

PLAGIARISM AS THE WORST EPIDEMIC ATTITUDE IN SCIENTIFIC RESEARCH

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Abstract. *The paper begins with the confrontation and parallel analysis of two completely opposite concepts: scientific research and plagiarism. The emphasis is on creativity and originality, from which the analysis of plagiarism is begun, and which are in fact the targets of scientific research in general. A brief history of the occurrence of plagiarism leads to a legitimate question: What led to this epidemic of plagiarism? The end of the article lists some possible solutions to prevent and, even it might sound like an overstatement, to eliminate plagiarism, as well as some necessary concluding remarks.*

Keywords: *plagiarism, original, scientific research, prevention epidemic of plagiarism, prevention and elimination of plagiarism, team plagiarism.*

1. INTRODUCTION

The first hypothesis of this article, nuanced through its specific self-ironic spirit, eliminates the prospect of elaboration focused on legislative excesses, refuting from the outset Bellman's theorem, which was actually invented by Lewis Carroll in 1896, according to which "what I tell you three times is true" [1], while denying any unacceptable argument that plagiarism was and remains a strictly one-disciplinary legislative or legal issue. The creativity or originality requirement, widely recognized in scientific research, as well as the publication of its results, will never be confused with a dogmatic, exclusive and rigid approach, subject to a subjectivity related to *Bellman's theorem*, but rather excel through its specific issues and its inter-, trans- and multi-disciplinary solutions. The same requirement will demand practical and methodological refinements, dynamically structured and standardized, facilitating the investigator's access to other prior original knowledge, correctly paraphrased or rigorously quoted, etc.

A total of four simple questions and a final corollary (*corollarium*) reconstituted the much needed primordial causes which inspired and informed these introducing lines, which, in their striking and inescapable association, managed, thanks to the austerity of the Latin language, to structure the approach of the investigation, and thus provide such the content of this *incipit* placed between the notions of research and plagiarism.

Q1. *Quid est veritas aut quid est scientia?*

Q2. *Quam ob causa tam gravis?*

Q3. *Cui prodest?*

Q4. *Docendo discimus?*

Corollarium: Verba docent, exempla trahunt...

The authors have rediscovered the viability of the meanings of these questions, and marked them in parallel with Carlo Cipolla's laws, dedicated to imbecility as a

euphemism for *stupidity*, lived or personally experienced from inside the phenomenon, and substituted, in the text of this perhaps too original article, for author of plagiarized papers, i.e. beneficiaries of the phenomenon of systematic plagiarism, the sources of which are to be found in both pre-academic and post-academic education, and in research and in practical knowledge, as well as after writing hundreds of reports of eligibility and peer-reviews for various magazines nowadays. The authors were, and are still aware of their membership to the universe of stupidity as defined by Cipolla, and also to the hard-to-limit space of plagiarism, even when their desire was to prevent and, even this can be an overstatement, to stamp out the latter. Carlo Cipolla's laws were conceived, and published in 1976 under the title *The Basic Laws of Human Stupidity*, in a quasi-unknown publishing house and printing works called Mad Millers. The book was subsequently republished in Italian in 1998 by Società Editrice Il Mulino of Bologna, and in 2014 it appeared in Romanian, translated by Miruna Fulgeanu, under the title *Legile fundamentale ale imbecilității umane (The fundamental laws of human imbecility)*, at Humanitas Publishing House, Bucharest. The authors have substituted the original wording *imbecile individuals* with *plagiarizing authors*, lowering the general horizon of Cipolla's regularities to research in economics, and to plagiarism [2]. Paraphrasing Cipolla, each question out of the previous set reaffirms the importance of several *key aspects* of plagiarism, succinctly described both in the title of this article, and below:

Q1. *Quid est veritas aut quid est scientia?* The juxtaposition or *parataxis* between truth and science revives the specific relativity of Carlo Cipolla's first law, according to which "the number [of authors plagiarized] is constantly and inevitably underestimated by everyone" [2; p.19]. This fact explains the phrase – and paradigm – *epidemic of plagiarism*.

Q2. *Quam ob causa tam gravis?* The emphasizing hint, arising from the excessive earnestness of the seriousness of plagiarism, which results from the superlative form *the worst epidemic attitude*, is reflected practically in Carlo Cipolla's remark: "the probability for a particular individual to become [a plagiarizing author] is independent of any other property of that person." [2 ; p. 24].

