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On The Confused Equivalence Between The Zeta Function and its Proof: Discussions On Science and its Measurement.

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Abstract:

The confusion between two concepts covering two different fields of science and scientific research causes a lot of misunderstanding and results in a gradual withdrawal of the discussion towards reductive visions, which leads to the adoption of a naive linear causality between the economic aspect of scientific research activities and the collection of symbolic capital for scientific recognition, before commenting on the methodological weaknesses, allow us to specify the two concepts involved: scientific measurement or Scientometry and Bibliometry. Each respective domain of its two complementary specialties has a methodological framework (Frame) beyond which any hasty interpretation is concluded by fallacious reasoning including the archetype and the supposed equivalence between the zeta function and its demonstration.

Keywords : Jdanov's; law; Matilda; effect; Scientometry; Zeta(ζ); rituals(ζ); function.

I. INTRODUCTION

Being able to take advantage of the opportunities and technologies available on the World Wide Web presupposes a minimum of knowledge of technical terms pertaining to digitization and network management, the functional interdependence of digital technologies generates a system with a holistic (gnoseological) orientation. the expected benefit depends on a holistic operational approach.

The confusion between two concepts covering two different fields of science and scientific research causes a lot of misunderstanding and results in a reductive visions which lead to the adoption of a naive linear causality between the economic aspect of scientific research activities and the collection of the symbolic capital governing scientific recognition, before commenting on the methodological weaknesses of this linear approach, let us specify the two concepts in play: the measurement of science or Scientometry and Bibliometry. Each respective domain of its two complementary specialties has a methodological framework (Frame) beyond which any hasty interpretation ends with a fallacious reasoning including the archetype and the supposed equivalence between the zeta function and its demonstration.

The sociological analysis targeted by this article must overcome two obstacles, the first of which relates to method and the second to esthetics as the original imprint of the first language in which the article is written, since this work is a translation as faithful as possible of the original article written in Arabic submitted during the work of the second international conference organized at the ZAYANE ACHOUR University of DJELFA, during the 2019/2020 academic year. The two obstacles interfere in the production of the meaning attributed to the whole article, perhaps the most relevant example is: the explanation of the curvature of an n-dimensional space on a white sheet. this precision is brought into play by the analytical model, itself presented as an axis of analysis of the complex relations which govern and structure the interaction between science, politics and religion in countries condemned to existence in the margins geopolitical praxis and reduced by the very help of political science to inventing configurations of chaotic equilibriums to stabilize the tectonic lines of the geopolitical plates where it is possible for them to exist.

1. Scientometry

This concept is the French translation (Measuring science) of the title of a book (Measuring research: what every one needs to know) published in 2018 at the Oxford University Press (Larivière & sugimoto, 2018/2018), without wanting to be part of literal translation as a deicisive and irrefutable argument, a judgment founded after reading the content is the impartial methodological choice, this kind of dialectical confrontation focused on the precise inclination of the meaning to be attributed (scientometry or measuring science), means taking part in the debates on the definition of objective criteria (objectivity of the minimum threshold in the empirical sense) to delimit the semantic field and the inclusion relationship of two terms, does science include scientific research or is it the other way around?

Each scientific researcher called upon by this question, tempted to answer it one way rather than the other, is typically indulging in the confusion named here (the confused equivalence between the function zeta (ζ) and its proof), the history of science, epistemology, the sociology of scientific knowledge and a whole armada of researchers of scientists despite their efforts, and their biographies and their cognitive capacities could not answer it in a satisfactory way if one there includes the question of the Meaning of science (Sheldrake, 2012/2013, pp. 94-110). More important for our debate is the seduction of ease of the question of the division between science and scientific research, this question is a zeta function without forgetting to quote the inextricable linguistic problems invoked by (Ch.S. Peirce) and the theory of conceptual symbols of (Wouters.P. & Small. H), this theory presents the need for consistency between signifier and signified supposed in the construction of the measurement indices highlighted in the writings of sociology (Cited in Larivière & sugimoto, 2018/2018), and it is based on the definition and use of the Concept traced by the anthropologist (Leach.E) (cited in Larivière & sugimoto, 2018/2018, pp. 24-25), this question of dichotomous sharing is the typical example of guilty misunderstanding, as soon as it is used as a yardstick of scientific research and of the meaning attributed to the measured indices and their object of measurement, i.e, in statistical terms the

reconstructed target population by a formal language is arbitrarily reduced to the formal modeling conditions, even worse the formalism of the measurement indices steals the target population and distorts its reality(citations index versus research community).

The quest for greater precision and clarity leads us to introduce **a first methodological framework C1 delimited by** the following related questions:

1-1. Is there a chain of causality between science vs. scientific research and scientific publications, and publication media, and impact factors and citation indexes?

1-2. If the existence of this chain is proven, what is the type of each variable involved (dependent/independent/intermediate variable) and what is the direction of causality?

1-3. Is this causal chain linear in effect or complex (the question of direction and amplitude of the causal chain vs. formalization of a model of the chain and simulation)?

1.1. Object of Scientometrics :

the accumulation of new scientific knowledge is cronophagous and consumes countless hours of work in the laboratory, in libraries, in communications of all kinds (Lariviere & sugimoto, 2018/2018,p.9), this accumulation consumes entire biographies and is summarized by a few lines of cirucculums vitae, we can mention the various figures of silent exsanguination, including the first Muslims translators of entire libraries, and their pioneering efforts in the practice of the critical method in the biographical and prosological indexing of the chains of prophetic narratives, the archaeological excavations, transversal urban surveys, the work of authentication and translation of papyrus, the mathematician who spends years in a conjecture, let us recall the work of Greogri Peerlman to provide the proof of the Poincaré conjecture (La Recherche, 2007, p.30).

