Scientific Revolution? A Farewell to EconWPA.

Alexander Harin

The new idea is presented. The idea is to pass in economics from the ideal theory of an imaginary world to a real theory of the real world through the concept of arrangements' infringements (or uncertainty principle). Problems, which can be solved, research fields, which can be augmented or created, and fields of applications in practical economy are reviewed. The role of EconWPA is described.

Contents

Introduction. The sudden announcement

"Announcement:

EconWPA.wustl.edu will stop accepting paper submissions on January 1, 2006

after 150 months of operation.

…

Many thanks to all those who have supported and used EconWPA since July 1, 1993. As the Chinese curse says, I have lived in interesting times.

Bob Parks" (EconWPA, 2005)

This paper

This paper[1] has two objectives. First, the presentation of a new idea, and second, the duty to honor EconWPA and "all those who have supported" it.

Many researchers owe their successes to EconWPA. Some of them have started in EconWPA. Some of them were swiftly published in it.

Many research areas and approaches additionally owe their successes to EconWPA. Some of them have started or have been created in EconWPA. Some of them received fast or widespread development with the help of EconWPA.

This paper is a non-typical one. It has been written from the point of view of the feasible scientific revolution, which was created with the essential help of EconWPA. EconWPA could essentially develop it as well. Unfortunately, the aforementioned stop halts this development. One of objectives of this paper is to transform the stop into the development.

Due to these items and objectives, this paper assumes a popular, simplified character and style.

[1] The first version was, unfortunately, only-two-weeks-created-and-prepared (from the date of the sudden announcement of the middle of December to the 31st of December). So, it was extremely draft and hard to understand. This edited version has some style corrections and additions. The main style corrections are to augment and simplify chapter two, because this chapter was so short, it prevented the comprehension of the essence of the paper.

1. Revolution or evolution?

A few words about some evident features that can be different for evolution and revolution:

A development includes both evolution and revolution. In any case, new knowledge or new ideas modify the existing knowledge base and system of opinions. In case of evolution such modifications are smooth. In case of revolution they are sharp and even include elements of breaking. In turn, an existing knowledge base and opinion system modify new ideas.

1.1. Ideal or non-ideal market?

Ideas may constitute a market of ideas.

1.1.1. Easy or hard to enter?

The easier it is to enter new ideas, the more ideal is the market of ideas.

1.1.2. Chaos or control?

The more control there is, the less ideal is the market of ideas.

1.2. Powerfully or moderately?

1.2.1. People or singles?

The more people involved in the development, the closer it can be to a revolution.

1.2.2. Ordinary people or elite?

The less the development is confined within special parts of the whole scientific society, the closer it can be to a revolution.

The greater a relative benefit is, the greater is the interest to take part in the revolution.

1.3. New or existing style?

Every content needs proper form and proper style. New content may need new style.

1.4. Quickly or slowly?

1.4.1. Quick or slow process?

The less time is needed to publish every new paper and the more often the papers can be published, the quicker the knowledge base and system of opinions can be modified.

1.4.2. Quick or slow achievements?

The closer a development is to revolution, the more quickly a new idea modifies the knowledge base and system of opinions.

2. The idea, which can create a revolution in economics

2.1. The idea

The idea is to consider infringements of arrangements.

A generalization of the idea is the economic uncertainty principle (Harin 2006).

Definitions

The term “arrangements” generalizes contracts, arrangements, agreements, assumptions, regulations, bargains, plans, projects, etc.

The term “infringements” generalizes breaches, infringements, modifications, disturbances, deviations, alterations, etc.

The combination of these terms gives “infringements of arrangements” or “arrangements’ infringements” (hereinafter may be referred to as AI).

The most obvious examples of arrangements’ infringements are a breach of a term of contract and the well-known force majeure.

Briefly, arrangements’ infringements may be called as “Anything-can-happen.”

The prevalence and inevitability of arrangements’ infringements

Examples and causes of arrangements’ infringements may be failures of power supplies, natural disasters, people involved suddenly become ill, criminal or terrorist interventions, dishonest behavior of people involved in this arrangement, alterations of interests of parts of this arrangement etc.

Fields of expansion of arrangements’ infringements are as large as fields of expansion of, at the very least, these examples.

Probabilities of arrangements’ infringements are often small, but it is obvious that almost every arrangement may be infringed with non-zero probability.

So, arrangements’ infringements are omnipresent and inalienable property of the real world.

Is there a need for a revolution?

There is a practically countless set of economic actions and there is a wealth of capitals in the world.

There is a need for proper economic theory to describe and manage them.