There is no structural variable, appertaining to the population of the researchers, which is independent of plagiarism, the contemporary phenomenon that rejects or fatally exposes an author and his/her article in the universe of modern scientific writing, irrespective of the way that trait is defined, by membership in a particular discipline, or through belonging to a certain science, as a study program or specialization, by placing it in a particular age group, or academic or research seniority group, in terms of either theoretical professions, or experience gained by the respective author in time, etc.

Q3. *Cui prodest?* Given the noted fact that in modern scientific research there is a prevalence of team papers, where individual attitude is aggregated and subjected to the team's desire rather than the idea of *team plagiarism*, Cipolla's third law finds an answer correlated with the team's principles in order to identify the "beneficiary" of plagiarism: a [plagiarizing author], or someone exposed to the accusation of plagiarism, "is a person who causes losses to another individual or group of individuals [to the team, who can be under the impression they have succeeded, which is actually false], and even suffer losses from his/her actions" at the end" [2; p. 38].

Q4. *Docendo discimus?* To the point, *by teaching others, we also learn*, and therefore a plagiarizing author is also subject the fourth law of the same Cipolla. The other authors of original articles "will always underestimate the negative influence" of plagiarists and "will always forget that, regardless of time, place or circumstance, having truck with and/or associating [with the latter] will prove certainly a big mistake." [2; p.58]. This fourth law anticipates the major negative impact of individual plagiarism in team papers, on oneself and one's co-authors.

Verba docent, exempla trahunt... induces the final corollary of the fifth Cipollian law, according with which the plagiarizing author is ultimately "the most dangerous type of author, even more dangerous than a criminal", which in fact he/she exceeds due to the disrespect manifested concretely in relation to the right to intellectual property, and implicitly with regard to the creativity or originality that should characterize scientific research. In much the same way as *mathema*, or etymological root of *repeating*, in many of his old translations, so *education can combat the plagiarist's stupidity*, in the meaning assigned by Carlo Cipolla, just as *ignorance can be improved with information*, and the creativity of research – with indicating the level of confidence in the originality of the method, of the model, instrument, the research results for the team as a whole, etc.

2. SCIENTIFIC RESEARCH AND PLAGIARISM – TWO COMPLETELY OPPOSITE CONCEPTS

Scientific research develops from the *hypothesis* (i.e. the assumption), passing through *apodeixis* (demonstration) to eventually become *theoria* or *theoretike* (i.e. the theory) [3]. Ever since the Aristotelian times, science (*episteme*) as the end result of an investigation, could be one of an applied type (*techné*), or theoretical (*theoria*), which reflects the duality of scientific research as a whole, still valid after nearly two and a half millennia from the Greek cultural miracle.

Scientific research appears when the resource to scientific methods, theories and hypotheses is *systematic, based on objectivity, reproducibility, demonstrability and exactness*.

Table 1. Dictionary definitions of scientific research

<i>Conducted in the manner of science or according to results of investigation by science: practicing or using thorough or systematic methods</i> - https://www.merriam-webster.com/dictionary/
<i>Application of scientific method to the investigation of relationships among natural phenomenon, or to solve a medical or technical problem.</i> - http://www.businessdictionary.com/definition/
<i>Research into questions posed by scientific theories and hypotheses (systematic investigation to establish facts) –</i> http://www.thefreedictionary.com/
Cognitive activity as a process of developing new scientific knowledge, characterized by objectivity, reproducibility, demonstrability, and exactness - http://encyclopedia2.thefreedictionary.com/

The defining aspects of scientific research that have been described above are capable of generating the creativity or originality that define its targets in solving a problem, either theoretical or practical. Basic applied research, and experimental development, as it appears, conceptualized in a modern manner and broadly renamed scientific research in the Frascati Manual, involve *creative activities, conducted systematically in order to increase the stock of knowledge and generate other completely new knowledge* [4].

In accordance with the above, scientific research is similar to the original or originality, and antinomial or opposite in relation to plagiarism. It was Thorstein Veblen who offered this conclusion as early as 1908, in *The evolution of the scientific standpoint*: "the result of serious research can be given by the merely fact that the number of questions rose to two, where before there was only one." [5].

