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

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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.

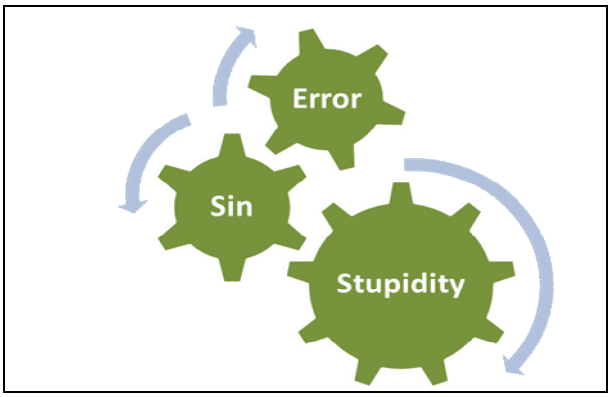


Fig.1. Major elements of a new Theory of Everything

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):

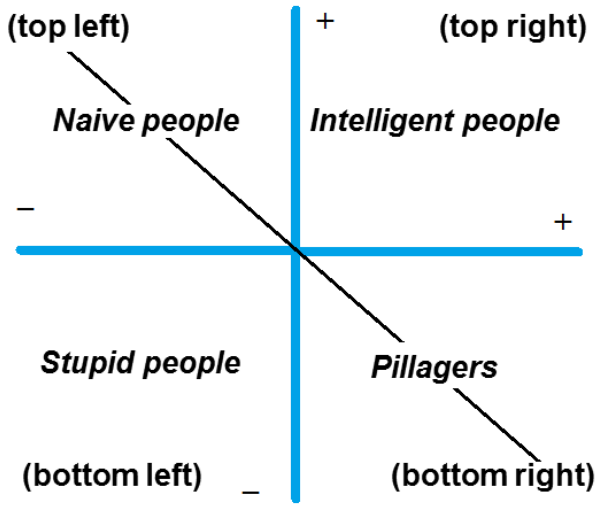


Fig. 2. The history of the economic world, divided into four relatively homogeneous quadrants by Carlo Cipolla

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.

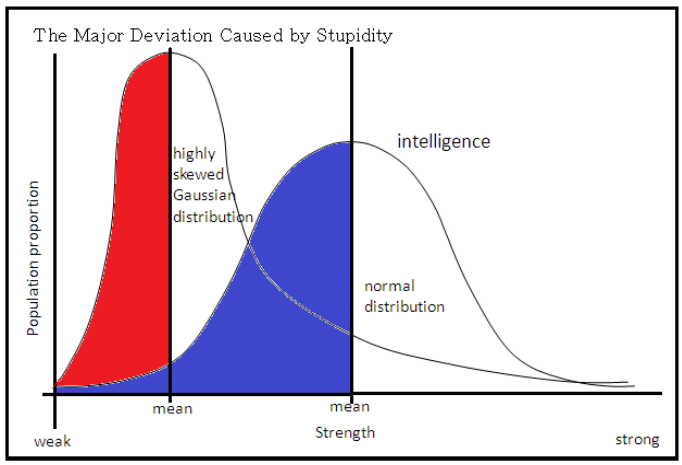


Fig. 3. The deviation from the normal distribution according to the first law of Carlo Cippola

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.

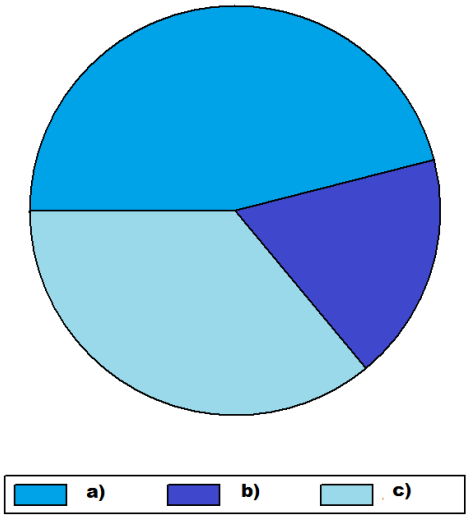
The first question of the questionnaire applied to the Finance and Banking students has the following content, visibly taken from Cipolla's First Law: *The number of fools, meaning people who by their actions are detrimental to themselves as well as the others, can be evaluated*:

a) correctly;

b) overestimated;

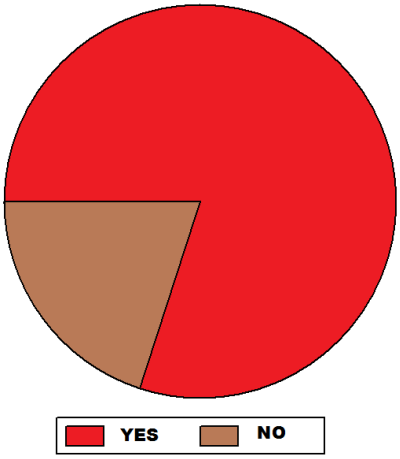
c) undervalued.

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*.



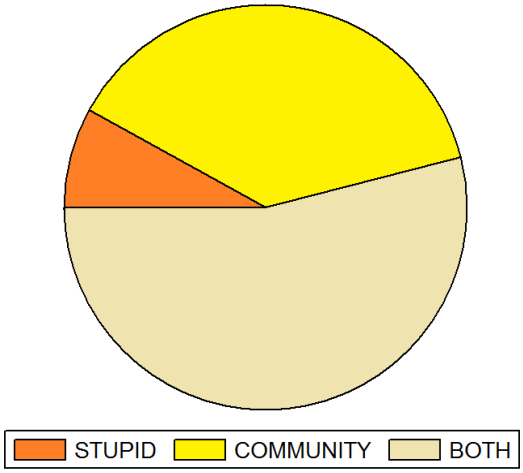
Graph 2. Distribution of answers to the question that is relatively similar to the content of Carlo Cipolla's second law

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

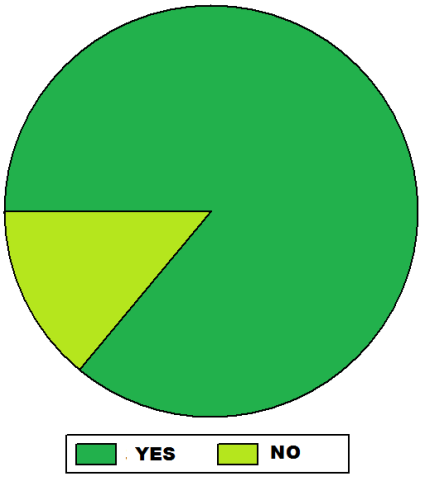


Graph 3. Distribution of answers to the question that is relatively similar to the content of Carlo Cipolla's third law

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*.



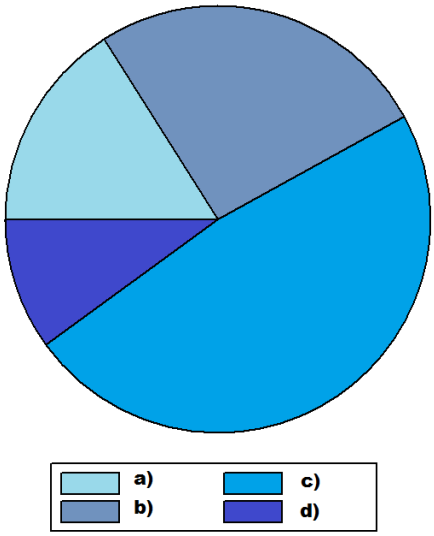
Graph 4. Distribution of answers to the question that is relatively similar to the content of Carlo Cipolla's fourth law

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

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