I cannot emphasize enough the aspect to be highlighted: these biographies summarized in a few lines of curiculums vitae, the very fact of dismissing them to the margin is a form of moral corruption. Another aspect consists in tracking down the practices of publications that are careful not to cross the line of ethical integrity and scientific logic proper to all those who served their lives in the face of other practices in vogue that are marked by the wait-and-see practices of mountaineering and optimized plots by shortcuts. Its practices, which can be called Bovine Spongiform Encephalopathy (BSE), also called "mad cow syndrome", cannot be a stigma but must be analyzed under the assumed axiom "science versus scientific research is a social practice" fed by the same sources of any social practice, without pretending to any romantic nobility and puritanism haloed by light: root of major methodological biases.

- How can one evaluate one's countless hours of work despite the fact that evaluation per hour: is itself an over-repression!

A change of perspective allows the identification of three dimensions (Inputs, Outputs, Impacts) (Larivière & sugimoto, 2018/2018,p.9), this choice facilitates the operationalization of the analysis and the construction of the indices, consider that :

-The construction of the indices of each dimension is deduced from the strict definition of the said dimension, for example the funding thresholds for the inputs, the innovation patents and the number of bibliographic linkages and co-citations as well as the number and type of events organized and the number of books published for the outputs, more problematic is the definition of objective criteria for the impact indices, The objectivity of the criteria chosen for the quantification of science versus scientific research through the triptych of dimensions is an arbitrary formalization expressed by a discursive choice, the weak links of this formalization are expressed in methodological biases that affect the prism of interpretation of valid readings of its calculated indices.

At the point of our progress, the logical distinction between evaluative bibliometrics and scientometry as a meta-science follows from common sense, the first based on the quantification of partial indices mobilized for a non-exhaustive functional analysis within libraries (management of periodical by indicator of obsolescence), was announced by one of the founders (Derek de Solla Price) as the first effort aimed at the foundation of other more structured and devoted efforts to the qualitative study of science, both intended for the creation of a meta-science (Larivière & sugimoto, 2018/2018, pp. 18-19), Meta-science or the

science of measuring science, a cardinal vision that provides science with the methodological tools to self-observe (Larivière & sugimoto, 2018/2018, p.20).

The emergence of this field of research had several sources, its first roots are in Europe and in the United States of America in the xxth century, the legal index of Frank Shepard faithful to the British legal tradition of harmonization of the jurisprudence (Badr, 1988, p.249) and in response to the growing demand of the bar market will provide the basic scheme to be reproduced but library science deeply marked this emergence by the tools dedicated to the perfection of the rationalization led by the model of maximization of the economic utility, another curious fact is the tragic accident of two trains in 1841 in the U. S. which will lead to the creation of a new index of jurisprudence. Another curious fact is the tragic accident of two trains in 1841 in the U.S.A. which will lead to the radical innovation of the brilliant theorist Henry Poor in the sciences of management and management and will provide them a new base based on the trio (organization, communication, information), this new conception requires: a draconian control of the informational flows, and of unification of temporality (Denis, 2018, pp.70-72), this trio will upset from top to bottom the test of the model of maximization of the utility supposed as core of the rationalization and the generalized tendency to its adoption was exponential, a straight line is drawn between rationalization under maximization of the utility and the economic growth, and the social progress. This line will become the shamanic chant of the initiation ritual pronounced by the politician, the latter erupts into the scientific field to bring rationalization without having to justify the confused equivalence between the zeta function (ζ) and its proof, for him no one is supposed to ignore the prime numbers: it is the number that admits for divisor only one and itself!

1.2. Concerning the institutional form :

The creation of (Institute for Scientific information) in the U.S.A. and the last institutional pillar after the publication in 1978 by the Hungarian Academy of the journal (Sientometrics) under the aegis of the chemist Tibor Braun(Larivière & sugimoto, 2018/2018, p.19), the journal consecrated the use of the concept scientometrics as a measure of science, the term is derived from the Russian word (Naukometriya) that appeared in the writings of the Russian mathematician and philosopher V. V. Nalimov. The subtitle of the journal is indicative of the intended conception (the international journal of all quantitative aspects of a science of science). This optimistic conception exceeded by far the level of technical means available during the seventies but had the merit to present this new science as a look-alike of other sciences whose object is science, such as the sociology of science, the history of science, the philosophy of science.

Larivière and Sugimoto believe that the meta-science of measurement must overcome the dichotomy which places a science of quantitative measurement in front of another qualitative one, so much the first one is judged by its results as decontextualized and simplistic and the second one saturated with specificities not subject to the abstraction of the observation from where the impossibility of theoretical generalization(Larivière & sugimoto,2018/2018,p.20), this dichotomy is marked by two methodological fields, one positivist and the other constructivist, endowed with a quantitative and qualitative methodology, this hardly prevents the hope of unification of the two fields: scientometrics and the social study of science and technology.

Any judgment of the new knowledge is carried out in reference to the scientific accumulation of a discipline and through the intermediation of the two axial categories of evaluation: description and explanation (Manah,2018,p.11) The ignorance of the founding effects of its two axial categories of evaluation or the superficiality of the recourse to the categories produces a mediocre kind of philosophy of science and a more serious methodological handicap named (the confused equivalence between the zeta function (ζ) and its proof), the evaluation of the scientific publication is possible only after defining the concept of

obsolescence (Badr,1988,p.271) and the enlightened distinction between old and new knowledge, this concept means in librarianship that a periodical X has no more readers so no more traces of use, the analysis even by number of citations as trace of use can not instruct on the scientific value of the product because the choice of index "trace" as an operational definition and inappropriate to the evaluation of the scientific value deduced from an objective act called (Peer Review), the term (review by. …) denotes a linguistic nuance with reference to the internal logic of science and faithfully marks an Ethos of scientific practice compared to the term evaluation, another problematic dimension of the concept (obsolescence) related to science and its precise attribution to one of the dimensions: inputs, outputs, impacts, even more important than the dilemma (description, explanation) and the methodological structuring proposed by **the following C2 framework**:

1-Can the equivalence of antiquity and obsolescence be argued methodologically?

