About

Econophysics, Sociophysics & Other Multidisciplinary Sciences Journal (ESMSJ) provides a resource of the most important developments in the rapidly evolving area of Econophysics, Sociophysics& other new multidisciplinary sciences. The journal contains articles from Physics, Econophysics, Sociophysics, Demographysics, Socioeconomics, Quantum Economics, Econooperations Research, or many other transdisciplinary, multidisciplinary and modern sciences and related fundamental methods and concepts.

CONTENTS

Page

STUPIDITY AND NORMAL DISTRIBUTION OR THE CONTEMPORARY IMPACT OF CARLO CIPOLLA'S LAWS

[1]Gheorghe Săvoiu, [2]Mladen Čudanov

[1]University of Piteşti, Romania, e-mail: gsavoiu@yahoo.com
[2]University of Belgrade, Serbia, e-mail: mladenc@fon.bg.ac.rs

Abstract.
The article synthetically describes, in its central section, Cipolla's laws and their impact on normal distribution. After an introduction referring to stupidity, silliness and foolishness, often approximated as incompetence, Cipolla's laws are listed, in the major section, together with other laws (Peter's law, Florentin's law, etc.), and also with the results of an opinion survey. The errors generated by contemporary meanings and interpretations of stupidity and its impact in the economy are consistent with a research conducted on a sample of only 50 students in an academic specialization deeply involved into the gist of modern economics, i.e. the specialization Finance and Banking, which was chosen for its function to mobilize monetary resources and returning them to the economy, to those with a lower degree of stupidity, as a well-defined purpose. Some final remarks reveal the opinions of the paper's authors on the share of stupidity and stupid people in research and education, and especially in the economy, as significant indicators of the economic potential of a modern state.
Keywords: *error, human stupidity, Cipolla's laws, Florentin's law, Peter's law, sample, normal distribution.*

1. INTRODUCTION

There has been some writing being devoted to stupidity, foolishness, silliness and imbecility, in fictional and non-fictional literature: ironically or self-ironically, with humour or seriousness, etc., some gifted authors have primarily taken this investigative step; a literary figure like Martin Page, in his famous novel *I decided to become stupid*, did it; here, the authors' option is justified rather by the sense of stupidity as abysmal addiction triggered by the nearly complete absence of intelligence in the modern world, and it is described ironically, by dint of a fine critical spirit, through the desire to be dependent on silliness very much as one becomes addicted to alcohol, drugs or suicide in modern society [1]. Treating stupidity as a major contemporary theme, or food for thought, also occurs to a number of Nobel Prize winners in the field of economics, as is the case of Joseph Stiglitz, who wrote an exciting article titled *"The Politics of economic stupidity"*, where stupidity is earnestly invoked as the only possible explanation in situations of completely erroneous approaches to the domain of economics, a perpetual or oscillating field of research; the paper had an echo this year (2015), when the great problem of the global economy has become that of bad policies and stupid politicians [2].

The six options considered by the authors were the following:

- a theory of the ToE type (Theory of Everything) focused on foolishness or silliness…
- a redefinition of the contemporary concept of stupidity thinking of education, research, and economics and the economy…
- a presentation of the laws of imbecility, stupidity and incompetence…
- a detailed breakdown of the two types of testing errors in the context of the laws of Carlo Cipolla…
- a description of the research team in the context of the presence of stupidity…
- an illustration, or an investigation applied to a small sample, of the perception of stupidity and its impact…

The final option went to neither of the above specifically, or rather the option was a little bit for each of them.

Humanity is not too far from gradually building a theory of the ToE type (Theory of Everything), focused on silliness or foolishness, with a particular concern for reducing errors of any kind occurring anywhere, after being long obsessed with the Bible-derived theory of sin and its removal from human life [3], which can possibly lead to the very idea of a far deeper similarity between sin, error and finally stupidity.

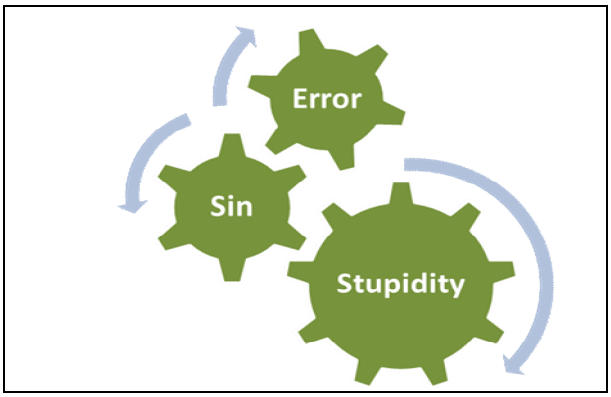


Fig.1. Major elements of a new Theory of Everything

Stupidity can be formally assessed with more or less clarity, when several different specific characteristics of stupidity are met, in the manifestations and personality of a human individual (which does not, of course, exclude anyone – i.e. even the authors of the present article, obviously). Ignorance seems to be among the very first signs of stupidity, and is commensurate to its aggressiveness. A fool is the first to speak, and he/she especially talks about things, people or ideas that are absolutely unknown to him/her, without having minimal prior documentation. There are intelligent people, or, as the majority of us consider, less ignorant people in the common sense of the term, who may have devoted their entire life to research in a field, and ironically recognize they are stupid because they can commit errors, which are however not as serious, yet certainly of a higher level than those made by the completely ignorant. Even when you excel in Socratically *knowing thyself*, you end up knowing that you do not know anything (v. Hippias major or Hippias

minor with Plato). Laziness betrays an inability to change oneself, and to adapt oneself, and thus is a valid assumption, too… Another signal could be that of an Intellectual Quotient (IQ) and Emotional Quotient (EQ) placed at a comparatively low level, which are relatively acquired through birth, or else not improved, or very little developed through education over a lifetime (and, at any rate, very hard to change). All too often, the same effect is generated by the lack of a good human character (a social character), or the dominance of a bad, antisocial character. Other real premises of imbecility are frustrations or complexes. Eventually, expressing one's thoughts incorrectly, or inability to communicate accurately and elegantly with the others are manifestations of the self that induce stupidity as a potentiality.

2. THEORETICAL DELIMITATIONS AND LAWS OF HUMAN IMBECILITY, PERCEIVED IN A MODERN MANNER

The ethics of the inter-, trans-, cross- and multidisciplinary approaches, urgently requires a clarification of the content, or a definition of the (incidentally, rather dynamic) concept of contemporary stupidity, thinking of education, research and economics (and the economy), without however forgetting that it would be foolish of the authors to believe they will be able to permanently, or at least partially, define a universe which is clearly infinite, such as that of stupidity, as Einstein seems to have said.

The first conceptual line seems to be provided by the idea that the beneficiary of imbecility as a state of mind has no awareness of his/her stupidity… Another hint could be that no one can talk about stupidity from outside its bounds, but only within it, as Andrei Pleşu recently remarked, in a discourse dedicated to stupidity: "I begin by saying, from the very outset, that I am not going to talk about stupidity like a smart fellow, that is one who feels he is outside the scope of the concept he is speaking about" – and immediately turning to the words of Alexandru Paleologu – who said that "Intelligent people reach levels stupidity to the measure of their own intelligence", further describing stupidity as "a normal condition of mankind", according to which "all people are occasionally stupid…" [4]

In the opinion of the same Andrei Ple□u, expressed in the same article, a stupid person has a number of quite well-defined traits though, which describe a way human stupidity in a relativizing manner, while enhancing its visibility:

a) exhaustive completeness of his/her knowledge, inflexibility and absolute lack of doubt, as well as excessive solemnity draw the picture of the fool, in a remarkable sketch, as "someone who knows, has no doubts, and if you are careful, will also explain it to you. And if you do not understand, then you're stupid! Or if you do not agree with what he/she is explaining to you"… "A fool cannot, as a general rule, be contradicted because his/her convictions are as hard as concrete. Besides being a paragon of knowledge, a fool is, in general, very serious and solemn […], he/she seems to always stand in profile, statuary, inflexible, mineral […] he/she is a person of much advice, he/she always has solutions". [4] Imbecilic stupidity in scientific research is encyclopedic and crisply definite.

b) permanent possession of the righteousness and truth, communicated via a standardized language, which everybody recovers in a reflex manner, though obviously nobody truly understands "A fool is right with a disturbing consistency, he/she is deductible in one single scheme: he/she has a limited set of fixed ideas, and his/her speech is usually standardized. In the educational and academic world in particular, standardization, as a sign of stupidity, assumes unexpectedly large proportions"… [4] Stupidity in scientific research often manifests itself as *intellectual sufficiency* or the famous *arrogance of the researcher who lacks the deep vocation of doubt*, and therefore a professional fool can reach the end of his/her career sooner than one could think, even without achieving anything of real use; and it all done in conditions of eternal happiness, full satisfaction and absolute lack of self-doubt.

c) plenary action of imbecility for the benefit of others and to the detriment of his/her own family, community and nation – as the fool acts in keeping with this pattern anywhere and anytime, therefore also in research, education, etc. (the traditional example is to be seen in such proverbs as: *By consorting with a fool you are bound to lose, while by consorting with a wise man you are bound to gain, even in sheer loss*), because an intelligent person may gain for both himself/herself and the other people in his/her team, his/her department, his/her country, etc.

d) *mental inability to "laugh at yourself"* (Paul Valéry), and *the inability to level irony at oneself publicly, which define a free and moral person, formed by the reciprocity of the meanings*. The hope of mankind is constantly associated with a truth not yet fully validated, namely that education can combat stupidity, very much like ignorance can be combated through information, in equal proportions to humour and self-irony…

Analyzing the impact of stupidity at an educational level, and especially in the specific field of scientific research, one can thus highlight some of the *aggravating factors of contemporary stupidity*, or what makes us even more stupid than we are or seem to be, in our mono- disciplinary approaches, or else in our denial of trans inter- , cross- and multi-disciplinarity [4]:

a) the economic dominance of decision-making and monetary justifications related to costs, relative to any other projects or ideas;

b) exaggerating the importance of consumption and blindness in front of promotional supply or oversupply, which is often useless (see also the opinion of the immortal Socrates, who, in an ancient market of various goods, was amazed to find the number of things he had not known until then there existed in the world, without him needing them in the least);

c) overappraising the solutions meant to shape a positive thinking, positive solutions, positive methods, positive patterns and models, thus denying contrast and distorting dual, positive and negative, reality or the ambivalence of normality;

d) excess of activism and militancy, *invasive action* at any cost, prevalent in a universe of maximum indifference, which is attempting to define a would-be new absolute tolerance;

e) the scientific courtesy of assuming the foolish findings and nonsense words of the great mono-disciplinary personalities, in areas that are inter-, trans- and multi-disciplinary;

f) the paradoxical approach to knowledge bt means of more and more narrow specialization, although it seems perfectly natural to say that if a teacher, lecturer or researcher knows little, his/her colleagues or audience will soon find that he/she cannot know it well, too;

g) fixedness centred on a single idea, or a project that you never part with (v. Gabriel Liiceanu), be they educational, investigative, etc., or on a unique research methodology, or one single method, or always the same model, etc.

The very presentation of the laws of imbecility, stupidity and incompetence begins almost always in a seemingly stupid manner, yet actually extracted from the reality of education and research – primarily from Murphy's famous law: "If something can go wrong, it *will* go wrong!" Fortunately, this law has been transformed, in a world where the action of stupidity should be anticipated, while it appears to be something virtually impossible, in order to become an unwritten law in industrial design (for instance, an electrical engineer will design a USB jack asymmetrically, just to ensure that no individual, no matter how foolish, incompetent or… stupid, will find it in hios/her power to connect it in a wrong way). [5] Murphy's Law has been, and still is, "Malthusian", and therefore almost fatalistic: it is fairly difficult, or virtually impossible to escape fate, when business is organized by a stupid individual, it will obviously go wrong… [6]

Appearing in this article in a generalized form, *Peter's Law* states that, sooner or later, all teachers or researchers reach their *level of incompetence* (which is now similar to foolishness or stupidity), and it would be necessary for everybody to be demoted, to the immediately previous hierarchical level, where one has proven one's capabilities (if that competence really existed, too)… [7]

Peter's Law, which paraphrases *Murphy's Law*, could be translated as "If a business or task can go wrong, you have to solve it to go well, and if you fail, it is clear that you have achieved your threshold of incompetence!" The law of Peter is a Weberian law (meaning it is based on an indispensable discipline of labour and human activity in a community), and can be illustrated by the solution industrial designers chose for a USB, when they preferred to anticipate and prevent what could go wrong. [8]

Peter's Law therefore defines a project that could be called the "anti-stupidity, or stupidity-proof project", something like the anti-dumping law, though very often laws become useless when faced with the imagination of fools… In other words, the major problem with Peter's Law is that we are not stupid enough, i.e. we do not possess the highest degree of silliness possible, to ever be able to know how much real protection to legislate when one designs a means of protection against a limitless phenomenon. Florentin Smarandache's Law identifies an exclusive solution: "If a job goes wrong, pass it to someone else!" [8] And this actually seems normal when one can say with some certainty that an activity, building, or collaboration will go wrong, by just taking a glimpse at their projects or schedules. Florentin's Law lies between the extreme situations of the Murphy and Peter type, and also outside their scope, in a neutrosophic manner, somewhat similar to a Zen attitude, meaning that *it teaches us to maintain labour discipline and work hard, while at the same time enjoying the pleasant and funny part of the work*. [8] Moreover, Florentin Smarandache identified two other concrete cases where his law is applicable: a) in research (if a job goes wrong in your research, remove it to the references); b) when we deal with elderly teachers and even scholars (they say older scientists never die – they just become the usual culprits, blamable for all mistakes of the past). As a matter of principle, and derived from Peter's Law, everyone is or becomes incompetent, sooner or later, and in one way or another. The David Brent syndrome points out that if you are incompetent, you will know it, in the sense of realizing it, perhaps never.

Psychologists David Dunning and Justin Kruger explored human incompetence and provided scientific evidence that incompetence is a veritable synonym for happiness, at least for someone living in utter and complete incompetence. [9]

The Dunning & Kruger experiments conducted at Cornell University were based on several preliminary assumptions and forecasts thet were subsequently, and unfortunately, validated [10]:

1. *incompetent people dramatically overestimate their own ability;*
2. *incompetent people cannot, and are not good at admitting incompetence as such, or in anyone else;*
3. *incompetent people do not recognize other people's real competence.*

The presentation of the laws of imbecility, stupidity and incompetence appears clearly in the field of economics, too, with Carlo Cipolla, author of the memorable book *The Basic Laws of Human Stupidity* (1987), translated rather late in Southern and Eastern European countries [12], [13]. Carlo Cipolla presents foolishness or stupidity as a state that is possible at all times, and especially with anyone, as shown in the author's self-ironic way of thinking, excerpted from one of his earlier papers: "The following considerations were suggested to me in conversation by my friend, George Richardson, of St John's Colledge, Oxford. Obviously, he cannot be held responsible for any errors of formulations into which I may have fallen". ".

This aspect referring to the possible internalization of stupidity has often been validated by the authors of this paper, too, in their professional experience, or has been practiced within the phenomenon of stupidity, voluntarily or involuntarily – which is difficult to assess given the scale of the phenomeanon.

The economic world and its history, as seen by Cipolla, are structured in a Cartesian manner, into the four classic quadrants, yet having a specific content, given by the activity of individuals (+ or –), as well as its impact on human, no less than their own personal development (fig. 2):

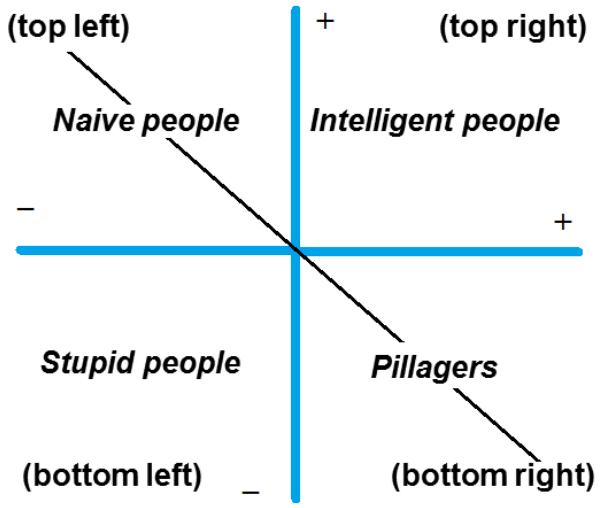


Fig. 2. The history of the economic world, divided into four relatively homogeneous quadrants by Carlo Cipolla

A brief analysis of the five laws of Cipolla is paralleled by the corresponding results of an opinion survey carried out on a sample of 50 students of the Finance and Banking academic speciality of the Faculty of Economics in the University of Pite□ti.

This comprehensive approach to the phenomenon of imbecility from an axiomatic perspective, and also as an already formed perception in the view of future economists, professors and maybe researchers in the field of economics, allows identifying some specific disagreements or nuanced similarities in correctly understanding Cipolla's laws.

A detailed analysis focused on each fundamental law separately, expressing the laws in their original form and the structure of the students' final perceptions, seems to be relevant in assessing the impact of imbecility in the modern economy. The first fundamental law of human imbecility was exposed by Carlo Cipolla in an exemplary manner, while disputing the normal distribution of any errors (as stupidity is also an error in human activity): "*Always and inevitably everyone underestimates the number of stupid individuals in circulation.*" [13; p.19]

The σ or π percentage of fools or imbeciles is always higher than its forecast or estimation. According to Cipolla, normal distribution becomes abnormal in two ways: graphically, it is affected by kurtosis and skewness in a significant manner, and it no longer validates the theory of the six sigmas as an area comprising 99.73% of the population surveyed (at the far left of the chart, dominated by stupidity impact, a population's density and its concentration is always growing, and poorly predicted, i.e. underestimated).

The graph that could attempt to show the new "abnormal rather than normal distribution of stupidity", in Cipollian terms, in reference to the variable error or human stupidity, is shown in Figure 3.

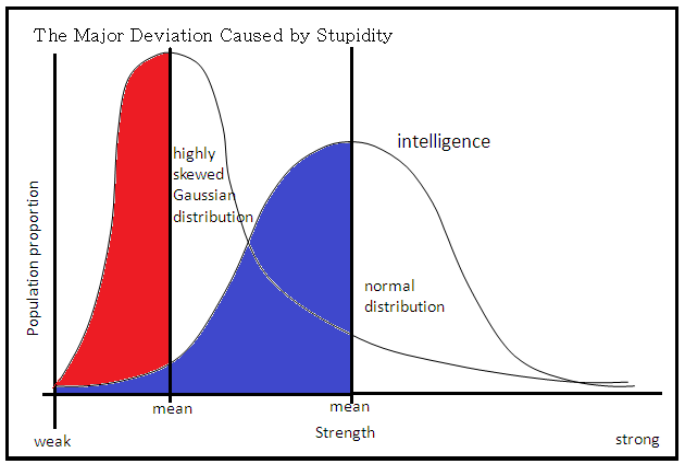


Fig. 3. The deviation from the normal distribution according to the first law of Carlo Cippola

The asymmetrical approach, through an obvious skewness towards negative values, and the growing tendency towards a lower average of education and economic competitiveness (including research) seem to be the first consequences.

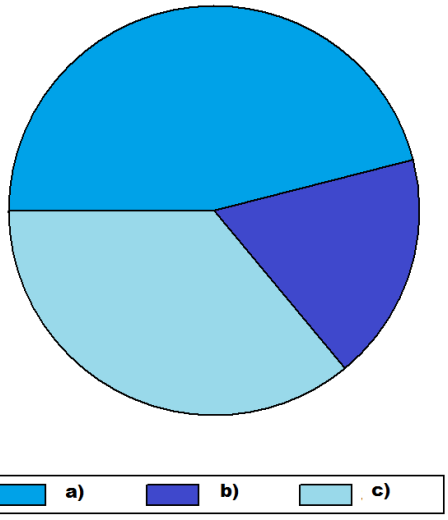
The first question of the questionnaire applied to the Finance and Banking students has the following content, visibly taken from Cipolla's First Law: *The number of fools, meaning people who by their actions are detrimental to themselves as well as the others, can be evaluated*:

a) correctly;

b) overestimated;

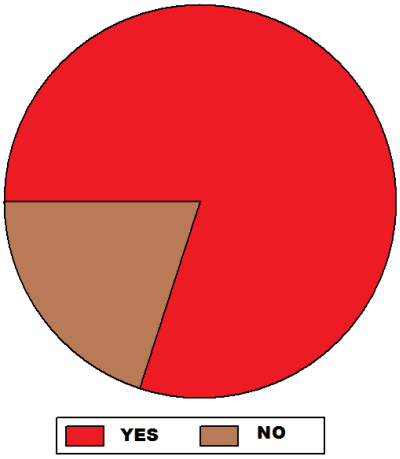
c) undervalued.

An interesting fact was the graphically revealed echo of the results that highlighted a dominant view of the incorrect assessment of human imbecility, since underevaluation and overestimation dominate together (a + b = 54%), underevaluation being two times larger (c=36%) compared with overestimation (b=18%).



Graph 1. Distribution of answers to the question that is relatively similar to the content of Carlo Cipolla's first law

The second fundamental law of human imbecility insists on the independence or the dispersion of stupidity or imbecility relative to any variable that can partition a human population. *The probability that a certain person (will) be stupid is independent of any other characteristic of that person*. [13, p. 24] Stupidity, within the econometric model of humanity, is completely independent of any other variable. All other variables are independent, or in other words, spatial, temporal, or structural membership does not change the σ or π percentage. Time cannot discriminate, so human individuals who are considered intelligent and rational are likely to become imbeciles in the future, and generations are not different through their imbecility. The spatial approach complements the impact of the first interpretations of the law in that in the most elevated or efficient spaces, areas or territories (economic, educational or research-related) the most imbecilic results are likely to appear unexpectedly, respecting the proportion of spreading from uncultivated areas. Not even income group membership, or Nobel Prize laureates membership can change this second law (σ or π are approximately the same in any population structure, and always higher than their estimates). All of the current problems, ranging from pollution to lack of environmental sustainability or the threat of war, were and remain the product of more elevated or less elevated areas, or of competition of intelligent or not intelligent people, equally… Cipollian imbeciles and non-imbeciles apparently form distinct (or disjointed) sets, i.e. sets of zero intersection. Although the formal structure of the set of non-imbeciles is given by the intelligent people, it does not exclude the wrong-doers and the helpless, just as imbeciles may come, and sometimes do come, from intelligent individuals. At this point, it seems that the Finance and Banking students live with a bias of discrimination in relation to the resources they will have to mobilize later in their jobs (banks and equivalent financial institutions), with reference to money as an expression of the skills, competences and powers of intelligent or non-imbecilic humans. The question containing the reference to Cipolla's Second Law was thus formulated in the survey conducted: *The number of fools is much greater in a given environment, or a certain structural component, generated by a discriminant variable*: a) *yes*; b) *no*.



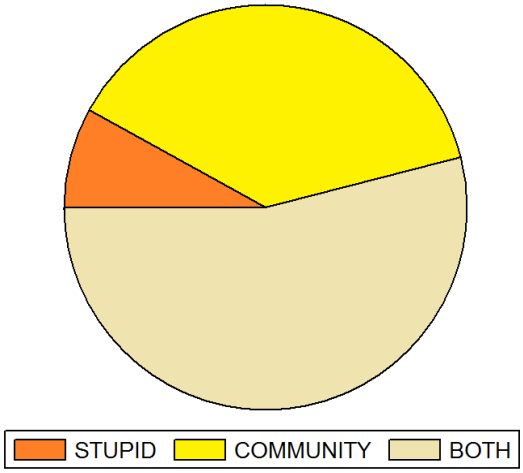
Graph 2. Distribution of answers to the question that is relatively similar to the content of Carlo Cipolla's second law

The bias of the economics students is optimized according to Pareto's principle: those who answered *yes* accounted for about 80%. The third fundamental law of human imbecility (the so-called *golden rule*) defines the stupid or incompetent individual in accordance with Peter. *A stupid person is a person who causes losses to another person or to a group of persons, while himself/herself derives no profit, or can even incur losses.* [13; p. 38]. One conclusion drawn from the abnormality of populations against stupidity is strictly related to eccentricity or kurtosis. Imbeciles do not form a flattened population, but rather a highly arched one (i.e. vaulted excessively). An example often cited is the electoral process, which is considered by losers as dominated by imbeciles, who cause loss to themselves, maintaining imbeciles or changing imbeciles for other imbeciles, more stupid than the previous ones. But they all forget that there is no law of the hierarchy of imbecilic voters and/or those already elected… The sample group of students answered coherently, not being affected by false information to a question of generated by the third law: *Who is the loser in a stupid action conducted in a community*:

a) the fools are always losers;

b) the community;

c) the fools and the community simultaneously

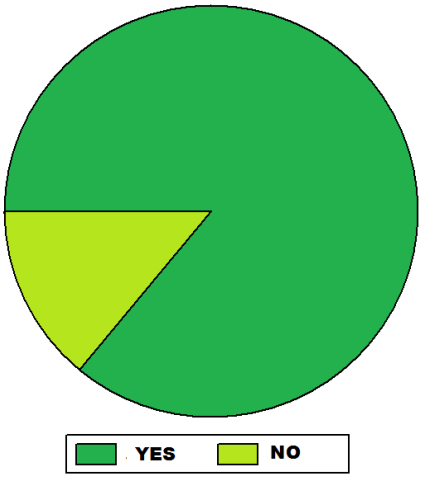


Graph 3. Distribution of answers to the question that is relatively similar to the content of Carlo Cipolla's third law

The impact of stupidity is deduced as radical both on the individuals themselves (the fools), and on the community to which they belong (Both = 54%, community prevails = 38%).

Cipolla's Fourth Law is as serious through the contagion of stupidity, which is also underestimated by those considered non-imbeciles. *Non-stupid people always underestimate the damaging power of stupid individuals. In particular non-stupid people constantly forget that at all times and places and under any circumstances to deal and/or associate with stupid people always turns out to be a costly mistake.* [13; p. 58]. Due to the fact that the respondents were brought up in an economy in full transition and in a long convergence process, where many of the management functions were temporarily held by imbeciles – in a significant, and also evident proportion –, the students

responded the question in the questionnaire favourably in an 86% proportion: *Fools have a growing influence or impact, as perceived by you.*: a) *yes*; b) *no*.



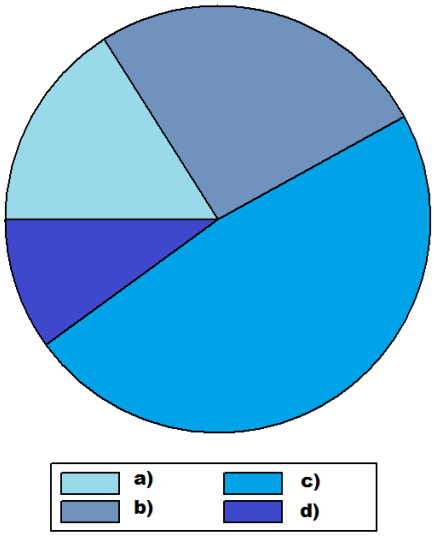
Graph 4. Distribution of answers to the question that is relatively similar to the content of Carlo Cipolla's fourth law

The very high level of the affirmative responses reflects another bias, but this time it belongs to the dissatisfied in the educational environment of the youth, and especially a result of mass-media (confirming the bias of the second law, and actually amplifying it).