Nevertheless, at present, there is no such theory. From the time of the halted revolution in economics in 1950’s, a half a century of evolution did not produce it. Moreover, this evolution has come to a dead end:

A man is a key subject of economics and economic theory. But Kahneman, along with co-authors, has shown: a man may be considered irrational. In other words, the problem is, in a sense, insoluble: it is very hard to develop rational theory of an irrational subject (see below 3.5.3.2. “Contrary to the Nobel laureate?”). This contribution was marked by Prize in the Memory of Nobel in 2002.

So, a result of the evolution of economic theory is a question whether such theory can be rational or not. Why?

Possibly, because economics do not consider arrangements’ infringements.

Certainly, because without AI, the world is not a real but an imaginary one.

Example

Consider an example, which is similar to Allais paradox.

Suppose Mr. Somebody offers you a choice of just one of the following:

A guaranteed gain of \$99. Or

A lottery:

The gain of[2] \$100 with the probability 99% or

\$0 with the probability 1%.

The mathematical expectations of the guaranteed gain and lottery outcomes are exactly the same:

$$\$99 \times 100\% = \$99, \quad \$100 \times 99\% = \$99, \qquad \text{so, } \$99 = \$99.$$

But the well-determined experimental fact is: in similar experiments the manifest majority of people chose the guaranteed gain instead of the lottery option.

Economic theory does not offer a natural and clear explanation of this fact. The possible well-known "natural and clear explanation" of gains in Allais paradox by means of risk aversion cannot give any uniform explanation for both gains and losses. The result of this explanation is gains' risk aversion and losses' risk seeking.

An explanation of the example

Disasters, failures, dishonesty … Really, almost every arrangement may be infringed.

The point of departure of the idea's approach is "Anything-can-happen":
the lottery may suffer a failure; you or Mr. Somebody may become seriously ill; anybody (curious person, terrorist, policeman, etc.) may interfere in the process etc.

The result of the idea's approach is:
the arrangement's infringement possibility reduces the lottery's outcome probability.[3]

For example: if the AI possibility reduces the lottery outcome probability by 1% or 20%, accordingly we have:

for 1%: $\$99 \times 100\% = \$99, \quad \$100 \times 98\% = \$98, \qquad \text{so, } \$99 \geq \$98.$

for 20%: $\$99 \times 100\% = \$99, \quad \$100 \times 79\% = \$79, \qquad \text{so, } \$99 \geq \$79.$

So, in actuality, the mathematical expectations of the guaranteed outcomes are more than those of the lottery outcomes.

Therefore, the choice of the majority of people corresponds exactly to the mathematical expectations.

So, the new idea can naturally and clearly explain this and similar examples.

Is this really a revolution?

Can the difference of \$1 be a revolution? Hardly.

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[2] For accuracy of the experiment, both \$99 and \$100 should be in \$1 banknotes. So, two parcels of 99 and 100 banknotes of \$1.

[3] Both absolutely and in comparison with the guarantee outcome probability.
For 1%, e.g., 100%-3%=97%, 99%-4%=95%, normalizing guarantee to 100%, 95%:97%~98%.
For 20%, e.g., 100%-13%=87%, 99%-30%=69%, normalizing guarantee to 100%, 69%:87%~79%.

Moreover, this idea in itself is not a revolution.[4] It is obvious and, in a sense, trivial. In technical sciences it is well-known, is widely used and successful.

But the fact is, in economics, it is still not used. This is why it can create a revolution.

This idea can transform economics (that does not consider real omnipresent arrangements' infringements) from the ideal theory of a fictitious world toward the real theory of the real world.

"A revolution in economics" is to create a real economic theory.

Moreover, at present, economics is, in a sense, not a science in the full meaning of the word. It has a number of successfully working semi-empirical models. But it cannot describe the behavior of a man, its central subject. It cannot describe a number of elementary interactions between economic subjects.

The main meaning of the idea is not even arrangements' infringements itself.

The main meaning of the idea is: AI (even their possibilities) hide**,** mask the action of economic laws. To consider AI is to obtain working laws, to obtain a science.

"A revolution in economics" is to make economics become a science.

Why not 50 years earlier?

The essential part of the basis of economics as a science was created by von Neumann and Morgenstern (1944). Their work and its consequences might produce the revolution in economics.

But its great promises were broken by Nobel laureate Allais (1953), Kahneman, another Nobel laureate, along with Tversky (1979) and others researchers. They have demonstrated this elegant and ideal theory cannot properly describe the reality.

The (very simple) idea could develop and increase this revolution.

Why was it not created 50 years ago?

The crucial moment is not even to consider this idea in general, but to find fields where its consideration can give essentially new results. The point is, the value of an arrangement's infringement possibility is usually very small.

