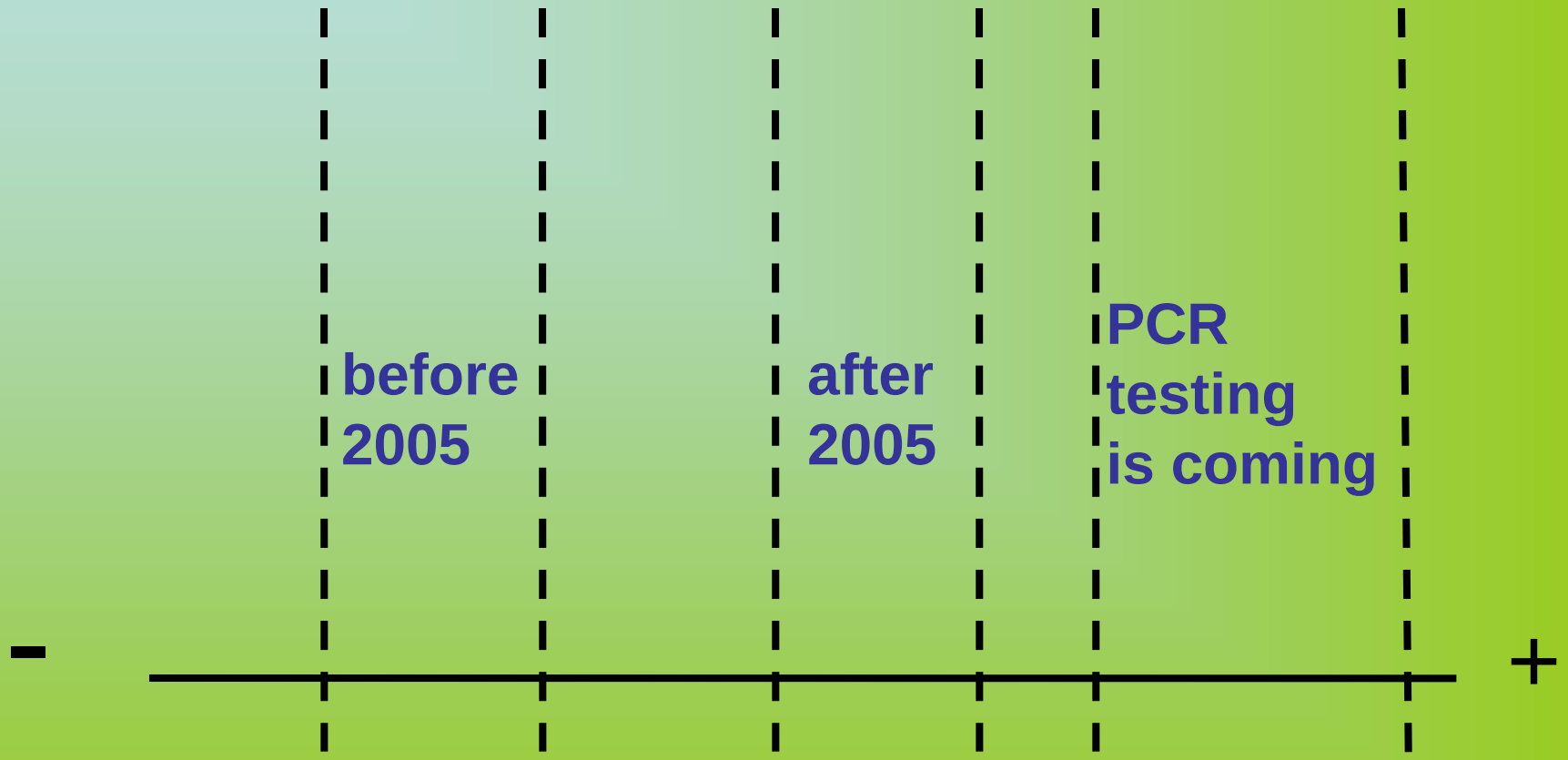
Politicians, the only masters of compromise, are often labeled as unscrupulous.

If we measure approximately how we reach the goal?

