

ADDRESSING LOW-LEVEL REPRODUCTION IN ACADEMIC PUBLICATION: IMPLICATIONS FOR INTEGRITY AND ACADEMIC ENVIRONMENT

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Abstract

This paper addresses the issue of low-level reproduction in academic publication, which is considered a form of imperceptible academic corruption. The practice of low-level reproduction creates academic bubbles and undermines the integrity of the academic atmosphere. In response, this paper advocates for the banning of low-level reproduction to uphold the principles of scientific integrity within the scientific community. By doing so, it aims to foster an environment that nurtures critical thinking, creativity, and problem-solving skills among researchers, ultimately benefiting society and the nation as a whole. The paper emphasizes the importance of promoting transparent and original research in academic publishing to maintain the credibility and trustworthiness of scholarly work.

Keywords: *Low-level reproduction; publication; academic corruption*

INTRODUCTION

Plagiarism, fabrication, falsification, and improper authorship are well-known forms of serious academic misconduct (Banerjee T., et al., 2022). However, an equally significant issue often overlooked is the problem of low-level academic reproduction. Some researchers simply replicate previously published techniques and minor modifications in different areas to present them as numerous new publications. For instance, after the invention of the polymerase chain reaction (PCR) technology in biology in 1986, many researchers cloned DNA fragments using PCR and published them in various peer-reviewed journals during the 1990s. This kind of behavior seriously damages the integrity of academic research, as scientific investigations deserve attention and respect, not mere casual endeavors (Siler K., et al., 2022).

To address this concern, several biological peer-reviewed journals have explicitly prohibited the submission of DNA fragment cloning accomplished solely by PCR technology. Nevertheless, this practice still persists in certain scientific fields. For example, the utilization of chemical tools may occasionally involve crystal structures, while the use of electron microscopes to describe biological samples might exhibit subpar academic quality, among other instances. Defining, identifying, and evaluating such academic misconduct can be challenging, as it might not always be evident in the text of a thesis or experimental procedures.

Low-level reproduction pollutes the academic atmosphere, generating significant bubbles and detrimental effects within scientific disciplines. It fosters an environment in which scientists become disengaged and unmotivated in their pursuit of genuine scientific discoveries. As a society, it is crucial to confront and address this "hidden" academic misconduct. Institutes and communities should support scientists by enhancing their confidence, motivation, and skills in their academic careers. Emphasizing behavioral integrity and emotional qualities in research endeavors can foster a culture that promotes genuine scientific progress (Valkenburg G., et al., 2021). Due to fate, we can safeguard the integrity of academic research and uphold the values that drive meaningful scientific advancements.

REASONS

What are the underlying reasons behind this low-quality academic reproduction? There are several contributing factors to consider. Firstly, the challenging economic environment makes securing research funding a daunting task. The quality and quantity of publications directly influence funding reviews and subsequent grant applications, as funding is essential to support basic research rather than commercial ventures. Conducting high-quality, in-depth, and intellectually demanding research often requires substantial time and resources, surpassing certain funding constraints (Salwén H., 2021). As a result, some researchers may resort to low-level reproduction as a means to meet funding requirements and secure much-needed financial support.

Secondly, academic publications hold significant importance for graduation, promotion, and employment in the academic realm. Individuals with a lack of publications may find it challenging to secure positions within the scientific community, especially given the competitive job market due to harsh economic conditions. The pressure to produce publications swiftly and in large quantities can lead to the creation of subpar papers, serving as a way to fulfill academic requirements promptly. This phenomenon of low-level reproduction allows individuals to generate a multitude of papers in a relatively short time frame, potentially defending their claims for graduation, promotion, or employment.

The third contributing factor is the personal dimension, which is influenced by a complex interplay of factors such as individual personality, the academic community, moral standards, and professional skills (Bauman Z., 2000). The temptation of financial gain and societal status can lead individuals to compromise their academic ethics (Cliffe J., et al., 2022).

The prevalence of low-quality academic reproduction can be attributed to the challenging economic landscape, the need to meet academic requirements, and the personal motivations of researchers. Addressing these underlying factors and promoting a culture of ethical research conduct can help safeguard the integrity of academic endeavors and encourage genuine scientific advancements.

SERIOUSNESS

If the scientific and academic atmosphere tolerates and accepts low-quality reproduction, it can lead to several severe consequences. Firstly, researchers' thinking, creativity, and problem-solving abilities may become stagnant, hindering their capacity to tackle future research challenges (Sarewitz D., 2016). When low-level reproductions are rewarded with funding and publications, researchers may lose their enthusiasm, optimism, curiosity, and interest in the scientific process. This can result in disheartened and disillusioned integrity scientists who are discouraged by unfair competition (Al-Zoubi S.M., et al., 2015). Genuine scientific research requires time for proper demonstration and observation, making it difficult for integrity scientists to produce a large quantity of high-quality papers in a short research period (Abdi S., et al., 2021). Over time, this deficiency can erode the overall academic quality in the United States, potentially causing the country to lose its position as a world scientific center. Exceptional students and scientists may choose not to pursue their academic careers in the US due to this decline in academic standards. Moreover, the increase in low-level reproduction can lead to a rise in quantitative garbage papers, reducing scientific citations and diminishing the US's competitive standing in the world.

Furthermore, low-level reproduction is often associated with slicing publications (another form of academic corruption) and self-plagiarism, where researchers artificially increase their publication quantity to secure funding and benefits (Bruton S.V., 2014). This academic misconduct is challenging to detect, as it lacks obvious plagiarism, fabrication, or falsification. Authors may attempt to mask their low-quality manuscripts with sophisticated English language usage, creating an appearance of scientific work while, in reality, producing English literature products. As a result, foreign scientists may mistakenly perceive American academic manuscripts as prioritizing English literature over scientific quality, leading some to shift their research focus towards pursuing English literature and superficial wordplay.