First assumption

One of the initial general assumptions of the idea's approach was:

Under the condition of the exact equilibrium of mathematical expectations, any influence of non-zero value will be considerable. This argument gives rise to the general assumption: when comparing the risky and guaranteed choices in the same or almost the same conditions, the possibility of AI should be considered.

The next step was to achieve such an essentially new result.

The essentially new result

The first result of the approach is:

When risky outcomes (whether gains or losses) have probabilities, which are almost the same as the guarantee (100%), the arrangement's infringement possibility can reduce real, objective probabilities of such risky outcomes in comparison with the guaranteed ones.

This result has a universal character. It can naturally and clearly explain not only gains but also losses (See below in 3.5.3.2. in paradoxes detailed explaining).

[4] Analogously, the concepts of freedom and equality are not a revolution. However, they have created many revolutions that have changed the whole world.

Available at once

This clear result can be used immediately in a wide range of fields in economics, including, e.g., in estimating decisions of small deviations from guaranteed or well-known outcomes or ways of doing business, in predictions and planning of standard ways of doing business, etc. The examples may be small deviations from a well-known style of goods or production; interventions into slightly new segments of market, banking and investment; low-level risk situations, etc.

Is it original?

The most recent review in Egidi, M. (2005) and classical review in Schoemaker (1982) do not mention this idea. The author's review of RePEc from 1969 additionally does not find this idea.

Similar or supporting ideas are, e.g., in Quiggin (2005), Novarese (2002) and Hey (2005).

It should be noted: The new idea is not "arrangements can be infringed". It is a well-known and generally accepted fact in the economy (see, e.g., force majeure terms in contracts).

The new idea is to especially consider this fact in economics.

2.2. Plenty of applications

Arrangements are the fundamental concept of economics and widespread economic events. They are the constituent elements of the majority of items in economic theory. Infringements of arrangements have similar significance. The variety of applications' fields of the idea's approach can be as important and as wide as that of AI. (See analogies below in 3.6.) In particular, they can be investment, banking, insurance, business projects estimation.

2.3. "Gold-fever" of items to research

For many years now the arrangements' infringements, though being fundamental and widespread, have lacked appropriate attention in economics.

This fact has created and accumulated plenty, even superfluity, of both ripe (and overripe) problems, which can be easily solved, and almost ripe ideas, which can be easily created with the help of AI.

(And expanses which will be opened by every solved problem and every created idea)

Fundamental theoretical problems, which can be solved

This approach can solve, e.g., old problems of utility and prospect theories. These are ones of basic problems hindering the development of game theory and economic theory as a whole.

Wealth of research fields

These fields extend from pure mathematical (of the "Anything-can-happen" space researches) through improving and developing the economical models to methodological and experimental (of separating and measuring of various types of risk of AI).

3. The role of EconWPA

Surely, a development of a science, a creation, development and dying-out of scientific thoughts can essentially depend on means of scientific communications.

RePEc and EconWPA play an outstanding role in economics.

This paper is devoted to only one of the many aspects of EconWPA's role.

A scientific revolution. Creation and development

A scientific revolution can be created by a few, or even, a single paper, book.

A development of a scientific revolution includes a chain reaction of multiplication of amount of researches (and corresponding papers). This chain reaction can be created by at least three ways:

By the intensive work (and corresponding publication of papers) of a powerful group of scientists.

By a single, prominent break-through work (and corresponding paper or book publication) of (at least) a well-known scientist.

Eventually, through the course of time (if new knowledge or an idea is clear enough). In this case, an intensive chain reaction can also be created by a few, or even, a single explanatory, promoting paper of a well-known scientist.

Requirements for an idea

An idea should be a break-through:

A scientific revolution needs fundamental modification of a knowledge base or a system of opinions. Otherwise, it is not a scientific revolution (in theory) but a revolution in applications ways.

A scientific revolution needs radical new knowledge or ideas. Otherwise, a chain reaction will stop before sufficient development.

A scientific revolution needs a variety of vast fields of applications. Otherwise, a chain reaction cannot expand to a lot of researches and people.

Moreover:

A scientific revolution needs a simple and clear new knowledge or idea. Otherwise, a chain reaction will slow down due to the difficulties of understanding and learning.

Requirements for informational media

Not every break-through of a clear idea will become a revolution.

A scientific revolution needs proper scientific informational media.

(Without such media, a chain reaction cannot develop at all)

3.1. Ideal or non-ideal market?

3.1.1. Easy or hard to enter?

The overwhelming majority of journals may reject submissions. The majority of working paper series requires the membership in the corresponding scientific societies.

EconWPA neither rejects submissions nor requires membership.