2-Can seniority/obsolescence be generalized to the three dimensions of science?

3-Does the hypothetical generalization of the judgment (of obsolescence) represent a prognosis or is it only a synthetic abstraction of the observable evolution of the sample?

4- Does the sample obey the canons of sampling theory?

5-Can decision theory ignore the order of preferences (the set of preferences) (Bouyssous et al., 2006/2009, p. 375) and be satisfied with the drawn sample?

Now we can propose a methodological structure for the analysis of scientific publications related to a possible direction of scientific research based on the results of evaluative bibliometrics and their limitations, i.e. any discussion of the evaluation of scientific research must be clearly situated in one of the two theoretical frameworks:

Extended Framework 1: consisting of all of its above mentioned questions joined with the questions numbered 1.2.5 of Framework 2, constitutes in my humble estimation a framework of science measurement theories and epistemological propositions that cannot be argued by the case study but require the presentation of the entire theoretical structure (assumptions, propositions, axioms, hypotheses, finding, explanation, formalization, review of accumulation).

Framework 2 restricted: composed of questions 3.4 of the same framework, this framework is supposed to contain the elements of evaluation of the methodological consistency of the measurement indices of evaluative bibliometrics whose reading and interpretation require their reinsertion in the extended framework C1, the indices mobilized in evaluative bibliometrics underlie a specific definition of obsolescence and constitute quantifications produced on samples hence their invalidity to reflect the three dimensions of the science

The following parenthesis written in popularization language will certainly not be to the liking of statistical specialists, the very fruitful idea of distribution applied to the study of the body mass index in a village of population (N) equal to 10000 individuals.

After having carried out the necessary weighings, one calculates an arithmetic average of 68 kg and a standard deviation equal to 7 kg, a happy coincidence, Gauss is an inhabitant of this village and his body mass index BMI is 68 kg, one seeks the number of individuals corresponding to each value of BMI, those who have a BMI equal to that of Gauss are with the number of 3700, the rest are divided into numbers lower than 3700, to link the BMI to the corresponding numbers, the choice of significant values of the BMI is necessary, according to the distribution law (centered and reduced) all the population of this village is divided into eight categories to which correspond the number of individuals of each category, that is summarized by (68±3(7)+1%)or (the average± 3 standard deviation+1 percent).

The idea of distribution is great for the governor of this village, second happy coincidence, after careful consideration and in order to preserve the hedonism and IQ (intelligence quotient) and the divinatory capacity of my population and despite the misinterpretations of my political intentions towards my governed, the application of the following laws (L1, L2, L3) is in force:

L1- Any person with a BMI different from the Gaussian one, is required to stabilize it on 68kg.

L2- Any person who does not comply with L1 will not be entitled to electricity and medication.

L3- Anyone who is related to Gauss is not required to comply with L1 and L2.

The objective of my policy is to ensure that the IQ of my governed has a similar distribution (?) to that of prime numbers?

By pushing the confusing equivalence of the zeta function even further, other transparency laws similar to (L3) can be decreed, political mountaineering (Manah,2018,p.132) has no limits, this example of strangeness is the very image in any dimension of the confounded equivalence of the zeta function (ζ) and its proof, witness the application of the indices of evaluative bibliometrics as a measure of research, the index (h) can replace the ideal BMI index 68kg relying only on this BMI some claim to deduce an objective evaluation of the academic skills of the population (N) and all my governed note their BMI rather their index (h) on the curricula vitae: objective and neutral transcription that informs about the three dimensions of science, let us consider that the energy consumption of electricity and that of medicines of the population (N), replace the index (FI) impact factor, from this consumption some deduce the objective evaluation of merits recognized by peers and pretend to make informed and fair decisions concerning the consistency of scientific proposals debated within the research community, all this confusion methodically perpetrated is due to the non distinction of the frameworks (C1) and (C2) coupled with the chaotic circulation of questions between the two frameworks.

This non-distinction of the frameworks combined with the confused equivalence of (the zeta function (ζ) and its proof) generates a panoply of complex problems whose salient effect is the reading of the indices of evaluative bibliometrics without a theoretical framework, this effect has been pointed out repeatedly in the literature (Goasdoué, 2015), which justifies the non-exhaustive inventory of the scientific accumulation of this same C1 framework, however, a remark is necessary: the non-exhaustive presentation of the accumulation is made according to a so-called summary overview (bird's eye view), constraint of scriptural formalism of the new informational regime (see infra) obliges to it, under penalty of exclusion from the publication.

2.Non-exhaustive inventory of the scientific accumulation of the framework1

1- The Saint Matthew effect: term used by Robert K. Merton in 1968 in an article published in (Science), imprinted on the verse of the gospel according to Matthew: <<For to every man that hath, there shall be given, and he shall have surplus; but to him that hath not, there shall be taken away that which he hath.>> (25:29)(cited in Larivière & sugimoto, 2018/2018, p. 22).

The interpretation of the effect is the sociological reading of the statistical and qualitative analyses undertaken by numbers of researchers for the finding of the hypothesis (the distribution of rewards within the scientific field related to publications deemed cumulative, follows a so-called normal distribution (of Gauss)), the answer was negative and the hypothesis refuted the rewards are not distributed according to the value of scientific work and the distribution in statistical terms is not Gaussian.