The fifth and final law also contains a corollary; both of them are interesting, aiming at ranking and prioritizing, while identifying a hazard in economic and educational terms, nay even in terms related to research: *A stupid person is the most dangerous type of person. Corollary: a stupid person is more dangerous than a pillager* [13; p.61].

Cipolla considered this last law as very important in macro-analyses, just as he declared the third law defining for the exercise of power in education, research, etc. The Finance and Banking students had to answer the following question: *Is a stupid person more dangerous than: a) the idealists or the poor wretches; b) the villains or the thieves; c) than the clever person; d) he/she is not dangerous in the least*. Their answers confirm the most important place that Cipolla reserved for stupidity, within the risk hierarchy of human evolution in general.

So, stupidity appears as much more dangerous than intelligence, on a par with the rest (c=48%), and half of the remaining responses position the act of imbecility as more dangerous than wickedness on the social, economic, cultural, educational, etc. level. (b=26% compared to a=16% and d=10%).



Graph 5. Distribution of answers to the question that is relatively similar to the content of Carlo Cipolla's fifth law

The authors were also interested in the place and rank of stupidity in the context of education guided through projects and team research. The diagram below is a modest result of applying Cipolla's laws to excessively standardized situations:

I.Intelligent Project Manager+intelligent team of researchers/ scientists = project profitable for both community and participants

II. Stupid Project Manager + intelligent team of researchers / scientists = resuming the (inter)national project + change of Manager

III. Intelligent Project Manager + stupid team of researchers/ scientists = uselessly funded project + Project Manager resigns.

IV. Stupid Project Manager + stupid team of researchers / scientists = useless additional hours + failed / unearned project + loss to the community.

Obviously, the space reserved for imbecility and stupidity, and the errors made in any field is always underevaluated, in the spirit of Cipolla's laws, so the present paper proves too small for the vastness of the subject.

3. CONCLUSIONS

Imbecility, stupidity or incompetence could play, by pure chance, a positive role in many events in the history of education and research, nationally and internationally. One fifth, or even one quarter of discoveries were virtually placed under the sign and/or impact of sheer errors. There are exaggerations, according to which the impact could go as far as one third or even one half, which may explain why scientists consider, so much and so often, that they were lucky in their discoveries. Louis Pasteur made himself quotable by his all-time famous formulation: "Luck always favours only a prepared mind", and Nassim Nicholas Taleb calls *anti-fragility* the very capitalizing on an unexpected

opportunity. The authors of this article believe that an unexpected chance is rather a wrong approach, sometimes even a stupid thing to do in terms of scientific research, not previously assumed as potential rationality. However, unexpected results lead some researchers to desperate attempts, by which they try to determine what they think is an error in their hypothesis, method, or model, only to end up in seeing the persistence of the error or the resuming of the stupidity turn an experiment from an apparent silliness of systematic character into a new method, type of modeling, law or theory, making it more than a coincidence of the error. [15; 16] Stupidity, silliness or imbecility, thus defined in previous terms concerning research and education, can generate a new way of thinking, learning and assessment, focusing on new theoretical explanations for the errors that occurred [17; 18]. By trans-, inter-, cross- and multidisciplinarity, or with the help of colleagues from various other fields of scientific investigation, who are members of a joint project, stupidity or error can turn into their opposite, i.e. a new form of intelligence applied in a completely different way…

There is a crucial reason why the authors consider the laws of stupidity, imbecility, and incompetence as, first and above all, applicable to them, and then of course to other people. It is the human individual's empathic predisposition, and the human condition of accepting *the Other*, as a social necessity, evidently valid in research and education, too. At the same time, practically everyone of us can find themselves in both situations and manifestations affected by foolishness or stupidity, and in intelligence, as we periodically prove various, relatively significant percentages of stupidity, imbecility, incompetence in most activities we conduct in an apparently intelligent manner, be it in the educational field or in research, although there may be some additional (and smaller) percentage of naivety or even wickedness, hoping for a structurally descending trend in relation to our degree of education, culture and civilization.
To conclude in an optimistic and humorous vein, it is never too late to say or do something really stupid. Stephen Fienberg, one of the great contemporary statisticians, was forced to answer a question asked by a reporter, which read: *If you had not got so involved in the field of statistics, what do you think you would have liked to do in life?* (Is there is another area that could have a major impact and make you renounce statistics?)

His statement is actually the final remark the authors would like to quote, a remark which they expect from any human individual, in hopes that one could get as much of one's lifetime, in a simple way, out of the limits of stupidity and imbecility, or errors of any kind; and such a statement is obviously full of self-irony, amd also a lot of fun: *I know what I wanted to do, but I was not good enough to do: play ice hockey! Or I would have liked to write detective novels. Maybe I can still do that*… [19]

4. REFERENCES

[1] Page M., (2001). *Comment je suis devenu stupide*, Ed Le Diletante, Paris.

[2] Stiglitz, J., (2015). *The Politics of Economic Stupidity,* available at http://www.socialeurope.eu/2015/ 01/ economic-stupidity/

[3]Christianto,V.,(2015). *A Biblical Theory of Everything Inspired by the Johannine Prologue*, Lambert Academic Publisher (LAP), Saarbrucken, Germany.

[4]Plesu, A., (2015). *Conferin□ă despre prostie*, available at: https://www.youtube.com/watch?v=FAbNhfCwLhk

[5] Murphy, E. A. (1949). *Murphy's Laws.* Available at: http://www.edwards.af.mil/history/docs_html/tidbits/murphy's_law.html.

[6] Smarandache, F. (1989). *Florentin's Laws / How-To-Do and Not-To-Do List*, 1986-1989.

[7] Diamandis, P. H. (1986). Peter's Laws / The Creed of the Sociopathic Obsessive Compulsive {Peter's Laws # 14 & #18 by Todd B. Hawley}.

[8] Smarandache, F., (1990). *If anything can go wrong, pass it on to someone else!= Florentin's Laws* =, Editor: V. Christianto, Xiquan and the Editors.

[9] Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments.*Journal of personality and social psychology*, *77*(6), 1121.

[10] Ehrlinger, J., Johnson, K., Banner, M., Dunning, D., & Kruger, J. (2008). Why the unskilled are unaware: Further explorations of (absent) self-insight among the incompetent. *Organizational behavior and human decision processes*, *105*(1), 98-121.

[11] Cippola, C. M., (1987).The Basic Laws of Human Stupidity. *Whole Earth Review*, Spring 1987.

[12] Cippola, C. M., (1998).The Basic Laws of Human Stupidity. Il Mulino, Bologna.

[13] Cippola, C. M., (2014).The Basic Laws of Human Stupidity.[Legile fundamentale ale imbecilitatii umane], Ed Humanitas, Bucuresti.

[14] Cippola, C. M., (1963). Currency Depreciation in Medieval Europe, *The Economic History Review*, Second Series, Vol XV, No.3, pp. 414.

[15] Lewin J.E, Johnston W.J, (2000). The Impact of Downsizing and Restructuring On Organizational Competitiveness. Competitiveness Review: An International Business Journal incorporating *Journal of Global Competitiveness*, Vol. 10, No. 1,pp.45 – 5

[16] Săvoiu G., (2008), *The Scientific Way of Thinking in Statistics, Statistical Physics and Quantum Mechanics,*

[17] Săvoiu G, Jaško O, Dulanović Ž, Čudanov M& Craciuneanu V, (2008). The Value of General Methods, Quantitative Techniques and Management Models

[18] Săvoiu, G., (2006). Populația lumii între explozie şi implozie demografică, Ed. International University Press, Bucureşti, pp. 57 – 73.

[19] Statistics Views (2015). "In most places, not only are statisticians not in control of Big Data efforts and data science, but sometimes they are totally excluded or at best, marginalised." An interview with Stephen Fienberg, available at http://www.statisticsviews.com/details/feature/8555981/In-most-places-not-only-are-statisticians-not-in-control-of-Big-Data-efforts-and.html?utm_source=197308&utm_medium=email&utm_campaign=svsignupsDec15&utm_ content=fienberg&elq_mid=7178&elq_cid=1933799

A NEED FOR RESEARCH FOCUS SHIFT: BANKING INDUSTRY IN THE AGE OF DIGITAL DISRUPTION

Vesna Tornjanski[1], Sanja Marinković[2], Gheorghe Săvoiu[3], Mladen Čudanov[4]

[1]Eurobank a.d. Belgrade, Serbia, E-mail: vtornjanski@gmail.com
[2]University of Belgrade, Faculty of organizational sciences, Serbia, E-mail: marinkovic.sanja@fon.bg.ac.rs
[3]University of Piteşti, Romania, E-mail: gsavoiu@yahoo.com
[4]University of Belgrade, Faculty of organizational sciences, Serbia, E-mail: mladenc@fon.bg.ac.rs

Abstract. *Societies and business worldwide are rapidly digitizing, breaking down country and industry boundaries, building new opportunities, and at the same time accelerating the challenges while harming long-successful business models. This is called digital disruption - a phenomenon that will substantially shape banking industry and its operations in years to come. Despite growing significance digital disruption is causing in banking, there is still a lack of interest among researchers with respect to this issue. This article aims to shed light the understanding of biggest challenges facing banking industry in the age of digital disruption. The purpose of the article is to emphasize the need for shifting a research focus towards driving issues, as well as to provide an overview of perspectives to narrow the research gap and to facilitate digital transformation of banks. The article may contribute to the academics, managers in the financial services, banking industry, IT sector and innovation management.*

Keywords: *Digital disruption, banking industry, research focus shift, digital transformation.*

1. INTRODUCTION

The financial services sector has a vital role in the contemporary world economy. The financial institutions that comprise an economy's financial system represent the brain of the economy's assuring the majority of the economy's requisites for many operations. Banking industry represents the predominant part of financial services [1] and "banks play a vital role in the economy of any country" [2].

Traditionally, banking industry is recognized as a conservative industry, very resistant to change. The past was characterized by stable business environment, clear business models and defined boundaries that made linear and predictable business and business environment resulting in the slower pace of changes, compared to other industries. Yet, the conditions have changed over the last 20 years, which has led to paramount changes in the banking industry [1].

Today's highly competitive marketplace, characterized by global economic integration into volatile business environment, shorter product and innovation life cycles, rapid growth of information technologies and electronic communication, puts pressure on banks to continuously evolve, by changing its competitive dynamics and strategic context [9]. Besides, business worldwide is rapidly digitizing, breaking down industry boundaries, building new opportunities, and at the same time accelerating the challenges while harming long-successful business models. This is called digital disruption - a phenomenon that will substantially shape banking industry and its operations in years to come [10].

However, despite growing significance digital disruption is causing in banking, there is still a lack of interest among researches with respect to this issue.

On the other hand, age of digital disruption requires businesses to swiftly and smoothly change businesses and its business processes beyond the standard level of flexibility to efficiently and effectively carry out unpredictable external and internal changes, i.e. to be agile [3]. Given that banking is not recognized as fast-changing industry, various issues and gaps arise with reference to confronted trends that shaping banking industry today. Yet, fast-changing and uncertain business environment of the new economy imposed by digital era, address new organizational capabilities and competencies [4] which imply that banks need to redefine traditional approaches of doing business, to adapt to changes faster, more efficiently and effectively [1, 5, 6, 7, 8].

Having that in mind, the article aims to shed light the understanding of biggest challenges facing banking industry in the age of digital disruption. The purpose of the article is to emphasize the need for shifting a research focus towards driving issues, as well as to provide an overview of perspectives to narrow the research gap and to facilitate digital transformation of banks.

2.DIGITAL REVOLUTION AND DIGITAL DISRUPTION

It is widely accepted that the first digital revolution, known as the third industrial revolution, has been characterised to a great extend by mass digitization, given that products, services and media were shifted into a binary, electronic pattern. Inevitably, the first digital revolution refers to the overall changes in information and communication technologies during the second half of the 20th century. However, the first digital revolution of the 80s and 90s is now nearing the end [11].

"The Second Digital Revolution is distinguished by mass atomization — or, in other words, the everyday pulling of electronic, digital content into the perceptible real world. It is, therefore, only with the arrival of the Second Digital Revolution that a frictionless transformational circle is finally being closed between the physical world of real space and the digital frontier of cyberspace" [11].

Change that occurs when new business models and new digital technologies disturb the value of existing products and services is known as digital disruption [10, 12]. Internet, massive social networks, mobile computing, smart phones, cloud-based solutions, open source, community-based tools and development practices are disruptive triggers in today's economy world. These driving forces put high pressure on business-to-business (B2B) services, and have brought serious market disruption to business-to-consumer (B2C)

industries [13]. “That the digital age has circumvented traditional means of value preservation is undeniable. Porter’s grim prediction that the digital age will homogenize product offerings, push the basis of competition towards cost versus differentiation, and benefit the consumer has proven correct. As a result, the previously unassailable defensive walls built by incumbent firms to protect value were easily scaled to digitally-enabled competitors” [22].

Taking into account the amount of disturbance digital disruption is inducing today, organizations needs to estimate opportunities and threats and start creating new business alternatives, appropriate to deal with the future. Digitization offers many opportunities to organizations, such as increase cross-selling possibilities and development of strong customer relationships. It has been found that "companies that had 50% or more of their revenues from digital ecosystems and understood their end customers better than their average competitor had 32% higher revenue growth and 27% higher profit margins than their industry averages" [10] with applying of the broader view on the business ecosystems.

However, according to the research results of MIT Center for Information Systems, 32% of top managers evaluate that revenues of their organizations would be threatened due to digital disruption in the next five years. Besides, 60% of top managers are with the opinion that more time should be spent on this issue in years to come. Among all, it has been found that Airbnb, Amazon, Uber, Apple Pay, Kabbage, Venmo and banks are the most worried about the phenomenon, i.e. digital disruption [10, 14].

3. BANKING INDUSTRY IN THE AGE OF DIGITAL DISRUPTION

Digitization is changing the rules in banking. The 1990s is marked as the decade of e-commerce. In the mid of 1990s, academics and managers have shifted focus to understand the impact of internet. The initial understandings were directed to comprehend the radical changes of competition rules. As the rapidity with which competitive dynamics could shift in a specific industry accelerated, traditional strategies utilized to create, capture and preserve value were found to be inadequate. Yet, at the beginning of the 21st century social commerce [20] replaced the e-commerce, making more pressure on business operations worldwide [21, 22]. Digital disruption forces have weakened well-established business models, intensified the importance of competences and digital channels, while introduced the customer-centric era. Digitization often lowers entry barriers, creates lines between competing banks progressively indefinite and makes openings for fast-moving competitors that compete at lower cost, thus causing tumble in the industry. The phenomenon of digitization will increasingly determine which bank will create or fail to create a value for stakeholders [15].

Digitization may provide many opportunities to banks, such as: advancements of interactions among customers and internal and external stakeholders, provides higher quality of management decision making, enables new business and / or operating models, e.g. peer-to-peer innovation of products or services [16].

On the other hand, despite many opportunities digitization may provide to banks, it is found that many retail banks have struggled to invest into the projects to improve front, middle and back office banking operations. Besides, shifting from legacy systems to digital systems implies radical changes for organizations. Jim Marous has recognized emerging trends that are changing retail banking landscape nowadays:

- “Drive-to-Digital: Impacting delivery, marketing and service usage;
- Payment Disruption: New players, technologies and innovations;
- Increased Competition: Neobanks and non-traditional player pressures;
- Branch Optimization: Maybe not branchless, but certainly less branches;
- Focus on Customer 3.0: Digitally astute, social and yearning for insight;
- Breaking Down Silos: Product and data silos begin to crumble;
- Simplifying Engagement: Removal of friction and steps to engage;
- Improving Contextual Experiences: Leveraging data for improved service;
- Differentiating Brands: Avoiding commoditisation in a digital world;
- Global Innovation Perspective: Expanding view of tomorrow’s innovations” [17, 18].

Besides, the Bitcoin - digital currency is seen as potential threat to financial institutions worldwide, given that crypto currency and its basic principles challenge the well established money system [19]. Moreover, banking industry is facing with the issue with vast volumes of data that cannot be properly analyzed and managed without convenient technology to derive expected value for business. These challenges imply underlying changes that comprehend a strategy shift, change of operating models, cultural changes, and a set of new knowledge and skills to be able to cope with entire transformation that takes place in banking.

However, despite growing significance digital disruption is causing in banking, there is still lack of interest among researchers with respect to this issue, given that only 299 articles might be found on this burning issue at Google Scholar. Comparing to e.g. process improvement in banking, for which 22,500 articles is found using keywords at Scholar browser, stems that burning issue is 75 times less important than process improvement.

Figure 1 depicts the proportion of written articles / papers with respect to digital disruption and process improvement in banking.

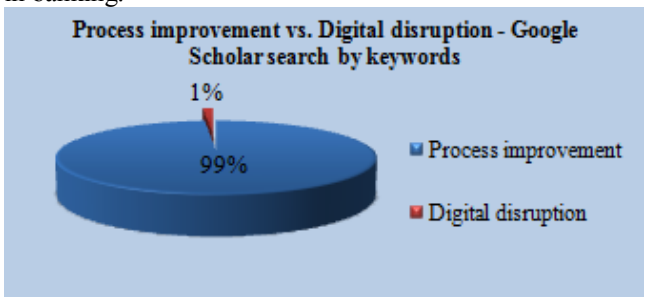


Fig. 1 Paradox in the current research focus using keywords at Google Scholar

Papers / articles that are committed to process

improvement in banking have share of 99%, while digital disruption in banking seizes only 1% of written papers / articles. This paradox calls for research focus shift towards significant issues banking industry is facing today and for which it is expected that will leave a significant impact to this industry in years to come.

4. FUTURE PERSPECTIVES OF BANKING

4.1. Agile bank model

Agility is a key to the competitive and innovation performance of organizations in contemporary business environment that put pressure on banks to continually change and evolve. Agility signifies a set of strategic activities and dynamic capabilities of strategic management to swiftly and smoothly change businesses and its business processes beyond the standard level of flexibility to efficiently and effectively carry out unpredictable external and internal changes [3, 23]. Moreover, agility refers to operations agility, too, i.e. the ability of bank to simultaneously be capable to deliver quality service, to be enough flexible while reducing operations costs in a harmonized fashion [24]. Having that in mind, the agile bank may increase market share and decrease operational costs [25].

According to the Struat, Global Banking Industry Marketing Leader at IBM, banks face three crucial challenges to become an agile bank: complexity of existing applications, customer behaviour changes and increased amounts of data [26]. Model of agile bank cannot be built overnight, given that banks have historically operated in the stable business environment that resulted in slow pace of changes. To this end, Accenture has shown five characteristics of agile bank in the age of digital disruption: a) Focus on customers, by offering products and services according to the needs of customers, i.e. hyper-personalized production; b) Shifting complex distribution towards simple and flexible processes, which requires continuous harmonization with the market trends; c) Transformation of fixed expenditures into variable costs and investment savings in revenue generation opportunities; d) Creation of flexible distribution to efficiently and effectively support channel decisions; e) Mixture of physical and digital channels in order to grow market share without traditional branches [25].

To survive, develop and grow in the age of digital disruption, agile bank's model requires appropriate, i.e. agile leadership to effectively deals with the uncertainty, complexity and transformation towards agile bank, simultaneously.

4.2. Digital bank model

Despite agile offerings from non-banking industry, as well as fact that banks are exploring methods to shift existing business models toward digital one, the changes have not been recognized as too disruptive, so far. Product and services have been developed, processes have been enhanced, data and information have been shared within an organization, and branches have been redesigned and reduced. These developments were costly to banks, but achieving a complete new banking experience through digitization will demand even more changes. Hence, disruptive changes are estimated to be in the product and service portfolio and in the revenue model [27].

When banking on digitization is in question, Asian banks are found to be the furthest ahead, followed by European banks, while the U.S. banks are recognized as the slowest in adoption of digitizing process [28]. In the recent study issued by McKinsey&Company, it is found that Asian customers are using internet and mobile channels increasingly, which resulted in usage growth for more than 35% in the past few years. In accordance to that, branch usage is decreased for 27% across Asia. "At a few leading banks, nearly 20% of key product purchases are now completed online; across Asia, on average about 25% of prepurchase decision-making and 40% of postpurchase servicing is conducted through mobile or Internet devices" [29].

Being a digital bank requires pre-defined digital transformation strategies, which imply a different perspective and pursue different objectives. From business-centric perspective, transformation strategies focus on the change of organizational aspects, incorporation of new technologies, products and processes. "Their scope is more broadly designed and explicitly includes digital activities at the interface with or fully on the side of customers such as digital technologies as part of end-user products. This constitutes a clear difference to process automation and optimization, since digital transformation strategies go beyond the process paradigm, and include changes to and implications for products, services, and business models as a whole" [30]. There are four dimensions that represent fundamental elements of digital transformation strategies, i.e. technologies use, value creation changes, structural changes and financial aspects [30].

The use of technologies represents an organization's attitude towards implementation and ability to exploit new technologies. Thus, the strategic role of IT is crucial, along with the organization's view: market leader in technology usage or market followers with well established standards. In both cases, the use of new technologies implies transformation in value creation which further requires structural changes of an organization to properly support operations of business. However, the existing operating model can only be transformed after taking into account financial perspective which implies an organization's "urgency to act owing to a diminishing core business and its ability to finance a digital transformation endeavour; financial aspects are both a driver and a bounding force for the transformation" [30]. Given that these four dimensions are dependent, management of organizations needs to harmonize all perspectives for successful transformation of organization towards digital model, including alignment with other operational and functional strategies within an organization [30].

In recent report issued by MIT Sloan Management Review, authors have revealed four options for business models convenient to operate in the age of digital disruption, but two might be appropriate for banking industry.

"The supplier model" – the model implies sales through another company, thus it represents an operations in the value chain of another sinewy organization. Examples for this model are insurance companies which operate via independent agents (e.g. Chubb Group), mutual fund via broker houses (e.g. Vanguard), and electronic products through retailers (e.g. Sony). In the digitization process,

suppliers have lower power and consequently are pursued to continually reduce prices, which result in continuing industry consolidation [10].

”The omnichannel model” - the model provides access to the products and services to customers using a mixture of both physical and digital channels. The model aims to offers multiple and greater choice and coherent customer experience. Banks (e.g. Toronto-based CIBC and Bilbao, Spain-based BBVA), and retailers (e.g. Wal-Mart, Nordstrom and Carrefour) aspire to become omnichannel business providers in an integrated value chain with strong focus to customer relationship. Gaining entire knowledge of the end customers, their needs and goals represents one of the biggest challenges in this model, according to the research results shown in the report. To facilitate this process, many organizations have recognized big data analytics, mobile applications, social media and metrics of customer experience as possibilities to increase deep understanding of the end customer’s needs [10].

Digital banking implementation is understood to be grounded on three perspectives: 1) customer centricity, 2) open innovation [31] and 3) organizational flexibility [32].

Customer centricity consists of two main parts in a digital transformation: customer experience focus along with an in-depth questioning of the role of branches. Customer centricity perspective is based on three success factors: a) Attentive and pragmatic focus – with the aim to better understand customers’ expectations, thus to facilitate anticipation process. The customer centric perspective requires a change in mind-set and existing practices, by putting customer in the center of business focus; b) Readiness and creativity - requires the organization's ability to capture the entire potential of new technologies, thus it implies agile IT functions and forming cross-functional teams focused on customers’ expectations.; c) Redesign of role of branches – “Traditional branch networks embody the brand of the bank as an institution and host an important number of the banking staff. Changing the role of the branch means changing the habits, beliefs, incentives, and experience of the people who work in and for branches. The digital shift is a cultural shift, with new skills required to meet newly digitized customers. What does the future of branches look like? A top executive from a pure online player sums it up nicely: "Delivering high-value advice through true experts." In this scenario, banks have flagship branches that showcase the brand and are fully integrated parts of the omnichannel customer journey” [32].

Open innovation and ecosystems are recognized as a key of design and delivery in the digital age, given that the perspective is aspired to create an agile organization that incorporates customers’ needs with solution to provide new services quickly. Digital teams that consist of integrated IT and marketing experts are seen as a value to produce innovations that are quickly ready for use of customers. Thus, a mixture of internal know-how with external market potentials creates more valuable innovations in the digital era [32].

Organizational flexibility implies organizational and technological agility. An agile IT platform is crucial to the digital operating model of banks. "The proliferation of new technologies and the faster time-to-market call for a fundamentally flexible IT platform that is able to integrate external cloud services. IT organizations need to be segregated by seamlessly integrating the front-end IT into the business and industrializing the back end. At a deeper level, it means a cultural change to embrace new technology testing and integration, and to adopt a customer solutions-driven mind set" [32]. Organizational flexibility requires a clear long-term vision and at the same time strong short-term implementation capacities.

Besides, the biggest challenge in creating digital bank model is changing the traditional organizational culture and employees' mind-set, given that digital age is forces banks to shift from a product-centre to customer-centric view, from traditional IT “back office” role to a tech-savvy mind-set, and from silo-based to inclusiveness perspective. It has been recognized that three features are underlying principles for cultural shift towards digital model: forward thinking, “test-and-learn” approach, and openness of all employees [32, 33, 34, 35]. To this end, leaders have a significant role in cultural shift. At the same time, having the support of the all employees at all levels in bank is crucial for the successful digital transformation of bank.

5. CONCLUSION

Digital disruption is remarkably changing businesses worldwide, builds new opportunities and at the same time disrupts long-successful business models, while accelerates new challenges. The phenomenon will substantially shape banking industry and its operations in years to come. Despite growing importance digital disruption is creating in banking industry, there is still lack of interest among researchers with regard to this burning issue, given that only 299 articles might be found on this issue at Google Scholar, which is 75 times less than e.g. process improvement. Therefore, this gap calls for research focus shift towards significant issues banking industry is facing today and which will leave a significant impact to this industry in years to come. To this end, we have collected an overview of perspectives to facilitate forthcoming digital transformation of banks.

The article may contribute to the academics, managers in the financial services, banking industry, IT sector and innovation management.

Future research with regard to banking industry in the age of digital disruption should incorporate perspectives from different stakeholder group, i.e. academics and senior managers from banking industry. These insights may reveal additional useful information regarding the issues banking industry is facing in the age of digital disruption.

6. REFERENCES

[1] Fasnacht, D. (2009). Open Innovation in the financial services: growing through openness, flexibility and customer integration. 1st edn. Springer.

[2] Mihailovic, N., Bulajic, M., & Savic, G. (2009). Ranking of banks in Serbia. Yugoslav Journal of Operations Research, 19(2), 323-334.

[3] van Oosterhout, M., Waarts, E., & van Hillegersberg, J. (2006). Change factors requiring agility and implications for IT. European Journal of Information Systems, 15(2), 132-145.

[4] Filos, E., & Banahan, E. P. (2001). Will the

organisation disappear? The challenges of the new economy and future perspectives. In E-business and Virtual Enterprises (pp. 3-20). Springer US.

[5] Huo, J., & Hong, Z. (2013). The Rise of Service Science. In Service Science in China (39-68). Springer Berlin Heidelberg.

[6] Tornjanski, V., Marinković, S. & Lalić, N. (2014). Application of ANP method based on a BOCR model for decision-making in banking. Proceedings of the XIV International Symposium SymOrg: New business models and sustainable competitiveness (SYMORG 2014), Zlatibor, Serbia.

[7] Tornjanski, V., Koulompouros, N., & Lalić, N. (2014). The selection of key performance indicators for achieving operational excellence in banking using ANP methodology. Proceedings of the XLI Symposium on Operational Research (SYM-OP-IS 2014), Divcibare, Serbia.

[8] Tornjanski, V., Čudanov, M., & Săvoiu, G. (2015). A holistic approach to innovation management in banking: a review. Econophysics, Sociophysics & Other Multidisciplinary Sciences Journal (ESMSJ), 5(2), 8-15.

