

EDITORIAL (ESCOLHA DAS EDITORAS)

EDITORIAL (EDITOR'S CHOICE)

Public Health, Science, and Art

Marilia Sá Carvalho ¹ Luciana Dias de Lima ² Cláudia Medina Coeli ³

doi: 10.1590/0102-311X00022920

An award-winning film from 1936 on the life of Louis Pasteur. Why on the pages of CSP? And why so applauded at a presentation at the Oswaldo Cruz Institute, a unit of Oswaldo Cruz Foundation (IOC/FIOCRUZ) that develops state-of-the-art research focused on the Brazilian population's health needs? A 19th-century scientist and a 20th-century film in a 21st-century debate.

One of Pasteur's most relevant contributions, among so many others shown in the film and highlighted in the essay by Daniel-Ribeiro & Lima 1, is certainly his "germ theory", creating the possibility of highly successful preventive measures, from handwashing to vaccination. Several highlights fast-forward the film to the present day, especially the medical community's huge resistance to the new recommendations. Examples include the refusal by Medical Boards to accept recommendations by the World Health Organization (WHO) on management of childbirth care ² or their support for the release of anorectics, despite evidence to the contrary that identified adverse effects from their use ³. The latter example may have been influenced by the pharmaceutical industry's lobby.

The rejection of scientific evidence is built on a daily basis. It features fake experts, conspiracy theories, and citing of handpicked examples to "demonstrate" that scientists do not deserve the population's trust. Denial of climate change is a prime example of science denial ⁴. A key element in the construction of scientific ignorance, the object of study of agnotology ⁵, is the production of distrust of scientists. Scientists are accused of manipulating data and hiding evidence for spurious interests, including financial ones ⁶. The origins of such behavior have been debated exhaustively, emphasizing the importance of scientists' action in fighting scientific ignorance through closer interaction with the public and regular communication with society ⁷.

But why the admiration for Pasteur, present in the film and portrayed so well in the article? As scientists in the field of Public Health, we are involved in the grand struggles for the population's health. Among others, we play an undeniable role in the defense of the right to health, in tobacco control, in food labeling, in encouragement for physical activity, for health promotion and protection. This is our social function, and this is what gives our work relevance. Scientific thinking in all these questions (and many more) threatens vested economic interests §.

¹ Programa de Computação
Científica, Fundação
Oswaldo Cruz, Rio de
Janeiro, Brasil.
² Escola Nacional de Saúde
Pública Sergio Arouca,
Fundação Oswaldo Cruz, Rio de Janeiro, Brasil.
³ Instituto de Estudos em
Saúde Coletiva, Universidade
Federal do Rio de Janeiro, Rio de Janeiro, Brasil.

This is where the applause from the audience of scientists comes in: the praise for Pasteur as a dedicated and tireless scientist that overcomes deeply rooted beliefs, hostility from medical societies, a true hero. But all of us 21st-century scientists know that science is not the product of isolated work by geniuses, but of the collective development of knowledge. So, why the applause? Do we need heroes?

No. We need ART. Art encourages us to face down the discredit towards science and scientists. There are dozens of recommendations for scientists to become active in science dissemination ⁹. Art is an essential path. So, let us bring on more films, theater plays, books, poems, paintings, cartoons, and memes.

Contributors

M. S. Carvalho, L. D. Lima, and C. M. Coeli contributed to the writing and approval of the final version.

Additional informations

ORCID: Marilia Sá Carvalho (0000-0002-9566-0284); Luciana Dias de Lima (0000-0002-0640-8387); Cláudia Medina Coeli (0000-0003-1757-3940).

References

- Daniel-Ribeiro CT, Lima MM. A morning with Louis Pasteur: a short history of the "clean hands". Cad Saúde Pública 2020; 36:e00068619.
- World Health Organization. WHO recommendations: intrapartum care for a positive childbirth experience. Geneva: World Health Organization; 2018.
- Paumgartten FJR. The return of amphetaminelike anorectics: a backward step in the practice of evidence-based medicine in Brazil. Cad Saúde Pública 2017; 33:e00124817.
- Cook J. Countering climate science denial and communicating scientific consensus. In: Oxford Research Encyclopedia of Climate Science. http://climatescience.oxfordre.com/view/10.1093/acrefore/9780190228620.001.0001/acrefore-9780190228620-e-314 (accessed on Feb/2020).
- Proctor R, Schiebinger LL, editors. Agnotology: the making and unmaking of ignorance. Redwood: Stanford University Press; 2008.

- Qiu L. The baseless claim that climate scientists are 'driven' by money. The New York Times 2018; 27 nov. https://www.nytimes. com/2018/11/27/us/politics/climate-report-fact-check.html.
- National Academies of Sciences, Engineering, and Medicine. Communicating science effectively: a research agenda. Washington DC: The National Academies Press; 2017.
- Oreskes N, Conway EM. Merchants of doubt: how a handful of scientists obscured the truth on issues from tobacco smoke to global warming. New York: Bloomsbury Press; 2011.
- Brownell SE, Price JV, Steinman L. Science communication to the general public: why we need to teach undergraduate and graduate students this skill as part of their formal scientific training. J Undergrad Neurosci Educ 2013; 12:E6-10.