2.1.The Matilda effect: under the same theoretical spectrum as the previous effect but dedicated specifically to the anthropological study of the effect of gender on the distribution of rewards within the scientific community, the name goes to historian Margaret Rossiter (Larivière & sugimoto, 2018/2018, p. 23).

2.2.The work of Derek De Solla Price 1976: undertaken in view of a new empirical verification of the effect of Saint Matthew while taking into account the institutional affiliation of the elements of the sample, more precisely the objective aimed at is the possible correlation between institutional affiliation of researchers and the distribution of rewards, his work allowed a new confirmation of the process of cumulative benefits(Larivière & sugimoto, 2018/2018, p. 23).

2.3. Bourdieu's Jdanov's Law (Gingras, 2015, p. 76) according to which the dominated in a field is more inclined to participate in a power operation that will affect the dominant, the eclectic reading of this law is often erroneous since it requires as an explanatory framework the whole of Pierre Bourdieu critical theory and the exposure of the links between social structure and political power.

2.4. Zeta rituals (ζ): presenting the complex relationships that link science, the state and the religious within diverse societal configurations marked by a negative correlation between level of study and level of income until the double critical threshold of the demographic pyramid located between 40 and 50 years with permanence of a majority of indices of cognitive dissonance reproduced by social representation of the stable citizen whose reproduction is guaranteed by the rituals zeta (ζ) and the barter of the political aspirations of bipedalism by the resumption of management of the hazards of the natural physical evolution of the bodies by the nature (the nature takes again in charge the political (Manah, 2018, pp. 86-132).

The observable aspect of the deployment of rituals (ζ) is the wait-and-see mountaineering in the political arena combined with the fortuitous changes in social positions, the observance of social rules of worth order blocked by the inculcation of the unattainability by reason of the lived, another form of deployment: the initiation to the practical cynicism through the renunciation to any attempt of discursive appropriation of this lived experience and the recurrent agitation of the standard of the costs of comprehension superior to the expected benefits from where the delegation to the others of all that relates to the common lived experience, a tendency to delegate which will be fatal to the ambition.

A perfect example of this phenomenon can be seen at universities not affiliated with geopolitics, where an increasing number of them believe that understanding the indices of bibliometric evaluation is a difficult task, where the effort involved does not justify the clarity aimed at, Others confess that they do not understand anything about it but think that the tutelage and its experts who encourage the presence of its indices on the curricula vitae hinge their scientific integrity, subject to the definition of this new bipedal species of the political mountaineering experts (think about it **Pascal Picq** devoted about fifteen years of his life to structuring the proof of refutation of the hypothesis of Bipedalism, a new species within the species)!

During the 1990s, several researchers warned against the use of evaluative bibliometric indices as a measure of science (Gingras, 2015, p. 73) and against the emergence of a new class of scientific elite described as the click-and-share elite (Goasdoué, 2015, p. 61).

2.5.The theory of the exceptional devices of Giorgio Agamben (Agamben, 2007): exposed in the second volume of its series of study (Homo Sacer) under title (The sovereign power and the naked life) or it traces the infiltration of the economic neoliberal ideology based on the monitoring and the neutralization, its theory continues the investigation undertaken by (P. Bourdieu, M. Gauchet, M. Foucault) to disentangle the crossing of historical facts between: science, the scientific research, politics and religion. Agamben aims the unveiling of the religious signature of the politics.

This set of researches administer methodologically the scientific proof of the methodological exsanguination of the individual biography towards the stable individual or the stable citizen, the following exposition is a non-exhaustive eclectic choice of the dimensions of the theory of Giorgio Agamben.

2.5.1.The global gnoseological device: this phenomenon is paradoxically a turpid mixture of power and authority not centralized, not visible because distributed (Sadin, 2015, p. 197), the term dedicated to it "infrastructure" is meaningful, the observation of the intrepidity and speed of its metamorphoses produces a methodological ticket of believing that one is observing the genesis of the phenomenon whereas (speed and metamorphosis) are two post-constitutive characteristic features of its discrete mode of evolution governed by a series of ruptures (Sadin, 2015, p. 200). The distinctive scheme (Manah, 2018, p.90) of the concept (global gnoseological device) is to be the product of several transdisciplinary researches oriented towards the statement of the hypothesis of " neutrality of science " or the methodological procedural mediation includes the role of science in the production of the rites of enslavement and panoptic societies (abd el hadi, 2000, p.72), three founding fields which took part in the statement of the hypothesis can be enumerated:

2.5.2.The field of research in philosophy of the science, precisely since the establishment of the transdisciplinary use of the concept "epistemology".

2.5.3.The field of the humanities through the rewriting of the history of science in the social sciences(Cameron-Pesant, 2018, p. 366) through the intersection of the following research fields: the anthropology of writing and science and technology studies (SST) (Denis, 2018, p.27),sociology of science (Merton, 1973), the field of economic theory and the testing of the utility maximization model(Boudon, 2007/2010, p.86) and its application in bibliometrics with the enthronement of evaluative bibliometrics (Gingras, 2015, p.73) and the enshrinement of the utility maximization rationality model through the extension of its application to all social phenomena (Hann & Hart, 2001/2014, p.51).

2.5.4.The field of formal sciences and theoretical research centered on the production and examination of theoretical models based on the production of formal demonstrations and the extension of the generalized application of the statistical decision model (Kast, 2002, p. 15), a direct descendant of decision theory and game theory, the typical example of which is the desire to reconfigure the entire field of science/scientific research around evaluative bibliometrics and the panoply of its measurement and impact indices accompanied by argumentative claims of objectivity and resource management rationality(Gingras, 2015, p.74), this intrusion (Goasdoué, 2015, p.46) is a life-size simulation of the utility maximization model applied to science, while ignoring the model's postulates, its weighty postulates that neglect the condition of completeness of science and reduce it to an econometric practice without a social substrate.

