The Importance of Negativity (EDITORIAL)

Ana S. Moura[1, 2, a]/A. M. P. Rodriguez [3]
[1]| University of Vigo, Spain
[2]| Museum of Natural History and Science, University of Porto, Portugal
[3]| Invicta Imaginaria, Portugal
[a]| Correspondence should be addressed: acmoura@mhnc.up.pt

Abstract. In a time and age where academic and scientific publishers opted again and again to publish only positive results, what would be an History of Science and Technology if there had been a different approach towards the publication of negative results?

Keywords: Negative results; Alternative history; Academia.

When the Enlightenment made room for its ideas, society and individuals slowly changed perspectives regarding values, as it is usually the case of major societal movements and their consequents social changes. Progress. Enhancement. Positivity. Positive results.

The belief that history and humanity would head for increasing betterment, with hope in 'good old' future days, took roots on more aspects than we sometimes account them for. Progress is associated with knowledge, and scientific knowledge in particular, which comes as no surprise. Scientific knowledge and the appreciation for its measurable indicators, from an academic and even societal perspective, presents a strong correlation with results. And this is the part that becomes tricky.

People, either within academia or not, enjoy the retelling of some foundational tales regarding research resilience, such as the ubiquitous account of Edison regarding the 100th and finally successful attempt to develop the light bulb. In fact, the actual Edison's quote according to scholars should be: "I have not failed 10,000 times. I have not failed once. I have succeeded in proving that those 10,000 ways will not work. When I have eliminated the ways that will not work, I will find the way that will work." [1]. And ten thousand resilient approaches are more impressive than 100. Likewise, ten thousand insights regarding the understanding of a problem or technological challenge provides an impressive corpus of knowledge that can foster further research.

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And ten thousand resilient approaches are more impressive than 100. Likewise, ten thousand insights regarding the understanding of a problem or technological challenge provides a more impressive corpus of knowledge than one positive insight. The trick, truly, is sometimes in the numbers.

Enjoying the retelling while standing by its principle does not meet academic publishing approval for quite some time [2, 3]. One publishes positive results or perishes. What breakthroughs could have be done with that negative knowledge that stays amiss form academic and scientific publication? How many mistakes are made, again and again, because the error roadmap was barred from open (or subscription access?

And how many resources, time and money are wasted because of this?

Not only this should be addressed further[1] but resourcing to alternative history an interesting tool to explore the impact of this ostracization of negative results in academic publishing. One could choose a particular research aspect where there is an established bias against the publishing of negative results, prospect[2] which type of negative results had been rejected for publication, and explore the impact they could have had in the field by constructing an analogous alternative chronology of impact for similar themes or subjects. This would be more interesting if one focused on specific periods of time and cross-reference interdisciplinary impact.

As result, one could add a qualitative approach to the already resourced statistical tools regarding the assessment of negative results bias, adding layer and density to the research. In addition, an historical framework, albeit microhistorical or microalternbative history, would allow to probe the human factor of the publishing decision beyond the simple quantitative analysis.

Because, until the moment, and hopefully for a long time, these decisions are human, and as such should be approached.

References

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[1] There has been a steady increase in works regarding the matter.

[2] The new open access preprint sites could be a valuable data gathering corpus for this.