Most likely many young authors are hesitant to submit valuable new ideas. If the idea is simple and clear, the fear of rejection increases. If an author deals with the concept of "Anything-can-happen," the fear is additionally increased.

The first international paper on the new idea was submitted to EconWPA, and it was not by accident.

3.1.2. Chaos or control?

The overwhelming majority of journals and working paper series may control submissions.

EconWPA does not. The only control tool is the author's good name. It worked successfully during its 150 months in operation.

3.2. Powerfully or moderately?

3.2.1. People or singles?

The downloading of papers from the overwhelming majority of journals and from the majority of working paper series is to some extent restricted.

Downloading from EconWPA is not.

The downloading of papers from the medium can be free, but the medium's popularity can be low. The next table illustrates the downloading of papers from the top four series.

Top 25 Series by File Downloads 2005-11 (Source is LogEc (2005))

Series	2005 11	3 months	12 months	Total
NBER Working Papers	43 145	107 842	397 417	1 234 859
EconWPA (the total of all series)	**29 791**	**75 510**	**256 287**	**877 138**
American Economic Review	16 127	40 312	141 143	351 348
CEPR Discussion Papers	12 789	33 706	126 231	348 923

Evidently, EconWPA's popularity is one of the highest worldwide.

3.2.2. Ordinary people or elite?

Submitting a paper to the majority of working paper series requires a membership in the corresponding scientific communities.

Submitting to EconWPA does not have this requirement.

Downloading papers from the overwhelming majority of journals and from the majority of working paper series requires payment or membership in notable universities or scientific societies.

Again, downloading from EconWPA does not.

3.3. New or existing style?

The overwhelming majority of journals (and working paper series?) may reject or delay submissions that have a style which differs from the generally accepted one.

EconWPA does not.

This paper

In particular, a general paper about a scientific revolution should be considerably popular. The reason is because it should be addressed to a wide audience of economists, post-graduate students, scientific managers, journalists etc.

For example, at present, this popular, simplified-style and free-style paper will not be published in the most of the scientific media.

3.4. Quickly or slowly?

3.4.1. Quick or slow process?

There was no delay in publishing every paper in EconWPA. It took one day or less.

It is certainly less than the time needed to perform the work and prepare the paper for publication.

So, the modification of the knowledge base and system of opinions becomes as quick as possible.

Such a medium for quick publication makes a chain reaction of researches (and corresponding papers) possible.

3.4.2. Quick or slow achievements?

EconWPA is the best media to create and develop scientific revolutions, the optimal revolution generator and the best means for quick achievements.

EconWPA has created a feasible scientific revolution.

EconWPA has almost guaranteed the development of this revolution.

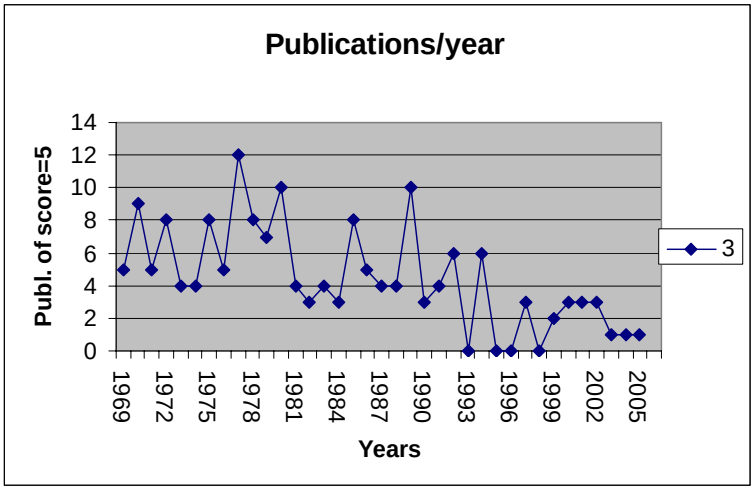
However, “almost” is not “guaranteed”. Due to the arrangement’s infringement possibility approach, that is the basis of this feasible revolution, the overwhelming majority of arrangements can be infringed. The case of revolution was not an exception. Unfortunately, “Anything-can-happen” has stopped EconWPA and has limited its help to development of revolution in the beginning of this development.

3.5. The idea

3.5.1. A need of new ideas?

Achievements. The dead end?