2.6. Simiand's paradox (quoted in Goasdoué, 2015, p.52): studied separately by Passeron, Desrosières, and Combessie but it is Passeron who will consecrate the nomination of the paradox which produces the discursive questioning of how reindeer would live in the desert and camels in the North Pole, this questioning sums up the obsessive will to perfect experimental reasoning founding regression analyses nourished with all kinds of comparisons in the social sciences. The theory of the global gnoseological device points out this methodical formatting of scientific reasoning with the regression analysis as a mode of administration of the proof, this mode is an obligatory passage of a new species of publication where the writing of an article is not an expression but a realization of the research. New standard species of writing with transforming effects evoked by (Roland,2007;Pontille,2007)(quoted in Goasdoué, 2015, p.53), transforming writing into filling in standardized forms, the inversion produced is summarized by the expression "Ready to write / Ready to think!". IMRAD typical modality and first successful attempt to formalize scientific writing but above all test and checkpoint of the hypothesis (Ready to write /Ready to think) before the honor of eclectic rereading by the referents.

2.7. From the gift economy to the market economy, monetization and symbolic capital: the anthropological study (Blanc, 2009) (cited in Goasdoué, 2015, p.57) of the functions devoted to money (account , intermediary of exchanges, reserve) unveils the tails side of the act of citation, the opposite side of which is the exchange and against exchange expressed by the gift of scientific recognition, this transition from one economy to another takes place performs to the detriment of sound practices (peer review, critical citations, merit) because the "click" citation, even of convenience, becomes a unit of measurement for scientific recognition and index for calculating salaries and financing (practice adopted in Pakistan, South Korea, Japan, China) where an index point is equivalent to € 500 (Gingras, 2015, p. 73). Related to Bourdieu's work, the modes of calculation and reasoning introduced by evaluative bibliometrics control and completely transform the symbolic capital of scientific recognition formerly supported by the peer review, the race to overbid the ranking of universities is only an effect of strategic

confrontation between the USA and China, the procedural mediation of objectification of the classification deliberately masks the relationship between science and politics supported by the global gnoseological device (GGD) which reduces the rest of all the actors of the scientific field of world to dwarves or chess pieces.

2.8. Refusal and effect of nobility and agenda setting: three dimensions crossed on a single chain of causality, to base the competition on the calculation of the number of citations seen the effect Saint Mathieu, a restricted number of reviews titles will have the privilege to raflergarb the majority of the citations, by this way to reinforce its position in head and its classification, nobility obliges from where the refusal of more and more articles submitted (Verdrager, 2005, p.62), the fictive loop is self-reinforcing (recursive loop according to E. Morin), with more and more articles submitted to noble journals and more rejections that have no relation to the scientific value of the research, since it is no longer expressed through the written word, but is formally carried out (see above) in order to maintain the methodological confusion between the "ranking and evaluation" of journals. Once the link between scarcity (noble journals) and objective pseudo-indices (impact factor, number of citations) has been established according to the logic of the utility maximization model, an agenda setting is established (Gingras, 2015, p.76) with a publication policy modeled on marketing campaigns, and research priorities compete with the agenda setting of journals. This configuration will produce more and more researchers above all value judgments in the name of the neutrality of the straw man (pseudo-logical argument), even if the enslavement of the output of science is a facet of an oriented relation in the global gnoseological device (DGG), the deleterious effect is transmitted by Transdisciplinarity, the political uses science and uses it as a front line without any regard to the values carried by the scientific actors. A critical reading of this element can be made by comparison with the Mozart syndrome established in 1977 by Harriet Zuckerman (wife of K. Merton), she analyzes there the inverse relation between number of publications and scientific order of merit, the sample of the study composed of Nobel laureates(Verdrager, 2005, p.59).

2.9. Tacit choice of Type II error: the two types of error developed in statistical analysis to bridge the two descriptive and explanatory shores, by extension of analytical reasoning and expressed other notions such as the power of a statistical test the usage and interpretation in evaluative bibliometrics for Type I error is as follows:

- Anyone who is recognized within his or her field cannot but be cited.

Critical revision of this interpretation under the logic of K. Popper (all swans are white) reveals a methodological chasm (fallacy of negative consequentiality).

Once (a black swan observed), if only one well-known researcher is not cited the reasoning is a house of cards and the error becomes type II, more consequential and heavier to assume.

This means that a mediocre work can be the object of a large number of citations, hence the explosion of the H-index of its author, Gingras writes not without irony the epidemic of the H-index, not to say pandemic, finally the secret of the work is the false equivalence maintained between classification and evaluation, despite the fact that the latter produces the former without attributing the value "true" to the reverse (Gingras, 2015, pp.74-76), any confusion of frames (extended C1 and restricted C2) leads towards a tacit choice of the type II error.

2.10. Emergence of the informational regime: implanted in the scientific institutions and the public administrations and endowed with the functions of coordination and surveillance, conceived from the beginning according to strong systemic principles (Denis, 2018, p.69), the understanding of these scriptural infrastructures passes by their consideration as practical rationality instead of analyzing them theoretically by the theory of rationality, this suggestion made by Bittner and Garfinkel in their study (Bittner & Garfinkel, 1967,pp.186-207) keeps all its value. This informational regime is a matter that transcends the real (Nafaadi, 1991, pp.7-20) in the ontological sense by the number of its dimensions: information and communication technologies, sciences in the sense of specialties, formalization and standardization of writing, virtual temporalities.