[9] Achrol, R. S. (1991). Evolution of the marketing organization: new forms for turbulent environments. The Journal of Marketing, 55 (4), 77-93.

[10] Weill, P., & Woerner, S. L. (2015). Thriving in an increasingly digital ecosystem. MIT Sloan Management Review, 56(4), 27-34.

[11] Barnatt, C. (2001). The second digital revolution. Journal of General Management, 27(2), 1-16.

[12] Tech Target. (2015). Retreived from: http://www.techtarget.com

[13] Walker, A. (2014). Banking without banks: Exploring the disruptive effects of converging technologies that will shape the future of banking. Journal of Securities Operations & Custody, 7(1), 69-80.

[14] Weill, P., & Woerner, S. L. (2015). Working With Your Board on Digital Disruption?. research briefing, MIT Center for Information Systems Research, Cambridge, Massachusetts.

[15] Walters, T. Beyond Marketing: Why Digital Disruption Requires.

[16] Hirt, M., & Willmott, P. (2014). Strategic principles for competing in the digital age. McKinsey Quarterly, 1-13.

[17] The Financial Brend (2013). Retreived from: http://thefi nancialbrand.com/36367/2014-top-bank-trends-predictions-forecast-digital-disruption

[18] Wijewardena, W. A. (2014). THE CHANGING LANDSCAPE OF RETAIL BANKING: CHALLENGE NOW-ADAPT OR PERISH, 9-21.

[19] Teigland, R., Yetis, Z., & Larsson, T. O. (2013). Breaking out of the bank in Europe-exploring collective emergent institutional entrepreneurship through bitcoin. Available at SSRN 2263707.

[20] Fader, P. S., & Winer, R. S. (2012). Introduction to the special issue on the emergence and impact of user-generated content. Marketing Science, 31(3), 369-371.

[21] Leeflang, P. S., Verhoef, P. C., Dahlström, P., & Freundt, T. (2014). Challenges and solutions for marketing in a digital era. European management journal, 32(1), 1-12.

[22] Bodily, S., & Venkataraman, S. (2004). Not walls, windows: capturing value in the digital age. Journal of Business Strategy, 25(3), 15-25.

[23] Sambamurthy, V., Bharadwaj, A., & Grover, V. (2003). Shaping agility through digital options: Reconceptualizing the role of information technology in contemporary firms. MIS quarterly, 237-263.

[24] Menor, L. J., Roth, A. V., & Mason, C. H. (2001). Agility in retail banking: A numerical taxonomy of strategic service groups. Manufacturing & Service Operations Management, 3(4), 273-292.

[25] Accenture. (2015). The Agile Bank — Transforming the Customer Experience. Retreived from: https://www.accenture.com/t20150916T152712__w__/us-en/_acnmedia/Accenture/Conversion-Assets/Microsites/Documents19/Accenture-AgileBanking-Infographic.pdf#zoom=50

[26] IBM. (2015). Becoming an Agile Bank. Retreived from: http://insights-on-business.com/banking/becoming-an-agile-bank/

[27] ATKearney. (2013). Banking in a digital world. Retreived from: https://www.atkearney.com/paper/-/asset_publisher/dVxv4Hz2h8bS/content/banking-in-a-digital-world/10192

[28] Gale, Sarah Fister. (2015). Banking on Digitization. PM Network. Retrieved from High Beam Research: https://www.highbeam.com/doc/1P3-3581181401.html

[29] McKinsey&Company. (2014). Digital Banking in Asia. Retreived from: http://www.mckinsey.com/~/media/mckinsey%20offices/singapore/2014%20digital%20banking%20in%20asia%20-%20winning%20approaches%20in%20a%20new%20generation%20of%20financial%20services.ashx

[30] Matt, C., Hess, T., & Benlian, A. (2015). Digital Transformation Strategies. Business & Information Systems Engineering, 57(5), 339-343.

[31] Tornjanski, V., Marinkovic, S., Levi Jaksic, M., & Bogojevic Arsic, V. (2015). The prioritization of open innovation determinants in banking. Industrija, 43(3).

[32] ATKearney. (2014). Going Digital: The Banking Transformation Road Map. Retreived from: https://www.atkearney.com/digital-business/ideas-insights/featured-article/-/asset_publisher/Su8nWSQlHtbB/content/going-digital-the-banking-transformation-road-map/10192

[33] Carpenter, S. R., & Gunderson, L. H. (2001). Coping with Collapse: Ecological and Social Dynamics in Ecosystem Management Like flight simulators that train would-be aviators, simple models can be used to evoke people's adaptive, forward-thinking behavior, aimed in this instance at sustainability of human–natural systems. BioScience, 51(6), 451-457.

[34] Gulati, R. (2007). Silo busting. Harvard business review, 85(5), 98-108.

[35] Simmons, J. (2008). Employee significance within stakeholder-accountable performance management systems. The TQM Journal, 20(5), 463-475.

SOME FREQUENT ERRORS AND STUPID APPROACHES IN THE RESEARCH ACTIVITIES OF YOUNG PHYSICISTS

Ion Iorga Simăn[1], Gheorghe Săvoiu[2]

[1,2]University of Piteşti, Romania, e-mail: ioniorgasiman@yahoo.com and gsavoiu@yahoo.com

Abstract. *A brief introduction is devoted to stupidity or foolishness and errors in scientific research, preparing a detailed breakdown in the central section of the paper, illustrating some errors occurring in the activities of knowing, evaluating and research of young teachers and researchers in the fields of physics, econophysics or sociophysics. The conclusion redefines stupidity as the absence of spirit and passion in monodisciplinary scientific fields, yet especially in trans-, inter-, cross- and multidisciplinary fields, where physics cannot be lacking, and practical is not more often than not lacking, even when it becomes econophysics or sociophysics.*

Keywords: *error, stupidity or foolishness, incompleteness, confusion, silly inventions, counterfeit assumptions.*

1. INTRODUCTION

"*The term* ***prost*** 'stupid', Andrei Pleşu wrote, *comes into Romanian from the Slav space, and defines rather a very low social or individual status, also meaning miserable, wretched, poor (literally), ordinary, common, plebeian, poor quality, inadequate, as well as confused, crazy. There are a lot of current expressions containing the word* ***prost*** 'stupid, foolish, dumb'*, adding additional shades: "you are looking at me like a fool", "laughing like a fool", "making a fool of oneself", "as dumb as a box of rocks", "foolishly good*". [1]

This article is dedicated to errors, and especially to stupidity, in its academic or even euphemistic meaning – silliness and futility, in the specific approaches in the field of scientific research, and aims to specially target warning young people passionate about physics, econophysics or sociophysics, who are always in a normal contact with error, and is also directed to young researchers, physicists econo-physicists, or socio-physicists, without however ignoring anyone in general terms, as almost all human beings are endowed with reason are exposed to stupidity, including obviously the authors of the present paper.

Errors and stupidity (or foolishness) itself are triggered by a change, maybe a banal one, which however has significant consequences. Although there is no logical reason why the most banal, trivial things should be liable to have significant, impressive consequences, it is important to separate scientific thinking from uni-causal and insulating approaches, as reductive, successive and paradoxical inferences of the type of the trivial incident, long considered the only possible cause of a large and complex event. Here's what a type of apparently scientific explanation looks like, when dilated maximally and theatrically, in Shakespeare's spirit, logically and reductively, yet concealing an important phenomenological critical mass:

For want of a nail the horseshoe was lost,
For want of the horseshoe, the horse was lost,
For want of the horse, the rider was lost,
For want of the rider, the battle was lost,
Because of the lost battle the kingdom was lost.
The fall of Richard III

The absence or lack of a horseshoe nail turns, from being a minor factor, even a banal one, without any potential consequences, into the central motivation or the essential endogenous variable of a complex system – in the previous enumeration, premeditatedly amplified by stages. The causal factor of *Richard III's fall* appeared to be simply the horseshoe of a poor horse, the last of the residual causes, or possibly the most childish explanation, or the one with no impact whatever in any approach considered relevant and complex, and at any time a hobnail lacking from of a horseshoe is, or will be, treated as a piece of monstrously impacting nonsense… In the theoretical and pragmatic universe of contemporary science, implicitly in that of physics, econophysics, sociophysics, etc. a mere analysis of a relatively large number of papers published or presented at various conferences, symposia and sessions, allows the identification of typical errors, the frequency of which does not unfortunately seem to have a downward trend.

2. SOME TYPES OF FREQUENT ERRORS IN THEORY APPROACHES AND INVESTIGATIVE PRACTICE

As it was expected, and very often recognized, the content of theoretical requirements relates in particular to the identification, enunciation – possibly including drawing or writing with mathematical expressions – of a number of laws and principles, specifying the physical significance of the values, magnitudes and quantities that occur in the physical, economic or social phenomenon being investigated, to defining some distinct characteristic of scale units in certain physical, economic or social phenomena, and especially to demonstrating some relations with subsequent modelling impact, or the description and interpretation of laboratory experiments and studies of real economic or social case.

These initial requirements of deep theoretical character call for increased background knowledge previously prepared, an active memory, and, to a lesser extent, logical thinking and capabilities and transfer or own capitalization, rather than resolving practical issues that also require careful interpretation of solutions and results.

In presenting purely theoretical topics, which generate innovative models and methods, however, rigor, precision, accuracy and a treatment as close as possible to the idea of completeness (completeness, which is however combined with a necessary summary, to the extent that there are restrictions) are required.

In such approaches, the main causes of the errors occurring in addressing theoretical issues are considered to be:

a) haste and carelessness in experimental approaches or investigations;

b) excessive memorization as a support of learning and

perception of physical, economic and social realities, without understanding the content of the phenomena experimentally investigated or examined;
c) gaps in the knowledge of the language of physics, econophysics or sociophysics;
d) gaps in the type of thinking focused on logical premises, assumptions, lemmas, theorems, axioms, i.e. lack of a legic, structural, systemic, and simultaneously spatial-temporal approach;
e) insufficiently systemized and consolidated knowledge, resulting in ambiguity of meaning and superficial interpretation, or lack of an overall and detail depth of knowing the phenomena, which is so necessary in knowledge-getting, in education and research (knowledge that is unrelated, loose or isolated by the methods of perceiving the universe as being one-disciplinary, in a visibly inter-, trans-, cross-, and multidisciplinary context, more than obvious in modern education and contemporary research);
f) insufficient knowledge, where *little* becomes, in this context, similar to *wrong* or *stupid*;
g) lack of timely, relevant or recent knowledge, which will be conducive to obsolescence and outdatedness for the entire approach to knowledge, education or research.

The errors made during, or along the disciplinary itinerary, which arre presented below as purely theoretical mistakes, as they result from the wording of a large number of papers, articles, laboratory reports or experiments, and even from the way they were expressed in a number of dialogues with young students, MA students, and even young university assistants, etc. [2; 3; 4], can be grouped into the following types, or generic structuring patterns:

I. Errors caused by incompletely dealing with the process, phenomenon, or subject-matter / theme examined

The specificity of such errors is given by omitting some subsystems, associations, correlations, conditions that are imprecisely demarcated, or clarifications lacking substance, mere utterances without the necessary phenomenological substantiation, mathematical relationships that are partial or without the needed degree of generalization, parts of utterances or absence of words and key relationships, etc.

This can lead to simple errors, such as the statements in the following examples:
a) "*the photoelectric effect consists in the emission of electrons from dark substances or solids*";
b) "*induced emf is proportional to the magnetic flux rate*";
c) "*the second principle of mechanics is equivalent to the relationship: F = ma*";
d) "*magnetic induction is a stable relationship between force, intensity and length B = F/(I×l)*";
e) "*the principle of inertia shows that any isolated body retains its state of rest*";
f) "*monetary circulation is a diffusion process in communicating with implicit vaporization*";
g) "*demographic implosion is defined by the inverse functions of the demographic explosion in unstable environments*", etc.

There is also in this type of approach an extreme category of errors that completely compromise the investigation, examination, knowledge of, or research into the physical, economic or social phenomenon, most often leading to genuine *gems of unscientific thinking*, whose only quality is involuntary humor, i.e. generating fun, in contrast to the phenomenological essence that they degenerate.

II. Errors generated by confusion

The rate of expansion of this type of error is hard to imagine, as it is dependent on the ability to associate erroneously and inexplicably (which increases exponentially) on the part of the person who generates it, but finally one can distinguish three broad categories:

IIa. Language confusions arise mainly as a result of inappropriately using scientific concepts, notions and terms. To illustrate them, we can give some details concerning them, as samples of originality, or humorous samples, or even paradoxical examples:
a) "*the two universal physical forces are called isolated action and interaction*";
b) "*a kilomole of any substance has the same number of moles*";
c) "*the impulse is always the same as the ratio of the mass and speed*";
d) "*the velocity vector is always perpendicular to the given path*";
e) "*a permanent exchange of temperature takes place between solid bodies*";
f) "*spherical mirrors can be now conclave, and now concise*";
g) "*when two forces act on a body a cuboid-shaped diagram is formed*";
h) "*when the temperature is constant, the transformation is called isomorphic*";
i) "*an antiaquatic transformation is done without heat exchange*";
j) "*thermodynamics is based on some principles deriving from thresholds*";
k) "*thermodynamics does not study microscopic objects, such as microbes*";
l) "*the economy and the social are subject to experiments validating or invalidating the laws of physics*";
m) "*quantum economy proves increasingly useful as the monetary mass and speed increase*".

A specific category of language gaps are indeed tautologies, or derivatives of generalizations made "at any cost", which therefore cannot fail to be included in this paper, e.g.
a) "*physical movement is the movement of a body in relation to other bodies*";
b) "*amplitude is a longitude or altitude rather than a platitude*", etc.

IIb. Content confusions are the result of an inaccurate, imprecise initial definition, or a latent ambiguity in the minds of the young students:
a) "*Boyle-Mariotte's Law describes the isobaric transformation"*;
b) "*frequency is time needed to perform a full oscillation*";
c) "*Kirchhoff's laws are closely linked with the movement of the planets*";
d) "*a potentiometer can be considered the unit of electric potential*";
e) "*any isolated material point retains its state of rest or of uniform circular motion*";
f) "*a condenser turns stem into distilled water through condensation*";
g) "*an ideal gas is a vector quantity, and likewise the*

incomes in an economy";
h) "*Faraday's law, or the law of electromagnetic induction, expresses the amount of material deposited on the cathode through induction, and becomes similar to network immigration towards the maximum income or profit*".

IIc. Confusions relating to physical quantities are the result of a superficial knowledge, or total lack of knowledge of physical phenomena in general:
a) "*interaction force is directly proportional to various types of heat* q_1, q_2, ... , q_n, *and also inversely proportional to the radius*";
b) "*at a temperature t of 527°C the pendulum is delayed according to the law* $y = A \sin \bullet \omega \bullet 527$";
c) "*the equation of state is* $p \times V = v \times R \times T$, *where p is pressure, V velocity, v the frequency, R is Bolt's constant, and T is the period of analysis*";
d) "*the equation of econophysical macroeconomic equilibrium assumes that, in an economy, the product of unemployment rate, inflation and the budget deficit is always constant"*.

III. Errors caused by improvised answers, which are almost always at least amusing, even sometimes absurd, and based on some vague knowledge or lacking clarity and rationality, as illustrated below, ina strictly authentic manner:
a) "*the second principle of thermodynamics, in the formulation given by Celsius, emphasizes that all cold bodies turn into warm bodies, rather than vice versa*" ;
b) "*the inertia principle states that a body is fixed and motionless*";
c) "*the angular moment is when the ball reaches the maximum height*";
d) "*the crystal lattice is made up of many small and very small squares*";
e) "*a kilomole is one thousand times bigger than a molecule*";
f) "*semiconductors are half as large as conductors*";
g) "*a system is isolated if it cannot leave the vessel or the precinct*";
h) "*a stationary flow occurs only when the liquid stays in place*";
i) "*reversible transformations are either from right to left, or left to right*";
j) "*a hydropower station is a pipe submerged lying on the bottom of the lake, through which electricity passes*";
k) "*if we act on a body with a force F, then it will act with an opposite force, only slightly smaller*";
l) "*Pascal's law shows that if we hit a plastic bottle with a little hammer, the cork of the bootle will jump*";
m) "*any thermal machine works according to two transformations: a hot one, and a cold one*";
n) "*in any transformation the gas suffers from heat and mechanical work*";
o) "*the vector weight hangs from the body, and it causes things to always hang downwards*";
p) "*foreign direct investment is strictly correlated with country risk rating, with the same intensity as the universal law of attraction of bodies in space, and the distance is equal to the GDP*";
r) "*the European Union's regional network can be treated as a neural network, where neurons are common institutions and the laws become connections, and the identification of a network node, simultaneously authoritarian and formal, is a contradictory operation*".

IV. The errors due to invented, makeshift answers or roundabout solutions represent the so-called *stupid or silly inventions*, which lend a profoundly negative connotation to the concept of *improvisation*, resulting from the desire of their authors to instantly discover what they failed to learn in many years, or bypass reality and compensatorily providing solutions to something different and referring to something totally different. Only rarely can they benefit from good-will, or may they be treated as a mere fantasy: they rather give the sense of stupidity and ignorance:
a) "*a thermostat is a thermos that stands in place*";
b) "*the principle of the proportionality of mechanical movement shows that a body in motion, which sweeps a certain angle cos α is directly proportional to acceleration*";
c) "*the impulse law states that if, for example, we stab someone in the leg with a needle when he / she sleeps, he / she will jump up, so we will give that person an impetus that is hard to stop afterwards";*
d) "*Coulomb's Law is the study of the intensity of mass, time, speed. Coulomb said that if a body is acting at a speed from an area to another, it is moving. If a body is pushed off a surface, it falls and, falling, it exerts a force on the platform. All of this is caused by Coulomb's Law*";
e) "*the electrochemical equivalent of a substance is a compound which, through its composition, is superior to the original substance or material and is used to get a better quality product that is easier to find and also cheaper*";
f) "*the inertia principle was invented by the great scholar Newton, who conducted much research in nature, including the research on the principle of inertia, not previously used in practice; a Newton measures a force, which can be elastic, of friction, of attraction and other, much bigger forces*".
g) "*all the measuring units come from the name of a number of scientists*".

Many of the examples above are culled from entrance examination papers, or test papers taken during higher education courses, but also from the unfinished drafts of articles and papers, originally prepared at sessions of students' scientific research conferences, or even graduation theses or dissertations in their yet unfinished form [4; 5].
Although most of them were actually produced in a profoundly emotional state, or under stress, future young teachers and researchers, who are now only graduate students or MA students should consider them in their preparation, as most such errors could have been easily avoided; moreover, it is anyway better to learn from others' mistakes than from our own ones, especially in exams or competitions.

3. ECONOMETRIC TESTS, THE NULL HYPOTHESIS AND THE FREQUENT ERROR OF MODERN MODELLING

The development of statistical hypothesis testing theory has generated the most interesting contemporary error, in very much the same way as statistical survey or econometric modelling remain the most efficient solutions of investigation, understanding and prediction. The first major impact contributions in the mathematical grounding of

statistical hypothesis testing belonged to J. Neyman and E. A. Pearson, through their studies, especially those published in the *Biometrica* journal. To explain the main features of the testing and modelling error it is necessary to answer an initial question: *What does a statistical hypothesis represent in testing and econometric modelling?*

Etymologically, the term *hypothesis* was derived from *thesis*, whose logic and mathematical sense has always been that of an allegation proved true. A *hypothesis* represents, in terms of the Greek origin of the word (Greek *hypo* means *less*), an understatement that is less certain, less real or true, or a still unproven assertion.

A statistical hypothesis is an *assumption*, because it refers to a situation that may be true, to one or several statistical distributions that characterize certain populations, or to one or several parameters of such distributions. A statistical hypothesis is a concrete description of one or several aspects related to one or more populations rather than a description of the sample. *Consequently, any statistical hypothesis may be an assumption concerning one parameter of a theoretical distribution or its type, and verifying the hypothesis requires establishing the truth or falsity of the hypothesis, based on statistical observations*. Prior to the verification of statistical hypotheses, the hypotheses called *admissible* will be formulated. Based on the one-dimensional distribution, whose density distribution $p(x_1,\theta)$ depends on parameter θ, hypothesis $H_0:\theta=\theta_0$, or $H_0:\theta-\theta_0=0$, is verified, in keeping with which the parameter θ has value θ_0, or between the two values there is no significant diference. Obviously, we can make the assumption that, besides value θ_0, the parameter can also assume the values $\theta_1,\theta_2,\ldots\theta_n$. All such resulting hypotheses, $H_0:\theta = \theta_0$, $H_1:\theta = \theta_1$, represent the *admissible* hypotheses described above [6].

To distinguish it from other assumptions, hypothesis H_0: $\theta = \theta_0$ is called *the null hypothesis*, while any other hypothesis is considered an *alternative hypothesis*. The null hypothesis always consists in admitting the random or haphazard character of differences, i.e. the assumption that there are no essential differences, whereas the alternative hypothesis contradicts the null hypothesis, and is accepted only when there is sufficient evidence to determine it as true. The two hypotheses are theories that are simultaneously exclusive (it is impossible for both hypotheses – the null and the alternative one – to be true, or both hypotheses to be false) and exhaustive (they cover all possibilities, i.e. either the null hypothesis or the alternative hypothesis should be true) concerning the nature or values of parameters the theoretical random variables associated with the characteristics studied or to verify the compliance with specific statistical distributions. Stating the null hypothesis is one of the most delicate issues of the decision focused on statistical hypothesis testing, and this is an issue that has brought, and is still bringing about major divisions within the theory of the econometric model, and has generated fears about the birth and rapid multiplication of the worst and most frequent error in modern modelling.

What does consensus mean – of theoreticians and practitioners with respect to the decision focused on statistical hypothesis testing hypotheses focused on the existence of a null hypothesis within the framework of contemporary general econometric model – and how consistent can it be? Of course the rather short history of econometrics, and especially that of econometric modelling, both cause a lot of common accepted points to coexist, and equally some ambiguities and misunderstandings, nay even fundamental disagreements. As a simple illustration, one can present two different views on testing as a specific type of statistical procedure. Hypothesis testing through rigorous statistical and mathematical methods, as described by J. Neyman and E. A. Pearson, also provided decision rules regarding the acceptance or rejection of a particular statistical hypothesis called *the null hypothesis* (which provoked a great deal of contradictory discussion, generating among other modelling sciences an aversion to "accepting" it. [7]

One of the main challengers, J. W. Tukey, stated that modern researches focused on formulating, testing and validation / invalidation of statistical hypotheses are given the wrong questions, which in turn provide deceptive answers, even through null hypotheses. Tukey's sharp, perceptive thinking and his ability of reasoning should be followed carefully, especially when he argues that, through the famous null hypothesis, where some parameters A and B, endogenous variables A and B, or effects A and B are considered equal, the difference between them being insignificant or null, the statisticians-researchers are asked basically whether *"the effects of A and B are different"*, and they very much wish to answer "No". All we know about the larger world (especially the economic world) shows that the effects of A and B, when measured, are always different – at least to a certain decimal figure – and that is valid for any A and B. Hence the question *"Are the effects different?"* becomes a practical *nonsense*. What should be done first would be to identify the answer to another question, i.e. "*Can we possibly identify the direction in which the effects of A are different from the effects of B?*" To put ir differently, can one trust the direction from A to B? Is it "upwards", "downwards" or "uncertain"? A third alternative response means that "*we are not sure about the direction*", and this does not mean, and it never should mean that "*the null hypothesis is accepted*". In other words, J. W. Tukey points out that A and B will always differ slightly, yet what should be done by testing is choosing the direction of the difference and determining the trust in the decision taken. Moreover, the above assertion implicitly brings about the idea that the magnitude of the difference is not coherently and significantly addressed through hypothesis testing. Another objector of the null hypothesis is Cohen, who argues via what can be defined as the despair of knowledge processes through validation, and so maintains that *statistical hypothesis testing does not clarify what we want to know, and as we want very much to know, in desperation, we think it is so*! [8; 9] By contrast, the test of significance, as described by R. A. Fisher in 1973, suggests that there may be a *p* value used to quantify *the faith* of those testing to the effect that the statistical data are significant [9; 10; 11].

In practice, the decision focused on testing the statistical hypotheses is a verification process far more complicated than described in the testing methodologies. This process is based on the criterion of falsifiability (Karl Popper) that states *that while it is possible to determine when a hypothesis is false, it is much more difficult, if not impossible, to prove that a hypothesis is true.* If the reality of

the available data are contrary to the hypothesis, then the hypothesis is false (i.e. the hypothesis can be rejected). If the evidence coincides with the hypothesis, it does not necessarily follow that the hypothesis is true. In this case, the only reasonable thing that one can say is that the reality of the available data did not show the falsity or fallacy of the hypothesis (the hypothesis cannot be rejected) [11, 12]. Meanwhile, the two classic opinions of the null hypothesis, which are in full opposition, have emerged as major disagreements and have gained followers, managing to turn into two standpoints increasingly harder to reconcile, and a warning about the error of formulating the hypothesis in statistical testing and decision-making, as well as in econometric modelling.

4. A MERE ERROR AND ITS GRAVE CONSEQUENCES, AS CONFESSED BY BASARAB NICOLESCU

Errors are never simple, even when they seem to be mere coincidence of names, as in this example where Basarab Nicolescu shows a great and grave confusion, maintained or maybe premeditated [13; 14].

"A few years ago" Basarab Nicolescu wrote in 2000, see la http://convorbiri-literare.dntis.ro/nicolescumar__12.htm "I discovered by chance, at a book fair in Cluj, a booklet titled *Iluştri francmasoni români* (*Famous Romanian Freemasons*), where I was amazed to discover the name of Stéphane Lupasco. The author, Emilian M. Dobrescu, literally wrote 'Lupascu, Stefan A. (1909-1988). Philosopher and scientist. Based in Paris. Earned his doctorate at the Sorbonne, with the paper *Du devenir logique et de l'affectivité* (*On logical becoming and affectivity*). Pursued concerns in the field of philosophy, natural science, logic and epistemology, and investigated the relationship between science and contemporary art. Recognized as one of the great minds of European humanistic culture; the main feature of his work is inter-disciplinarity; a selection of his books and papers (…) was also published in the Romanian language, by the title *Logica dinamică a contradictoriului* (*The Dynamic Logic of Contradictory*) in 1982. In 1991 he was elected honorary member of the Romanian Academy posthumously. The history of Freemasonry retained numerous data related to his participation in various events of the Masonic Order (apud Horia Nestorescu-Bălceşti): delegate of the Grand National Lodge of Romania (MLNR), (…), representative of United Romanian Freemasonry (FMRU), and head of the General Secretariat of the Supreme Federal Council of FMRU'."

"I read the text three times", Basarab Nicolescu resumes, "to convince myself I was not dreaming, and really I was not. The text quoted is worthy of being part of the writing of Urmuz. It was clear that, through a very embarrassing confusion, a Romanian Freemason, Ştefan Lupaşcu, was identified as one and the same person as Stéphane Lupasco, the philosopher of the included middle. Two different people rolled into one person due to the similarity of name and surname".

Here is how an error can be removed, how the clear blue horizon of knowledge can be restored, and especially how something cannot be something else, someone be someone else, and how a person cannot be in two places at the same time – as demonstrated below by the same Basarab Nicolescu.