The size of “minimal personal single dose” of illicit drug in Russia as determined by special decisions of the State Duma



Attitude to routine HIV testing in USA



Establishing a bracket

Principle of “artillery bracket” or feedback in goal achievement have been used by people for ages. As a scientific principle it was generalized by N.Winer and forms the basis of cybernetics.
In human society, when achieving major goals, this principle reveals itself in periodic changes of policy towards a problem if it is not resolved.

Compromise and norm

The “norm” is “a standard, model or pattern, regarded as typical: social norms”

The American Heritage College Dictionary 2002

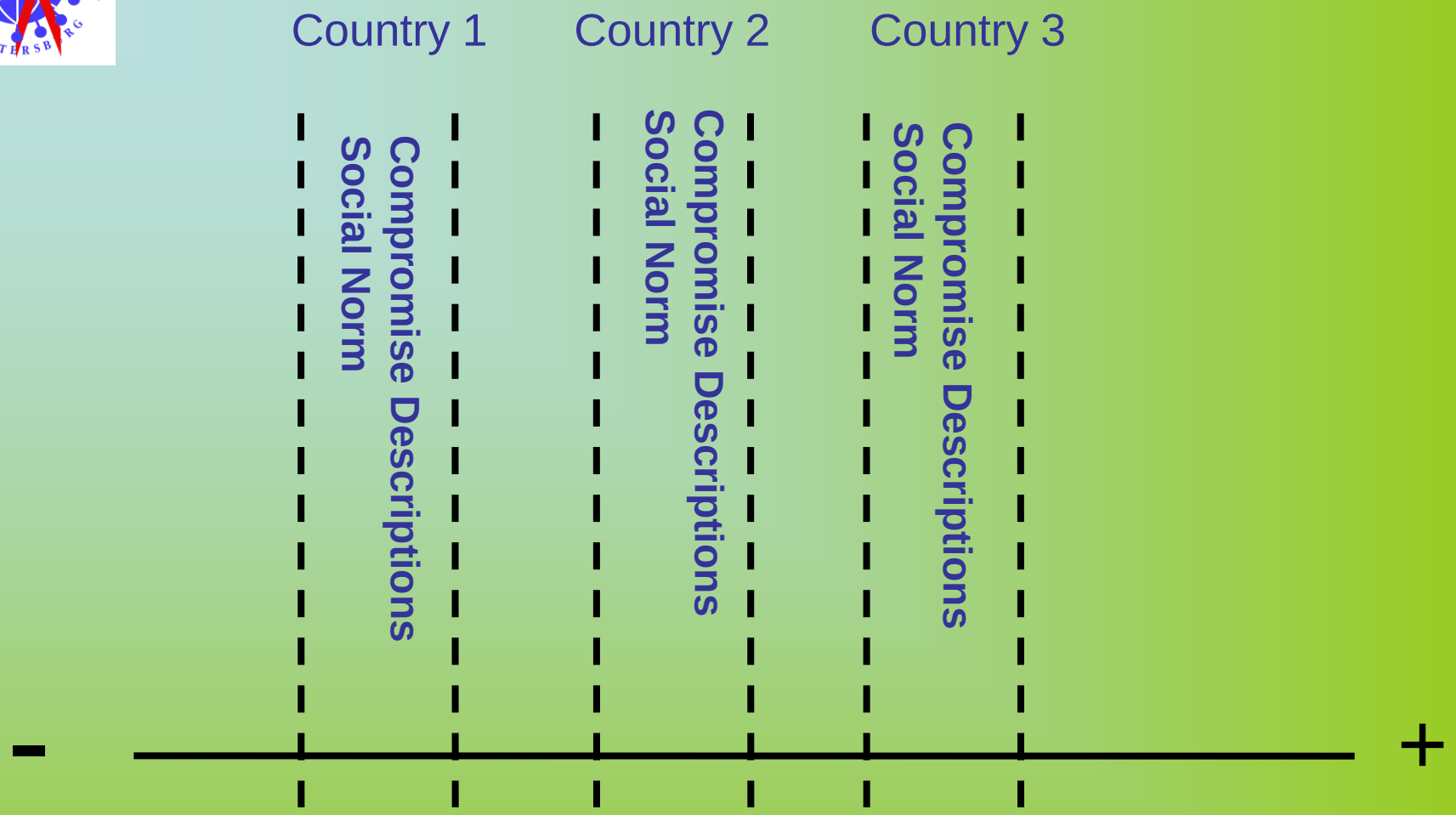
A rule generally accepted in a certain community, an opinion or a maxim expressed as a law

Large Soviet Encyclopedia, second edition 1953

Some norms are more fundamental or conservative, whereas other may change and evolve more readily. Deviations from a norm are inevitable, but there is still a general gravitation towards it. Social regulation is connected to the social norm. The system of social norms determines self-regulation of the society.