2.11. Lamp Post Syndrome: instructs one not to look for one's keys where one has lost them and To look for them under the nearest lamp post to take advantage of the light.
And to look for them under the nearest street lamp to take advantage of the light, Gingras Takes up this syndrome to reframe the suave siren song used to implant bibliometric indices As a norm(Gingras, 2015, p. (Gingras, 2015, p. 74), this way of proceeding places the real Problems of the university in the cupboard like a corpse, not addressing the Constitutionalization of the university as a major consecration, not addressing the problem of Salaries of the means of operation and excelled in the art of the magician's hat and his rabbits: Indices, impact factors, ranking of journals, ranking of universities...

3. EVALUATIVE BIBLIOMETRICS

This emerging discipline is subjected through the technical effects of communication to the processes of instrumental rationalization(Boudon,2007/2010,p.76)crossed by neoliberal influences (Gingras,2015,p.73) insubordinate to the controls of societal regulation (Wheelan, 2002/s.d, pp.117-137), this does not mean the appeal of a polymorphic theory of the conspiracy (Jamin, 2009) summarized by the omnipotence of a central nucleus, always deduced from the presence of a bundle of traces and converging indices.
The multidimensional central core at the origin of evaluative bibliometrics (EB) is a set of transdisciplinary practices that implement a set of coherent systemic rules that aim to besiege any act of publication through the new communication technologies. This approach to publication/communication is cast in the mold of data descriptive operational procedures (DOPs). The very existence of a (BE) is only conceivable through the emergence of formats (PDO) designed for specific purposes, the Dublin Core (DC/Dublin Core)(Heting , 2010/2018,p.115) composed of fifteen elements (title, subject, description, source, language, relationship, cover ...), intellectual property (creator, contributor, publisher, rights management) and instantiation (date, type, format, identifier of the resource), is the launch point of other formats more elaborate and more methodically reflected, let us cite as examples: DOI (Digital Object Identifier); ORCID (open researcher and contributor ID).
Its identification formats surpass by far the model (identity card) of the societal organization since the transition from manual work to digital work creates several challenges and new problems: all centered on the question of financing in the face of the diversity and speed of change of the publication supports, this financing is an axis of the management of university libraries subjected to the law of figures while trying to provide for their primary missions of keeping an updated documentary fund, the exponential growth of publications and supports condemn them in advance to structural inadequacy.
Several visionary companies anticipate this trend and start to develop a model based on the constraints of stakeholders (the law of numbers/profitability/financing) with a methodological framework capable of assuring astronomical returns, which can be summarized in the following questions (Tenopir & King, n.d./2011, pp.612-613):
1- Can we separate (production and distribution) of data?
2- Are there beneficiary parties outside of those in scientific research?
3-Can the market support multiple data distributors?
4-Is segmentation by price and type of beneficiary possible?
5-What is the acceptable cost of a segmentation (structuring) of the data market?
The structuring of the scientific field is the product of the updating of research practices, but the control of databases (the descriptive and classificatory capital is organically integrated into the measurement of science), this capital allows the analysis of publications with the possibility of a stronger control over the metadata as a competitive margin guaranteeing the profit margins produced ad hoc, this ever more efficient control has the effect of the hierarchization of the styles of writing bibliographies, which are themselves subject to a new sequence of control by the injection of bibliography editing software.
In the following lines, the emphasis will be placed on the methodological proof of the weakness of bibliometric indices (h, FI), while clarifying the methodological error that has been

overlooked and putting the two terms: classification and evaluation on an equal footing. This error, which has serious consequences for the habitus and the academic ethos, will be concluded with some indications concerning the order of bibliographic styles and its articulation with the gnoseological device.

The style of the bibliography or the system of bibliography is a set of rules governing the formatting of a publication, margins, fonts, scriptural codes, rules for citing sources, order of citations, hence the need to use various dedicated software (Zotero, EndNote, Mendeley); the style of bibliography as a scriptural order is linked to the efforts of multiple societies and social instances for the acquisition of a monopoly position deleterious to scientific activity, the standardization of bibliographies is a necessary condition for bibliometrics, several sociological studies address this problem of the profound reconfiguration of the scientific field by the imposition of scriptural norms designed for the establishment of a rationalized panoptic structure (Yates, 1989), a process inaugurated at the beginning of the xx^{th} century.

II. THE METHODOLOGICAL STRUCTURE OF BIBLIOMETRIC INDICES

1- The Impact Factor (IF): Calculated and published annually since 1975 by Thomson Reuters in the Journal Citation Reports from the Science Citation Index (SCI), the Impact Factor (IF) of a journal consists of a simple arithmetic average of the number of citations obtained by articles in a given journal over a two-year period. The IF thus characterizes journals, not articles(Gingras, 2015, p. 73) concerning the method of calculation in the statistical sense the IF is an arithmetic average of the citations of articles within a journal during a two-year window, the weakness of the arithmetic average index is trivial if we consider the extreme values (outlayers), But the basic problem is clear once we consider the difference in the different type of articles within the same journal, since we find reading reports, round table reports and articles that are resounding by the very fact of contradicting well-established signatures and theories, this approach is well described by Bourdieu, whose basic scheme is the acquisition of brilliance and position by taking advantage of the resources of opponents (Goasdoué, 2015, p. 48), it is clear that the heterogeneity of the content of a journal combined with the choice of an arithmetic average, while claiming to be accurate in measurement, is a scientific falsification and a noted forgery.

The time window chosen (2 years) for the calculation of an IF is a commercial choice compared to the concept of obsolescence in the evaluation of scientific publications, if the data of a research object can be condemned to obsolescence after ten days as in molecular biology other studies state that the threshold of obsolescence in SSH is 93 years (obsolescence is defined as the average download of articles online) (Cameron-Pesant, 2018, p. 370), the same study states that the average obsolescence for NSE is 39years.