"The errors were obvious to me from the outset. Stéphane Lupasco was not born in 1909, but in 1900. He could not be simultaneously in France and in Romania. In 1937, Stéphane Lupasco married Yvonne Bosc in Paris, two years after he defended his doctoral thesis at the Sorbonne. He obtained French nationality in 1947".

Still, as the researcher can and must give an answer to why the error occurred, Basarab Nicolescu's argument should be pursued to the end…

"However, I had the chance of discovering the key to the mystery in 2005, reading the article "Sadoveanu şi sufletul românesc" (*Sadoveanu and Romanian soul*) by Alexandru Paleologu in *Dacia Literară*. […]

Unfortunately, the data put forward by Alexandru Paleologu are ignored, and the confusion between Stéphane Lupasco and his uncle Ştefan Lupaşcu had adverse consequences. Some people belonging to high Orthodox Christian circles thus reached the conviction that the theory of the included middle, introduced by Stéphane Lupasco, as well transdisciplinary (which recognizes in Stéphane Lupasco one of its illustrious precursors) are an instrument of universal Freemasonry devised to establish a new world order. Quite literally… The documentary basis [of such an error – seemingly of minor dimensions, but having major consequences – n.o.] comes directly from the Romanian Freemasonry sources quoted, the Romanian Freemason Ştefan Lupaşcu being confused for Stéphane Lupasco, the philosopher of the included middle. A story worthy of Urmuz and Ionesco…"

The conclusion to the case is quite memorable, as was the whole adventure of the way the fatal error was revealed.

"Of course, there is nothing shameful in being a Freemason. Stéphane Lupasco could even be honoured to have an uncle who initiated Sadoveanu into the mysteries of Freemasonry. But one has to observe and respect the accurate texts, data and references. The authors of the – doubtless involuntary – confusion between Romanian Freemason Ştefan Lupaşcu and Romanian-born French philosopher Stéphane Lupasco are bound to publicly correct the errors they made by virtue of elementary intellectual deontology…"

Virtually nothing can be added after such a thorough description of an error generated by a serious or malicious confusion, which is likely to discredit an author, be they younger or older, and seriously cast doubt on the seriousness of their research…

5. COUNTERFEIT ASSUMPTIONS AND DEMONSTRATION FOR DEMONSTRATION'S SAKE, OR DEMONSTRATION AT ALL COST

Sometimes we tend to forget how serious the approach to, and the procedures of, scientific research are, and even end up asking ourselves questions about what would have happened if [….], and the objection is meant to be an obvious one for such hypothetical questions or counterfeit assumptions or hypotheses. This is where the error of the counterfeit hypothesis occurs, or the error of demonstration at all cost, pursued, unfortunately… to the absurd.

The first cause seems to be that we forget that a database remains a database, that a historical variable is not identical

to a statistical one, that destiny and time are irreversible.
What is the use of asking such questions which generate errors that distort even the most serious scientific approaches? Why bother with what has not happened or does not happen? In everyday life such counterfeit questions do arise, but they are hardly suitable in rigorous and validated scientific research; apparently, one can imagine alternative scenarios.

Does this type of error help to avoid the mistakes of the past, or do they reiterate other similar, mimeographed errors? Counterfactual events are only part (a vital part, according to some, yet not a significant one, according to the majority) of how learning is expressed, because decisions about the future are generally based on the quantification of the potential consequences of sets of alternative and particularly tree-like developments. However, their great role remains an ironic and humorous one.

The more fun such type of errors are, the less plausible. In a specific note, Bertrand Russell suggested an alternative theory in the motivation of the Industrial Revolution: if industrialism was due to modern science, and modern science was due to Galileo, and the latter to Copernicus, and both spring out of the Renaissance, and the Renaissance had not been possible beyond the Fall of Constantinople, and the Fall of Constantinople was due to the migration of the Turks, the Turkish migration was due to the water depletion in Central Asia, it all leads to the conclusion that the fundamental research in searching for the great historical causes is *hydrography*…

6. CONCLUSIONS

Winding up, we have to come back to the key concept – stupidity or foolishness… Every single historical period or age has its own fools, every social class is represented by its nincompoops and dimwits; and it is such foolishness, aggregated in point of effects, that the very history of humanity deals with… Scientific progress in modern society has generated several types of fools or foolish authors of errors, both intellectual and non-intellectual, ranging from the scholarly fool and the stupid diploma-holder, to the original fool, or the empathic fool. If the scholarly fool is a continual, and obviously false, identification of memory with intelligence, of preposterous automatic mimicking with authentic creation, our common-garden fool is content with the others' replies and conversation. Since, at a very young age, fools become too narrow-minded in reasoning and too limited in their pursuits, holding a degree or a diploma becomes for them a means of stimulation, an added incentive as well as a would-be aristocratic title, and their form of manifestation is officially recognized snobbisness. An act of foolishness (and the authors of this papaer admit it unreservedly) can also be the work of a clever individual, likely to be generated by an emotionally weak intelligence, or even lack of interest. A wise person is more rarely victim of the sin of foolishness or stupidity; more often than not, he / she will ironically admit that everything they accumulate increases the degree of expansion of things unknown, whereas a fool has the advantage of continuing to be convinced of the eternity of their knowledge, and thus remaining firm, unshakeable in their intial stand. Stupidity has long become a social phenomenon which does not forgive anyone, and is therefore implicitly present in educational, cultural activities, in industries, trade and research…

If the old researcher's opinion is transmitted to the younger one with the ultimate truth value, without any doubt, that opinion will make its own effect of making a fool out of that young colleague. The complexity of the research always remains unsuspected, and stupidity may arise from wisdom as easily as fear of stupidity can generate a type of acquisition of intelligence.

Two young researchers open a very heated dialogue about the best definition of scientific inquiry without however reaching a consensus needed for their final report on a joint project, where a third fellow, who overheard them, concludes with an ironic joke:

"*When I listen to your contradictory dialogue I invariably think of home, where my wife kisses me every time I come back. That is what you can call affection!*", which leads the first fellows to a joint standpoint, a useful conclusion to their previous approach:

"*Come off it! This is what you can really call investigation, that is what we have been struggling to define or exemplify as accurately as possible!*"

A symmetrical conclusion must make recourse to the same source. "*A man who lacks real understanding* [i.e. lacking scientific discrimination – n.o.] *is a man who can be manipulated. A fool makes fools of others. Not being stupid means to have presence of mind. The fool has an inborn absence of spirit and, because of that, he/she is a risk to the community in which he/she lives. It is a very serious matter when you stupidity gets to be induced, or filtered into the masses*". [15] What we should add is that, in the field of research, the severity level of the impact of stupidity increases exponentially.

6. REFERENCES

[1] Pleşu, A., (2015). *Conferință despre prostie*, Available at: https://www.youtube.com/watch?v=FAbNhfCwLhk

[2] Iorga Simăn, I., Anghel S., (1982). *Greşeli frecvente în fizică*, Revista de Fizică şi Chimie no. 4/1982, pp. 156-158.

[3] Iorga Simăn, I., (1982). *Trepte spre Gaudeamus*. Ed. Tipografia I.I.S. Piteşti.

[4] Pavelcu V., (1999). *Psihologia aplicată la viața cotidiană*, Ed Polirom, Iaşi.

[5] Ferguson N., (2013). *Evoluții alternative şi ipoteze contrafăcute*, Editura Polirom, Iaşi

[6] Trebici, V., (1985). *Mică enciclopedie de statistică*, Ed. Ştiinţifică şi Enciclopedică, Bucureşti, pp. 379-506.

[7] Lehmann, E. L., (1993), *The Fisher, Neyman-Pearson theories of testing hypotheses: one theory or two?* Journal of the American Statistical Association, 88, pp. 1242 – 1249.

[8] Tukey, J. W. (1991), *The philosophy of multiple comparisons*, Statistical Science, 6, pp.100-116.

[9] Cohen, J. (1994), *The earth is round (p < .05).* American Psychologist, 49, pp. 997 – 1003.

[10] Fisher, R.A, (1973), *Statistical Methods and Scientific Inference*. (3rd ed.). New York: Macmillan.

[11] Clocotici, V., (2007), *Introducere în statistica multivariată,* Ed. Universității A. .I Cuza, Iaşi, pp. 29-37

[12] Săvoiu, G., (2012), *Econometrie,* Ed. Universitară, Bucureşti, pp. 86-89.

[13] Nicolescu, B., 2000. *Trandisciplinaritatea: Manifest* Editura Junimea, Iaşi. Available at http://convorbiri-literare.dntis.ro/NICOLESCUmar12.htm

[14] Dobrescu, E. M., (1999). *Iluştri francmasoni*, Editura Nemira, Iaşi, pp. 158-159.

[15] Dincă, I., (2012). *Transdisciplinaritatea – în definiţia riguroasă a lui Basarab Nicolescu* – Timişoara, Revista T nr 1/2012 available at http://www.moisenicoara.ro/ transdisciplinaritatea-in-definitia-riguroasa-a-lui-basarab-nicolescu/

[16] Moroiu, E., 2015, *Andrei Pleşu: Toţi suntem proşti. Dar mai proşti ca oamenii inteligenţi, mai rar* – Available at: http://www.cariereonline.ro/articol/andrei-plesu-toti-suntem-prosti-dar-mai-prosti-ca-oamenii-inteligenti-mai-rar#sthash.L KIicHjX.dpuf

ABOUT STUPIDITY – ITS PRESENCE AND ROLE IN PHILOLOGY

Constantin Manea

University of Piteşti, Romania, e-mail: kostea_m@yahoo.com

Abstract. *This generous topic could lead us, through some of the lanes of man's labyrinth of psychological and cultural determinations, to a tentative summary of the main types of stupidity – which appears to be* a universal human datum. *The paper was meant basically as an essay on that natural, in-born feature of the human status, and it deals with such varieties and subtypes of stupidity and human foolishness as: arrogant stupidity, solemn stupidity, vain stupidity, well-organized stupidity, unethical stupidity, humourless stupidity, naive stupidity, eager stupidity, aggressive stupidity, wicked stupidity, voluptuous stupidity, anti-scientific stupidity, intolerant stupidity, stupid narrow-mindedness (or intellectual blindness), morbid self-sufficiency, didactic stupidity, stupid legalism, short-sighted stupidity, hyper-analytical stupidity, historical and traditionalist stupidity, ranting stupidity, cheerful stupidity, grotesque stupidity, dogmatic and dictatorial stupidity, superior stupidity, learned or educated stupidity, snobbish stupidity, official stupidity, PC stupidity. We pointed out a number of issues having to do with the dialectics of stupidity (mainly in view of fuzzy logic), and also some paradoxical matters pertaining to stupidity. Moreover, we tried to add special emphasis on some issues treated, or conceived of, in a stupid way within the province of philology studies, i.e. linguistics and literature: the rush for universals, regularities and abstraction at all costs, over-generalization, aspects of scientific stupidity, technical and professional stupidity, extremism, unconditional tolerance and relativistic extremism, the primacy of form over content, issues relating to neologisms, etymology and grammar. When – and if – recognized, stupidity can become our ally, and probably a factor of progress: undoubtedly the first step towards wisdom.*

Keywords: *stupidity*, *errors*, *science*, *philology*

Mottoes:

(1) The resilience of a fool or a stupid person is a true force of nature.

(2) The only ailment that does not actually hurt, or heal – at least in one's lifetime – is stupidity.

(3) One of the possible definitions of intellectual misery: loads of knowledge, and very few ideas.

(4) A curse of modern times: the more highly educated one is, the less conscious…

(5) What could the IQ of the average compiler of IQ tests really be?

(6) Many scientific undertakings, which are otherwise honest, end up as mere collections of petty naiveties, especially through the excess of abstract profoundness they arrogate – as a matter of principle.

(7) "One of the greatest calamities of civilization – the scholarly oaf" (Karel Čapek)

(8) "A wise man sometimes changes his mind; a fool never will".

(9) "Then I applied myself to the understanding of wisdom, and also of madness and folly, but I learned that this, too, is a chasing after the wind" (Eccles. 1:17)

We would like to proceed, in dealing with this topic (a generous topic in a totally positive sense), from the obsession that the great French writer Gustave Flaubert fostered – and his personal crusade – against stupidity of any kind (which his equally great disciple, Guy de Maupassant, referred to in relation with the (unfortunately) unfinished book titled *Bouvard et Pécuchet* – where a systematic table including the main types of stupidity, silly behaviour and ideas, with appealingly hilarious illustrations, quoted from some works by famous names of letters, history and, in general, French culture – yet not restricted to French culture).

Here are a few examples: "The wealth of a country depends on its overall prosperity"; "The floods of the Loire are due to the abuse of the press and to the fact that Sundays are not observed"; "The cantaloupe was divided into slices by Nature itself, so that it can be eaten with the family. Being larger, pumpkins can be eaten with one's neighbours"; "Thus, it seems to me most afflicting to find man positioned, in keeping with Linnaeus's system, among monkeys, bats and sloths"; "If we had a dictionary of a savage language, we could find the manifest traces of a previous language, spoken by an enlightened people; and even if we did not find such traces, it would only logically follow that the degradation is so serious that it wiped all traces"; "Prelates, noblemen, senior government officials have the task of being guardians and keepers of conservative truths, the task of showing their nations what is wrong and what is right, what is true and what is false in the moral and spiritual order"; "Learning and teaching history can be, in my opinion, a rich source of drawbacks and dangers for teachers. Likewise, for pupils"; "Rabelais, the garbage man of humanity"; "Molière was a common buffoon"; "Byron's genius seems to me rather silly"; "(Bonaparte) is indeed a big winner of battles, but apart from that the last of the ordinary generals is more skilled than him"; "As soon as a Frenchman crosses the border, he enters foreign territory"; "When you exceed the limits, ther are no limits any more"; "Grocery is respectable. It is a branch of trade. (…) Grocery is useful, while the army is necessary" (Quotes from Guy de Maupassant, *Opere complete*, vol. III, Editura pentru literatură universală, Bucureşti, 1966, pp. 525-535, *passim* – translation mine).

Flaubert's crusade against stupidity was essentially the same common-sensical indictment that, for centuries, nations of the world have recorded through the good judgement of wise saws, proverbs, puns, anecdotes, maxims and sayings; in other words, Flaubert joins the illustrious lineage of Till Eulenspiegel, Nasreddin and Păcală: "Ignorance, whence entrenched beliefs draw their source, the so-called immortal principles, conventions and prejudices, the whole arsenal of trivial or "elevated" opinions, drove him to distraction. Instead of smiling, like many others, at the universal folly, the intellectual inferiority of most people, he suffered excruciatingly. His excessively cerebral sensitivity caused the silly banalities that we all repeat daily to sting him like a wound (…). Flaubert considered stupidity his personal enemy, intent on tormenting him". (*ibid*., pp. 546-547).

Obviously, stupidity is a universal human datum; moreover, it is representative of humans – in all the senses of the term; likewise, it is perfectly, though not completely, explicable; virtually no one is safe from it. More often than not, it is just unavoidable. As a type of error, it creeps into nearly all human enterprises. But, like error itself, if repeated, stupidity becomes demonic, evil (v. the Latin dictum *Errare humanum est, perseverare – diabolicum*). As a matter of fact, a lot of remarks were made in connection with stupidity. The world's paremiology provides us with numerous proverbs and maximum regarding the unerring strength and universality of stupidity, e.g. "Numerus stultorum infinitus", "Nomina stultorum undique locorum", "The mother of all fools is constantly pregnant", "Imagine the clamor there would be if stupidity hurt", "Stupidity is an unlimited natural resource", "Two things are infinite: the universe and human stupidity; and I'm not sure about the universe." (Albert Einstein), "The two most common elements in the universe are hydrogen and stupidity." (Harlan Ellison)[1], "Talk sense to a fool and he calls you foolish" (Euripides), "Irony is wasted on the stupid" (Oscar Wilde), "Beauty fades, dumb is forever" (Judy Sheindlin), "To be stupid, and selfish, and to have good health are the three requirements for happiness – though if stupidity is lacking, the others are useless" (Julian Barnes), "A stupid man's report of what a clever man says can never be accurate, because he unconsciously translates what he hears into something he can understand" (Bertrand Russell), "In politics, stupidity is not a handicap" (Napoleon Bonaparte), "The more often a stupidity is repeated, the more it gets the appearance of wisdom" (Voltaire), "Stupidity is the same as evil if you judge by the results" (Margaret Atwood), "Evil isn't the real threat to the world. Stupid is just as destructive as Evil, maybe more so, and it's a hell of a lot more common. What we really need is a crusade against Stupid. That might actually make a difference" (Jim Butcher). Of course the higher spirits could use the objective and the ever-present reality of folly to more clearly distinguish the opposite of it – wisdom (or at least rationality and righteous judgment): "Better be ignorant of a matter than half know it" (Publilius Syrus), "Real knowledge is to know the extent of one's ignorance" (Confucius), "Acquaint yourself with your own ignorance" (Isaac Watts), "I am not ashamed to confess I am ignorant of what I do not know" (Cicero), "Not engaging in ignorance is wisdom" (Bodhidharma).

We believe that such "etymological stories" involving the notion of stupidity would be quite interesting, not only in the present context: see, for example, the etymology of the Romanian term *prost*, which means "foolish, stupid; dumb", though it originally meant "simple" and "uneducated"; the French term *crétin* is an older variant – and the etymological doublet – of *Chrétien* "Christian"; Fr. *benêt* (meaning "silly, simple; a simpleton") derives from Latin *benedictus* "blessed"; Fr. *imbécile* means "weak, feeble (especially in reference to the body)"; Eng. *silly* comes from Old English *gesælig* "happy, fortuitous, prosperous" (cf. Germ. *selig* "blessed, happy, blissful").

Accepting stupidity as a natural, in-born feature of the human status, we also accept, as evidence, the fact that both its forms of expression and its typology practically defy any ordering effort by a (normal) person. Consequently, the only solution left for us could be to glean and exemplify several main types, while drawing attention especially on their varieties and the most relevant consequences for our world – including the domain of scientific pursuits. Among the common types of stupidity, the most interesting seems to be the kind associated with undue pride, resulting in the profile of the conceited fool – i.e. arrogant stupidity. One could constantly check and prove the way in which most vainly self-satisfied fool considers it useful, sensible and even indispensable to give others bits of his overflowing abundance of wit – especially in the form of advice. Many fools are also stolidly dull, but none of them will admit it; the typical fools are (that is, believe themselves to be) also resourceful, energetic and brisk! Such stupid people tend to go up in the various hierarchies – they are successful social climbers. It seems natural, very much as in the biological process of metamorphosis, that a fool, once promoted, i.e. reaching a higher rank, should automatically acquire the *personality* status of their position – very much as, in real nature, a tadpole will ineluctably turn into a mature frog. As a rule, the authentic fool is also solemn. Those who also manifest a kind of sense of humor (for instance, those who laugh heartily when watching grotesque films) rather lack spirit, or are possibly mentally retarded. If a fool is also wicked, his/her figure can usually be seen (mainly by their likes) as that of a *determined* person; if they are rather nice, they can be seen as simply imbeciles or simpletons. More often than not, resolute fools become, or proclaim themselves, "successful people". In this respect, Calistrat Hogaș's words, though written one hundred and thirty years ago, are still valid: "When you are carried by stupidity, you can rest assured, as it can take you even to the topmost steps of the governments of peoples!" Similarly, stupidity is known to defend itself with immense zeal. You should not tell a fool he/she is not right – especially when they reproachfully look at you with that typical self-opinion: you are then likely to begin having doubts.

Moreover, this world is also home to the *well-organized* kind of stupidity. One can say that it counts among the most common strategies for human survival, as part of the larger social intercourse: to know as little as possible, gaining the most advantages possible. Those who do not comply with this strategy are the idealists, commonly also called *misfits* and *losers*; in the opinion of a majority that tends to become comfortable, the above strategy really is an axiom.

What matters, really and essentially, is a fool's attitude towards the others. One of the saddest shows possible is the fool (who, needless to add, believes he/she is clever, sometimes even witty) who is trying to taunt someone else… It can be said without fear of being (too much) mistaken, that a fool's irony is the most saddening type of humour there is. An imbecile who drops a brick can possibly amuse you… Failure to adjust oneself humour can doubtless be considered as just another kind of stupidity (though, very much like literary expression, humour has many different varieties, subclasses and subtypes).

Proving a sense of profound realism – or maybe just trying to smile in the face of adversity – French crooner Georges Brassens said (actually quoting E. A. Poe): "To understand that you're stupid, you must still have some intelligence!"…

[1] Also known as *Zappa's law*: "There are two omnipresent things on earth: hydrogen and fools".

Unfortunately however, stupidity and *naiveness* are often confused… In this binomial a special angle is involved, in a more or less insidious or interested manner – that of human *morality*. It is perfectly true that a good, kind-hearted person will constantly look – and virtually always based on solid arguments – rather immature, naive, puerile, goofy, clumsy, etc., although the common wisdom of the world's nations has perpetually sought to contradict this opinion – which can be said to be (at best) rather minimalist. Here is, to give only an example, a bit of wisdom – and humaneness – drawn from the Talmud (in the words of the Yiddish writer Isaac Bashevish-Singer): "It is written in the book that it's better to be stupid all your life than be a bad man one single hour". However, from the point of view of most of our contemporaries, the ethical code, verging on sainthood, which Rudyard Kipling presents in his famous poem *If*, seems simply a synthesis of absolute practical imbecility (*and being lied about, don't deal in lies…, and never breathe a word about your loss…*, etc.). Besides – and unfortunately –, in the world where we all live there are numerous extremes that are often confused for one another – for instance, consistency and rigidity in thinking, ludic inclination and frivolity, radicalism and extremism, seriousness and dogmatic attitude, etc.

Anyway, when you do not share the opinions of some rather irritable or impassioned interlocutor, you automatically risk becoming *stupid* – or at least poorly informed: 'Come on, my good man, I thought you were a bit more widely read!'

One may make some interesting observations (which do not necessarily conduce one to optimism) on the dialectics of the manifestations of stupidity. For instance, the fact is noticeable that, very often, stupidity and wickedness, or malice, are intimate allies. Malice could be defined, from this particular point of view, as a form of continued stupidity. In this context, we think it would be very interesting to see the dialectics that holds between malice and stupidity – "legitimated", it may seem, even by the Gospel: "Forgive them Lord, for they know not what they do"…

Those who sentenced Socrates to death, or those who ostracized some of the worthiest people in ancient times (who, ultimately, had to conclude for themselves that they were "wicked" only because it had been so decided, and that was how the people had voted in a *majority*… – though, in actual fact, those people hardly knew them at all)… What were those people like – stupid, or wicked? It was said – by Jonathan Swift – that you can recognize a person of great merit mainly because a bunch of blockheads will throw stones at him/her ("When a great genius appears in the world you may know him by this sign: that the dunces are all in confederacy against him").

There exists the mania of making silly mistakes, but there also exists the *voluptuousness* of making such mistakes. (It is true that, as naturally as anything, "sometimes even good Homer may slumber"). The paradoxical coexistence should also be noted of stupidity with… information and culture, hence with *intelligence*! (In the old times, the Romanian people believed that "Where there is much wit there is also much stupidity"). In most of its manifestations, stupidity has a *paradoxical* character (and the Romanian folk recorded this truth in many wise sayings and meaningful stories – such as, for example, the extended anecdote called 'Wisdom and Luck'). Here are only a few examples of pardoxicality: ● A particularly good memory is the attribute of those who practiced it through various intellectual pursuits; and also, paradoxically, of those who do not reason, or who read very little – those whose mind has been at rest. ● The logic of *teaching* means, mostly, permitting an understanding by the student, to the detriment of scientific logic (based on provable or model-copiable reality). ● It may seem at least strange, yet a lot of areas of modern science are largely based on the idea of uncertainty, blurred limits and *fuzziness*… ● The average IQ tends to remain constant, which actually means it does not rise, while the number of universities in the world continually goes up. ● Paradoxically or not, there are cases when linguistics (due to its theoretical grids, general principles, mental matrices, etc.) is an obstacle to learning a foreign language…

In many cases, stupidity actually consists of a basic lack of mental organization. For instance, we frequently hear the exclamation (the intentions of which are supposedly annihilating) "You know nothing at all!" – though, indeed, the person in question may or does know something (and even quite a bit), but the trouble is he/she does not know it well. Similarly, you can hear the admiring exclamation: "That man can answer any question!" – which is in actual fact a derogatory remark rather than a praise. The opposite can, of course, be encountered in real life, too: the uneducated or illiterate have, in contradistinction to educated, well-informed people, the undeniable advantage of not being likely to forget, in their old age, because they do not actually have *what* to forget; their senility is smoother and easier to bear.

Among several other related paradoxes, one can enumerate the fundamental anti-scientific orientation of the average – or the *common* – human being, who is not necessarily stupid: for example, for us ordinary people, it is clear that the Sun rises – as to the Earth, although in reality things happen in just the reverse order; or that cold infiltrates our bodies / clothes / houses, although thermodynamics says that it is heat that is lost from the human body / from buildings. And yet, this is the way you, in your capacity as a mere human, perceive things (seeing them, as it were, with your own eyes and feeling them through your own skin)… Or the truth that an expert in any field of science (an *-ist* or a *-logist*) will virtually never agree with another *-ist* or *-logist* in the same field, particularly in matters: (1) of minute detail; (2) of great generality. Or the paradoxicality of the following witticism (used worldwide, as it seems – and taken over mainly as a *Murphyism*), "(…) and those who do not know how to do something teach the others"[2], a maxim which is only apparently paradoxical, absurd (and grotesque), taking in consideration the fact that, for instance, a lot of former athletes or actors, though (sub)mediocre, become trainers and instructors (i.e. coaches, stage directors, etc.) of nation-wide or world-wide fame in their respective fields. Or the reality that *positive manipulation* is, all things considered, an integral part of education.

On the other hand, there is what we may call *idiotic legalism* (of the type: "I did not know it, there was no

[2] The witty aphorism actually belongs to George Bernard Shaw: "Those who can, do; those who can't teach".

mention of it in the user's manual!"). The real case is cited of a caravan (or *trailer*) bought by an American, for which there was no written specification to the effect that the towing car, if *running* down the road, could not be left without a driver, while the owner was *inside* the caravan… The man sued the manufacturer, of course… and won the case.

If stupidity can be equated to a type of *intellectual myopia*, its opposite – which is every bit as foolish and damaging – is what we might call *analytical farsightedness*. Jerome K. Jerome wrote a brilliant fragment, which is often quoted, about aesthetic criticism in the Middle Ages, in which a case of possible ambiguity due to the use of deictics or indexicals is solved by using a relationship of a mathematical type: young man A declares, categorically and violently, in front of young man B that his (i.e. A's) girlfriend was more beautiful than B's girlfriend[3]. And the same Jerome K. Jerome demonstrated that, in most cases, a limited level of understanding does not necessarily (or exclusively) pertain to educational or cultural criteria and reasons: in his masterpiece, *Three Men A Boat*, an exceedingly narrow-minded fellow wanted to get rid of the sixteenth-century carved oak panelling in his house in order to have wallpaper applied instead…

It is something relatively easy to prove that opacity to the new can only incidentally be equated to stupidity. The more serious flaw is, however, narrow-mindedness (i.e., mainly lack of curiosity), materialized and doubled by superficiality, lack of empathy (added to an exaggerated appreciative opinion of one's own acquisition of knowledge), seclusion in humdrum patterns, modelled after the (so-called) ostrich figure, when someone "sticks his/her head in the sand" before evidence; and, of course, there are also manifestations of imbecilic silliness that verge on the absolute…

Aggressive stupidity – or aggressive lack of sensibility – is actually the same thing as malice. Here is what a young man who failed to pass the *baccalaureate* exam in the first session declared on the Internet, in an outraged and violently sarcastic tone: "The generation of idiots! The Facebook generation! – this is what we, the pupils who have just taken the baccalaureate, are styled by the media and the public opinion across the country these days; what I can only tell them is just – SHAME! Shame on you all! Shame for ending up blaming a generation that you yourselves have raised (…) Shame on the system that brought us up! Shame on the models that have been promoted for more than 20 years now! Shame on us, on you, teachers, students, politicians, media, on ROMANIA! (…) We can take no more of that! We refuse to believe that we are a lost generation! We are actually the first generation that will be sacrificed to benefit, and that's because we've had enough of what is happening in this country! (…) We are different! We are different in that we say ENOUGH! Enough of the actual garbage in this country! You can't fool us any longer! (…) We, the ethnobotanists' generation, as we call us, will show you that we have more guts than all your communists' generations rolled into one! We represent the real force, because we are THE FUTURE, and you're just trash that will die and be forgotten by history!"