The concept of “stigma” should be discussed in the context of its connection to the social norm.

New social norms and new forms of social partnerships are generated on the bases of compromise which can be achieved as the result of complicated interaction of new complementary descriptions (“different opinions”) with existing norms.



The results of a compromise will be different in different societies

Attitudes toward mild narcotic substances are quite tolerant in some Eastern cultures.

Different compromises in different countries may yield equivalent resolution of a common problem. For example, Australia and Sweden have different policies on the control of illicit drug use, but both countries are successfully controlling the spread of HIV.

Scientists often think that scientific evidence is sufficient to change social norms. Is it correct?

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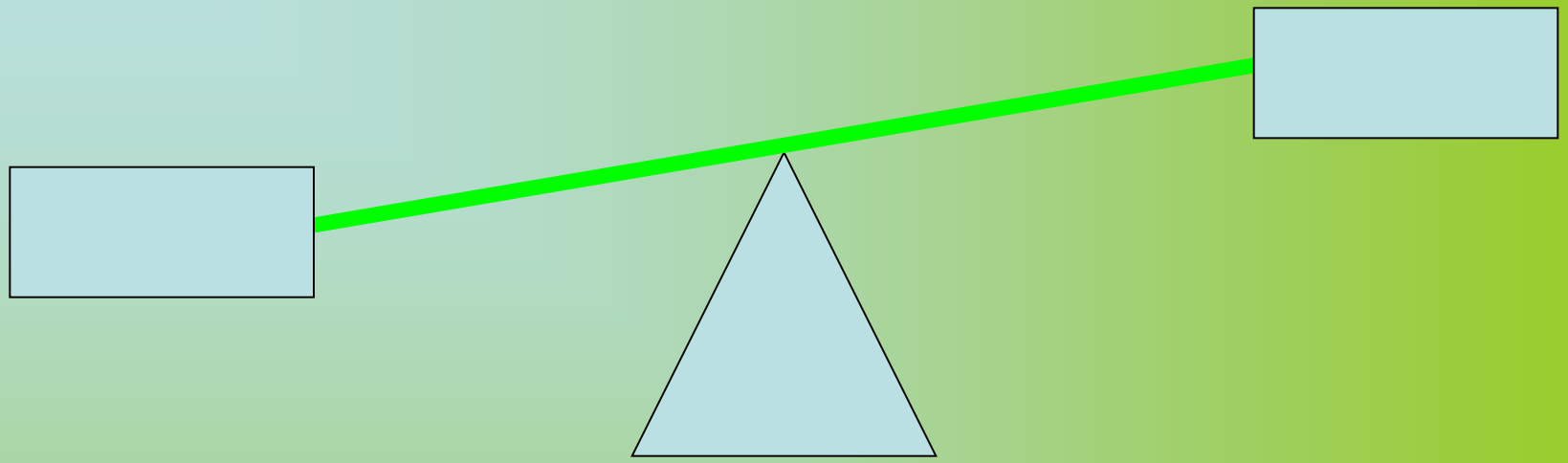


Social norms:
- hundreds of millions of people X thousands of years

Research:
- thousands of people X several years

Is science sufficient for changing social norms?