Cameron-Pesant's study concerns the ERUDIT platform over a time window between 2011-2015 with a sample size of 35,113. 672 articles distributed on 68 scientific journals with 56 open access after embargo period is 12 open access, all the journals studied have the year 2010 as creation date (the decade), the numerical result of the study is that the average download on the ERUDIT platform is 32, this average is 5 times higher than Elsevier,12 times higher than Wiley,32 times the average of Springer(Cameron-Pesant, 2018, p. 373), compared to the resources of the giant Google all types of media combined, the latter exceeds ERUDIT by only 1.8 reported to the online research practices.

In the same context Gingras (Gingras, 2015, p. 74) reports in one of his studies devoted to the use of IF that Since economists are particularly adept at using impact factors, let's take the list of economics journals in the Web of science (WOS) and their impact factors in 2011. Out of 256 journals, there are obviously quite few tied ranks with four significant figures (only three journals with an IF of 1.000, two at 0.757, three at 0.743, etc.), which makes it possible to assign rankings such as 22nd and 24th as if they were distinct. But, since one cannot seriously claim that these decimals have any real meaning, the artifact stands above reason.

The important thing is to look in the mirror (at the bigger picture) and ask the right question, is IF synonymous with scientific excellence?

Using the concept of obsolescence, Gingras (Gingras, 2015, p. 73) introduces a comparison between medical science journals and social science journals with very low IFs. Yet this is largely an artifact due to the fact that the temporality of social science is longer than that of natural science. Indeed, increasing the citation window to ten years is enough to bring the IFs of these disciplines to comparable values. For example, the two-year average citation rate of the medical journal The Lancet in 1980 was 2.4, and that of the American Sociological Review was 1.8; but, calculated over a ten-year period, the results are very different, with the "impact" of the sociology journal (IF: 20.9) greatly exceeding or exceeding that of the medical journal (IF: 14). It is therefore perfectly obvious that the IFs of journals in different fields are not comparable with each other and that the numerical value has no meaning in itself, but only if we compare it with that of journals in the same field, which calls into question the basic assumption (all other things being equal), This assumption expresses a methodological choice known as (the blind spot of observation) which amounts to saying (observe only the IF, the other factors are not important, they are fixed by the strength of the model) which is itself erroneous outside its economic context (Goasdoué, 2015, p. 52).

During the year 2011 the European science foundation will present a ranking of the international journals:

- The major international journals classified (A) or (INT1).
- The less prestigious international journals classified (B) or (INT2).
- National journals classified as (C) or (NAT).

The foundation focuses on journals because the books did not meet the criteria for digital coverage (digitization of the entire library holdings, unavailability of book metadata, relevant time window, lack of use of the International Standard Book Number (ISBN) in citations).

The research community sees this introduction as a fashionable and new management tool, but once they became convinced that this classification is aimed at implementing tacit evaluation, their responses became clearer and more precise and much more structured.

- The researchers at the Australian university categorically refused the introduction of the ranking and its conjunction with the funding component, which ended with the abdication of the trusteeship (Gingras, 2015, p. 77).

-Faced with the rigidity of the head of the national agency for scientific research in France, a committee of scientific researchers, mainly specialists in psychology, brought the dispute to court, pointing out the abuse of power by the national agency for scientific research and the fact that it was exceeding its prerogatives as defined in the founding texts. They ended up obtaining the withdrawal of the classification project and the introduction of the lists of predatory and scientific journals as an indication.

-The European Science Foundation will bet on the researchers' loss of steam and will base its arguments on ideological interpretations, considering that the researchers' resistance is a resistance to the inescapable change instilled by the technological era, it will even go so far as to claim that the proposed classification is based on the peer review so decried by the researchers, The latter began to publish articles in the said classified journals and after each successful publication, they presented the said peer reviews of the reading committees of the journals, since the published articles had no relation of consistency with the scientific objects appearing in the titles of the articles, its testing operations of the reading committees (Goasdoué, 2015, p. 56)will be the object of publication of books that will make history with a wide readership, Perec, G. (2007)(cited in Goasdoué, 2015, p. 55).

- Labbé (2012) (cited in Goasdoué, 2015, p.53) created a tool to detect articles written by an automatic generator of false articles (SciGen) based on automatic language processing tools and on a corpus of false articles developed to understand the dynamics of the calculation of the h-index in the Google Scholar database (Labbé, 2012). Out of nearly 15,000 publications downloaded from computer science article databases, 85 articles were identified as automatically produced, including 16 in the IEEE database marketed by Springer. In contrast, no such articles were detected in the open archive arXiv.

- One of the best arguments of researchers against the imposition of a classification of journals as a basis is the imbalance induced with respect to other media and types of publications, an argument that was taken up by the French scientific research agency after the adoption of the (Ribac)[Recueil d'Informations pour un Observatoire des Activités de Recherche en SHS] edited by the SHS branch of the same agency as a substitute for the classification.

-The enunciative erasure that is one of the distinctive characteristics of scientific discourse is translated in two ways: in the marks of enunciation and in the ways of quoting. Paradoxically, while scientists are in a permanent quest for visibility, the evolution of writing contributes to a form of deletion of the author. Pontille (2004) states that the author's presence in the text tends to be confined to the signature, a place further reduced by the increasing number of signatures (cited in Goasdoué, 2015, p. 54).

- Gingras specifies (Gingras,2015,p.76) the little-discussed aspect of the importance given to impact factors and journal rankings is that it indirectly distracts from the study of local, marginal or unfashionable subjects. This is particularly dangerous in the humanities and social sciences, whose objects are by nature more local than those of the natural sciences. It goes without saying that some subjects are less "exportable". Since the most cited journals are Anglo-Saxon (and not "international"), the chances of accessing them depend on the interest that these journals have in the objects studied.