The *original* (the research finalized by creative and innovative results) was coherently signified by a double negative in the *Oxford Advanced Learner's Dictionary*: "(it) is not a copy, nor is it dependent on other people's ideas," 2015 (available online la <http://www.oxfordlearnersdictionaries.com/definition/english/original>)

Table 2. Dictionary definitions of the original

<i>That from which a copy, reproduction or translation is made or a work composed firsthand.</i> - https://www.merriam-webster.com/dictionary/
<i>Not only new but the very first or one of a kind, implying 'genuine' but (unlike 'new') not necessarily 'unused,' and (unlike 'novel') not necessarily 'imaginative'.</i> - http://www.businessdictionary.com/definition/
<i>Not derived from something else; fresh and unusual or productive of new things or new ideas; inventive,</i> - http://www.thefreedictionary.com/
<i>An authentic, original text, as opposed to a copy or a work of fine art, as distinguished from a copy or forgery.</i> - http://encyclopedia2.thefreedictionary.com/

Plagiarism is defined in complete contradistinction to the idea of original research or creativity. To illustrate the point, here is a list of some significations and acceptations of plagiarism:

Table 3. Dictionary definitions of plagiarism

<p>The act of using another person's words or ideas without giving credit to that person. - https://www.merriam-webster.com/dictionary/</p>
<p>Stealing of words and/or ideas of another person and presenting them as one's own or an academic and moral infringement, but not a legal one unless it amounts to a copyright violation. - http://www.businessdictionary.com/definition/</p>
<p>The act or behavior of plagiarizing, especially a passage that is taken from the work of one person and reproduced in the work of another without attribution. - http://www.thefreedictionary.com/</p>
<p>A form of violation of the rights of an author or inventor. It consists of the illegal use under one's name of another's scientific, literary, or musical work, invention, or rationalization proposal, in full or in part, without recognition of the source from which the material was drawn. - http://encyclopedia2.thefreedictionary.com/</p>

If we analyze the term *plagiarism* etymologically, we find it has Latin origins, and many words derived from a common root converge to a set of similar meanings: *plagiarius* or “kidnapper, seducer, plunderer, one who kidnaps the child or slave of another”. Martial used the word *plagiaries* for the first time with the sense of *literary thief* (from *plagiare* or to kidnap or from *plagium* as equivalent for *kidnapping*, or even from *plaga* with the sense of *snare, hunting net* [6].

The modern, and most frequently used, meaning of *plagiarism* remains that of a piece of writing that has been copied from someone else and is presented as being your own work, piece of writing, written material, writing – the work of a writer.

Plagiarism, or copying (duplicating, reproducing, imitating) other texts, represents, in the practice of writing articles, papers or books, “a misappropriation of ideas, opinions, arguments, materials or texts from other authors, without citing them adequately” [7].

There coexist quite numerous premises that may be considered explanatory for the excessive development, or even the epidemic of plagiarism in the international literature [8; 9; 10; 11]:

a) public exposition or publishing of any given research and its results, which makes it accessible and comparable in content and form;

b) lack of profound awareness of the complexity of plagiarism, related to either the many factors/causes for the appearance of plagiarism, or the mismanagement of time devoted to the research, or some aspects of ethics and corruption in research funding, up to avoiding professional failure, or education obsessively focused on the wish to get success quickly, as well as the limited existence / the absence of a real academic tradition, and culminating with the pressure of completing, in a relatively short period of time, a certain research, or diminishing other contributions of mentors and some teammates on projects or research, etc.

c) the consistency and substance of legislation meant to identify, limit, prevent and lead to the gradual disappearance of plagiarism;

d) the standards and rules of scientific honesty, discretely defined in society, and realistically confirmed by the facts (influencing the whole academic system, as well as the research, editing and assessment system, as well as the promotion of values);

e) deep deficiencies of moral or educational principles.

In a society where intellectual property is treated in an absentee-like manner, or as nonexistent, a plagiarist considers himself/herself a victim, and less and less, or to no extent, a delinquent (e.g. communistic thinking, through absenteeism property, or the thinking in early capitalism, through the predatory cultural entrepreneurship attitude).

3. A BRIEF HISTORY OF PLAGIARISM

Modern and internationalized plagiarism has already had an active history of over three centuries old, though the first use of terminology is of the order of two millennia. In ancient times, the sense of *plagiarius*, but especially its clearly negative connotation, by the meaning of *robber* or keeper of stolen property, or one who helped people wanted by the law to hide, materialized once with the anathema that Martial threw at his rival Fidentius, who recited his works in public, assuming them as his own creation.

