Trabalho, Educação e Saúde
ISSN: 1678-1007
ISSN: 1981-7746

Fundação Oswaldo Cruz, Escola Politécnica de Saúde Joaquim Venâncio

Guimarães, Cátia Corrêa
Negacionismo científico: do debate epistemológico à luta de classes
Trabalho, Educação e Saúde, vol. 20, e00628185, 2022
Fundação Oswaldo Cruz, Escola Politécnica de Saúde Joaquim Venâncio

DOI: https://doi.org/10.1590/1981-7746-ojs628

Available in: https://www.redalyc.org/articulo.oa?id=406769893024

Trabalho, Educação e Saúde

CONJUNCTURE NOTE

https://doi.org/10.1590/1981-7746-ojs628

Scientific denialism: from epistemological debate to class struggle

Negacionismo científico: do debate epistemológico à luta de classes

Negacionismo científico: del debate epistemológico a la lucha de clases

Cátia Corrêa Guimarães[1]

[1] Fundação Oswaldo Cruz, Escola Politécnica de Saúde Joaquim Venâncio, Rio de Janeiro, Brasil. catia.guimares@fiocruz.br

Abstract

This text debates scientific denialism based on two main references. The first is of an epistemological nature and refers to the postmodern discourse on science, with its relativization of the criteria for the search and definition of truth. It comprises, however, that, at the same time, this phenomenon goes beyond the spaces of scientific discussion, reaching the whole of society. To account for this particularity, it has, as a second reference, discussions about the process of formation of opinions, worldviews and convictions of what the Italian philosopher Antonio Gramsci called the 'man of the people'. For this purpose, the concept of common sense, from the same Sardinian thinker and militant, and the theorization of Agner Heller on how adherence to the different knowledge that crosses people's daily lives depends on feelings of identity such as faith (non-religious) and trust, which, according to the author, have different motivations and effects. Finally, it argues that it is necessary to reaffirm objectivity as a criterion of science in the epistemological debate, but that it is equally necessary to face this problem in the field of class struggle, strengthening organic relations of identity and trust as part of the dispute for hegemony.

Keywords scientific denialism; truth; hegemony; popular organization.

How to cite: GUIMARÃES, Cátia C. Negacionismo científico: do debate epistemológico à luta de classes. *Trabalho, Educação e Saúde*, Rio de Janeiro, v. 20, 2022, e00628185. https://doi.org/10.1590/1981-7746-ojs628

Received: 04/18/2022
Approved: 04/27/2022

Resumo

O texto debate o negacionismo científico com base em duas referências principais. A primeira é de ordem epistemológica e remete ao discurso pós-moderno sobre a ciência, com sua relativização dos critérios de busca e definição da verdade. Compreende, no entanto, que, contemporaneamente, esse fenômeno ultrapassa os espaços de discussão científica, atingindo o conjunto da sociedade. Para dar conta dessa particularidade, tem, como segunda referência, discussões sobre o processo de formação de opiniões, concepções de mundo e convicções do que o filósofo italiano Antonio Gramsci chamou de 'homem do povo'. São usados, para esse fim, o conceito de senso comum, do mesmo pensador e militante sardo, e a teorização de Agner Heller sobre como a adesão aos diferentes conhecimentos que atravessam o cotidiano das pessoas depende de sentimentos de identidade como a fé (não religiosa) e a confiança que, segundo a autora, têm motivações e efeitos distintos. Defende, por fim, que é preciso reafirmar a objetividade como um critério da ciência no debate epistemológico, mas que é igualmente necessário enfrentar esse problema no terreno da luta de classes, fortalecendo relações orgânicas de identidade e confiança como parte da disputa de hegemonia.

Palavras-chave negacionismo científico; verdade; hegemonia; organização popular.