Generalizations (which are often rather harsh) are also made in assessment, and their harshness is all the more evident on account of their superficiality, which tends to reach the absolute value. Paradoxically (yet maybe also very naturally?), the most representative individuals – especially in point of number, i.e. statistically – for the attitude of superiority within a community which compare themselves, in a laudatory manner, with another one, or several other ones (e.g., the German Arian who is proud of his/her "race", or the Transylvanian, or the Banat dweller who is convinced that everything lying "South of the Carpathians" is "no good") are, in their majority, mere pub orators – or possibly café rhetoricians. Actually, this is the very essence of the mechanism that modern racism is based on, the very essence of any fundamentalism mainly underpinned by cultural of ethnic principles.

The aggressiveness of the partially or poorly informed individual is quite symptomatic: personally, I happened to be contradicted even by brethren in the domain of philology, linguistics and letters – for instance, about the reason for rejecting the phrase *trebuie că* (instead of *trebuie să*), as a case of mistakenly formed, pretentious calque; or about the definitions of the concepts *pragmatics* and *corpus*! These are clear cases of aggressive superficiality that mimic scientific accuracy – a shallow atitude that needs constant justifications and notional definitions (not only in the field of sciences, to be true).

Lack of information is not necessarily tantamount to stupidity, but believing that only what *you* know is true… is sheer stupidity. For example, some North Americans do not want to know anything other than what they already know; some Romanians lack quite trivial notions of overall cultural education, but are willing to call a foreigner uneducated or uncultivated just because he/she never heard of Romania or Bucharest; similarly, I have known Arabic students who considered that everything produced in England was the best of its kind – including *wine*! Many of our fellow citizens hold the unshakeable belief that stuffed cabbage (*sarmale*), grilled meat rolls (*mititei*), tripe soup or meatballs (*chiftele*) are purely and traditionally Romanian dishes, very much like lots of Greeks who firmly believe that *baklava* is a purely Greek dessert; there are myriads of people who are convinced that pizza appeared in North America, just as most Slovaks know for a fact that *bryndzové haluški* is a purely Slovak national culinary specialty.

One of the mistakes that are constantly – and persistently – circulated by individuals who are less half-learned than stupid (especially as a result of their relentless false-beliefs-cum-prejudices) is that "Southerners" (i.e. the people living south of the Carpathians) were not so keen on literary writing, and on culture in general – unlike Moldavians –,

[3] "When a twelfth-century youth fell in love he did not take three paces backward, gaze into her eyes, and tell her she was too beautiful to live. He said he would step outside and see about it. And if, when he got out, he met a man and broke his head – the other man's head, I mean – then that proved that his – the first fellow's – girl was a pretty girl. But if the other fellow broke *his* head – not his own, you know, but the other fellow's – the other fellow to the second fellow, that is, because of course the other fellow would only be the other fellow to him, not the first fellow who – well, if he broke his head, then *his* girl – not the other fellow's, but the fellow who *was* the – Look here, if A broke B's head, then A's girl was a pretty girl; but if B broke A's head, then A's girl wasn't a pretty girl, but B's girl was. That was their method of conducting art criticism." (*The Idle Thoughts of an Idle Fellow*)

while it is perfectly true that many authors came from Moldavia. And the "argument" is further translated into the field of literary or standard language: it seems to function, in their opinion, as a strong counter-argument relating to the (very general) "model" presiding over the establishment of the Romanian language ("Look here, the Wallachian variant is simply out of the question, because these Southerners are rather illiterate… Besides, they have no idea how to make decent bacon or some serious brandy!"). Obviously, this kind of silly squabbling bickering is apt to propagate and be circulated, quite in keeping with the pattern of the old folk adage that runs like this: "A shard laughs at a cracked pot"[4]; some Transylvanians say "*N-am numai* un leu la mine" (meaning "*Am numai / doar* un leu la mine") or "Potoliți-vă-ți!", yet they mock, and judge harshly, the famous *Wallachianism* "*Avem decât* ce se vede", or the (really mind-boggling) forms *loseserăți* (instead of *luaserăți*), *noi am făcutără* (instead of *noi am făcut*), *dîntre* (instead of *dintre*) and *pîntre* (instead of *printre*); the Moldavian, who is convinced that the standard form is "*Nici* într-*un* caz" rather than "În *niciun* caz", and it is equally appropriate to say *a mea* and *a meu*, makes fun of grammar concord solecisms committed by "Southerners" such as *ei zice*, *ei face*, *ei vine*, *ei zicea*, *ei făcea*, *ei venea*; the Oltenian, who pronounces *acia* ("aici / aicea"), *elea* ("alea"), *dupe* ("după"), *pintre* ("printre"), *fusasă* ("fusese"), *iassă* ("ea zise") and *ioscă* ("eu zic că"), laughs at the phonetic regional variants *acilea* and *acoloșa* as used by people living east of the banks of the Olt river; the inhabitants of the former counties of Vlașca and Teleorman, who say *șăfule*, "*aldor* Nelu" and "Te-oi *vède* eu", are amused by the forms *ălea*, *el veniră*, "*unchea* mea" and *doape*, as used by people living further up north near Câmpulung, and the fact that "those blooming Moldavians say *gin* instead of *vin*"… And so on, and so forth…

The way stupidity is perceived also differs in accordance with the historical period: for instance, what now could be called an *ecological* attitude was (rightly) labelled, at the turn of the twentieth century, as *narrow-mindedness*; to give only one example: the backward, ankylosed attitude of the traditionalist rural petty aristocracy and yeomanry – as appearing in the appalled description of the 'terrifying' reality in the "country of the Germans and suchlike Western countries" that some of Sadoveanu's characters in *Hanul Ancuței* make.

What we are dealing with, in most cases above, is elementary lack of patience (or availability) – in listening to your interlocutor. To take an example from my personal experience: one of my older colleagues warned me, in an interrogative-rhetoric tone, when hearing that the theme of my doctoral dissertation was "The etymological structure of the neologistic vocabulary of Romanian – with special reference to Anglicisms", that "is it still possible to find any new today etymologies today?" The same person observed to me, contemptuously, that "everyone is compiling dictionaries at present" – which I have since heard said by other people, including a publishing house manager! The *normal* attitude (i.e. the attitude that differs from a fool's hard-line opinion) should involve at least an attempt to understand the other's point of view. Besides, stupidity can result from misunderstanding the terms of the discussion (when, in fact, two people speak in parallel – or, concurrently, about the same thing, using a slightly different terminology).

When "common sense" manifests itself as simplifying primitivism, that attitude is confusable with stupidity. The direct opposite could be, in this context, the affected, solemn stupidity of petty scientists: in his masterpiece, *Gulliver's Travels*, Swift shows us the caricatured image of the Academy in Lagado. Similarly, Poincaré mathematically proved the impossibility of a craft heavier than air to fly, only one or two years before the Wright brothers' successful aviatic experiment. In parallel, however, when fantasy is manifested fully and freely in the scientific field, the very notion of science is damaged to the point of annihilation; one could exclaim, parodically paraphrasing Rabelais, "Conscience without science is the ruin of spirit"). Actually, one can say that one of the worst curses of modern times is (pseudo)science in excess – which logically implies less and less conscience…

Today, some favourite areas of manifestation and expression of omniscient stupidity are politics and football, and unfortunately also scientific disciplines such as linguistics and history. Quite often, the humanities and most artistic pursuits have been adept at exploiting (indeed, through intermediaries, i.e. through 'advertising agents', officially recognized as such or not), and even at speculating stupidity – rising straight from human gregariousness (see for instance the parable we are presented in the H. C. Andersen's famous tale of *The Emperor's New Clothes*)… And yet experimentalism in the field of the fine arts was just at its beginnings (which were rather naïve, we have to admit) when Andersen wrote this profound parable-story. Let us be frank, a rather confusing and unsettling, if not even troubling, question is that referring to the percentage of the experimentalist artists and writers who really *liked* what they created. It seems that, especially in more recent times, originality is also appreciated in keeping with the amount of nonsense that you say, casually and *judiciously*.

Typically, intelligence, expressed verbally, suffers from the (anyway, relative) drawback of superficiality. One could hence define a subtype or subclass that one might call *ranting stupidity* – that is, confusion between speech and thought: when someone (excessively) likes the buzzing words that (they think) they hear in their head. It can be assumed in all truthfulness that, for at least a couple of decades, the worst antisocial force is (not only in this country) *cheerful* stupidity – and, when this proves fit or at least enjoyable – very *aggressive* stupidity.

Both absolute generalization and sickly perverse relativity can generate manifestations of stupidity. One can notice the following dilemma – perhaps the most painful one in our time: the conspiracy theory vs. supreme (and undeniable) relativity of all human knowledge. In the context, the best way to legitimizing the absurd is perhaps permanently reducing things to the absurd, particularly through the noticeable widespread relativization: one of the clearest cases in point is juggling with the various and numerous conspiracy theories. *Unconditional tolerance* seems to be the new type of absolutist *orthodoxy*; likewise, relativistic *extremism*. From this angle, we can say that the dogmatic

[4] The closest English equivalent is: 'The frying-pan said to the kettle, "Avaunt, black brows!"'

historian-dictator, for instance, is the individual who really believes that, in history, nothing happens without a cause.

There are people who will not believe normal things – or who are not interested in the normality of things – but who would instead believe, anytime and unconditionally, the most implausible assertions or the craziest, mind-boggling gossip, especially if they relate to people that are well known (even, or mainly, from the media, including *Radio Erevan*). Hannes Stein, in his book *How I have given up thinking*, satirizes the ease with which people give credit to dozens of contemporary stereotypes, labels, preconceptions and other *idées reçues*, which mostly belong to the complex set of "conspiracy theories". It is however noticeable that, the author's bias or *parti pris* (for conservatism, neo-liberalism and ironic relativism) is, to a large extent, of a similar order as… self-fooling.

In a completely paradoxical (but all the more human) manner, various manifestations are reported, which are of the same kind as stupidity, when great personalities are blinded by the brilliance of their own thinking… There are embarrassing and yet natural moments when the lint and creases of the clothes of people who are really great, real Titans of humanity, are also enormous – or at least give the clear image of what the absolutely prevalence of subjectivity can mean. Personally, I had such an experience, which I count as sad but ultimately instructive and wisdom-suggesting, when, talking to a "sacred monster" of Romanian and global linguistics, I suggested the theory according to which "the marked variants" tend to influence the "unmarked variants" within the border area of the isoglosses, though the opposite rarely happens – and, when I was asked to give examples, I referred to such adjacent regions of Moldavia as Buzău and Brăila (making the unpardonable mistake of forgetting that the great man was… Moldavian, by pure chance); the outbreak of revolt and contemptuous anger which followed will remain in my memory for the rest of my life: a typical case of local – or regionalist – patriotism pushed to the extreme.

In the past, various sciences – and pseudosciences – were apt to produce or exhibit theories that finally remained perfect examples of stupidity in human history – used, however, for purposes of limited or personal interest. One could cite, among the many instances of silly (pseudo)theories displaying valences of manifest human manipulation, as many parables of using science in a grotesque and interested manner, the "learned" explanations through which the Catholic monks of the Middle Ages tried to persuade the believers that there were special oaktrees, growing near big lakes, which generated geese (and those birds could obviously be eaten only and exclusively in monasteries). Currently, quite a lot of pseudoscientific, grotesque enterprises would like to fool the taxpayer, trying to "document" the wasting of public money into unprofitable investment that are dictated from the center and are based on political (i.e. predominant ideological, not economic) criteria, especially through studies, projects or PhD theseson the so-called *gender quotas*, the classification of disadvantaged areas, or the best ways to optimize the curvature of bean pods.

Similarly, the primacy of *form* over *content* is now officially proclaimed, through multiple channels (not least through school); more recently, it is an official request that the (scientific) papers or articles should have a certain hard-and-fast format, a certain typical pattern, containing as many subtitles as possible ("because that is why they are scientific papers"). In much the same way, history textbooks (also called *alternative textbooks*) began to be "tailored" strictly, including 4 (four) pages for each topic of discussion (very much like the nearly identical 'revolutionary' uniforms in Maoist times); the said pages should necessarily include explanatory texts, glossaries, case studies, illustrations, themes, and are sometimes likely to leave a blank page for the sake of some miserable illustrations or quotations printed on the opposite page.

In the strict field of *philology*, a patent (and quite common) manifestation of stupidity lies in opacity (based on an attitude that claims to be analytically scientific or "strictly grammatical") as to the profundity of the idea or the artistic refinement of the literary expression: there are many so-called critics or teachers who strictly sequentially, or purely referentially and contextually, analyze texts like: "Sara pe *deal buciumul* sună cu jale, / Turmele-*l* urc…", "Când, *cu gene adormite*, sara suflu-n lumânare…", "Fruntea albă-n părul galben / Pe-al meu braț încet s-o culci, / Lăsând-pradă gurii mele / Ale tale buze dulci" sau "Ale turnurilor *umbre peste unde stau culcate*…").

However, it seems that the most interesting variety of stupidity is foolishness that is (at least allegedly) *learned* or *educated*. Here are some incredible quotes that we found in the *Oxford Encyclopedia of Linguistics* (excerpted from the article about the Romanian language – *Rumanian*): "In all, there are two diphthongs (*neam, oare*). The sequence *eo* is controversial, but is generally regarded as two separate vowels, rather than a true diphthong: *deoparte*." (…) "Table 2 shows a further unusual feature of Rumanian: the occurrence of a viable neuter gender (again the result of Slavic interference), which revived the dying Latin neuter system. (…) However, Academy-inspired linguistic engineering has seen to it that only loans with inanimate reference have entered the neuter paradigm, thus reinforcing the semantic basis for the 'neuter' label".

Among the main mistakes of some relatively recent artificial, stilted approaches to various philological topics, there are "stylish" imposture, (neo)snobbery (which looks rather like wearing a tuxedo and carrying a demijohn in one's hand), stupid absolutism, theoretical authoritarianism, or obsessive longing for language *universals*. It is true that *abstraction* is the brilliance of human intellect – more often than not, a diamond's brilliance; yet sometimes, abstraction is mere rhinestone shine.

At one point in the course of Western history, the Latin language was seen as a universal model, based on (formal) logic; currently, it is the English language… and GTG… In the name of looking for the absolute by means of scientific-explanatory and synthesizing universality, some books of linguistic theory incongruously and unscientifically mix the various levels of analysis or research: for instance, what is a phenomenon belonging to diachrony is dealt with as the object of synchronous description (e.g. Ioana Ştefănescu referring, in her book *Morphology. Word Formation*, to Truncation Rules applying to a noun like *reception* – cf. *to receive*).

In many such enterprises, the original intentions were good, and the work carried out was immense, but the final

results were at least (or at best) questionable – being very similar, from this angle, to artificial languages such as Esperanto. Incidentally, artificial languages, in general, no matter if we refer to Esperanto or volapük, are genuine linguistic hotch-potches – all the more appalling as they actually resemble natural languages: terrible, puzzling – though perfectly functional – mixes of shape, meaning, purpose and convention; only the former were made methodically. Here are some more remarks on, and illustrations of the role of stupidity in linguistic and philological research, analysis, reflection, etc. (out of a whole a series that could result in "A Brief History of Stupidity in the Domain of Philology"): there are quite numerous would-be experts in the field who enormously like to pose as small dictators, although they lack the real knowledge for the job (and sometimes elementary logic). They want to impose pseudo-rules (such as *haină din piele* – not *haină de piele*, *cană cu apă* – not *cană de apă*, *a-şi pune căciula pe cap* – not *a-şi pune căciula în cap*, or avoiding the phrase *prima prioritate* as pleonastic), which essentially go against the usage of the Romanian language and its functional logic. Likewise, some Romanian grammarians dictatorially claim that there is a crucial difference between the relatives *ce* and *care*, or that one must needs say "acest lucru *îl* determină *pe* vorbitorul comun de română să utilizeze…", as though "acest lucru determină vorbitorul comun de română să utilizeze…" were not correct. There are taxtbooks of contemporary Romanian in which we are informed, in the language history section, that words like *ceară* or *ceapă* were historically derived from Latin *cera*, and *cepa*, respectively (through the diphthongization of vowel *e* under stress – in much the same way as *roată* evolved phonetically from Latin *rota*), whereas in the phonetics section the transcription of the same does not show the diphthong – [ţară] and [ţapă], respectively! A similar category of linguists indulge in the proclaiming "rules" that are nothing but self-deception attempts of a more theoretical type (a case of *wishful thinking*, in fact); for example, the "rule of the feminine gender exception" (or *REF*), which nobody knows who suggested, and which is allegedly applicable in cases like ***l**-am văzut pe băiat*, but *am văzut-**o** pe fată*… Or trying to postulate the existence of a degree of comparison called *inferlative* (!) in an attempt to replace the already existing, traditional comparison degree commonly called *superlative of inferiority* (as in *the least intelligent student*)… Or the idea that English possesses a type of selectivity, based on the indexical-deictic value of *I* (and *you*) vs. *he* / *she* and *they*, which allegedly led to the capitalization of the personal pronoun for the first person singular (spelt as *I*)!… In reality, the explanation, although by no means very simple, is much more mundane: "(A) an isolated *i* was liable to be misunderstood (though this is not true nowadays on, for example, facebook) or misread; this is not true of pronouns of two or more letters (i.e. all others); (B) quoted off Internet: "The pronoun *I* began to be 'capitalized' around the middle of the 13th century. But this was not true capitalization. Note that it was long before the printing press: all texts were in manuscript. Before the 11th century, the letter *i* was normally just a short vertical line, without a dot, *ı*. The *j* did not exist as a separate letter. When an *ı* was written as a separate word or mark, as the Roman numeral *ı*/*I* and the pronoun *ı*/*I*, or when it was the last one of a group of *ı*'s, it began to be written elongated, somewhat like a straighter *ȷ* (without a dot). This elongation of the separate, single *ı* was probably done in order to avoid confusion with punctuation marks. That of the last *ı* of a group was mostly in order to avoid confusion between *u* and *ıı*, between *n* and *ıı*, and between *m* and *ıııı*, which often look identical in manuscripts: from then on, such groups looked like *ıȷ* and *ııȷ* (without dots). I believe that this convention of elongating the pronoun *I* had already been established by the time the dot was first used. Because a long *ȷ* without a dot looks much like a capital *I* – which has been written the same way since Antiquity – , it was later assumed to be a capital. (Incidentally, the dot was then usually written as a very short diagonal line above the *ı* or *ȷ*). (C) From http://www.etymonline.com/index.php?term=I : "The reason for writing *I* is… the orthographic habit in the Middle Ages of using a 'long *i*' (that is, *j* or *I*) whenever the letter was isolated or formed the last letter of a group; the numeral 'one' was written *j* or *I* (and three *iij*, etc.), just as much as the pronoun". [Otto Jespersen, "Growth and Structure of the English Language", p. 233].

From what we can see in this area of knowledge, there is a myth of *novelty* restlessly haunting some scholars (which is novelty at any price), plus some massive *rewriting* (not only of history). This attitude is very similar to the kind of "modern" wondering about the achievements of the past, which is usually expressed as: "Hey, those guys before us were pretty clever, after all!" One of the most absurd replies addressed, for example, to someone who is seen as an "old boy" is: "You know, there are quite a few new things in the field that have recently appeared"… A possible answer could be that *new* things are very often of too little practical use and value – especially in areas like philology (though, indeed, they can be collected, dissected, emphasized, brought to light, etc.). Besides, not all theoretical or procedural novelties represent something superior, while older things do not necessarily need to be *outdated*, *obsolete*. (In linguistics, there has even been a *minimalist* type of research…) Yet various superabstract "explanatory" systems continue to be cultivated, systems that fail to further research or bring new things, but rather *postulate* rules invented by their authors (*wishful thinking* again!)… It seems that the quest for abstract principles leads to mock-philosophical superficiality; modernism at all costs can lead to hyper-abstract constructions and systems…, which are mere mental constructs! Such systems will most likely remain perfectly unusable mental creations. It can be seen as a totally counterproductive "palimpsest pattern". Absurd imposition of one's own beliefs or tables of values can be perceived, as it were, even in "higher places" (we often heard declarations based on the conviction that "What I do is superior, *The Real Thing*" – for instance, the late Professor Petru Mihai G., who was of the opinion that "linguistics can stunt and warp your intellect, unlike literature…", or professor Dan M. declaring "I am also a devotee of the letters, in actual fact, but I am doing linguistics just for a change"). Actually, it can be seen from multiple real-life examples that a linguist is by no means a *nerd*, just as every follower of literature is automatically an inspired individual, whose thought flies high. (The mutual and cordial contempt opposing linguists and literary people, or the conflict opposing grammarians

and lexicologists, seems to be … another form of stupidity.)

One can often perceive (extreme) subjectivity in linguistics, or else voluntarism manifested to the full: for example, we heard the late professor Gheorghe Mihăilă, an expert in Slavic studies, talking about the Croats' joy (which was, incidentally, quite justified) because they had proclaimed their state independence – without however trying to counterpose it, humanly and historically, the idea that, unfortunately, Croats and Serbs speak virtually the same language (a language that is, objectively, called Serbo-Croatian, or Serbian-and-Croatian) and, in economic, political, historical, etc. terms, their leaders made a big mistake, allowing themselves to be driven by foreign interests and continuing, and then escalating, a senseless historical conflict.

As could be expected, many crackpot, pseudo-scientific ideas are to be found within the field of etymology, where ignorance, superficiality, unbridled fantasy and stupid arrogance combine, resulting in absolutely rare pseudo-etymological howlers, such as suggesting etymological relatedness between the Soviet-inspired term *politruc* and the old Romanian place names *Sălătruc* and *Bălătruc*, or fanciful etymologies (e.g. *mujdei* derived from French *mousse d'ail*, *mişto* derived from Germ. *mit Stock*), or even whole series of "etymological stories", for example the false etymology of the phrase *raining cats and dogs* ("A false theory stated that cats and dogs used to cuddle into thatch roofs during storms and then be washed out during heavy rains. However, a properly maintained thatch roof is naturally water resistant and slanted to allow water to run off. In order to slip off the roof, the animals would have to be lying on the outside – an unlikely place for an animal to seek shelter during a storm"), or the false etymology of the old saying *Do not throw the baby with the bath water* (from the idea that, in the past, infants were the last to be bathed, so the water in the bathtub became so dirty that they could be lost; "The oft-quoted origin, that babies in medieval times were bathed last, when the water was pitch-black and dirty enough that an infant could be lost in it" – which "began life in the German language, and is still popular in the form *das Kind mit dem Bade ausschütten*").

Another variety of silly pseudo-etymology (somewhat more aggressive, as it also tries to "find arguments" on the plane of theories) is represented by the group of the "esoteric experts". As in the case of other incredible eccentricities, older or more recent, one can even admire the amount of energy and sheer imagination invested in such extravagant Romanian-centred "etymological explanations", which more often than not involve exaggerated pseudo-Dacianisms and protochronisms such as: "In the beginning was the *Word*" (in Romanian: *Cuvântul*, derivable from *cu* "with" + *vânt* "wind", i.e. "inspired by the breath of the ghost or spirit"); the Sanskrit for *father* was *pitar* (just like Rum. *pitar* "baker" – hence, "the one who administers the bread, or the one who is master of bread"). The eagerness of such arguments meant to prove "pre-Dacian etymologies" can sometimes generate absolute gems, such as the following literal "equation": *GODEANU = GOD E ANU* ("God is Anu")!

We can refer to etymology, in principle (starting from the very etymology of the term, i.e. "quest for truth"), in a superlative manner. But what some people try to turn it into, while invoking "the absolute truth", is the clearest token of lack of wisdom… David Crystal speaks about etymology as not precisely adequate in point of understanding the analytic elements, general structures and actual usage of natural languages – in fact, sometimes etymology is even "subversive" (v. the *humble* etyma of words like *religion*, *quintessence*, etc. – or the numerous etymological and translation errors that truffle most books of etymology and Translation Studies)… And yet, what a cultural, or widely spiritual, loss would mean to ignore, reject or marginalize etymology! Especially when one remembers that, etymologically, *etumon* means "basic sense of", and came, in turn, from the adjective *etumos* "real, true"… Moreover, it can be said – without exaggerating in the least – that etymology helps with research of the "cultural archaeology" type. Let us remember the linguistic research direction called *Wörter und Sachen* ("German for *words and things*) (…) a philological movement of the early 20th century, based largely in Germany and Austria. Its proponents believed that the etymology of words should be studied in close association with (in fact, in parallel with) the study of the artifacts and cultural concepts which those words had denoted. This process would, it was argued, enable researchers to study linguistic data more effectively. Many of the principles and theories of the *Wörter und Sachen* movement have since been incorporated into modern historical linguistics; for example, the practice of cross-referencing with archaeological data". Therefore, both the attitude of extreme laxity, and extreme (supposedly scientific) strictness are equally grotesque. There are, on the one hand, the "arcane mysteries" of aural-proactive etymology (when, for example, *sictir*, *canci* and *fă* / *fa* are adorned, by the linguistic imagination of most Romanians, with the high status of cursing or salacious, spicy speech – although they mean simply: "Go away!", "nothing" and "hey" – for a female interlocutor). It is this sort of "oral etymologists" that can be entirely happy: only they can have "revelations" that can throw them into ecstasies, such as *maramă* ("folk veil" – falsely derived from *mă-nramă* "it is framing my face"), *aleluia* ("Hallelujah" – falsely derived from *ale Lui (e)* "it is His"), *Plosca* (name of a village in Teleorman county, literally meaning *flask*, where, "as it is said", Michael the Brave once passed through, being very thirsty, and a local invited him to drink water from a flask) ; or that *Rîmnicu* (Vîlcea/Sărat) etymologically derive from *Romnicu* (cf. *Romanicus*). On the other hand, there are enough examples of "etymological correctness and strictness" carried to the absurd: we can even imagine a general who, being a highly educated man, would obsessively like to *decimate* the population of a region conquered in the strict *1/10* ratio and keep sick people in *quarantine* for *40 days* on the dot, or a dictator, as cultured as the former, who would apply *nepotism* only to *nephews*.

It is observed that, insofar as language is concerned, rubbish, if apparently interesting, spreads like wildfire (or, as the French say, *elles font tache d'huile*, in keeping with one of the postulates belonging to "Murphy's Laws": if one pours only one spoonful of sewage water into a barrel filled with the best wine, it will turn all the wine into sewage water). Here are just a few examples illustrating the usage of the Romanian language: ***Trebuie că*** *el s-a speriat* (instead of ***Trebuie să*** *se fi speriat*); *Lucrează* ***ca şi*** *inginer* (instead of

Lucrează ***ca*** / ***în calitate de*** *inginer*); *Tocmai* ***ce*** *a plecat* (instead of ***Abia (dacă)*** *a plecat* / *Numai* ***ce*** *a plecat* / ***Adineauri*** *a plecat*).