Nikita Nikolaevich MOISEEV

Фонд глобальных проблем выживания человечества
имени Н.Н. Моисеева

Библиотека журнала «Экология и жизнь»

Никита Николаевич
Моисеев

Заслон средневековью

Сборник

Tyranny of Truth
Belief in the power of practical experience

«Тайдекс Ко»
Москва
2003

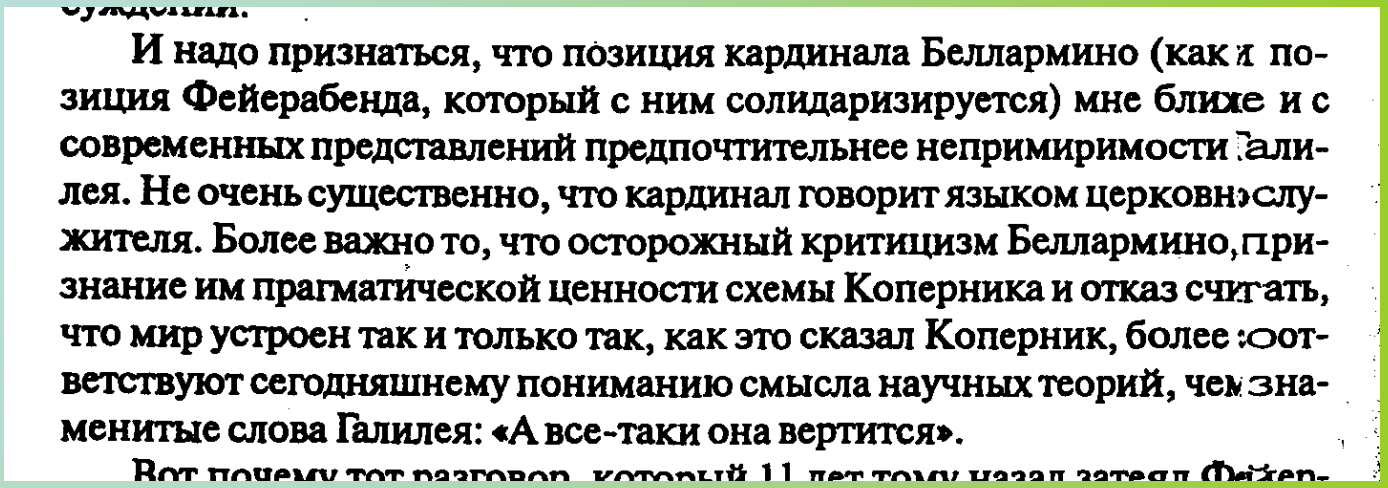
ТИРАНИЯ ИСТИНЫ
Вера в силу практического опыта

В июле 1998 года «Независимая газета» опубликовала интересный доклад Поля Фейерабенда «Галилей и тирания истины», представленный еще в 1987 году Краковской католической академии. На русском же языке он был опубликован впервые. В этом интересном докладе рассказывается о событии начала XVII века, которое сыграло важную роль в истории науки и общественном сознании, — о хорошо известном конфликте Галилея и церкви. Конфликт был связан с обсуждением той картины мира, которая впервые была представлена Коперником. Автор доклада сопоставляет непримиримую позицию Галилея и позицию церкви, сформулированную кардиналом Беллармино в той дискуссии.

Несмотря на то что в докладе обсуждаются вопросы почти 400-летней давности, они вполне современны и, по существу, являются иллюстрацией к одной из важнейших «вечных» проблем: месту науки в современном обществе, ее ответственности и праву на безапелляционность суждений.

И надо признаться, что позиция кардинала Беллармино (как и позиция Фейерабенда, который с ним солидаризируется) мне ближе и с современных представлений предпочтительнее непримиримости Галилея. Не очень существенно, что кардинал говорит языком церковнослужителя. Более важно то, что осторожный критицизм Беллармино, признание им прагматической ценности схемы Коперника и отказ считать, что мир устроен так и только так, как это сказал Коперник, более соответствуют сегодняшнему пониманию смысла научных теорий, чем знаменитые слова Галилея: «А все-таки она вертится».

Вот почему тот разговор, который 11 лет тому назад затеял Фейерабенд, поднимает вопросы, далеко выходящие за рамки астрономии и физики. Их общественное звучание становится все более значимым по



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Вот почему тот разговор, который 11 лет тому назад затеял Фейер-

It must be admitted that cardinal Ballarmino's position … is closer to me and more preferable than implacability of Galilei. It is not vital that the cardinal speaks language of a clergyman. It is more important that careful criticism of Ballarmino, his acknowledgement of pragmatic value of Copernic's scheme and refusal to believe that the world is arranged exactly as Copernic says, corresponds more to the present day understanding of scientific theories than famous words of Galilei "And still it's revolving".