Resumen

El texto debate el negacionismo científico a partir de dos referencias principales. La primera es de carácter epistemológico y remite al discurso posmoderno sobre la ciencia, con su relativización de los criterios de búsqueda y definición de la verdad. Entiende, sin embargo, que, actualmente, este fenómeno trasciende los espacios de discusión científica, alcanzando al conjunto de la sociedad. Para dar cuenta de esta particularidad, tiene, como segunda referencia, discusiones sobre el proceso de formación de opiniones, concepciones de mundo y convicciones de lo que el filósofo italiano Antonio Gramsci denominó el 'hombre del pueblo'. Para ello, se utiliza el concepto de sentido común, del mismo pensador y militante sardo, y la teorización de Agner Heller sobre cómo la adhesión a los diferentes saberes que atraviesan la vida cotidiana de las personas depende de sentimientos de identidad como la fe (no religiosa) y la confianza, que, según la autora, tienen distintas motivaciones y efectos. Finalmente, argumenta que es necesario reafirmar la objetividad como un criterio de la ciencia en el debate epistemológico, pero que es igualmente necesario enfrentar este problema en el campo de la lucha de clases, fortaleciendo relaciones orgánicas de identidad y confianza como parte de la disputa por la hegemonía.

Palabras clave negacionismo científico; verdad; hegemonía; organización popular.

At the time this text is being written, researchers who have become important sources of information about the COVID-19 pandemic diverge, in the public space of newspapers and social networks, about the flexibility of the use of masks in some Brazilian cities.[1] And this is just one of the many moments when, facing news brought about by the health crisis, the 'voices of science' disagree on 'diagnoses' or collective and individual protection measures. Although the behavior of the majority of the population is not expected to be a direct reflection of the prescriptions of scientists, it is necessary to recognize that the pandemic has expanded, at least temporarily, the penetration of scientific debate in people's daily lives. And although, by definition, the knowledge that is mobilized for everyday life is of the type that does not need proof (Heller, 2004), it is understandable that, in the miscellany of references, ideas and concerns that make up common sense, such as Gramsci (2004) taught us, the question has become inevitable about, after all, on which side (of the many uncertainties and controversies) is the truth.

If we want, this same question can take new forms, becoming an epistemological doubt, for example, about which truth would correspond to the correct scientific method. Or, in the words of Jean-François Lyotard, in the book that is considered by many to be the founder of postmodern thought, it could be translated into the question: "who decides what is true?" (Lyotard, 2009, p. 54). Whether in the form of practical common sense doubt, or in the provocative formulation in the academic space, this environment of uncertainties should not be confused with what we have called, in recent times,

'scientific denialism', which, in a kind of conceptual combo, today identifies itself as an expression of a supposed 'post-truth' era, potentiated by the fake news industry. On the other hand, the variety of uses and interpretations of the limits of doubt in the discourse of science may provide us with clues that help to understand this phenomenon.

Let us say, firstly, that a certain type of ancestor of what we now call denialism goes back to the 1960s, when, within the scope of a debate that was intended to be scientific, the questioning about the veracity of the horrors caused by Nazism gained space (Calil, 2020). Also presenting itself as an effort of 'historical revisionism', which bets on literature review and the discovery of new sources, among other mechanisms typical of historiography, this process was soon unmasked as an explicit denialism that, many times claiming scientific objectivity, supported, for example, the argument that there was no evidence of the existence of gas chambers in Nazi concentration camps. In the late 1980s, another expression of a similar process gained prominence on the world stage: when there were no longer any scientific doubts about the serious effects of global warming and its primarily anthropogenic causes, that is, those derived from human action, large business conglomerates that would be affected by the reduction of carbon emissions began to finance institutions and researchers whose task was to deny the undeniable.

Resorting to this brief trajectory on the origins of the contemporary phenomenon, however, requires a methodological alert that, in this text, is of central importance. After all, denying scientific consensus around topics such as the Holocaust and global warming is not the same as denying science. Thus, identifying in historical denialism and climate denialism a kind of antecedent of the broader process that we are experiencing today seems to us to be a promising move, but one that needs to be done with caution, understanding that, in this case, the meaning of the adjective used for the term 'denialism' shifts. Let us take a closer look.

Of course, the seriousness of the issue and the perception of its political instrumentalization allow us to treat it as a falsification of science, but, even so, the fact is that the 'alternative versions' that mark the negationist discourses are 'sold' as if science were. After all, what would explain the emergence of 'gurus' of the political extreme right if not the need to legitimize, worldwide, a kind of 'academic space of B side'? It may seem contradictory, but it is important to note that the movement by which scientific consensus is questioned and delegitimized does not advocate that people throw *science* in the trash bin of history. It is about provoking doubt and distrust about a *certain* science, restricted to *certain groups of researchers, in certain institutions* that, on purpose, come to be associated with *certain 'shady interests'*.