- Faced with the emergence of a new species of authors disconnected from their writings and above all belief but strongly convinced of the indices of evaluative bibliometry a subject of reflection emerges whose content is the scientific analysis of the objectives of citations produced as well as their consistencies once the objective of boosting the (h)index is removed.

2- Epidemic of the h-index

This index is defined as the number of articles (n) that a researcher has published and that have obtained at least (n) citations each since their publication. Proposed by the American physicist Jorge E. Hirsch, from the University of California at San Diego, according to Gingras The improvised nature of this index is already evident in the title of the article published in a journal considered "prestigious", the Proceedings of the National Academy of Sciences of the United States: "an index to quantify the scientific production (output) of a researcher". In fact, this index is neither a measure of quantity (ouput), nor a measure of quality or impact, but a composite of both. It arbitrarily combines the number of articles published and the number of citations obtained. Evidence of redundancy in this index was produced by Ludo Waltman and Nees Jan van Eck ,they claim that it is actually inconsistent in the way it ranks researchers with proportionally increasing citation counts(cited in Gingras, 2015, p. 74)

Demonstration examples:

1- reported by Gingras (Gingras,2015,p.74)

Let's compare two cases: a young researcher has published only 5 articles, but these have been cited 60 times each (for a given period of time); a second researcher of the same age is twice as prolific and has to his credit 10 articles, cited 11 times each. This second researcher has an h-index of 10, while the first has an h-index of only 5. Can we conclude that the second researcher is twice as "better" as the first?

2- A researcher (A) publishes 4 articles, each of which gets 4 citations. His index is equal to 4.

A researcher (B) publishes 3 papers, each of which gets 6 citations. his index is equal to 3.

The structure of the index (h) assumes that it is consistent, i.e., the index is a function unaffected by the structure of the variables or their joint relations.

ih(4)> ih(B)3

The two researchers publish two new papers that get 6 citations each.

We calculate the new index h for each researcher:

i(h)A= 4 and i(h) B=4 (see the definition of the index h)

Reformulate by the function as follows:

F(Ih(A))=4+16 G(Ih(B))=3+ 16

The two researchers publish two new articles which obtain 6 citations each.

We calculate the new index h for each researcher:

$$ih(A)=4\ ih(B)=5$$

Reformulate by the function as follows:

$$F^*=F+16\ G^*=G+16$$

$$\text{so } ih(F^*)=4 < ih(G^*)=5$$

By adding equal values to the inequation its meaning is affected, this paradoxical behavior is typical of the violation of the independence condition (Bouyssous et al., 2006/2009, p. 65) which is supposed to guarantee the logical consistency of the index. This evidence demonstrates the non-objectivity of the h-index and calls into question its methodological structure, hence the need to specify its time window and the database to which it refers.

III. Towards a reasoned view of measurements:

-In statistical terms, the distribution of scientific publications is not a normal distribution, it is called Zipf's distribution as demonstrated by (Haitun) which makes any application of valid extrapolation procedures with a normal distribution invalid for Zipf's (hyperbolic distribution).
Notwithstanding the attempts of formal unification of the laws of Zipf, of Bradford, of lotka (quoted in Rostaing,1996,p.47) the central core is considered as in conformity with the distribution of Zipf, the appellation (law) is itself for this mathematical unification aimed is interpretable under a descriptive reading and not explanatory (Rostaing,1996, pp. 45-50).
- The measurement indices in evaluative bibliometrics are of the mono-variable type analyzed according to the canons of non-parametric statistics, which requires a redefinition of the term (generalization), and the strict and methodical surveying of its scope.
Unlike many phenomena, data are governed by a neguentropy (Rostaing, 1996, p.49) which influences in depth all constructive reasoning concerning them.
-The Open Access whose development depends on the possession of each Algerian university of a multilingual and interconnected publication platform, conceived under an Algerian prospective vision, a vision that will confirm that the choice to be part of the Crystal ball followers of international comparisons is a theatrical-assumed role in the Goffmanian sense under exclusion constraint.
It is crucial to re-found the Algerian University as an institution of defense of the constitution and in relation to it, and to consider it as a stem cell within the society, this way is the only choice to extricate itself from the classification of the universities of Robert Cowen, any hesitation in this choice will only keep up the confusion between the Zeta function and its demonstration, in the countries of the south the link between the objective sense of the publications and the indices of measurements is limpid for all researcher not having a rupture between: publications, experience of truth and its filiation to the scientific research.

IV. Conclusion:

Taking advantage of the opportunities and technologies available on the World Wide Web supposes a minimum of knowledge of the technical terms belonging to digitization and network management, the functional interdependence of digital technologies generates a holistic oriented device (gnoseological) whose expected benefit depends on a holistic operating approach.
The confusion between two concepts covering two different fields of science and scientific research causes a lot of misunderstanding and results in a gradual withdrawal of the discussion towards reductive visions, which leads to the adoption of a naive linear causality between the economic aspect of scientific research activities and the collection of symbolic capital for scientific recognition, before commenting on the methodological weaknesses, allow us to specify the two concepts involved: scientific measurement or Scientometry and Bibliometry. Each respective domain of its two complementary specialties has a methodological framework (Frame) beyond which any hasty interpretation is concluded by fallacious reasoning including the archetype and the supposed equivalence between the zeta function and its demonstration.

This artide aims at the rigorous implementation of methodological frameworks which will allow the controlled transfer of results between the two fields of knowledge and allow the objective analysis of the relationship between science and measurement of science and politics, to conclude with the presentation of the theoretical accumulation of the field of scientometry and some methodological arguments concerning the tools of bibliometrics and their structure.

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