If there does exist *official* stupidity – a type of stupidity that is affected and "intellectual", and also "scientifically" standardized – in much the same way there is the *authority* of stupidity, which is manifested by abusing the semantics of the Romanian language. For example, the terms *staționare* ("stationing") and *parcare* ("parking") are defined, while *oprire* ("stopping") is redefined by the Romanian police; if one stops – i.e., "immobilizes the vehicle" – only a few moments, for instance as long as someone needs to get off the car, the action should not be called stopping or *a stop*; in other words, if *stopping* is short, it is not *stopping*! It is a clear case of semantic-conceptual voluntarism, which is utterly laughable (and also terrible, on closer analysis).

Another aspect of foolishness, a calmer one to be sure, is disbelief in front of the evidence, which is usually expressed through questions like: "Are you sure this is correct / accurate?" Here are some examples, that we culled from own experience: the pronunciation of words like *Somerset Maugham* and *love*, the spelling of *fleur* or *etymology* (vs. **floeur* and **ethymology*). No doubt, the cultural past is by no means devoid of such stupid and arrogant errors: e.g. would-be "educated", (pseudo-)Latinate spellings, such as *doubt*, *debt*, *receipt*, *verdict*, and also *gaol*. The same category surely comprises the cases of hypercorrection, including phonetic hypercorrection – some of which have already become history, e.g. *sunt* (instead of *sînt*), *egrasie* (instead of *igrasie*), *plastelină* (instead of *plastilină*), *elastec* (instead of *elastic*), *ceaslà* (instead of *chasselas*), *cătină* (instead of *cătínă*), *cápsulă* (instead of *capsúlă*), *máscul* (instead of *mascúl*), etc. Similarly, the shape and meaning of a number of neologisms (which are quite common in the language) are stubbornly used erroneously, e.g. *grizonat* (instead of *grizonant*), *inopinant* (instead of *inopinat*), *salutar* (meaning "care merită salutat"), *inerent* (meaning "inevitabil"), *lasciv* (meaning "molatic"), *fobie* (meaning "obsesie"). As a socio-linguistic phenomenon, we can state that the same class includes the so-called *PC words*, a category of abusive euphemisms, proclaimed dictatorially and hypocritically. Euphemisms, this universal anesthetic of verbal operations conducted from one human to another, currently make up a whole *PC vocabulary* – not only in the Anglophone world. Here are some examples of *PC euphemisms* (not necessarily the most tasty bits), which we randomly collected from the English lexicon: *rather economical with the truth*, *to have a drink problem*, *intellectually challenged*, *to be tired and emotional*, *past one's sell-by date*, *to be in a non-profit situation*, *visually impaired*, *senior citizens*, *financially embarrassed*, *to have the cat put to sleep*, *to downsize a company*. Euphemisms (or *politically correct* terms), when used in matters of race or ethnicity, sound – if we think more than twice – very much like cynicism; here's what Whoopi Goldberg said: "I dislike this idea that if you're a black person in America then you must be called an African American. I'm not an African. I'm an American. Just call me black if you want to call me anything". In the ocean of euphemisms that surrounds us – among *dizabilitați* "disabilities", *disponibilizare* "redundancy", *externalizare* "outsourcing", *delocalizare* "relocation", *pierderi colaterale* "collateral losses", etc. – what precisely should those whom poverty causes to commit suicide be called, maybe *terminally underprivileged*?

More recently, we witness (because there is nothing much one can do about it) the onslaught of an *antiscientific* (or *anti-knowledge*) attitude, especially in the fields of linguistics and history: for example, there are people who claim that the correct pronunciations of *eu*, *el*, *ei*, *ele*, *ea*, *este*, *era* are [eu], [el], [ei], [ele], [ea], [este], [era], respectively; that *datorită* is semantically different from *din cauza* / *din pricina*; or people who staunchly support the widespread idea that the population of Dacia cannot have been Romanized "in about 170 years", etc… It is evident that Romania has been, at least ever since Caragiale's period, the country where the average people have multiple and *solid* theories as well as "personal ideas": from the *magnetism* preached by Caragiale's *Catindate* to the current relentless of those who know (better than the experts in linguistics) everything about the so-called ins and outs of the "imposition" of rules for the Romanian standard and literary language that were based on the (Southern and / or) Wallachian varieties of pronunciation and grammar; or why we have to spell and pronounce *sunt* (rather than *sînt*), *monetă* (rather than *monedă*), *cruciată* (rather than *cruciadă*), *Iisus Hristos* (rather than *Isus Cristos*), "am plătit factura de / la *gaz*" (rather than " factura la *gaze*"); why it is still more acceptable to say "eu, *ca și* inginer…", though it is utterly wrong to say "*am decât* un leu"; why it is better to write *târât* (rather than *tîrît*), *mă(-)ti* (rather than *mă-tii*), *niciun*, *nicio* (rather than *nici un*, *nici o*), etc… Anyway, it is pointless to try to refute them, because "they know better" (as the late Alexandru Graur used to say). Then, we could ask ourselves what is the use of dictionaries and (official) grammar since, anyway, "usage dictates the standards", and, in general, common people have their own ideas about "what is right" in using their language (which is, after all… *their own*!), and everything that you tell them in this respect, to correct them in the spirit of the standards and rules (which are established by *specialists*), is seen as outdated, self-centred, affected or dictatorial?

But the (sometimes general) lack of interest leads to enhanced narrow-mindedness (or even intellectual blindness), or else to morbid self-sufficiency. The late Ileana Vulpescu gave the example of one of her acquaintances, who was a member of the Western academic world, yet did not know (mainly because she did not want to) that the Romanian language is a Romance idiom – like Italian, French, Spanish, Portuguese, Catalan, Provençal and Romansch. Anyway, it is really strange that, while we Romanians know (that is, most of us, of course) that our neighbours are, linguistically and ethnically, Slavs – and, respectively, Asians (i.e. the Hungarians), common Hungarians, Serbs or Poles do not know that the language we Romanians speak (*Romanian*, right?) is *Romance*, i.e. derived from Latin; it might be that the explanation involves a bit more than mere disinterest.

Extremism and a type of fundamentalist approach are the basic ingredients of the despotic type of stupidity, which is, by definition, arrogant and self-assured – or seems to be encouraged (mainly by the effect of coteries). From the national literature, we have the great satirical example of Caragiale's *Românii verzi* ("True-blue Romanians"); or the memorable figure of the Hungarian in Caragiale's sketch

Meteahnă, who would rather eat soap wrapped in his national colours than chocolate in a differently coloured packaging…

Sometimes very honest scientific concerns may have a somewhat silly air; for example, the question, "Is linguistics a science?", accompanied by the claim that what one desires is to establish a foundation based on scientific (i.e., efficient, repetitive, relevant, objective, etc.) concepts, criteria, principles and methods. It may perhaps be the case, however, that natural languages themselves evade – at least in certain aspects – from pure objectivity, which is strictly observable and measurable or quantifiable; perhaps again, a natural language, as a functional system, possesses a lot of the *fuzzy* dimension. A language may be subjective in that it is linked to the concrete in very specific and unpredictable ways, which are paralogical and rather hard to define, or else predominantly vague (cf. the concept of *fuzzy logic*), hence more difficult to standardize, regulate and decide on. There are sub-areas of linguistic research that lends themselves to suggesting quite well. Arguably, from that angle, linguistic analysis is very similar to the systematics of the phenomena presented and analyzed by history.

In addition, there are quite numerous cases in human history when the truth came to light as a result of some simple errors, i.e. essentially… silly approaches. For example, the Copernican revolution, which basically placed the Sun at the center of the solar system, was virtually the result of a set of estimates and calculations based on the old, erroneous model proposed by Ptolemy (in which the existence of the so-called "fixed stars" was postulated); similarly, the prerequisites of Maxwell's central, epoch-making discovery were partially false.

Then there is a type of exclusive approach to scientific research, lying in imposing *novelty* at any cost (starting from the naively quantitativistic principle according to which newer things must by necessity be better… simply because they are more recent – *Ulterior, ergo melior*). Why, for instance, should the grammatical description and analysis done in keeping with the ancient canons no longer be relevant or appropriate (e.g., the Romanian Academy's *Grammar* edited in the mid-sixties)? The new edition seems to have brought rather few elements of novelty other than those bits of information taken over from a number of Anglo-Saxon grammars that were incompletely digested – e.g., eliminating the old, traditional Romanian reflexive voice.

Speaking of this, a rather damaging tendency seems to be, today, the attitude of absolute servility, kow-towing in front of foreigners (the "technical experts", as it were), which ranges from their superior technical skills and abilities, their sophisticated machineries and equipment, superior public order, civic spirit, humor, etc., to their arts, culture, science, politics, language textbooks (e.g., for TEFL), etc.… Here is an example of the extremest absurdity: editing an English-Romanian dictionary under the aegis of the German publishing house Langescheidt, by *translating* and *adapting* it! In fact, copying "the elements of novelty" in a mechanical, parrot-like manner starts with the so-called *xenisms* or *foreignisms*, i.e. that class of neologisms that are not yet adapted to the spirit of the source-language – or the connotative neologisms, which currently tend to form an Englished neo-jargon, e.g. *locaţie*, *emfatic*, *gradual*, *patetic*, *furtuna creierelor*, *oportunitate*, *determinat*, *a implementa*, *mentenanţă*, *a se focusa*, *hair stylist* / *stilist*, *expertiză* etc. Similarly, there are cases when philological research seems "to force open doors" (in much the same way Molière's character Monsieur Jourdain "faisait de la prose sans le savoir").

Moreover, one can come to wonder what was fundamentally wrong with the old approaches of literary theory and criticism? At present, feminist, postmodernist, etc. views or grids are encouraged in an absolute manner. Even in those cases where, for instance, even the author being analyzed (Ishiguro, to take an example) specifically stated that "Thinking further about the characteristics of potmodernism writing, I'm personally not interested in 'metafiction', in writing books about the nature of fiction. I've got nothing against such books, but for me there are more urgent questions than the nature of fiction." (Quoted from *Ishiguro edited by Sean Matthews*, p. 117), some critics are making every effort to find or at least suggest some postmodernist meanings (hinting at the postmodernist appetite for demythisation, rewriting, deconstruction, vagueness, etc.).

Along the same general lines of linguistics and philology, or research of the philological type, one has to note that the worst thing is that, sometimes, elementary mistakes are made primarily because the very bases (or the "old truths") of philology are no longer taught or cultivated: for example, there are so-called grammarians who do not teach or recognize the frequentative value of *will* and *would*, as a phenomenon that is subordinated to the grammatical category of aspect, stating instead that they are part of the system of modality; or people who do not have the most elementary notions of etymology – or the patience to search for derivations, nay even accept to be guided by someone better informed; just an example from our personal experience: a young linguist said that the Romanian slangy term *brand* was related to the English word *brand*, and she persisted in giving that information in a paper that was subsequently published, even after being told that the correct etymon was German *Brandt* (a type of mortar used in WW2). Indeed, the only way to real progress is to (critically) capitalize on tradition!

Once it happened to me to give the transitive verb *a creşte* as an example of English-inspired decalcomania (as illustrated by a number of articles excerpted from the Romanian press), cf. Eng. *to increase*, and a person who worked for the Linguistics Institute of the Romanian Academy urgently asked me to "produce evidence" – in other words, to come up with examples proving that the transitive forms used for that meaning were very rare in press materials previous to the year 1990! Similarly, it seems that many journalists regularly use material – or keep at the back of their minds models – of texts written in English, e.g. in the journal *Historia*, January 2014, p. 3: "cel mai mare masacru cunoscut până atunci de *rasa* umană" (cf. Eng. *the human race* – anyway, it would be interesting to find the respective collocation of *race* in press materials predating 1990); or "Wallis Simpson, o *femeie americană* divorţată deja de două ori" (ibid., p. 6 – cf. Eng. *an American woman*). There is also – and obviously – a kind of "enlightened" (or "raisonné") linguistic imperialism; but is it just another expression of self-delusion, or of voluntarism springing from

a type of elitism? A similar attitude lacking good judgment is not being able to admit that you, or someone you approve of, made a mistake, and trying to "cover it up"; for example, an author who is well-known (and of a rather disputable reputation) interviewed former King Mihai, and the latter said that he "a zburat avioane" instead of "a pilotat avioane" (cf. Eng. *fly planes*); the interviewer-author found it appropriate to "cover up" the interviewee's slip-up, trying to find imaginary excuses for it in a footnote, instead of recognizing, honestly and scientifically, that the venerable character had been carried away by his (natural) familiarity with English, producing a trivial – and quite excusable – instance of *calque*.

A notable – and downright inspiring – counterexample may be the stand that the great Caragiale illustrated as a linguist and etymologist in his own right. In questions of language standardization, his attitude was brilliant: for instance, in the sketch titled *Ţal!*, the writer mocked the use of the French-inspired negative form of the infinitive with imperative force (the final reply in the text is "A mă slăbi!"); in other sketches, such as *Proces-verbal*, Caragiale satirized the pseudo-etymological spelling fastidiousness of the time (e.g. *didul*, *contesteadă*, *icre moiu*). As an etymologist ("against his will"), he coined and used, in most of his literary pieces, memorable proper names such as *Ftiriade*, *Lingopolu*, *Guvidi*, *Pristanda*, *Girimea*, *Trahanache*, *Bob Schmecker*.

Stupidity (naturally vain – while also springing from crass incompetence) combines, especially in the media, with interested *manipulation*: in both the media and cyberspace, one can come across hundreds of titles that have virtually nothing to do with the information in the content proper of the articles in question, being used only to arouse the reader's or Internet user's curiosity; data and information with practically no grounding at all, misinterpretations and distortions, stereotypes, lack of basic logic and consistency of information, etc.

On the other hand, *manipulation* by means of language (with plenty of examples available in the field of *PC vocabulary*, but also forcing nomenclature in legislation – such as the relatively recent use of the term *reabilitare* "rehabilitation" instead of *renovare* "renovation") is more encompassing. It is one of the (often very subtle) manifestations of eternal human swindling and deceit. Take, for example, the renewal of vocabulary in some recent examples: *invalid* → *dizabilitat*; *şomer* → *disponibilizat*; *mită* → *comision*, *găşti* → *relaţii interpersonale*. An astounding illustration of the vagaries of "Gender equality" expressed linguistically is the relentless, active fight of the (majority of the) French-speaking female linguists against 'Common Gender' nouns (also called *epicene nouns*); we could safely recognize it as a theoretical and ideological attempt of fictionalisation of reality: if a *hangiţă* "hostess" can be, all things considered, the owner or *manager* of an inn (not just, or not necessarily, the innkeeper's wife), and there are plenty of female welders (Rum. *sudoriţe*), crane-operators (*macaragiţe*), drivers (*şoferiţe*), painters / artists (*pictoriţe*), notaries (*notăriţe*), lawyers or barristers (*avocate*), police officers (*poliţiste*), taxi drivers (*taximetriste*), footballers (*fotbaliste*), brickmakers (*cărămidărese*), money-lenders or pawnbrokers (*cămătărese*), officers (*ofiţerese*), colonels (*colonele*(*se*), cabinet ministers (*ministre*(*se*), journalists (*gazetare* / *gazetărese* / *ziariste*), militants (*militante*), and activists (*activiste*), how many female coopers (Rum. *dogăriţe*) does one encounter in reality – or how many female miners (*mineriţe*), shepherds (*ciobăniţe*), engine drivers (*mecanice de locomotivă*), tractor divers (*tractoriste*), pointsmen / pointspersons (*acăriţe*), corporals (*caporale*), admirals (*amirale*), generals (*generale* / *generălese*), sommeliers (*someliere*), boxers (*boxere*), and butlers (*majordome*)? Not to mention the female mowers (*cosaşe*), outlaws (*haiduce*), buccaneers / corsairs (*corsare* / *corsăriţe*), porters (*hamale* / *hămăliţe*), hunchmen (*cirace*), rapists / violators (*violatoare*), etc.! Maybe one day the idea will occur to a group of men to engage in protests over the miserable fate of *male nurses*, *male kindergarten teachers*, *male hairdressers*, *male typists* or *male mulches*; or trying to get hired (as Caragiale himself jocularly suggested) as *military midwives*! (Although, on the other hand, the list of the notable pioneers of "neutral expression" includes a great name like John Stuart Mill, who proposed that, instead of *man* and *woman*, one should say simply *person*).

The worst thing happens when the "professional", the "skilled man", tricks the consumer, the *layman*, turning into a real predator as soon as he/she catches the latter *offguard*: I have had several personal experiences; for example, in the early 1990s, I happened to have a TV set "BLC bridge replaced", although the device merely lacked a safety fuse that had been burned, but the money was given without further ado, for the respective piece, plus the manual labour costs; at about the same time I happened to be swindled – or tricked – off a fair amount of money for an electric typewriter… though there was actually nothing amiss! And most people call such tricks a "tax on stupidity"! Which may be true – especially from their point of view! But, this way, we should all take advantage of the minute intricacies and specialized formulas of the profession we practice, in order to outsmart THE OTHERS as lucratively and efficiently as possible; for example, a doctor should squeeze extra money out of you by telling you, either directly (with the usual grim frown) or, better still, via a close relative, that you have a very serious form of *fistulo-reticular hemostasis of the palpebral-vegetative system, combined with a slight gluteo-hexalic embolism with a distal lipidomurinic syndrome*.

Consequently, like mistakes, diseases and other manifestations of all-present evil in the world, stupidity, if recognized, can become an ally of humans, and thus an undeniable factor of *progress*. By discriminating judgment, it can return (v. the concept of *feedback*) onto the matter under investigation / analysis, like an authentic delivering boomerang; in fact, it can act redeemingly, in the guise of a vaccine, which turns disease into cure. Avoiding stupidity and (unprovoked) foolishness, you can progress… (Similarly, the preventive attitude of a driver should be underpinned by basic fear of stupidity: the stupidity of others in the traffic, or – if you are completely honest – your own, as well). So there is still a *positive* role (sic!) of stupidity: recognizing stupidity could be the first step towards wisdom… When one "makes separate peace" with stupidity informedly (v. also Ion Creangă's story entitled *Prostia omenească* / *Human stupidity*, the conclusion of which gives the simple peasant the well-earned satisfaction of having seen people even more foolish than the fools in his own

family), you can actually congratulate yourself on having defeated stupidity… For the time being, at least… Yet, by overcoming it, you can somehow rediscover yourself, better and less vulnerable – in other words, a little wiser. *Encomium moriae*…

BIBLIOGRAPHY

[1] Crystal, D., (2008). *A Dictionary of Linguistics and Phonetics*, 6th edition, Blackwell Publishing, Oxford, UK;

[2] Crystal, D., (1990). *Linguistics*, Penguin Books, Harmondsworth;

[3] Crystal, D., (1988). *The English Language*, Penguin Books;

[4] Crystal, D., (1984). *Who Cares About English Usage?* Penguin Books;

[5] *** (2005). *Gramatica limbii române*, Editura Academiei Române, Bucureşti;

[6] Hornby, A.S., (1998). *Oxford Advanced Learner's Dictionary of Current English*, 5th edition, Oxford University Press;

[7] *** (1992). *International Encyclopedia of Linguistics*, OUP, Oxford;

[8] Jerome, K. J., *Idle Thoughts of an Idle Fellow*, The Project Gutenberg EBook;

[9] Jespersen, O., (1905). *Growth and Structure of the English Language*, New York;

[10] Knowles, G., (1997). *A Cultural History of the English Language*, Arnold;

[11] Manea, C, (2012). A Lexicographer's Remarks on Some of the Vocabulary Difficulties and Challenges That Learners of English Have to Cope with – and a Few Suggestions Concerning a Series of Complex Dictionaries, in *Studii şi cercetări filologice. Seria limbi străine aplicate*, no. 18, , Universitatea din Piteşti, pp. 122-134;

[12] Manea, C., (2010). *Remarks on the Scope of the Neologistic Influence from English Sources – Translation as a Case in Point*, in *Annales Universitatis Apulensis, Philologica*, 11/2010, Tom 3, Alba Iulia, pp. 51-65;

[13] Manea, C., (2014). Scraps of Reflective Writing on some Challenges and Achievements in the Field of Anglo-Romanian Lexicography, in *Philologica Jassyensia*, no. 2 (20);

[14] Manea, C., (2015). *Culegere de paradoxisme*, in Smarandache, Florentin (editor), *Thirteenth International Anthology on Paradoxism*, The Educational Publisher & Editura Ferestre Columbus – Oradea, pp. 55-76;

[15] Manea, C., Manea, M.-C., (2010). *Some Significant Aspects and Problems of Translation on Multdisciplinarity in Scientific Research*, international workshop EDEN3, University of Piteşti, June;

[16] Manea, C., Manea, M.-C., Pruneanu, D.-M., (2009). Distorsiuni ale comunicării în limba română legate de activitatea de traducere, în vol. *Distorsionări în comunicarea lingvistică, literară şi etnofolclorică românească şi contextul european*, Institutul de Filologie Română "A. Philippide", Ed. *Alfa*, Iaşi, pp. 219-228;

[17] Marian, M. (ed.), (1995). *Legile lui Murphy*, Editura Universal Dalsi;

[18] Matthews, S., Groes, S. (Eds.), (2009). *Kazuo Ishiguro. Contemporary Critical Perspectives*, New York, Continuum;

[19] Maupassant, G. de, (1966). *Opere complete*, vol. III, Editura pentru literatură universală, Bucureşti;

[20] Stein, H., (2007). *Cum m-am lăsat de gândit*, Editura Nemira;

[20] Ştefănescu, I., (1988). *Morphology. Word Formation*, TUB, Bucharest;

[21] *** (2001). *The New Oxford Dictionary of English*, (edited by Judy Pearsall), OUP;

[22] Weiner, E.S.C., Delahunty, A., (1993). *The Oxford Guide to Correct English*, Editura Teora, Bucureşti.

RIGORS AND ERRORS CONCERNING BIBLIOMETRIC ANALYSIS FOR YOUNG PHD STUDENTS

Dana Stana

University of Pitești, Romania, e-mail: dana.stana@upit.ro

Abstract. *A bibliometric analysis takes into account such criteria as qualitative and academic research, and transferability of the results. The PhD student was compared with the reference group, the activity or event, and the case study method was developed. The quality and validity of the study is however omitted, and the quantitative and qualitative analysis in various growth strategies calls for further research.*

Keywords: *bibliometric, case study, research, PhD student, internationalization*

1. INTRODUCTION

The aim of bibliometric analysis is to understand the mechanism of scientific research. One can get information not from the actual data, but from the relationships between the set of data and their interpretation.

If, in this context, we consider that an analysis is based on quality and academic criteria, we then think of biblioscientometry, where the role is involved of those data sets capable of addressing specific problems. The most widely used indicators are the statistical ones and those of citations. If the former type is obtained based on empirical statistical data, the latter type of indicators concern the relevance and importance of the author who makes the citation and the time that passed from the date of the publication until the moment of citation.

2. METHODS OF MEASURING SCIENTIFIC RESEARCH

Bibliometry deals with the **quantitative** measurement of scientific research, and provides the image of how much influence or interest a certain researcher represents in that field of research. The indicators are calculated by means of bibliographic databases, evidently admitting that bibliometric indicators differ from one database to another, and that some bibliometric indicators are specific to a particular database.

The bibliometric indicators for ***publications*** are:

- **impact factor** (equal to the number of citations of the paper or article published, divided by the number of the citable articles over a period of time);
- **relative influence factor** (represents the influence score of the papers in a journal and the reference influence score of the journal);
- **Index Copernicus Value** (is an international platform specialized in the promotion and scientific results, which allows collaboration between researchers and publishers of scientific journals).

The bibliometric indicators for ***papers / articles*** are:

- **number of citations (i.e. how many times a paper / an article has been cited by another researcher, which characterizes scientific performance);**
- **Hirsch index (or h-index), which represents** the number of papers ***n*** that have *n* or more citations.

In addition to *bibliometry* there are also:

- *almetrics* (how far and how widely spread on the web the content of a paper was);
- *webometrics* (the indicators underlying the volume of web content, and the web visibility and impact – i.e. how many times the link was mentioned on the web).

Scientometry deals with analyzing the **qualitative** aspects of generating, disseminating and using information, and its main target is the contribution to a better understanding of the mechanism of scientific research. To do that, probability calculus and mathematical statistics are used.

As far as the qualitative methods are concerned, the **case study** method is known as the most widespread, followed by **historical research**.

The *case study* type of research is used to answer questions such as: *why?* and *how?*, and build a research theory based on in-depth analysis, highlighting the institutional framework, the applicability scope of the study, the research objectives, the sampling area, the method used, the number of cases, the data source, the theoretical development and the opportunities. The case study methods that are common are the *interview method*, the *observation method* and the *questionnaire method*.

Since 2011 up to the present accredited universities completed a questionnaire (http://chestionar.uefiscdi.ro/public5/index.php?page=punivlist) where the criteria used in the evaluation were mentioned. Under criterion no. 2 (c) relating to scientific research for Standard C1.1, the universities mentioned "Papers indexed as *ISI Web of Knowledge*: Total number of papers published in *ISI Web of Knowledge* by the teaching staff and the scientific researchers who are employed as tenured staff by the university, and also by the persons in a relationship of fixed-term employment contract with the HEI – doctoral students, postdoctoral students, associate academic staff".

From this point of view, we can notice the error having to do with the impact factor for journals, which is essentially an indicator of citations (and so it is by no means fair to be used as an indicator of quality). Unfortunately, researchers, too, have their work assessed in terms of quality with the help of this indicator, which is wrong: we must not equal fame and quality.

The ISI impact factor very well illustrates the impact of the literature, while it cannot indicate the level of scientific quality. On the other hand, an ISI journal does not imply that it is a highly appreciated journal in its field.

A young doctoral student who published five papers / articles that are cited 60 times each cannot be compared with

an elderly teacher with 15 papers / articles to his credit, which are cited 12 times. The former will have an ***h*** factor of 5, while the latter will have 15, which does not mean that the latter is better.

The ***h*** Index highlights researchers who can boast outstanding contributions in their field, and yet have not necessarily earned a reputation in the scientific community, at home or abroad. For instance, Manuel Cardona from the Max Planck Institute for Solid Research in Stuttgart, Germany, has an h index = 86, and Philip Warren Anderson (1977 Nobel Laureate in Physics) h = 91. It should be stressed that the Nobel Prize is awarded for what an individual has achieved rather than what he has published.

Analyzing the ***h*** indicator to assess the results of a researcher, we find that there are both advantages and disadvantages in using it, and so both rigors and errors can be produced rigor concerning the analysis on the extracted data.

Asserting that there are criteria to measure the value and performance of a researcher, Jorge Hirsch comes with the following arguments in favour of using his index:

1. ***total number of papers / articles*** (Na)

Advantage: it measures productivity

Disadvantage: fails to measure the value or impact of the papers / articles

2. ***total number of citations*** (Nc)

Advantage: it measures the total impact

Disadvantage: a) it incorrectly gives priority weight to reviews (overall assessments) over the original contributions in the research articles

b) it is difficult to assess the total impact, due to a "small number of articles with many citations" that are not representative of the researcher, because he/she is coauthors the papers in question with several other researchers

3. ***citations per papers / articles*** (e.g. the ratio of Nc and Na)

Advantage: it allows comparing the output of the researchers at various ages

Disadvantage: it rewards low productivity and penalizes high productivity

4. ***number of "significant papers" defined as number of widely or usually cited papers /articles cited***

Advantage: it eliminates the disadvantages of the criterion

Disadvantage: the threshold for "numerous" citations is arbitrary and it should be adjusted for different age levels

5. ***citations for usually cited papers / articles***

Advantage: it rectifies many of the disadvantages of the criteria

Disadvantage: this is not one number, i.e. the number of most cited papers may favour or disfavor a researcher.