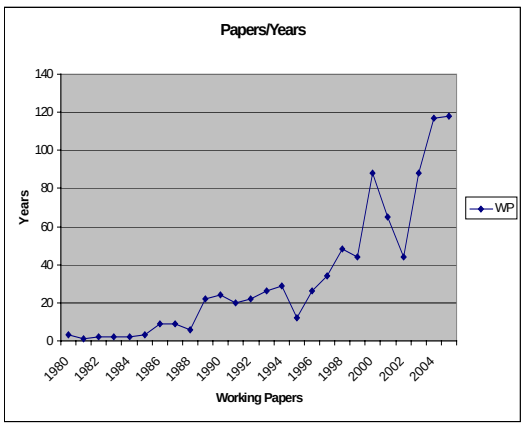
The next diagram represents "Achievements," the approximate total number of publications "matching utility or prospect in Keywords & Title" in top journals: American Economic Review, Econometrica, Harvard Business Review, Journal of Economic Literature, Journal of Finance, Journal of Financial Economics, Journal of Political Economy and Quarterly Journal of Economics.



The diagram shows an obvious decrease of "Achievements" during the years 1969 - 2005.

Trials. A need of new ideas?

On the other hand, the second diagram represents "Trials", the approximate total number of working papers "matching utility in Keywords & Title" between the years of 1990 – 2005 ("Trials" as "Achievements" including November of 2005). This number includes electric, public and other utilities, but the error is usually not more than 15%. Before 1990, the data was probably not fully registered.



The diagram shows an obvious increase of "Trials" in the years leading up to 2005.

The comparison of these two diagrams may be of some interest. In particular, it can be interpreted, e.g., as a need for new ideas.

3.5.2. Fundamental idea

A scientific revolution needs fundamental modification of conventional knowledge base or system of opinions. Otherwise, it is not a scientific (theoretical) revolution but a revolution in application ways.

Arrangements are the fundamental concept of the economic theory. Almost all arrangements may suffer infringements. Therefore, arrangements' infringements may be as fundamental for the economic theory as arrangements.

The authors and the readers of EconWPA can deal with theoretical items and questions of any depth or fundamentality.

The variety of EconWPA's series includes all items of economic theory. It is well suited for researching and discussing any fundamental problems of economic theory.

3.5.3. Radical idea

3.5.3.1. Problems of a radical idea

The more unknown an author is, there is a greater probability of rejection for his/her paper.

The more unknown the author's institution is, the greater the probability of rejection for his/her paper.

The less influential the author's country is, the greater the probability of rejection for his/her paper.

The more radical the idea is, the greater the probability for rejection.

If the idea is contrary to generally accepted ones, the probability for rejection increases dramatically.

3.5.3.2. Contrary to the Nobel laureate?

The stream of thinking of the new idea radically differs from the well-known generally accepted ones. Moreover, it is, in a sense, contrary to them:

Does the "ideal theory" describe the real world?

Natural and technical disasters, technical failures, health deteriorations, interventions, dishonesty, alterations of interests of parties involved in the arrangement … Really, almost every arrangement may be infringed.

But at present, economic theory is, in a sense, "ideal." It does not consider these real possibilities. This may be one of the reasons why it cannot properly describe the real world.

Can irrational arrangements' infringements help
produce a rational theory?

The Nobel laureate Kahneman, along with Tversky (1979) has shown: a man may be considered irrational. In other words, the problem with development of scientific economic theory is, in a sense, insoluble: it is difficult to produce a rational theory of an irrational subject.

Infringements of arrangements can be rational, not fully rational and fully irrational. In general, they may be supposed as, at least partially, irrational.

But irrational infringements of arrangements worsen or break any rational theory.

Can they be useful to such rational theory?

The challenge is to consider them and to add them to an ideal rational theory to obtain a real rational theory of the real, partially irrational, world.

Kahneman-Tversky paradox

Let us revisit the famous experiment of Kahneman and Tversky (1979), which may be referred to as the Kahneman-Tversky paradox:

Suppose there is a little known threat and you are to choose just one of the following outcomes:

A guaranteed life-saving of 200 people. Or

A possible life-saving:

of 600 people with the probability 1/3 or

of no one with the probability 2/3

The (non-overwhelming but evident) majority of people choose the guarantee.

Let us reformulate the same conditions to:

Suppose there is an insufficiently known threat and you are to choose just one of the following outcomes:

A guaranteed death of 400 people. Or

A possible death:

of 600 people with the probability 2/3 or

of no one with the probability 1/3

For the exactly the same (only reformulated) situation the (non-overwhelming but evident) majority of people choose the possibility.

In this brilliant paradox, people appear to be quite irrational.

Kahneman-Tversky paradox explanation

The Kahneman-Tversky paradox, along with other experiments, can be explained by considering the psychological aspects of a man. Undoubtedly, the psychological aspects of a man should be considered. But what about pure mathematics? Is it fully helpless?