Let's look at some examples. Of course, various discursive exercises have already tried to replace the word 'dictatorship' with lighter expressions, but, in general, it is not denied that Latin America has lived through exceptional political regimes, with exceptional recourse to the use of force. The most common strategy has been not to deny, but to mitigate the crimes of the dictatorship and, mainly, to justify, with (decontextualized) data and (interested) sources, their historical necessity – the most used argument, with more or less 'documented' variations, is that the coups were responses, desired by the populations, to the imminence of a communist invasion in these countries. Likewise, outside religious spaces, the consensus around Darwin's discoveries is no longer questioned, opposing them to the creationism of Adam and Eve, but claiming the 'theory' of Intelligent Design, which has a scientific veneer to defend that life cannot be the result of chance, as the theory of evolution would say, but of an intelligent and intentional action – whether you call it God or not. That almost no one knows this 'theory', it doesn't matter: for the expected political effects, this strategy is effective, shaking the certainties and legitimacy of the established consensus with the mere introduction of another possibility of truth, presented as just as scientific as the others. A kind of truth 'on demand'.

If, as a strategy of mass political mobilization, this is a new phenomenon, in the internal debate in the scientific field, this elasticity of the conception of truth and, even more, the understanding of science as a space of dispute in which the criterion of veracity is the relations of power and not objective reality, are already our old acquaintances. The same Lyotard, quoted (not by chance) at the beginning

of this text, has since 1979 voiced the epistemological doubt that would mark postmodern thinking with the question: "(...) what I say is true because I prove it; but what proves that my proof is true?" (Lyotard, 2009, p. 54).

Our contemporary challenge is to affirm that, a century earlier, Marx would have had no doubts in answering this question and, half a century later, the Marxists of today must not have either: who 'proves the proof' is objective reality, the one that exists independently of the subject of knowledge. As the beautiful synthesis that Netto offers us explains, for Marx theory is the "ideal reproduction of the real movement of the object by the research subject" (Netto, 2011, p. 21), which means that the truths that science seeks have an external referent, a "verification instance". To defend this is not to ignore the fact that social life (including scientific work) is permeated by power (and class) relations. Therefore, Marx knows, for example, that in the social sciences, unlike theories of nature, the subject, as part of the society that it is, is always implicated in the object, but this does not by any means eliminate the objectivity that characterizes (and differentiates) the knowledge that is intended to be scientific. In the social sciences, as Netto (2011, p. 23) explains to us, the "verification instance" is the social and historical practice – which means that the doubt that opens this text, on which side is the truth in the polemics of researchers regarding the flexibility or not of the use of masks in the midst of the pandemic, it will be clarified when the epidemiological data objectively show, in time, what were the concrete results of this measure. Of course, in this 'conference', other questions will arise, which will be the object of new doubts and controversies, in a process that accompanies the movement of History. In any case, Eagleton's example remains valid, with his well-known sense of humor: "All truths are established from specific points of view; but it makes no sense to say that there is a tiger in the bathroom from my point of view but not yours" (Eagleton, 2016, p. 150).

We know, however, that statements like these – which none of the many actors who today pass on denialist fake news would daily refuse – came to be contested by a generation of intellectuals from the 1960s onwards. In an effort to map the affiliations of the 'post-truth era' – of which scientific denialism is one of the expressions – Oliveira (2018) associates this understanding of the knowledge production process not only with postmodern thinking, but also more specifically, to the 'current' 'Science, Technology and Society', a kind of epistemological aspect of postmodernity, which, in its Strong Program, built in 1976, presents itself as a "science of science" or "an empirical study of science" (Bazzo, von Linsingen & Pereira, 2003, p. 23). From there, the discourse of a kind of 'social constructivism' unfolds, which, with many variations between countries and authors, ultimately defends that knowledge and science are a social construction. Wood (1999) helps us to characterize:

> At first glance, this insistence on the social construction of knowledge may seem irreproachable and even conventional, not least to Marxists, who have always recognized that no human knowledge comes to us without mediation, that all knowledge is absorbed through language and social practice. Postmodernists, however, seem to have something more extreme in mind than this reasonable proposition. (...) postmodernists have a habit of fusing forms of knowledge with their objects: it is as if they were saying not only that, for example, the science of physics is a historical construct, which has varied in time and in social contexts different, but that the laws of nature themselves are "socially constructed" and historically variable. (Wood, 1999, p. 11-12)

That said, we return to our point: it is equally important to identify the differences between this epistemological crisis that comes from the past and the popularized social phenomenon that we experience in the present. With all the necessary mediations, we suppose that the great differential of what is experienced today is the fact that this process has gone beyond academic and political-institutional spaces and reached a broader set of society, shaking and disputing common sense. In

this passage, by the way, denialism often gains popular forms of communication – such as alarming or supposedly funny memes and videos that circulate on social networks –, which, in a way, makes it difficult to perceive how much, beyond this grotesque appearance, this movement also claims elements and methodologies of the scientific discourse.

But *how come*, in our times, does this process go beyond academic walls, spread, convince and mobilize? Among the multiple determinations of this qualitative and quantitative leap, there are certainly economic 'reasons' related to changes in the form of capital accumulation and in its political dimension, in addition to other aspects that, however, go beyond the limits of this text. It remains for us to suggest that, in the current expression, this phenomenon denotes a crisis, which hits science and the conception of truth, but which is, above all, a crisis of legitimacy and credibility of the institutions that mediate this relationship between society and formal knowledge – be it scientific, legal or otherwise. It is, in the words of Cesarino (2021) – referring to the 'post-truth era'–, a "crisis of the expert system" of Modernity, a kind of break in the social pact that had as main guarantors the "science, the professional press and the institutions of the democratic state of law" (Cesarino, 2021, p. 79).

This analysis is completed by the perception that the 'alternative truths' that express this crisis find space for dissemination in the new digital media that, more than transmission channels, represent another logic of production and distribution of information and content – in addition, of course, to to develop as an innovative business model. As is well known, the emergence of the internet was responsible for a strong libertarian expectation: it was believed that, finally, communication that worked in a network, with multiple production poles, would be able to pierce the centralizing blocks of mass communication. Today, as Seto (2019, p. 11) denounces, the internet has almost been reduced to private social media platforms, controlled by large business conglomerates, which organize communication and interaction into bubbles of interest mapped and encouraged by digital algorithms. From a technological point of view, this environment facilitates the circulation of messages without the credibility previously attributed by the institutions that made up the system of experts mentioned by Cesarino (2021) and, at the same time, promotes the illusion of effective participation, as if the possibility for each one to produce his own message (his post) had a quantitative and qualitative effect, translating into a greater horizontality of social exchanges. Although democratizing expectations have proved to be illusory, social networks and their algorithms have become capable of simulating an environment of 'mutual trust' marked both by the identity of interests and worldviews and by opposition to everything outside the bubbles artificially constructed. In fact, to be more precise, it may be prudent to refer to an environment of "faith" (non-religious), which Agnes Heller defines as a feeling that mobilizes people's adherence to opinions and worldviews even when they are in contradiction with knowledge, that is, when evidence is resisted (Heller, 2004, p. 47-48).

Finally, it is inevitable to ask ourselves what to do. The bad news is that this answer is being built at the same time as part of the epistemological debate and concrete social struggles. After all, as Morel (2021) reminds us, the "background of this war" denotes more a "deficit of common practice" than a "knowledge deficit". "More than correcting a flaw in thinking, it would therefore be necessary to share common challenges, envisioning a panorama to be explored together" (Morel, 2021, p. 7). Therefore, the outcome of this scenario will depend not only on the debates held in the academy, but mainly on the correlation of forces that act (or are omitted) in the dispute for hegemony in force. The 'good news' is that there are challenges, but there is also an accumulation of theory and practice: even at the beginning of the last century, Gramsci (2004) warned us that ordinary men and women, of the people, do not build their opinions and conceptions of the world primarily through rational arguments, but through relationships of identity and trust 'in their own' (Gramsci, 2004, p. 109). It is urgent, therefore, that actors, institutions, organizations and world projects committed to social transformation mobilize themselves, not for a mere dispute of narratives that seek adherence by *faith*, but to occupy an organic place of trust of workers in the scenario of current class struggle. And, with that, who knows, definitively

including on the agenda of social struggles the maxim that Gramsci once chose as the epigraph of the Italian Communist Party newspaper: "the truth is revolutionary".