The major historical landmarks of plagiarism are summarized below [12; 13; 14]

1557 – *The Stationers Company* appears in London: it was founded with the purpose of defending copyright, printing and editing of manuscripts;

1601 – *plagiarism* appears in its meaning of literary theft in England, and is used in this sense by Ben Jonson;

1709 – Legally materialized on 10 April 1710: it is again in England that appears the first law intended for protection based on copyright status (a legal act that significantly encouraged creativity in education);

1716 – Using the term *plagiarism* in its broader sense tends to become the rule in language;

1755 – *plagiarism* and its exposure started to occur as dictionary terms;

1774 – It is equally in England that intellectual property was practically recognized, by the ruling of the House of Lords, pronounced in the case of *Donaldson v Beckett*;

1755 – The first definition of a *plagiarist* appears in Samuel Johnson's dictionary, as a “thief, stealing the thoughts and writings” of a real author and committing a “crime” or a “literary theft” from the intellectual property of another author;

1759 – The original and originality constituted the implicit source of discrimination authors (as well as publishers and printers), the good ones being original, having full respect for the law, and the bad ones were those who copied, or practiced a *sordid theft* or plagiarism;

1789 – The US Constitution takes on copyright (intellectual property) in Article I, Section 8, where the American Congress had the authority “to promote the progress of science and the arts, by securing, for limited periods, the exclusive right of the authors and inventors to their writings and discoveries” (Constitution of US, 1789).

The suspicion of plagiarism, investigating and declaring plagiarism are actually distinguished as completely different moments. There is even a three-pronged approach, which cumulatively emphasizes the conditionings in question, and distinctly outlines a modern legal conceptualization based on

three elements, necessary but also sufficient at the same time [15]:

1) *probative concreteness* or *materiality* (a type of substantiation proven by taking a text by another author once with the absence of his/her citation);

2) *intentionality* (the proven and visible intention to submit the text taken over, yet not cited as an own realization, which generates some property rights, or increases scientific prestige or recognition);

3) *the originality of the source taken over yet left uncited* (certified temporally by the previous publication of the plagiarized text, and other related confirmations).

4. WHAT HAS LED TO THE CURRENT EPIDEMIC OF PLAGIARISM?

Copying in a system of education has become a growing impact with the development of the Internet.

Intellectual property was too much and too often violated by espionage and plagiarism. The history of post-war period and the sources of the researches place a greater impact and density of plagiarism in Eastern Europe, with greater influences from the former Soviet Union, due to a number of relative free-copying rights granted to that union.

The prestige necessary in some doctoral schools and the impact of political affiliation in the decades of communism, together with the prestige of science academies of the former socialist countries, also generated a significant amount of plagiarism.

The epidemic of plagiarism almost simultaneously generated the delicate problem of identifying the original, which was transformed from an internal investigation into a multiplied, and apparently internal approach, whose solutions were more often than not external.

There are specialized software packages designed to identify the percentage of the level of plagiarism in a scientific paper. The current solution in the field of doctoral schools, as well as MA and BA programmes, lies in the similarity ratio.

5. SOME POSSIBLE SOLUTIONS TO PREVENT AND ELIMINATE PLAGIARISM

There are undoubtedly numerous varied prevention solutions, as well as far fewer alternatives for stamping out plagiarism. The first category includes mostly [16; 17]:

a) increasing the required time allocated to research, as well as scientific writing;

b) synthesis and re-synthesis, focusing on simplifying the texts (literature review by minimizing the historic landmarks in point of number, though not of importance);

c) proper citation, as well as adequately and carefully using the needed quotation marks, no less than a critical approach to citation;

d) fully ensuring the complexity of originality (reality researched – interdisciplinary; method – crossdisciplinarity; model – multidisciplinary; theory, conclusions, discussion, results – transdisciplinary);

e) mentioning and checking on the sources cited;

f) application of anti-plagiarism software (e.g. paraphrase);

g) compliance with scientific guidelines (publishers, magazines, conferences, etc.);

h) citing the sources in the tables / graphs (projects for BA students / MA students);

i) compliance with creativity and originality;

j) reprinting as revised editions.

The somewhat broader or ampler solutions are centred on the increasingly explicit need for a different kind of education, based on a permanently critical attitude in motivation, and focused on dialogue in teaching, and also on annulling the negative impact of competition in parallel with the expansion of education for social cooperation, against the backdrop of increasingly clear and necessarily holistic procedures required by the team (derived from abandoning isolating encyclopaedism and one-disciplinarity), and of inter-, trans-, cross- and multidisciplinary through thematic domain and creativity, and ending with a complex and compensative evaluation, which needs to be stimulating and balanced as against originality, etc.

6. SOME FINAL REMARKS

This is a synthesis-oriented paper written by a team made up of three completely different authors, like a harmony of discordant thirds; an article which has been trying to find the final solution of non-contrariety, combining the structural attitude with the critical one that ranks ideas through their thematic impact, while also constantly avoiding ambiguities and redundant duplication of any kind, and appealing to the *goldean mean* of simplicity in language, and of usefulness at the concrete level of drafting.