Let us count:

A guaranteed life-saving of 200 people. Or

A possible life-saving:

of 600 people with the probability 1/3 or

of no one with the probability 2/3

From the point of view of pure mathematics:

$200 \times 100\% = 200, \quad 600 \times 33{,}33\% = 200,$ so, $200 = 200.$

A guaranteed death of 400 people. Or

A possible death:

of 600 people with the probability 2/3 or

of no one with the probability 1/3

From the point of view of pure mathematics:

$-400 \times 100\% = -400, \; -600 \times 66{,}66\% = -400,$ so, $-400 = -400.$

So, the ideal equalities:

life-saving $200 \times 100\% = 200, \quad 600 \times 33{,}33\% = 200,$ so, $200 = 200.$

death $-400 \times 100\% = -400, \; -600 \times 66{,}66\% = -400,$ so, $-400 = -400.$

But “Anything-can-happen”:

the probability of the risky outcome can be really lower than 2/3 (And every 1/600 ~ 0.17% is an anyone’s life). For example: if the arrangement’s infringement possibility reduces the lottery outcome probability by 1.7% (about 10 lives) we have real inequalities:

life-saving $200 \times 100\% = 200, \quad 600 \times 31{,}63\% = 190,$ so, $200 \geq 190.$

death $-400 \times 100\% = -400, \; -600 \times 65{,}96\% = -390,$ so, $-400 \leq -390.$

Therefore, the choice of the majority of people corresponds exactly to the mathematical

expectations.

So, the new idea can naturally and clearly explain this paradox as well.

It is surprising that the formal application of the arrangements' infringements possibility approach gives the same paradoxical choices as those the people choose. This is a question for a further research. The possible aspect of this question is the formulation of the experiment implies the separate evaluation of gains and losses.

The complication of Allais paradox

Analogously (though not so elegant), we may complicate the paradox (of 2.1. The idea), which is similar to Allais paradox, and may compare two experiments:

1) Suppose Mr. Somebody offers you a choice of just one of the following:

A guaranteed gain of \$99. Or

A lottery:

The gain of[5] \$100 with the probability 99% or

\$0 with the probability 1%.

The mathematical expectations of the guarantee and the lottery outcomes are exactly the same: But in similar experiments the obvious majority of people chose the guaranteed gain instead of the lottery option.

2) Suppose Mr. Somebody offers you a choice of just one of the following:

A guaranteed loss of \$99. Or

A lottery:

The loss of[6] \$100 with the probability 99% or

\$0 with the probability 1%.

The mathematical expectations of the guarantee and the lottery outcomes are exactly the same: But in similar experiments the obvious majority of people chose the lottery loss instead of the guaranteed one.

From the point of view of pure mathematics, there are the ideal equalities:

for gains	$\$99 \times 100\% = \$99, \quad \$100 \times 99\% = \$99,$	so, $\$99 = \$99.$
for losses	$-\$99 \times 100\% = -\$99, \; -\$100 \times 99\% = -\$99,$	so, $-\$99 = -\$99.$

But "Anything-can-happen":

the lottery may suffer a failure; Mr. Somebody or you may suffer a sudden deterioration of health; anybody (curious person, terrorist, policeman, etc) may interfere in the process etc. And the arrangement's infringement possibility reduces the lottery outcome probability[7].

For example: if the arrangement's infringement possibility reduces the lottery outcome probability by 1% or 20% we have correspondingly real inequalities:

for 1%:

for gains:	$\$99 \times 100\% = \$99, \quad \$100 \times 98\% = \$98,$	so, $\$99 \geq \$98.$
for losses:	$-\$99 \times 100\% = -\$99, \; -\$100 \times 98\% = -\$98,$	so, $-\$99 \leq -\$98.$

for 20%:

for gains:	$\$99 \times 100\% = \$99, \quad \$100 \times 79\% = \$79,$	so, $\$99 \geq \$79.$
for losses:	$-\$99 \times 100\% = -\$99, \; -\$100 \times 79\% = -\$79,$	so, $-\$99 \leq -\$79.$

[5] For the experiment accuracy, both \$99 and \$100 should be in \$1 banknotes. So 99 and 100 banknotes of \$1.

[6] For the experiment accuracy, both \$99 and \$100 should be in \$1 banknotes. So 99 and 100 banknotes of \$1.

[7] Both absolutely and in comparison with the guarantee outcome probability.

For 1%, e.g., 100%-3%=97%, 99%-4%=95%, normalizing guarantee to 100%, 95%:97%~98%.

For 20%, e.g., 100%-13%=87%, 99%-30%=69%, normalizing guarantee to 100%, 69%:87%~79%.