End-note

[1] See, among others: https://odia.ig.com.br/rio-de-janeiro/2022/02/6343137-com-a-possibilidade-da-liberacao-da-mascara-especialistas-divergem-sobre-uso-da-protecao-facial-no-rio.html and https://www.cnnbrasil.com.br/saude/especialistas-divergem-sobre-fim-da-obrigatoriedade-de-mascaras-em-escolas-do-rio/.

Article Information

Authors' contribution

The author CCG is solely responsible for the elaboration of the text.

Financing

Not applicable.

Conflicts of interest

Not applicable.

Ethical aspects

Not applicable.

Preliminary presentation

Not applicable.

References

BAZZO, Walter A.; VON LISINGEN, Irlan; PEREIRA, Luiz. T. V. Introdução aos estudos CTS (Ciência, Tecnologia e Sociedade). *Cadernos de Ibero-América*. Madri: Organização dos Estados Ibero-americanos (OEI), 2003. Available from: https://www.academia.edu/37271751/Cadernos_de_Ibero_Am%C3%A9rica_INTRODU%C3%87%C3%83O_AOS_ESTUDOS_CTS_Ci%C3%AAncia_tecnologia_e_sociedade. Accessed on: Apr. 10, 2022.

CALIL, Gilberto. Brasil: o negacionismo da pandemia como estratégia de fascistização. *Materialismo Storico*: Rivista di Filosofia, Storia e Scienze Umane, Urbino, v. 9, n. 2, p. 70-122, 2020. https://doi.org/10.14276/2531-9582.2470. Available from: https://journals.uniurb.it/index.php/materialismostorico/article/view/2470. Accessed on: Apr. 10, 2022.

CESARINO, Letícia. Pós-verdade e a crise do sistema de peritos: uma explicação cibernética. *Ilha*: Revista de Antropologia, Florianópolis, v. 23, n. 1, p. 73-96, 2021. https://doi.org/10.5007/2175-8034.2021.e75630. Available from: https://periodicos.ufsc.br/index.php/ilha/article/view/75630/45501. Accessed on: Apr. 10, 2022.

EAGLETON, Terry. *Depois da teoria*. Rio de Janeiro: Civilização Brasileira, 2016.

GRAMSCI, Antonio. *Cadernos do Cárcere*. v. 1. Rio de Janeiro: Civilização Brasileira, 2004.

HELLER, Agnes. *O cotidiano e a História.* São Paulo: Paz e Terra, 2004.

LYOTARD, Jean F. *A condição pós-moderna.* Rio de Janeiro: José Olympio, 2009.

MOREL, Ana P. M. Negacionismo da Covid-19 e educação popular em saúde: para além da necropolítica. *Trabalho, Educação e Saúde*, Rio de Janeiro, v.19, 2021, e00315147. https://doi.org/10.1590/1981-7746-sol00315. Available from: https://www.scielo.br/j/tes/a/pnVbDRJBcdHy5K6NSc4X65f/?lang=pt. Accessed on: Apr. 10, 2022.

NETTO, José P. (org.). *Introdução ao estudo do método em Marx.* São Paulo: Expressão Popular, 2011.

OLIVEIRA, Marcos B. Pós-verdade: filha do relativismo científico? *In: Blog. Outras Palavras.* São Paulo, 15 jan. 2018. Atualizado em 21 dez. 2018. Available from: https://outraspalavras.net/tecnologiaemdisputa/pos-verdade-uma-filha-do-relativismo-cientifico/. Accessed on: Apr. 10, 2022.

SETO, Kenzo S. *A economia política das mídias algorítmicas.* 2019. 148f. Dissertação (Mestrado em Comunicação) – Escola de Comunicação, Universidade Federal do Rio de Janeiro, Rio de Janeiro, 2019.

WOOD, Ellen. O que é a agenda "pós-moderna?". *In*: WOOD, Ellen; FOSTER, John B. *Em defesa da história:* Marxismo e pós-modernismo. Rio de Janeiro: Jorge Zahar Editor, 1999. p. 7-22.