Mankind shall have to refuse from illusion of boundless possibilities… Science is not autonomous… It is involved into “wider institutions”… Mankind faces the inevitable change of civilization paradigms. It needs quiet wisdom of democracy courageous enough to refuse the supremacy of dogmas which I call “tyranny of truth”.

It is democracy that is to create a new scale of values common to all mankind with the help of science and other institutions…

N.N Mioseev ”Tyranny of Truth”

Medical Hypotheses (2006) 67, 433–436

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http://intl.elsevierhealth.com/journals/mehy

Editorial

Despite their inevitable conflicts — Science, religion and New Age spirituality are essentially compatible and complementary activities

ciency and effectiveness [13]. Although science continues to expand its scope, it is based around progressively narrower truth evaluations and therefore leaves-out many social and individual functions — aesthetic, economic, legal and so on. Science also leaves-out those religious functions which are well-served by 'social' churches and personal spiritualities. Therefore, science will never take-over the whole of human life.

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2003.

Bruce G Charlton
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Proposals have been made for scientists to engage with other communities on the ethical, legal, and social implications of science and technology and for the "public voice" to be brought into the formative stages of decision making.

EDITORIAL

Where Science Meets Society

The theme for next week's American Association for the Advancement of Science (AAAS) annual meeting, "The Nexus: Where Science Meets Society," reminds us of many events of the past few years that suggest that the relationship between science and society is undergoing significant stress. Some members of the public are finding disquieting, while others challenge the kin in attitudes predict a more difficult and i we've enjoyed in the recent past.

Examples of these strains in the relationship inclu cloning and stem cell research. Although many underst troubled about scientists working so close to what they ideology came dangerously close to publicly trumping only two votes to defund a set of grants from the Nation HIV/AIDS, and drug abuse that made religious conse research was critical to solving major public health community is enmeshed in a continuing battle to keep t whether schools should be allowed to teach non–science-l evolution in science classrooms.

The common thread linking these examples is that sci more frequently with certain human beliefs and values closely on heavily value-laden issues, members of the role in both the regulation of science and the shaping of

To many, this appears to be a new dimension of th (in truth, it may be a recurrent dimension, because the sa at other historical moments). We've been used to having s primarily on the basis of potential risks and benefits. H suggests that a third, values-related dimension will influen in the future. Taizo Nishimuro, chairman of the board at To and Technology in Society Forum in Kyoto, Japan, in N and technology have changed society, society now is lik to help shape their course.

For many scientists, any such overlay of values on t and our historic success. Within the limits of the ethical believe that no scientifically answerable question sho inquiry to bear on society's most difficult questions is world things that it might not initially like.

Independence and objectivity in the shaping and cond ability to serve society. Still, our recent experiences sugg a while, and that we need to learn to work within this constraints on science has been the usual response, but it

An alternative is to adopt a much more inclusive a discussing the meaning and usefulness of our work. We discourse. We have had some success with programs su Ethical, Legal and Social Implications program. Anoth and Religion, which brings scientists together with relig and how they relate to other belief and value systems.

Simply protesting the incursion of value considerations that insanity is doing the same thing over and over and ex discussion and see how that goes for a change.

Chief Executive O

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Going public

Should scientists let the public help them decide how government research funds are spent? Yes they should, because the consequences are to be welcomed, not feared.

Science communication, *circa* 1600: discussions with the public, according to one prominent researcher, are little better than listening to the "maunderings of a babbling hag." So said William Gilbert, a pioneer of research into electricity and magnetism.

Today's scientists are, at least in the main, a more open-minded bunch. But the prejudices and fears that underlie Gilbert's remark have not entirely gone away, as reactions to some new initiatives show.

Take last month's report by Demos, a UK political think-tank. For many researchers, it will make frightening reading. The left-leaning Demos makes the first coherent call for 'upstream engagement'—the involvement of non-specialists in setting research priorities. British scientists have seen the public swayed by misleading media coverage of genetically modified (GM) food and vaccines. For them, the proposal must seem close to giving the lunatics the keys to the asylum.