So, actually:

the mathematical expectations of the guarantee gains outcomes are more than those of the lottery ones.

the mathematical expectations of the lottery losses outcomes are more than those of the guaranteed ones.

Therefore, the choice of the majority of people corresponds exactly to the mathematical expectations.

Therefore, the new idea can also naturally and clearly explain this and similar examples.

Contrary to the Nobel laureate?

The idea is not to eliminate or to ignore the doubtlessly important psychological aspects of a man and the problem whether a man is rational or not in choosing between outcomes.

The idea is, in particular, the correct determination of the probabilities of these outcomes.

The idea is to efficiently use pure mathematics and rational reasoning, not after, but preceding, the consideration of psychological and irrational aspects.

Coinciding time. Coinciding opinions.

The most recent paper of Kahneman and Thaler (2005) and the first version of this paper coincide in time within the limits of a month: 1 and 31 December accordingly. They almost coincide in opinions too. Indeed, in the paper of Kahneman and Thaler:

1) “A long series of modern challenges to utility theory, starting with the paradoxes of Allais (1953) and Ellsberg (1961) and including framing effects, have demonstrated inconsistency in preferences.”

So, the masters of economics agree that the paradox of Allais is not rationally solved by evolutionary economics (instead of 50 years of numerous attempts to solve it).

2) Nevertheless, the paradoxes of Allais and Kahneman-Tversky, risk aversion, the equity premium puzzle and other problems, which may be explained by the idea of AI, are not included in their examples of utility concerning anomalies.

3) Their paper offers four main examples of anomalies: “effects of the current emotional state, effects of the context of choice, learning from the past and mispredicting adaptation”.

The idea of AI and all of these examples do not contradict each other.

4) The masters of economics decide to more precisely define the field of action of psychological and irrational aspects.

3.5.3.3. Some notes about the creation of the revolution

The following moments should be noted:

The “parents” of the idea

These were only the paradoxes of Allais and of Kahneman-Tversky, those forced the author to create this new idea. Paradoxes, those forced to solve them.

The “midwife” of the revolution

The break-through of Kahneman (with his co-authors) was to go in the direction, which was contrary to the well-known generally accepted way of thinking. This way assumed a man to be rational.

These were only Kahneman and his worthy Nobel Memorial Prize in 2002, those stimulated the author to develop this new idea and approach. Those stimulated the interest to go in the contrary direction.

The “maternity hospital” of the revolution

It was only EconWPA, as one of the most popular international media, that has admitted the radically new idea, the idea, that was, in a sense, contrary to generally accepted ones, the idea of the unknown author from the unknown institution and non-influential country.

So, EconWPA created the new direction of research, which can create the scientific revolution in economics.

3.5.4. The clear idea

A scientific revolution needs a simple and clear new knowledge or idea. Otherwise, a chain reaction will die down due to the difficulties in understanding and learning.

Arrangements are usual and intuitively clear phenomena.

Infringements of arrangements are common, generally accepted (e.g. force majeure terms in contracts), and intuitively clear phenomena also.

It is clear that the overwhelming majority of arrangements may be infringed.

It is clear that arrangements’ infringements are to be considered.

A clear idea can be represented in concise words. Such representations can (and often should) be expressed in a non-scholarly style.

EconWPA is the medium which admits papers of a simple and clear style corresponding to the style of the idea.

3.6. Plenty of applications

The idea can be evidently applied in economic theory.

The idea (and results of its applications from economic theory) can be evidently applied in practical economy.

The variety of EconWPA series includes all items of economic theory.

The themes of EconWPA are sufficiently close to the economy to be applicable in economic practice. However, there are journals, which tend to be more practical. But the variety of EconWPA series is well structured. It makes it easy to navigate for the economists who are application-oriented and have no experience in dealing with scholarly journals.

"Friction." "Dissipation." "Noises." "Brownian motion." "Galilean and Newton laws."

Arrangements' infringements have rich analogs in other sciences:

Arrangements' infringements can be, in a sense, referred to as a "friction," "dissipation," "noise," "Brownian motion," etc in economics. (Problems of noise, noise traders, etc are already discussed in economics. See, e.g., Capuano 2006, Chay et al 2005 and Hey 2005)

These analogs are of obvious original importance.

Moreover, often, friction, dissipation and noises hide or mask the action of an important law or laws. The example can be Galilean insight about uniform motion. Such motion could not be observed in practice during Galilean times. It is hidden by friction.

Arrangements' infringements (even their possibilities) can hide the action of economic laws.

The accurate accounting of arrangements' infringements and their possibility can clear this action and these laws.

So, arrangements' infringements can be, to some extent, as fundamental, important and widespread in economics as their analogs in other sciences.