Accurate and adequate application of existing European and international legislation, which allows punishment of plagiarism and plagiarists, is emerging as a definite urgency in parallel with the continuous improvement in the current legal framework, which should increasingly concern PhD students and coordinators of scientific papers, falsifying the security of the requirements and final theses, the more precise regulating of habilitation procedures and theses, etc.

Promptly achieving such an approach is something justified by the negative and very long term impact of plagiarism that failed to be sanctioned without delay in academic education and scientific research. In the legal cases dealing with copyright infringement, plagiarism accusations are increasingly based on partial theft, with the plagiarists- hurry being the main cause.

7. REFERENCES

[1]. Carroll, L. (1876). *The hunting of the snark*. London: Macmillan.

[2]. Cippola, C. (1998). *The Basic Laws of Human Stupidity*, Bologna: Societa editrice Il Mulino, tradusă în românește de Miruna Fulgeanu, în 2014, sub titlul *Legile fundamentale ale imbecilității umane*, București: Editura Humanitas.

[3]. Dinu, V., Săvoiu, G., Dabija, D-C., (2016). A concepe, a redacta și a publica un articol științific, Bucuresti: Editura ASE, p. 19.

[4]. *OECD (2015), Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development, The Measurement of Scientific, Technological and Innovation Activities*, OECD Publishing, Paris, [on-line],

available at: http://www.keepeek.com/Digital-Asset-Management/oecd/science-and-technology/frascati-manual-2015_9789264239012-en#.Wliodxt97IU. Accessed October, 26, 2016.

[5]. Veblen, T. B. (1908). The Evolution of the Scientific Point of View, *University of California Chronicle*, 10(4), pp. 396-416.

[6]. Plagiarism. *Word Origin and History for plagiarism*, [on-line], available at: <http://www.dictionary.com/browse/plagiarism>. Accessed October, 26, 2016.

[7]. Laverde-Rubio, E., (2010). The Concept of "Original". *Revista Colombiana de Psiquiatría*, 39(3), pp. 601-609. [online] available at: http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0034-7450201000030012&lng=en&tling=en. [Accessed October, 28, 2016].

[8]. Hexham, I., (2005). *The Plague of Plagiarism: Academic Plagiarism Defined*, Departament of Religious Studies University of Calgary, [online] Available at: <http://www.ucalgary.ca/~hexham/study/plag.html>. [Accessed October, 19, 2016].

[9]. Clarke, R., (2006). Plagiarism by academics: More complex than it seems. *Journal of the Association for Information Systems*, 7(1), pp. 91-121.

[10]. Biagiolli, M., (2012). Recycling texts or stealing time?: plagiarism, authorship, and credit in science. *International Journal of Cultural Property*, Vol. 19, pp. 453-476.

[11]. Godecharle, S., Nemery, B. and Dierick, K., (2014). Heterogeneity in European Research Integrity Guidance: Relying on Values or Norms? *Journal of Empirical Research on Human Research Ethics*, 9(3), pp. 79-90.

[12]. Lynch, J., (2006). The Perfectly Acceptable Practice of Literary Theft: Plagiarism, Copyright, and the Eighteenth Century, *Colonial Williamsburg*, [online] Available at: <http://www.writing-world.com/rights/lynch.shtml> [Accessed November 2, 2016].

[13]. Green, S.P., (2002). Plagiarism, Norms, and the Limits of Theft Law: Some Observations on the Use of Criminal Sanctions in Enforcing Intellectual Property Rights. *Hastings Law Journal*, vol. 54(1), pp. 167-242.

[14]. Constitution of the United States, (1789). Article.1, section 8: http://www.archives.gov/exhibits/charters/constitution_transcript.html [Accessed November 1, 2016].

[15]. Florescu, M., (2012). *Plagiatul. Scurte considerații, Pandectele săptămânale – serie nouă*, [online] Available at: <http://www.luju.ro/dezvaluiri/evenimente/natura-juridica-a-plagiului-in-revista-pandectele-saptamanale-juristul-marian-florescu-evidentiaza-contradictiile-dintre-reglementarile-privind-plagiutul-si-legea-dreptului-de-autor-si-a-drepturilor-conexe>? [Accessed November, 2, 2016].

[16]. Dinu, V., Săvoiu, G., Dabija, C-D, (2016). *A concepe, a redacta și a publica un articol științific*, Editura ASE, Bucuresti, p.

[17]. Eco, U., (2014). *Cum se face o teză de licență*. Iași: Editura Polirom.