Unfortunately, certain companies in the US have emerged, specializing in professionally serving manuscripts and grant writings. This social corruption involves earning money from academic funding and grants, and some labs may opt to invest in these companies to present their low-level academic papers in a polished manner (De Peuter S., et al., 2021). Authors may employ flexible language to camouflage the deficiencies in their research works, resulting in the publication of academic trash with little scientific value. As a consequence, people lose interest in these works, and over time, the prestigious reputation of academic journals may suffer. In the past, some academic journals were renowned in the research field, showcasing many significant scientific discoveries and even Nobel laureate contributions. However, the growing number of low-quality reproduction manuscripts has caused a decline in the scientific reputation of these journals (Patience, G. S., et al., 2019).

The acceptance and propagation of low-quality reproduction in the academic community have far-reaching consequences that can negatively impact scientific progress, academic integrity, and the standing of academic journals. Addressing this issue is essential to uphold the standards of scientific research and maintain the integrity of academic scholarship.

SOLUTIONS AND OBJECTIONS

What is the best solution to address low-level academic reproduction? Firstly, institutes and society must enhance the current evaluation system for scientific works and take measures to curb academic bubbles. This critical element can boost scientists' motivation and engagement in their academic careers. We can draw inspiration from the case of Barbara McClintock, the Nobel Prize Laureate for Medicine in 1983, who focused solely on her research for many years without publications. Eventually, her groundbreaking scientific work was recognized as a significant achievement in biological history. This historical example underscores the importance of reevaluating how we assess and recognize scientific contributions within the current academic evaluation system.

Secondly, institutes and society should provide genuine financial support for researchers' scientific endeavors and encourage their active participation in institute academic policies and plans. By doing so, we can discourage low-level reproduction (Fisher C.B., 2003). Additionally, institutes can optimize their academic teams by eliminating incompetent researchers. This optimization process, when smoothly implemented, will lead to several benefits. Scientists will feel more confident and content when their valued ideas are accepted by society. Consequently, a high-quality scientific atmosphere will foster academic honor, attracting more talented scientists and fueling national economic growth and competitiveness in the global arena (Davies S.R., 2019).

Thirdly, implementing academic ethics education is a powerful tool to combat academic corruptions and cultivate a culture of scientific integrity. By educating scientists about the importance of ethical conduct in their research endeavors, we can discourage low-level reproduction and promote honest and principled scientific practices.

Addressing objections to these solutions is crucial for their successful implementation. One concern is how to identify and define low-level reproductions, which can be challenging. Peer review can be instrumental in evaluating and distinguishing low-level reproductions from original publications. Talented scientists can objectively compare and screen such reproductions, and institutes can encourage the development of academic policies to resist and penalize academic misconduct.

Another objection revolves around the belief that a high-quality academic team requires substantial funding. However, eliminating incompetent researchers and discouraging low-level reproductions can redirect investment towards high-quality experts. Institutes can generously sponsor the academic careers of highly qualified experts while weeding out low-level reproduction and related programs.

A third objection suggests that these solutions might disrupt normal academic occupations. However, low-level reproduction is a significant academic pollution that generates a considerable amount of waste. By identifying incompetent researchers and discouraging such practices, we can reduce academic waste and enhance scientific efficiency. Society should largely fund young, hardworking scientists and support creative projects, even if they seem immature, as they may yield promising academic returns.

The final objection relates to the belief that academic ethics education alone cannot eliminate academic misconduct. While it is true that people are taught to obey the law from an early age, and yet some still commit minor offenses,

academic moral education remains essential (Deary I., et al., 2007). It serves as a guiding principle to foster a culture of integrity and responsible conduct within the academic community.

The best solution to dissolve low-level academic reproduction lies in creating a positive academic climate where institutes and society foster scientists' confidence, values, feelings, motivation, and skills in their scientific careers. A scientist's essential qualities, such as high attention, intense effort, and enduring persistence, coupled with enthusiasm, interest, and enjoyment in the academic process, can flourish in such an environment. By implementing these solutions and addressing objections, we can strengthen the integrity and quality of academic research, driving meaningful scientific advancements and inspiring the next generation of researchers.

CONCLUSION

Low-level reproduction represents a serious form of academic misconduct and a wastage of valuable academic resources. It fosters academic bubbles and pollution, thereby undermining the integrity of the academic environment. The ramifications of such failures within the scientific realm extend beyond academia, leading to a decline in education and even societal crisis. Science serves as a driving force in education, and the prevalence of low-level reproduction can hamper the cognitive abilities, creativity, and problem-solving skills of young individuals. Therefore, it is imperative for society to foster a positive academic atmosphere within institutes, instilling confidence among scientists and elevating the overall scientific environment. Such an enriching scientific atmosphere will also elevate academic honor, while exceptional experts will contribute significantly to national economic growth and enhance global competitiveness.

In light of these considerations, it is crucial to implement measures that prohibit low-level reproduction in the scientific community. By doing so, we can uphold the integrity and authenticity of academic research, ensuring the pursuit of genuine scientific advancements. Moreover, improving the thinking, creativity, and problem-solving skills of researchers will undoubtedly benefit society and the country as a whole. Encouraging a vibrant and intellectually stimulating environment will nurture a generation of skilled researchers, capable of addressing complex challenges and fueling progress across various fields.

In summary, taking a strong stance against low-level reproduction is vital for the well-being of the scientific community, and promoting the growth of researchers' intellectual capabilities will yield far-reaching benefits for society and the nation. By embracing these principles, we can pave the way for a brighter and more prosperous future, built on a solid foundation of genuine scientific achievement and academic integrity.

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