So, arrangements' infringements can be, to some extent, as fundamental, important and widespread in economics as economic laws, whose actions they hide.

The variety of EconWPA series includes all the fields of economics and is capable of representing all the mentioned analogs.

3.7. "Gold-fever" of items to research

3.7.1. Fundamental theoretical problems, which can be solved

Choosing between risky and guaranteed outcomes is one of the main problems stopping the development of the game theory and of economic theory as a whole. The examples of such problems are the Allais paradox, risk aversion, equity premium puzzle, etc. (e.g. Allais 1953, Allard et al 2003, Goetzmann and Ibbotson 2005).

The new approach provides a radically new way to solve these problems.

A man is a key subject of economics and economic theory. "A man is irrational" - this opinion can be drawn from well-known fundamental problems. For a long time, this opinion was a barrier to the proper solution of these problems and the development of the economic theory.

The new approach opens a quite different way to solve them and remove this barrier.

The variety of EconWPA's series includes all items of economic theory. It is well suited for thorough research of both particular problems and their combinations and generalizations.

3.7.2. Plenty of items to research

The variety of EconWPA's series includes all topics of economics and is well structured. It is a medium that is one of the best to widespread of the chain reaction of researches.

3.7.3. "Gold-fever"
Advantage and risk to start quickly to be the first

As a chaotic complex phenomenon, a revolution is unpredictable.

So, in a revolution, the larger the research field is, the greater the risk of a mistake of the prediction is. The more localized the research field is, the less the risk can be and the more the advantage of starting quickly and of being the first is. If the research field is rather small, there is no sense of being the second and the success of the first in such field is much more feasible.

This circumstance can cause a wealth of unknown and known authors to be successfully involved in a scientific revolution with their works regarding particular questions. This wealth of authors is connected with the high numbers of publications.

Some media have limited capacity of publications per month.

EconWPA does not.

Priority.
Years? Months? Weeks? Days?

During an evolution, the priority time scale is measured in years, sometime in months. During a revolution, when a chain reaction occurs, the priority time scale is measured not in years but in months and weeks (The plan of author's publications is in Harin 2004).

Journal publications experience delays of roughly a year or more. Working papers publications have delays of a few days.

The preparation of a journal article takes more time than the preparation of a working paper.

To publish papers solely in journals does not contribute to the fast development of scientific base of knowledge and system of opinions. The preliminary publishing in working paper series contributes not only to the priorities of authors but mainly in modifying the existing knowledge base and system of opinions.

So, during a revolution, during a chain reaction, being preliminarily published in working paper series has advantages in comparison with being published only in journals.

So, working paper series, in particular EconWPA, are the most preferable media.

3.7.4. To observe and describe

A revolution needs to observe and describe it.

Nep-upt report

The nep-upt report (New economic papers – utility models and prospect theories report) was created. It has three objectives.

1) To inform the scientific society about the development of the renewed research field of utility models and prospect theories.
2) To not miss the beginning of the part of the chain reaction in this particular field of papers concerned with the idea.
3) To observe and describe the development of a chain reaction in this particular field.

Www.harin.info

The development of the idea and the chain reaction cannot be restricted only in the particular field of utility models and prospect theories.

To observe their development, the Web site www.harin.info will be created. News and reviews about economics and science may be the other objectives of the Web site (the existing author's personal Web site www.harin.net is not proper for these objectives).

EconWPA

So, EconWPA is, in any case, the best public medium to develop and spread new, revolutionizing ideas, knowledge and opinions, to create and develop revolutions, and to observe their creation and development.

Unfortunately, "Anything-can-happen." And the aforementioned stop has happened.

3.7.5. The break-through

So, the idea of arrangements' infringements is a break-through and is clear.

But to become a revolution, it needs proper informational media.

3.8. A farewell to EconWPA

Farewell to EconWPA.

Farewell to the generator of scientific revolutions.

Farewell to one of the best public research media.

Conclusions

The concept of arrangements' infringements (AI) is presented. The concept of AI is the fundamental, inalienable concept of economics. AI are widespread, omnipresent economic events.

Without arrangements' infringements, the world is not real but fictitious. Without considering AI, economics is not real but ideal. AI hide, mask the action of economic laws and impede economics from being a science in the full meaning of the word.

The idea of arrangements' infringements can help economics to be real and to be a science.

Its first results are already available both for scholars and for practical economists.

The general character of the topic has caused the popular character and style of this paper.

EconWPA was the best public research medium to create and develop the scientific revolution in economics.

EconWPA has helped essentially to create this revolution but has been stopped to develop it.

There is a need for the renewal of EconWPA or for a new public research media such as EconWPA to develop it.

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