Such concerns will not be restricted to Britain: environmental organizations across Europe are committed in practice to ending research into GM crops. Some religious groups in the United States would end research involving human embryos if they had the power to do so. And it would be impossible to develop safer and more efficient nuclear power stations, which will probably be needed to tackle climate change, if anti-nuclear groups have too much influence on research policy.

Yet there are good reasons why scientists should ignore these fears and embrace upstream engagement. On an ethical and political level, the research community has no right to reject public involvement outright. Taxpayers fund research, buying themselves the right to help shape its course. Objecting to public involvement would simply undermine the current enthusiasm shown for science funding by some governments, such as those in the United States and Britain.

Balance of power

There is also plenty of evidence to suggest that upstream engagement, if managed properly, will not bring an end to any area of research. Such engagement is already being quietly and usefully practised in the research-charity sector, where the trustees of many funding organizations are non-scientists. And the slew of new initiatives being proposed for the public sector involve giving the public less power than the trustees, and certainly not a veto over research spending.

When worrying about engagement, British researchers may also be swayed too much by the GM fiasco, in which propaganda put out by environmental groups and the biotechnology industry made public debate extremely difficult. But other exercises have proved less combative and more fruitful. The Natural Environment Research Council, for example, last year ran public consultations on a new research programme. It led to a new theme — the sustainable management of marine bioresources — being added to the programme.

Get the process right, and other consultations could produce equally meaningful input. No one wants to haul people off the street and make decisions based solely on questionnaires. There are numerous mechanisms for engaging the public, from citizens' juries to consensus conferences and deliberative mapping processes. The details vary, but all involve giving non-specialists access to a range of different perspectives on a particular topic, and allowing them to develop their own recommendations through structured discussion. Sociologists say that the techniques need to be evaluated to see which works best, but that's no reason not to start now.

Funding bodies are the obvious target for engagement exercises. In the United States, the National Institutes of Health (NIH) faces increasing lobbying from advocacy groups, often representing the needs of patients with a specific disease, who want the agency to do less basic research and more drug development. Public engagement could help the NIH bolster its efforts to incorporate a broader range of views into its decision-making processes.

Nothing to fear

In many European nations, there is little call for upstream engagement. But Britain, where a lack of public trust in science is perceived as a serious problem, is a notable exception. Not all of the country's funding bodies have taken this on board. The Biotechnology and Biological Sciences Research Council, which is setting up a permanent committee of non-scientists to advise on strategy, leads the way. But the Engineering and Physical Sciences Research Council (EPSRC) has lagged behind. This is worrying, as the council funds research in nanotechnology, an area of science that could one day transform everything from drug delivery to computing.

Judging by the few consultations that have already been run on nanotechnology, the EPSRC should not fear public involvement. Non-specialists tend to reject the call for a moratorium on nanotech research made by one more extreme environmental group. Instead, they suggest that environmentally useful applications, such as new solar-power systems, should be made more of a priority. More work on the environmental impact of nanoparticles is another common request — a call echoed by July's report on the same topic by the Royal Society and the Royal Academy of Engineering.

Upstream engagement is no panacea. On its own, it won't solve Britain's crisis over trust in science. Nor will it resolve thorny questions about what types of science are worth pursuing, and which should be avoided because of links to technology such as weapons of mass destruction. But it is worth doing — provided that all involved consider two points before beginning.

First, the processes must be long-term and properly funded. Money spent on engagement is often diverted from basic research. So if governments are serious about upstream projects, they should talk to research agencies about how to ring-fence money to run the consultations. In Britain, this is likely to amount to a few million a year across all sciences, a fraction of a per cent of the total science budget.

More importantly, funding organizations must make a genuine commitment to react to the results of engagement processes. This doesn't mean simply accepting the outcomes; research councils should clearly remain in ultimate charge of priority setting. But for the process to be meaningful, funders must explain why they choose to accept some pieces of advice and reject others. The UK government ran a public debate on genetic modification last year and is widely believed to have ignored the results — something only a little less offensive than talking about babbling hags. ■

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Where Science Meets Society
Alan I.Leshner
CEO, AAAS
Executive Publisher, Science
Science, vol.307, 11 February

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g public", Nature 431, 883
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Conclusions:

1. We see that certain fundamental concepts, like the concept of uncertainty, may be universal for widely separated areas of the reality. We see that the concept of biosocial uncertainty may constitute the new paradigm in studying the biosocial phenomena.