The individual *rankings* are aggregated to give the ranking of the department and of the research team.

It is common knowledge that research was introduced as part of the professional or job evaluation methodology of each university teacher, and it is also common knowledge that there are academic classifications worldwide.

Publication of articles in prestigious scientific journals and recognition of their value through the citations they receive has, of course, both rigors and errors. If publication is the basic criterion in evaluating academics in Romania (by including such an assessment in the minimum standards required and mandatory for conferring teaching titles in higher education), and if this represents the main method of encouraging research, citations are however appraised, in assessment, in a differentiated manner, and in some cases this can be exaggerated, since publishing papers / articles counts more than publishing books. For example, a paper / article indexed in *Thomson* will get 20 points in evaluation, i.e. the same as would be have been given for publishing a critical didactic volume, being the sole author.

Citations are rewarded with 2 additional points compared with the publication of a paper or study in the volume of a national conference, which is evaluated by only 5 points.

In terms of the number of citations designed to determine the ranking of universities, there are two types of rankings:

1. **The Times Higher Education rankings**, with data extracted from the *Thomson Reuters* bibliometric platform
2. **The QS World University rankings**, with data extracted from *Scopus*

The Times Higher Education rankings are based on the following criteria:

1. education – accounted for 30%;
2. international visibility – accounting for 7,5%;
3. revenue and funds from industry attracted by research – accounting for 2,5%;
4. research – with a share of 30%;
5. citations – again with a share of 30% .

The QS World University Rankings analyzes six categories of criteria:

1. academic reputation – accounting for 40%,
2. reputation among employers – accounting for 10%,
3. the ratio of teachers to students – accounting for 20%;
4. citations per faculty according to the Scopus bibliometric platform – accounting for 20%;
5. proportion of international students – accounting for 5%;
6. proportion of international teachers – accounting for 5%.

Also taking account of the fact that bibliometric performance becomes the main focus rather than scientific discovery, scientific work is reduced to *writing* rather than *doing research*. And PhD students are the target in this endeavour, being used to carry it out. Moreover, as collective signature of authors is a wide practice, the teachers tend to misappropriate the work of their PhD students by putting their name on the papers or articles, especially as the "survey" articles dealing with existing literature are cited more than the original productions.

In order to increase **academic productivity**, it is recommended to attend the grand *Polach* of references, because that service will be returned.

However, universities make a big mistake in comparing different areas in an attempt to foresee the publishing results.

The ISI database, which is used as a reference point for the value of journals, does cover most fields of science, yet not all of them. The areas covered are: mathematics, physics, chemistry, computer science, biology, geography, geology, environmental and earth sciences, sciences of education, psychology, economics, business administration, finance, accounting, statistics and economic informatics, economics and international business, management, marketing, agricultural science and forestry, medicine, veterinary medicine, engineering (sciences), physical education and sports, philosophy, history, theology, arts, architecture, urban

planning, sociology, social work, political science, international relations, European studies, administrative studies, sciences of communication. The areas that are not covered are: Romanian philology, Romanian cultural studies, law (except for American law), military science and information science (apart from the technical aspects related to other areas).

To describe a qualitative phenomenon it is hard to designate a quantitative indicator, especially that indicators do not tell us, when it comes to groups, what scientific value a group produces. In order to overcome that challenge three minimal indicators or denominators were found, which have three different meanings:

• *Minimum Presence* (*MP*) is the proportion of people in the group who ever published a full scientific paper present in the ISI database;

• *Minimum Activity* (*MA*) is the proportion of people in the group who published a full scientific paper that is present in the ISI database for the last 5 years;

• *Minimum Visibility* (*MV*) is the proportion of people in the group who make known to the public, on the web, references to their own publications that they deem most important, and which can be found by everyone and read, yet with no limitation concerning their nature and the way in which they were published. The Scientific Efficiency Index, the number of papers from a population compared to the number of the population, is universally accepted to compare the level of scientific activity of nations.

Apart from research, most universities commonly have other purposes, as well:

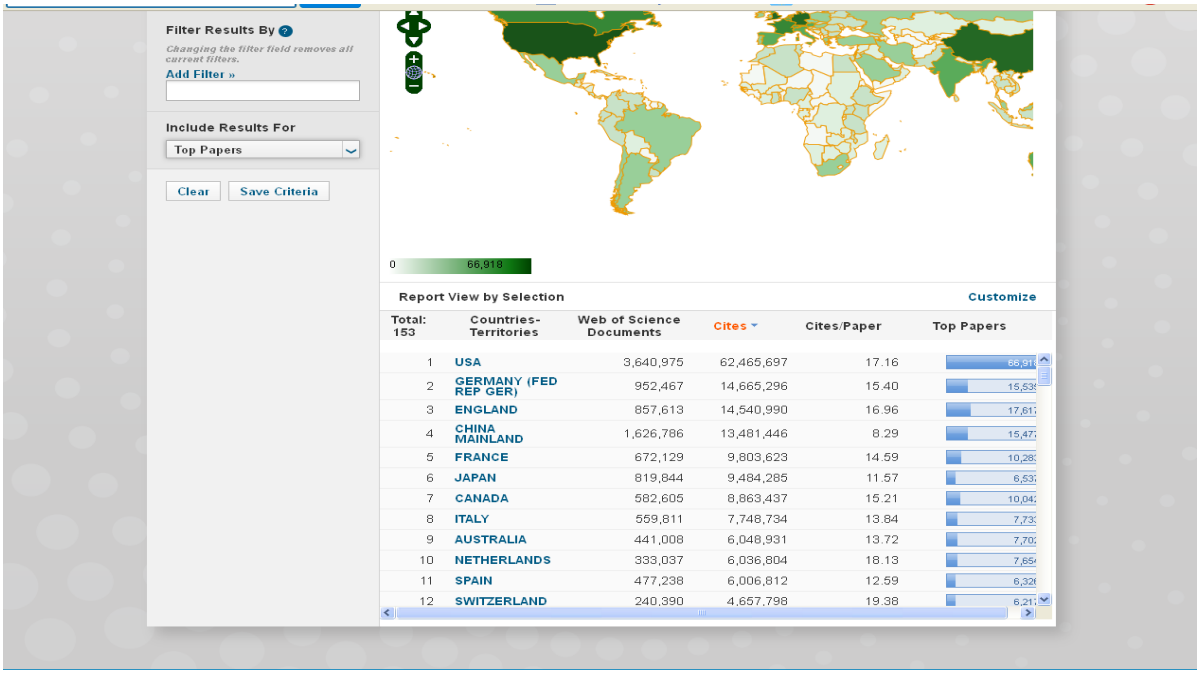
- *the practical dimension* (meaning the commercial exploitation of their scientific authority in the form of consultancy services);
- *the educational dimension.*

Applying indicators MP and MV to the population of graduates of doctoral programs, immediately or five years after obtaining the PhD degree means an important evaluation. The result shows an elite of minimal scientific performance, who, during say the 2000-2005 period, would be quoted between 0.02% and 0.05%, without however specifying whether that elite lives in the midst of an ignorant or well-educated population.

The analysis of **research performance** for institutions, nations and journals can be conducted by using the ESI indicators (or the Essential Science Indicators), which can make rankings by activity area and can determine the results of research and the impact in specific areas of research (minimum number of citations for a paper or article to position itself in the 1% or 50% top worldwide, by area and by year). The 50% top rankings use technology transfer. In any case, it represents an image of a top of a selected number of journals that do not reflect the relevance of the research as it can be noted that top-ranking journals in the international databases, and the number of articles that disseminate the research results is rather low, even tending to zero. Doctoral researches are in the trend internationally (they are finally published), so they are relevant from that angle, both theoretically and practically, and their relevance becomes useful when users are able to use the resources the research conveys, i.e. the part that is available to them and they can develop if they have it. Hence research is useful when one knows how to use it and when one is able to develop one's ability to use those resources.

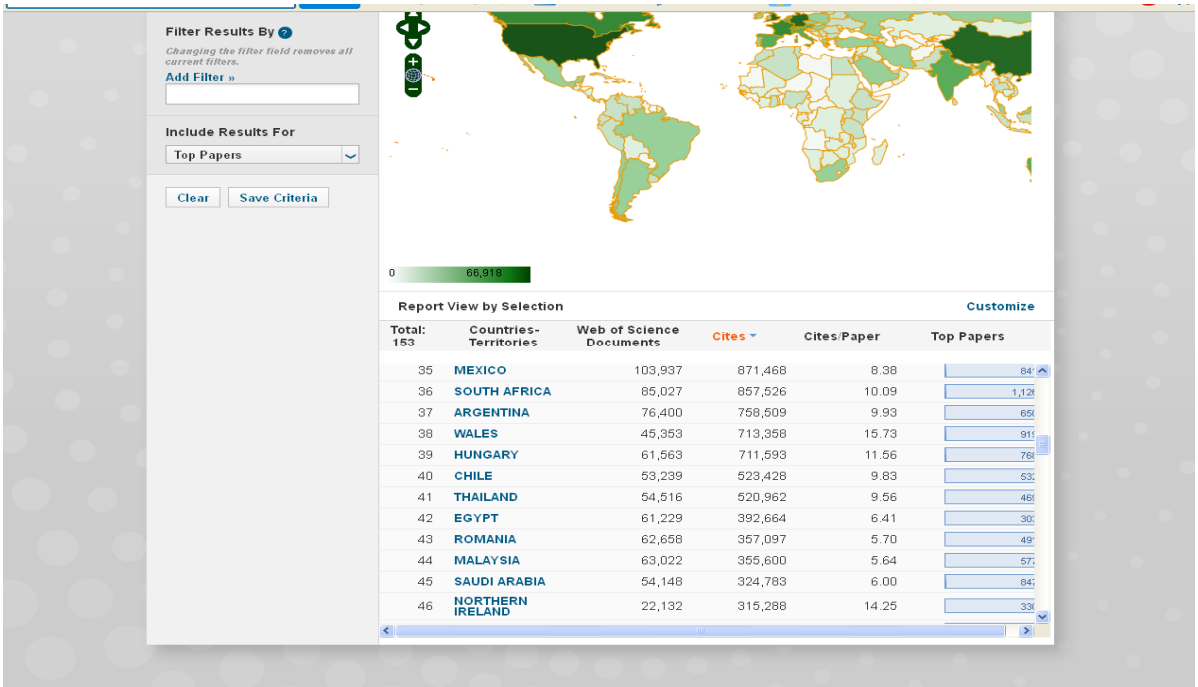
The number of conjectures has lately been lower, because one has to achieve the required load indices, even by publishing in related fields.

Fig. 1. Top Papers by Territories



Total: 153	Countries-Territories	Web of Science Documents	Cites	Cites/Paper	Top Papers
1	USA	3,640,975	62,465,697	17.16	66,91
2	GERMANY (FED REP GER)	952,467	14,665,296	15.40	15,53
3	ENGLAND	857,613	14,540,990	16.96	17,81
4	CHINA MAINLAND	1,626,786	13,481,446	8.29	15,47
5	FRANCE	672,129	9,803,623	14.59	10,28
6	JAPAN	819,844	9,484,285	11.57	6,53
7	CANADA	582,605	8,863,437	15.21	10,04
8	ITALY	559,811	7,748,734	13.84	7,73
9	AUSTRALIA	441,008	6,048,931	13.72	7,70
10	NETHERLANDS	333,037	6,036,804	18.13	7,65
11	SPAIN	477,238	6,006,812	12.59	6,32
12	SWITZERLAND	240,390	4,657,798	19.38	6,21

Fig. 2. Top citations by country (1)



Total: 153	Countries-Territories	Web of Science Documents	Cites	Cites/Paper	Top Papers
35	MEXICO	103,937	871,468	8.38	84
36	SOUTH AFRICA	85,027	857,526	10.09	1,12
37	ARGENTINA	76,400	758,509	9.93	65
38	WALES	45,353	713,358	15.73	91
39	HUNGARY	61,563	711,593	11.56	76
40	CHILE	53,239	523,428	9.83	53
41	THAILAND	54,516	520,962	9.56	46
42	EGYPT	61,229	392,664	6.41	30
43	ROMANIA	62,658	357,097	5.70	49
44	MALAYSIA	63,022	355,600	5.64	57
45	SAUDI ARABIA	54,148	324,783	6.00	84
46	NORTHERN IRELAND	22,132	315,288	14.25	33

Fig. 3. Top citations by country (2)

Thomson Reuters measures the degree of redundancy (many indexes contain about the same information, only the calculation methods differ). We have indices that are integers, indices that are rational numbers, etc., yet we do not have an index that could represent these factors thus rendering evaluation by one digit.

In the United States no indicator is calculated, instead the application is sent to the three specialists in the domain, who are to analyze the expected promotion.

Asked what would the criteria for access to the Romanian Academy be, researcher Ionel Haiduc said that "that individual must have such a reputation that no additional criteria should be required any longer".

Indeed, how could one expect proper research being conducted when the Romanian state fails to value increased investment in education and research? In step with the process of internationalization and globalization, structural reform is needed in the sphere of science, a modern approach to research, and certainly attracting new investment. Experimental facilities should be at least sufficient. For example, chemistry is, an experimental science *par excellence*, and studies should contain the characterization of the samples via every method, and if there are no proper laboratories, how could one possibly get such results? The solution may lie in this: there are a few research centres in

this country, only there should be collaboration between them.

Finally, by using the *Thomson Reuters* and *Scopus* bibliometric platforms, one can present a comparative analysis of academic evaluation from the angle of an ANELIS user. The presentation below examines the work of a scientist over a certain period of time, in the two databases.

Individual Analysis

I. in *Thomson Reuters* for the period 1990-2015:
- 254 recorded publications
- 3,305 citations, out of which 2,801 are self-citations
- 1,965 citing articles
- 13.01 average of citations / article
- 29 Hirsch Index

II. in *Scopus* for the period 1972-2015
- 691 publications and mentions.

In keeping with the year of publication and the number of citations, the data are highly different, and so we cannot really say which is the better database. If we search for a well-known author, e.g. Nenițescu, in the same databases and for the same periods of time, we will find that the name appears 2 times in *Thomson Reuters* (thus, without taking into account that he is an older author) and 39 times in *Scopus* (in comparison with a PhD student, the work is not to be ignored, as the earlier period is included).

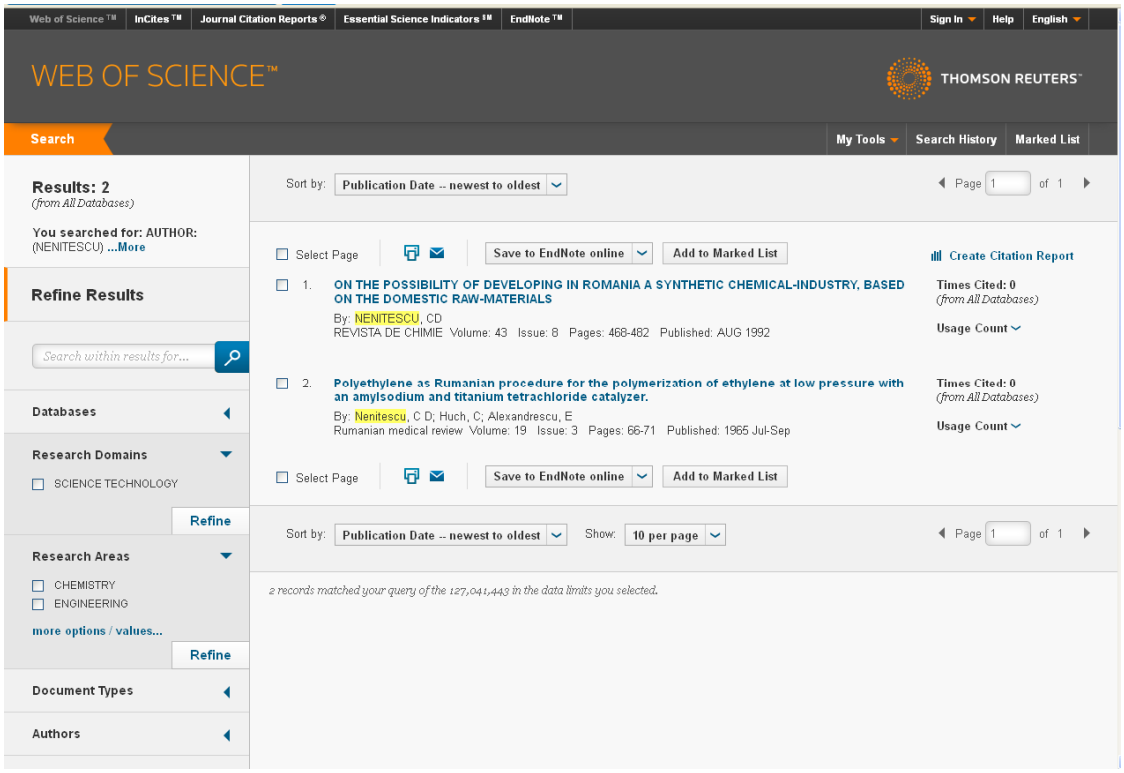


Fig. 4. Search results in Web of Science

Institutional analysis (e.g. Babeş-Bolyai University in Cluj-Napoca, Romania):

In *Thomson Reuters*
- 1,105 mentions (address)
- 56 subject (in the title)

In *Scopus*
- 9,106 mentions (address)
- 65 subject (in the title)

Thematic analysis "crown ether", which won the Nobel Prize
- Thomson Reuters – 30,850 mentions
- Scopus – 58,386 mentions

As a modern instrument for impact analysis concerning researchers, one can talk about the ***Publish or Perish*** software application, which allows importing results from both the *Web of Science* and *Scopus* so that a comparative bibliometric analysis can be made a in a single search box.

PUBLISH OR PERISH, available free of charge at http://www.harzing.com/pop.htm, calculates:

• the research impact and visibility in the Internet by *Google Scholar*

• the bibliometric quantitative indicators: *total number of papers; total number of citations; the average number of citations per paper / article; the average number of citations per author; the total author's papers; the average number of citations per year; the importance of age in the rate of citation; an analysis of the number of authors per paper, etc.*

3. CONCLUSIONS

Each database has its merits and its usefulness. The qualitative value of research cannot be synthesized by a figure or a number. In other words, there is still no unanimously accepted indicator reflecting the scientific value of the results of reasearch. There are both rigors and errors that variously focus on time, impact, etc., etc. On the other hand, academic productivity, too, can be influenced by quite numerous factors.

Biblioscientometry is not sufficient to reveal the quantitative and qualitative aspects of scientific research. There should be a guiding, orienting aspect, which must not necessarily be mandatoryin assessment so as to make visible the results of the investigations. Originally conceived as a selection method, in an attempt to get rid of ballast, scientometry began to act as a method oriented against the initial task. There are omissions for each particular analysis, meaning that research results have to be published. Some even make their own ISI journals because they do not have access to the group of the field in question.

One must conclude that both research and research evaluation should be carefully rethought.

REFERENCES

[1]. Frangopol, P. T., (2005). Indexul Hirsch – un nou indicator scientometric pentru evaluarea rezultatelor unui cercetător ştiinţific, *Revista de Politica Ştiinţei şi Scientometrie*, vol III, no. 4. pp. 75-78;

[2]. Prodan, V., (1999). Interpretarea bibliometrică a unei bibliografii de specialitate, in *ABIR. Buletin Asociaţia Bibliotecarilor din Învăţământ România*, Bucureşti, vol 10, no. 4. pp. 21-24;

[3]. Ursache, L., (2015). *Bibliometria pe înțelesul tuturor*, Galați, available on line at http://www.arthra.ugal.ro/xmlui/bitstream/handle/123456789/3221/2014_bibliometria.pdf?sequence=3;

[4] *** (2011). *Ordin privind aprobarea standardelor minimale necesare şi obligatorii pentru conferirea titlurilor didactice […]* – published in *Monitorul Oficial,* no. 540/29.07.2011

[5] *** http://www.timeshighereducation.co.uk/world-university-rankings/2013-14/world-ranking/methodology;

[6] *** http://www.topuniversities.com/university-rankings/world-university-rankings/2013, accessed 4.03.2014;

[7] Haiduc, I. (2015). *Abordare comparativă a evaluării academice pe platforme bibliometrice*, available on line at www.e-nformation.ro.

ERROR, FRAUD AND STUPIDITY IN PRODUCING AND USING ECONOMIC INFORMATION

Marian Țaicu

University of Piteşti, Romania, e-mail: marian.taicu@upit.ro

Abstract. *Economic information is essential for decision-making at both a micro-economic and a macro-economic level. Obtaining and using economic data are affected by errors, fraud and irrational behaviour, which are considered stupid. The paper aims to show how error, fraud and stupidity affect the quality of economic information and the decisions taken on its basis in various areas of economic life.*

Keywords: *economic information, risk, error, fraud, stupidity*

1. INTRODUCTION

The technological, economic, social and scientific developments in recent decades have brought about new challenges with regard to taking decisions at both a macroeconomic and a microeconomic level. The modern world, where everything happens much faster than it did in the past, has brought a new trend of accelerating the pace of decision-making. In the current context, the factors affecting the internal and external environment of an organization, which the decision-maker must take into account, are highly unstable and require a very quick reaction from an organization that wants successful performance. Economic activity and technological developments must be accompanied by the development of economic information in terms of scope, content and timeliness. For an efficient management of any organization, it is necessary to have a well-structured economic information system, in keeping with the information needs of the managers.

Risk and uncertainty, which regularly occur, are features of the modern economy. The terms "risk" and "uncertainty" are often used to express virtually the same thing, although they have different meanings. The word *uncertainty* implies not knowing what will happen in the future, while *risk* is typical of the level of uncertainty, and represents the likelihood of an event that is prejudicial to the proposed results. Also, risk at a microeconomic level is the inability of a company to adapt, in a timely manner and at the lowest cost, to the changes in the economic environment in which it operates.

In the production and use of economic information of all kinds errors often occur, no less than fraud or even approaches related to the irrational and stupidity.

2. ERROR, FRAUD AND STUPIDITY. DEFINITIONS

Any approach to the impact of errors, fraud and stupidity on obtaining and using economic information must be preceded by a series of conceptual delimitations concerning the significance of these three concepts.

Fraud refers to an action that is an intentional act, which is perpetrated by one or more persons with the aim of distorting certain results. Usually, the person who commits a fraud also takes measures to make their deed hard to discover.

An error is done unintentionally and, most often, its author is not aware of committing it.

One and the same act may be considered an error or a fraud, according to the extent where justice succeeds in demonstrating the unintentional or intentional character of that transgression or misconduct. Economists must have the knowledge and skills needed to distinguish flagrant deviations from random, excusable ones.

Stupidity is the quality or characteristic feature of being stupid, and is associated with lack of reason.

The three concepts can be seen in connection with economic information at both a microeconomic and a macroeconomic level.

3. ERROR, FRAUD AND STUPIDITY AT A MICROECONOMIC LEVEL

Depending on the way it is organized, the information system influences the management system, and that influence is manifested by the impact on the decisions taken. The enterprise's information system has three major components:

a) The technical and operational record system is held by each company depending on the specific activities they carry out. It provides timely and systematic recording of the data generated by the various activities within the enterprise, when and where they occurred. The information obtained by this system are operational and typically is expressed in natural units. Following their selection and processing summary information is obtained, which provides an overview of the organization.

b) The accounting system is the basic component of the economic information system, which records the economic phenomena and processes in terms of value and sometimes also in terms of quantity. It handles and processes the data provided by the technical and operational records, and gives managers the information they need for decision making. The accounting system provides accurate data that are based on the underlying documents of the records.

c) The statistical system provides postoperative information. This information comes in a summary form, and allows comparisons on the results obtained and those projected. It also allows setting objectives for future periods. For data collection specific tools are used, such as surveys, investigations, and censuses, also using the data provided by accounting.

Accounting errors

In general terms, the term "error", when used in accountancy, means unintentional mistakes such as:

- mistakes of a mathematical nature, or accountancy mistakes in the records being held;
- overlooking, omitting or misinterpreting facts;
- wrong application of accounting policies.

In the dualist accountancy system, these errors can be considered along the two fundamental components: finance accountancy and management accountancy.

In order to identify errors, an instrument is used in finance accountancy, which can be considered rather banal through its simplicity: the checking balance. Certain errors cannot however be identied by means of the checking balance: bookkeeping omissions, compensation erros, imputation erros, and the chronological record errors

Bookkeeping omissions refer to the economic operations that were not recorded in accountancy and can be identified by checking all supporting documents which formed the basis of records in order to find the documents that do not have the mark of registration confirmation. These errors lead to abnormalities in certain accounts, such as credit balance on the active accounts, or overdraft on passive accounts.

Compensation errors occur by transcribing wrong amounts from the supporting documents to the general ledger, or from the general ledger to the big book ledger, and consist in miswriting an additional amount to one side of an account or several accounts, and another amount in minus (equal to the additional sum) on the same side of another account or several accounts, so the two types of errors are compensated. Identifying compensation errors can be made by noticing unnatural balances on some analytical accounts.

Imputation errors occur as a result of transcribing amounts from the chronological record to the systematic record, which are accurate in point of value, yet are transcribed in other accounts than those where they should have been written.

Chronological record errors are caused by, say, wrongly establishing the correspondent accounts or recording an economic operation twice.

In management accounting and costing, errors can be caused by choosing a calculation method without taking into account specific factors, the use of an inappropriate distribution key, or the misapplication of the principles of a calculation method.

With regard to cost calculation, S. Datar and M. Gupta [1] identified three types of errors that can occur: errors in measurement, specification errors and errors of aggregation. Measurement errors are caused by the difficulty of identifying the cost of an activity and the measuring of the resources consumed for the obbject of cost. These errors correspond either to an erroneous recording in the accounts (an amount is recorded in a different account than that where it should have been written), or an error in the estimate of the inductor level (an employee estimated he/she will spend 20% of his/her time for an operation, when he/she actually spends 35%).

M. Gervais and C. Lesage [2] consider that specification errors consist in omitting an inductor, the use of an inappropriate inductor, or establishing a wrong relationship between the inductor and the cost of an activity. Aggregation errors occur when the cost is obtained by summing the cost of the resources consumed for the cost objects in different proportions. R. Kaplan and S. Anderson [3] have identified a fourth type of error that can occur: errors generated by the under-utilization of production capacity. By applying the ABC method, part of the expenditure is allocated to activities depending on the time employees declare they spend for each of those activities. By declaring this time, employees cover the possible idle time so that the amount declared equals 100%.

Statistical errors

Statistical errors are inevitable because of the large volume of data, and can be defined as the difference between the actual level of an indicator and the level resulting from statistical investigation. Statistical errors can be identified for each stage of statistical investigation, and can be errors of observation, of processing, of analysis and of interpretation.

Errors of marketing

Within this field, errors can be divided into errors of marketing research and errors of marketing strategies. The errors in marketing research can be assimilated to statistical errors. As far as the errors of strategy errors are concerned, we can enumerate: absence of relevant marketing research, lack of uniqueness of supply, poor knowledge of competitors and their supply, lack of a clear orientation, ambiguous strategy.