Conclusions (continued):

2. It is impossible to reach absolutely true multidisciplinary descriptions of biosocial systems. Rather, only incomplete or approximate descriptions are possible. It seems that truths about these systems are relative and are connected with our purposes through feedback. By seeking his or her personal goals, the observer plays an active role as a participant in a biosocial process. No absolute and purpose-independent truth about such complex systems is possible.

We live in “approximate” world.

Conclusions (continued):

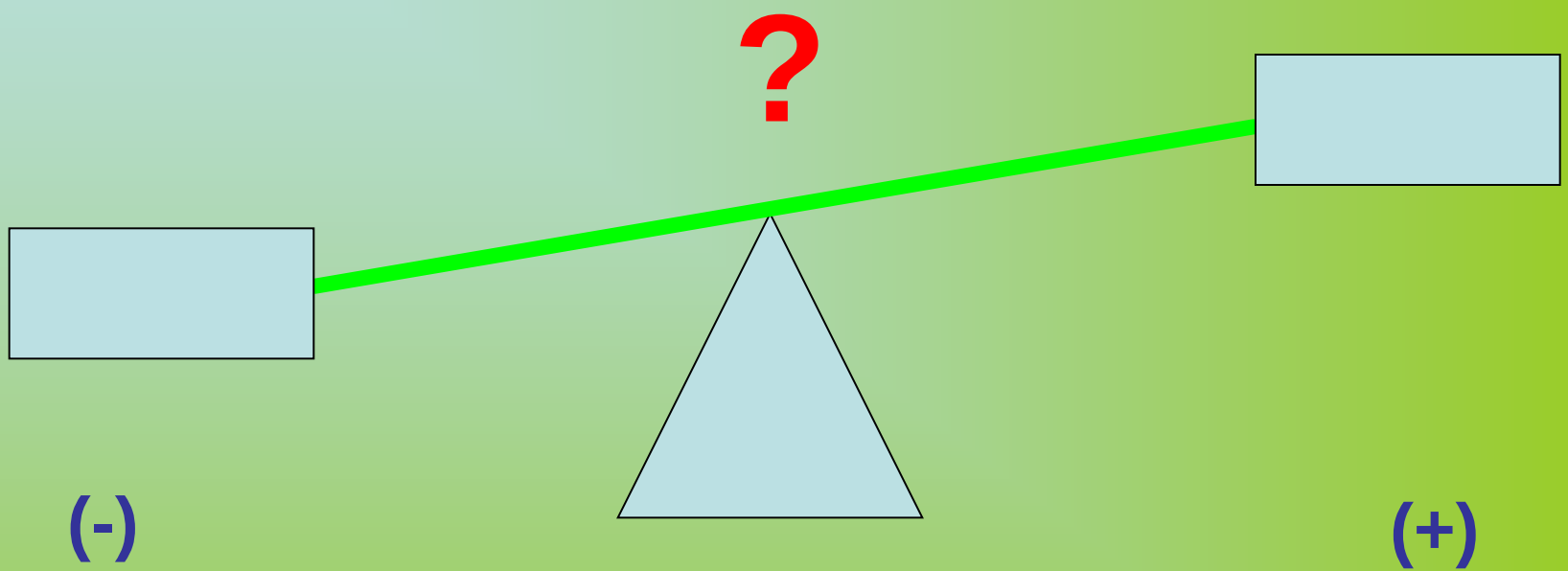
3. The existing schism between preventionists and moralists concerning HIV/AIDS and similar issues is a result of uncertainty of complementary descriptions of complex biosocial systems. It is being resolved through compromises which may vary in different countries. In global health we should pay more attention to cultural peculiarities.

Conclusions (continued):

4. The policy decision making process must rely not only on scientific evidence with its inherent uncertainty, but also on the cultural, historical, religious and political traits of a given society.

Teaching the principles of compromise must become an integral part of educational programs.

Are dual-use technologies possible in biosocial sphere?



Are there such biosocial interventions that can give a positive effect in one case and do harm in another case (intentionally or folly)?