Managerial errors

At the managerial level, consistency must be secured between, on the one hand, the mission, vision and values of the organization, and on the other hand, its strategy and the system of measuring the results.

Managers are the recipients of the economic information, but, given the abundance of information obtained in the economic system, in order to avoid information suffocation, they consider only a limited number of indicators. So the problem naturally appears of choosing these indicators that form the dashboard. A good, relevant indicator should have the qualities of a measuring instrument: reliability, sensitivity and simplicity. Sometimes no single indicator can perfectly reflect the evolution of a critical success factor, and in that situation, it is necessary to use several indicators to provide an image as close to reality as possible.

Choosing the indicators to be presented in the dashboard is one of the most important steps in building this guiding instrument, and is directly linked to the specification of the key points of the organization. For the action to be successful, it is necessary to associate each point or item with one or more indicators that are suitable given the nature and limits of the decisions that may be taken.

It is absolutely necessary to make a clear distinction between the concept of information and that of indicator: whereas the information is a measure of a phenomenon in reality, the indicator is the result of a mathematical calculation.

In recent decades we have witnessed the explosive development of computers and IT, which can be used in collecting and processing of data, and also in performance management.

We must bear in mind that an indicator measures only one

aspect of the activity of an organization or a business, and fails to capture its full complexity. To successfully use outcome indicators in decision making, it is necessary to know their information limits.

The information limits of outcome indicators were grouped by M. Siminică [4] as follows:

- limits due to the accounting system;
- limits set by the nature of the indicators;
- limits due to management actions.

We can however identify **a fourth limit** [5]: **insufficient economic training of the personnel**. This involves both the training of the people who calculate the indicators (we have situations when the indicators are calculated erroneously, especially modern indicators for assessing the performance, which are not sufficiently known), and the people who use information (managers at various hierarchical levels).

The success of implementing the management strategy is influenced by several factors, such as:

- an appropriate communication strategy for the staff involved in its implementation. Failure in achieving strategic objectives can be caused by not understanding it correctly;
- appropriate allocation of resources. Any managerial approach is doomed to failure if the human, financial and material resources needed to achieve those objectives lack;
- finding a balance between strategy and tactical aspects. It should be remembered that short-term decisions are intended to contribute to achieving the strategic objectives.

Given the importance of managerial decisions, such errors can have serious consequences on corporate performance.

4. ERROR, FRAUD AND STUPIDITY AT A MACROECONOMIC LEVEL

Decisions taken at government level affect the entire economy, which lends importance to this category of decisions.

American economist Joseph Stiglitz (b. 1943), professor at Columbia University and Nobel Laureate in Economics in 2001, considers that "The big problem facing the world in 2015 is not economic. We know how to escape our current malaise. The problem is our stupid politics" [6].

5. ETHICS IN THE PROFESSION OF ECONOMIST

In general terms, a profession is a calling, an occupation that is permanent in nature, which someone exercises based on an appropriate qualification or a complex of theoretical knowledge and practical skills that define one's training [7]. As a rule, a profession is defined and assessed through the agency of the knowledge, skills and ethics of the people involved in practicing it.

Ethics is the science or theoretical discipline concerned with the theoretical study of values and the human condition in terms of the moral principles and their role in society; also, ethics is the total system of good conduct, or moral rules [7]. Professor Horia Cristea believes that "ethics is alien to dictatorship and centralism; it is specific to democracy, because democracy implies deregulation, where laws are substituted by ethical principles, without which society plunges into anarchy and disorder "[8]. Deontology is the part of ethics that studies the specific rules and obligations of a professional activity [7].

Accounting statements and reports can be manipulated to get the results expected by the current or potential shareholders, or to present in a favourable light the results of a manager or a subdivision of the company.

Ethical issues can be generated by:

- management expectations that are contrary to professional ethics;
- the desire to promote in one's professional career;
- the desire to achieve rapid gains;
- personal obligations, or obligations of the people in one's entourage.

Setting standards of professional ethics is important because:

- it provides trust in the relationship between employer and employee;
- standards are a benchmark for management accountants, who often face ethical dilemmas;
- it provides assurance to users of information about its quality.

The main factors influencing the formation of professional ethics in accounting management are shown in Table 1:

Table 1. Factors influencing formation of professional ethics

Factor of influence	Type of factor
Universities	Education, support
Professional bodies	Education, support Coercive
Cultural, moral and religious considerations	Education, support
Law	Coercive Education, support
Internal procedures of the organization	Education, support Coercive

Source: author's own elaboration

Universities have an important role in cultivating the values of professional ethics. Worldwide, the question has been raised, in recent decades, of adapting the academic curriculum by including professional ethics. More often than not, young graduates seeking their first job consider as prime the criteria wages and other benefits provided by the employer, as well as advancement opportunities, while the issues regarding employer ethics are often overlooked.

Professional bodies have a responsibility to remain involved in areas that affect the profession, and must contribute to the effort of drafting legislation and standards that will impact on the profession. For a profession to develop and obtain public recognition it is necessary to have a legal framework and a regulatory framework. That framework ought to respond to the natural needs occurring at the microeconomic and macroeconomic level. Through the importance and impact of the work of economists, their profession serves a public interest. By working with government institutions and other stakeholders the development can be achieved of a professional body that respects the needs of the administration, the profession and the public interest in general.

Culture, **morality** and **religion** shape the behaviour of individuals from the inside, having an important role in their reasoning, attitude and ethics. G. Hofstede (1984) made a

classification of countries of the world in keeping with several criteria, including cultural considerations [9]. According to the author cited, culture can be defined as "the collective programming of the mind, which distinguishes the members of one category of people from those of another." Every culture is characterized by a set of values and its own rules, which are developed by several generations, representing the result of a historical development. Cultural, moral and religious values initially conveyed to the members of a culture by parents, while the social environment in which the individual lives, as well as their upbringing, also exert their influence.

The **existence of laws** is essential to the normal functioning of society, and their appearance is due precisely to the attempt to establish a set of values that must be respected by all members of society in order to ensure justice and order. In time, laws have evolved in close connection with the evolution of human society. The law system may impose penalties to discourage breach of law.

The **internal procedures of the organization** are meant to guide individual behavior, thus having an educational role. Failure to follow and observe these procedures may result in the employee being punished – hence their coercive nature.

6. PENALTIES FOR ERRORS, FRAUD AND STUPIDITY

Responsibility, or accountability, and (legal) liability are dealt with in close relationship with concepts such as moral discrimination and freedom. Thus, determining responsibility and holding someone accountable for his/her actions may be done only if he/she acted freely and knowingly. Sociologists have developed the concept of social responsibility, which concerns individual responsibility to society for anything detrimental perpetrated. Social responsibility has several forms: moral, legal and political.

Legal liability combines three essential functions: the preventative or deterrence function, the function of repression and the reparatory function [10].

Legal liability is triggered if three conditions are simultaneously met: misconduct, guilt and causation.

7. CONCLUSIONS

Economic data or information is vital to making decisions that should lead to achieving performance. Errors, fraud and stupidity affect the quality of economic information and the decisions taken, thus affecting the interests of information users. However, errors and fraud occur inevitably, yet measures can be taken with a view to identifying errors and minimizing their effect.

The risks to which the organization or company is subject to in the market economy increase the part played by economic information, which thus becomes indispensable in management. In the new global context, economic knowledge must be possessed not only by economists, but also by those who are interested in the situation of the organization , company or enterprise, such as shareholders and employees.

Getting information involves certain efforts (both material and human) that generate costs. Thus, as a result of the comparative balance of the value of information and the costs incurred by obtaining them, there appears the need for increasing the efficiency of the information system.

8. REFERENCES

[1] Datar, S., Gupta, M. (1994). Aggregation, Specification and Measurement Errors in Product Costing, *The Accounting Review,* vol. 69, (4) pp. 567-591;

[2] Gervais, M., Lesage, C. (2004). *Back to the allocation of overhead cost in managerial accounting: how to well specify the activities and their cost drivers*?, 22th Annual Conference of the European Accounting Association, Praga;

[3] Kaplan, R., Anderson, S., (2004). Time-Driven Activity-Based Costing, *Harvard Business Review*, vol. 82 (11), pp. 131-138;

[4] Siminică, M. (2008). *Diagnosticul financiar al firmei*, Editura Universitaria, Craiova, p. 116;

[5] Țaicu M et al (2014). *Informații contabile şi decizii manageriale*, Editura Sitech, Craiova, p. 47;

[6] Stiglitz, J.,(2015).The Politics of Economic Stupidity, http://www.socialeurope.eu/2015/01/economic-stupidity/;

[7] *** (2015). http://dexonline.ro/definitie/;

[8] Cristea, H., (2007). *Expertiză Contabilă, Doctrină şi Deontologie Profesională. Ghid de pregătire. Sinteză*, Timişoara, p. 45;

[9] Hofstede Geert (1984). *Culture's consequences : international differences in work-related values*, Beverly Hills, London: Sage;

[10] Voicu C., Voicu A.C., (2013). *Teoria generală a dreptului*, Editura Universul Juridic, Bucureşti.

A BIBLIOMETRIC STUDY ON THE MAIN MODELS IN PROJECT MANAGEMENT

Tudorița Răbigan

The Library of the University of Pitești, Romania, e-mail: tudorita.rabigan@upit.ro

Abstract. *In this study we analyzed the scientific production concerning the management of projects through the most expressive models used to assess the maturity of an organization. The study is descriptive and also a research, and in it we conducted a bibliometric analysis of the existing bibliographic portfolio. The research was conducted over a period between 2010 and 2014, and involved the ISI publications in online databases: ScienceDirect, Springer Link and Web of Science. We did a quantitative analysis based on the most relevant papers and keywords. The data analysis was based on descriptive statistics and, as a result, we obtained a profile of publications.Throughout the study, we noted that the most common errors in choosing the research subject were: selecting an area rather than a research issue; attributing too long titles, which diversify the subject investigated and do not allow focus on a specific purpose; choosing a banal topic, for which research is not needed; the topic chosen does not fall into a sphere with enough information – sometimes there is no information whatever.*

Keywords: *Bibliometric, maturity models, project management, research, organization, research errors.*

1. INTRODUCTION

Using project management, regardless of the period of time, organizations want to achieve excellence in the projects conducted, yet this conditionnot is not sufficient to achieve excellence.The first steps in achieving excellence in project management are best described in the models of maturity in project management, which consist of descriptive stages expressing the difference between the levels of maturity in project management.

Rabechini Junior's view, in the paper entitled "Competencies and maturity in Project Management: A structural perspective", *"concern with maturity in Project Management appeared in organizations because projects are the best way to change a complex situation"* (Rabechini) [1].

The concept of maturity in a project is directly related to its potential success or failure.

Consequently, immature organizations will use improvisation in management, without establishing the necessary connections between different areas of knowledge.

In the paper published by the Institute of Project Management, which is entitled "Organizing Project Management – A Maturity Model", it is noted that: *A maturity model can be defined as a conceptual structure, with component parts, which defines the maturity of the area of interest and, in some cases, also describes the processes that the organization will need to develop in order to reach a desired future* [2]. This model highlights every step along this path and signals the gradual maturation of the organization.

Another definition, which appears in "Project Management: Best Practices", authored by H. Kerzner [3], presents maturity and development of systems and processes as being repetitive in nature, and defines a high probability for each of them to be successful, although the repetitivity of the processes and systems cannot guarantee success.

Another paper published by the Project Management Institute (PMI: 2009) [4] shows that development of maturity is a continuous process, and everything being done to achieve maturity quality depends on a concerted effort to develop, improve and promote communication between managers and project management professionals.

In achieving their strategic objectives, organizations use management project tools to measure the results and the level or degree of maturity of the organization in terms of using project management practices. Given the context mentioned, we decided to undertake a review of the scientific literature in terms of the use of models of maturity in project management, a review that drew on articles, journals, authors and keywords identified in the bibliography portfolio of existing ISI publications in the following online databases: ScienceDirect, Springer Link şi Web of Science.

The research objective we set was the analysis of the academic papers published between 2010 and 2014, where the most important models of maturity are approached, which are used in project management, drawing a comparison between them on five maturity levels, and highlighting the errors in selecting the subject dealt with – errors which would be highlighted and explained in detail.

The present study is divided into four parts, which successively develop issues relating to the most important models of maturity of an organization, specifically, the model CMMI (Capability Maturity Model Integrated) and OPM3 (Organizational Project Management Maturity Model), the methodological procedures used in research and highlighting errors in the choice of the research subject, which we found in the papers analyzed, bibliometric analysis and its results, and, finally, the conclusions that could be drawn from the research undertaken.

2. MODELS OF MATURITY AND ASSESSING THEIR LEVELS

As shown in the paper "A Guide to the Project Management Body of Knowledge" (PMI: 2013) [5], *a project represents temporary efforts undertaken to create a product, a service or a single result, it has its own targets or objectives, a defined outset and purpose, and ends when the objectives are completed*.

Maturity in project management is the position where the company or organization finds itself in terms of project management processes. In this way, maturity models try to quantify an organization's ability to manage projects successfully (Prado)[6].

An adequate level of maturity varies depending on the

resources available and the organization's needs.

The two main maturity models will show the degree that maturity reaches in the organization in question, in order to subsequently set the desired level to be achieved.As far as the Integrated Capability Maturity Model (CMMI) is concerned, the project is known to have been developed in 1986 by SEI (Software Engineering Institute) to integrate various capability maturity models. This model attempted to improve the processes of software development, and was published in 1993, focusing on the fields of systems and software engineering.

The aim of developing this model was to compare the processes in an organization with the best practices proven by the experts in that industry, in the government and in academia, providing ways of measuring progress towards the discovery of new areas that can be improved.

It would be important to note is that this model is meant to improve on the process, and it can be adopted to solve performance problems at every level of the organization by providing guidelines for improving internal discipline.

The Organizational Maturity Model of Project Management (OPM3) was created by PMI (Project Management Institute) between 1998 and 2003 (Zaguir, Martins)[7]. The model establishes the requirements and capacities to ensure and develop projects, programs and portfolios, so as to help organizations to achieve organizational strategies through projects.

OPM3 was developed in order to provide a way for organizations to understand project management, and to measure maturity in contrast with a comprehensive and extensive best practices in project management.

The OPM3 method of maturity, viewed from the angle of its progress, consists of dimensions, each of which leading to the capitalization of the best practices associated with the development stages of the processes, to the advance of the best practices associated with each of these areas: projects, programmes and portfolios.

A study by two Brazilian researchers from the Fluminense Federal University in Niterói city shows that[8] *a procedure in the OPM3 model is built based on the five groups of processes with three areas, interacting with the four stages of improvement. This interaction can be summarized in the following procedures: each process is required in all areas; execution of the processes depends on the adequate inputs, tools and techniques; control of variability in the processes and the maturity of each area depends on the progression of the steps in improving standardization, measurement and control, as well as the continuous improvement of processes controlul de variabilitate în cadrul proceselor.*

From the findings of two researchers one can conclude that the OPM3 model states that the organization should consider best practices and conduct a feasibility analysis and prioritization, establishing a plan composed of the best sequences devised for improvement, as well as appropriate actions for the situational conditions in order to achieve optimal maturity. Below we are going to draw a comparison of the two most important models of maturity in an organization, which we have presented above, as a result of exploratory research aimed to identify the main characteristics of the maturity models analyzed.

The model created by the Software Engineering Institute (SEI) was the pioneering model that served as a support for other specialists.

Table 1. Comparison of the maturity levels for models CMMI and OPM3

Level of maturity	Model of maturity	
	CMMI	OPM3
1	Initialization	Standardization
2	Management	Measurement
3	Quantitative definition	Control
4	Management	Continuous improvement
5	Optimization	-

Source: own processing

It can be noted that the maturity models analyzed are represented at their levels of maturity. The level of maturity consists in a certain ratio of practices connected to a predefined set of zones of processes that improved the overall performance of the organization.The CMMI model has five levels, each representing an essential layer in improving the evolution course of the processes, whereas the OPM3 model has only four levels.Compared to the first model of maturity, the OPM3 model considers that the organizations already adopt practices of documentation, so that the standardization process at level 1 (standardized) is, in most cases, included in maturity level 2 (measured).

The adoption of the improvement processes is identified in the progress of the maturity level, in both models analyzed.

In assessing maturity, the method used is the application of maturity questionnaires to determine the current state of maturity of the organization, and the goal of all the authors cited was a common, formulated the idea of improving the organization's processes that use these models of maturity.

3. METHODOLOGY PROCEDURES AND ERRORS IN SELECTING THE RESEARCH TOPICS

The method used is a quantitative and descriptive exploratory study (Gil)[9], because it provides information on the topic, on one hand, by researching the literature, while it descriptive nature (Guedes, Borshiver) [10], on the other hand, stands out by the fact it adopts the bibliometric approach, which consists of a combination of empirical laws and principles, representing the theoretical foundations of the sciences of informatics or computer technoloogy, through a number of documents.

The bibliometric method is considered to be a statistical instrument capable of generating knowledge management indicators, in particular for information systems.

On the other hand, the bibliometric method is also a

quantitative instrument, which allows to minimize subjectivity in indexing information, while contributing to decision-making in information management,

In reaching the target aimed, the procedure used was searching articles in ScienceDirect, Springer Link and ISI/Web of Science in the online databases for a period of time ranging from 2010 to 2014. The process began with the collection of keywords that are related to the subject under investigation; three directions are used, the first with the keyword regarding the topic of the project management, the second with the abbreviations of the main models of maturity, and the third highlighting the errors in choosing the research subject, which we could find in the papers analyzed. Searching for the keywords "Project" and the two models of maturity in the headlines, abstracts and databases, we obtained 198 such keywords, as shown in the table below.

Table 2. Number of keywords found in the databases researched

Keywords	Databases analyzed			Total
	Science Direct	Springer Link	ISI/Web of science	
"Project" and "CMMI"	152	2	10	164
"Project" and "OPM3"	22	2	10	34
TOTAL	174	4	20	198

Source: own processing

The technique used for searching and generating the words, which allowed us to visualize the words that appear with greater frequency in a given text consisted in typing the combination Ctrl+F for the sources listed above.

By analyzing the errors that occurred while choosing the research subject, we concluded that the most common errors were those shown in the following table.

Table 3. Errors in choosing the research subject

Errors found	Science Direct	Springer Link	ISI/Web of Science	Total
• Choosing a field rather than a research subject.	7	1	1	9
• Giving too long titls, which diversify the research subject and do not allow focusing for a precise aim.	6	1	1	8
• Choosing a trivial, banal subject for which research is no longer needed.	2	1	1	4
• The topic chosen does not belong to a sphere providing enough information – sometimes even none information whatever.	1	1	1	3
TOTAL	16	4	4	24

Source: own processing

The contributors that authored the papers analyzed presenting the errors in the table above are for the main part PhD candidates in medicine and civil building from China and Brazil.

4. BIBLIOMETRIC ANALYSIS AND ITS RESULTS

In this section we will present the results of the analysis concerning the data on project management maturity models; the areas of expertise of the institutions that use these models of maturity; the countries with the highest number of researches; and the statistics applied to these models, databases and subjects studied.The total number of 128 papers composed the bibliometric research collection, distributed over the three databases: ScienceDirect, Springer Link and ISI/Web of Science. The most papers, about 81%, were found in ScienceDirect, followed by 16% in ISI/Web of Science, and 2% in Springer link, as shown in Figure 1.

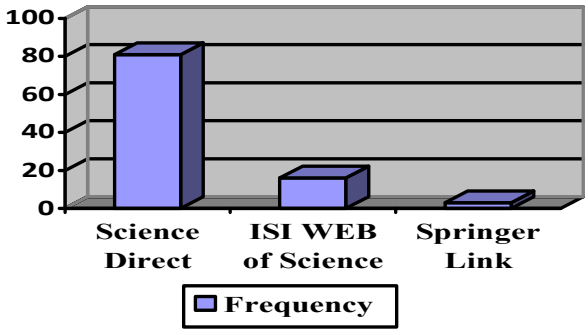


Fig. 1. Percentage distribution of the papers in the databases analyzed

Figure 2 below shows the amount of papers distributed over the time interval 2010 to 2014. It can be noted that the most papers were published in 2012 and 2013, and these contributed most to the study, with 38 and 30 papers, respectively.

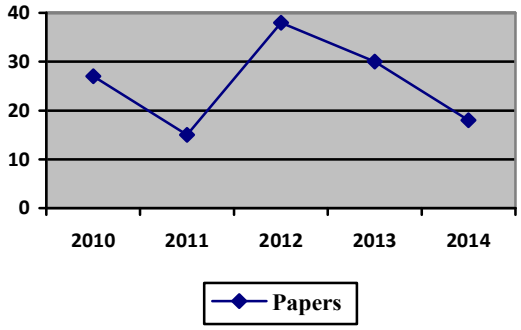


Fig. 2. Evolution of the amount of papers analyzed by year

The bibliometric analysis continues with the data shown in Table 4, where the most influential countries in the group of papers investigated are presented. The table was compiled based on the frequency of the words in the texts analyzed.

Table 4. Number of papers analyzed by country

Country	Frequency	Country	Frequency
Brazil	21	Thailand	3
China	16	Spain	2
USA	12	Ireland	2
India	9	Russia	2
Italy	7	Germany	1
Japan	7	Bulgaria	1
Portugal	6	Croatia	1
South Korea	4	Denmark	1
Malaysia	4	France	1
Mexico	4	Indonesia	1
Turkey	4	New Zealand	1
Colombia	3	Swiss	1
Estonia	3	Sweden	1
Iran	3	Serbia	1
Pakistan	3	UK	1

Source: own processing

The table highlights the countries responsible for the papers making up the bibliography portfolio selected. Brazil and China are representative analysis, the present numbers 21 and 16 respectively articles. Based on this result, we can prove a growing concern from Brazilian (Nunes et al.)[11] and Chinese scientists in terms of production and publication of scientific articles.The next stage of the analysis consists in distributing articles in accordance with the maturity model analyzed. In terms of absolute frequency, which represents the number of times each model is studied, the papers that have to do with the CMMI maturity model were in number of 113, and the papers referring to the OPM3 maturity model were 15. The relative frequency of the two indicators, calculated as the ratio of the number of times each model occurs and the total of the series of observations, over the amount of the resulting papers, is 88% (CMMI) and 12% (OPM3), respectively.

In terms of the errors found in the selected papers in accordance with the two maturity models, their classification in keeping with their subject area is presented in Table 5.

Table 5. Errors in papers – by topic field

Topic field	Topic	Error found	Frequency of error
Building	OPM3	A*	1
		B*	2
Health and medicine	CMMI	A	8
		B	6
		C*	4
		D*	3
TOTAL			24

Source: own processing

Note*: A = Choosing a field rather than a research subject.
B = Giving too long titles, which diversify the research subject and do not allow focusing for a precise aim.
C = Choosing a trivial, banal subject for which research is no longer needed.
D = The topic chosen does not belong to a sphere providing enough information – sometimes even none information whatever.

Table 5 shows the frequency of errors found in relation to the maturity models (CMMI and OPM3) and the macro-divisions of the thematic field or area included in the articles studied.

On the other hand, as far as absolute frequency is concerned, there were 21 errors found in the articles that refer to the CMMI maturity model, and 3 errors found in the articles referring to the OPM3 maturity model.

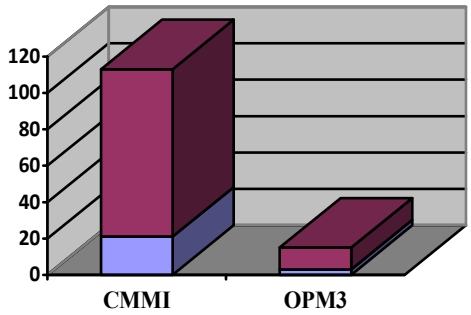


Fig. 3. Errors in the papers studied

The relative frequency of the papers containing errors, calculated as the ratio of the number of times a papers with erros is observed and all the series of observations, over the resulting amount of papers with errors, is 87% (CMMI), and 13% (OPM3).The bibliometric research in this study allowed the analysis of two key aspects concerning the use of maturity models in project management and the errors present in several articles that represented the basis for the analysis.

5. CONCLUSIONS

Comparing the two models of maturity used by organizations in project management, namely the CMMI model and the OPM3 model, was possible by conducting the bibliographical study which provided methodological support and led to identifying the characteristics of the two models, and to assessing the maturity levels specific to the most important models of maturity, and the result was five levels specific to the CMMI model and four levels specific to the OPM3 model.

Of the errors found on the occasion of the quantitative and descriptive study conducted, the majority were identified in the articles written by authors from Brazil and China on issues concerning the thematic area of health and medicine: topics were chosen whose scope was too broad to be able to focus on the two key topics (8 papers containing errors from the total 24); also, in the papers concerning topics from the area of building, the same type of error has been identified once.

The second type of error, i.e. choosing too long a title, which diversifies the researched theme, was detected in 8 articles, of which 6 dealth with health and medicine and 2 with building. The errors related to addressing a trivial topic, which cannot be subjected to serious research, were found in 4 papers on health issues; and the last type of errors, concerning the choice of the topic for which there is insufficient information, was found in 3 papers.

All four types of errors found were apparently caused by some PhD student authors' desire to publish as many papers as possible, which favoured quantity (i.e. numerous publications) to quality research.

6. REFERENCES

[1] Rabechini Jr., R. (2005). *Competências e Maturidade em Gestão de Projetos: Uma Perspectiva Estruturada,* São Paulo: Editora Annablume.

[2]***(2003).Project Management Institute,*Organization Project Management Maturity Model (OPM3)*. Newton Square: Project Management Institute.

[3] Kerzner, H., (2006).*Gestão de projetos: As melhores práticas*, Porto Alegre: Bookman.

[4]***(2009). Project Management Institute, *How Mature is Your Organization – Really?* PM Network, vol. 23 (2).

[5] ***(2013). *A Guide to the Project Management Body of Knowledge (PMBOK Guide).* Newtown Square, Project Management Institute.

[6] Prado, D., (2011). *Porque é importante evoluir em Gerenciamento de Projetos? Mundo Project Management*, Curitiba, no. 38, pp. 37-40.

[7] Zaguir, N. A., Martins, M. R., (2007). *Revisão Critica do OPM3: um estudo de redundâncias*. Revista *Gestão Industrial*, vol. 3, no. 1, pp. 75-86.

[8] de Souza T. F., Gomes C. F. S., (2015), *Assessment of Maturity in Project Management: A Bibliometric Study of Main Model, Procedia Computer Science 55* pp. 92 –101.

[9] Gil, A.C., (1991). *Como Elaborar Projetos de Pesquisa*. 3. Ed. Sao Paulo: Atlas.

[10] Guedes, V.L.S., Borschiver, S., (2005). *Bibliometria: Uma Ferramenta Estatística para a Gestão da Informação e do Conhecimento, em Sistemas de Informação, de Comunicação e de Avaliação Científica e Tecnológica, Encontro Nacional de Ciência da Informação*,vol. 6, pp.1-18.

[11] Nunes, M.A.S.N. *et al.,* (2013). *Discussões sobre Produção Acadêmico-Científica & Produção Tecnológica: Mudando Paradigmas*, *GEINTEC-Gestão, Inovação e Tecnologias*, vol. 3, no. 2, pp. 205-220.


UNIVERSITATEA DIN PITEȘTI


ARFYT IV
17 DECEMBRIE 2015
STUPIDITY AND NORMAL DISTRIBUTION OR THE CONTEMPORARY IMPACT OF THE CARLO CIPOLLA'S LAWS


UNIVERSITATEA DIN PITEȘTI
50
1962-2012