

Construction of medical knowledge: ethical-political criticism

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Abstract

This article is a commentary on the book *Natural, racional, social: razão médica e racionalidade científica moderna* by Madel T. Luz. Her criticism of rationality and scientific methodology is based on recognizing an ideological aspect in these dimensions, outlined mainly from the Industrial Era. Her reflections seek answers to explain the marginalization of other ways of dealing with reality that were and remain under attack by the hegemonical model of modern science (with special attention to vitalism, a striking aspect of homeopathy). Aesthetics are crucial in the production and dissemination of knowledge as the basis to broaden the vision toward different perspectives of rationality and ethical elaboration.

Keywords: Knowledge. Homeopathy. Health Policy.

Resumo

Construção do saber médico: crítica ético-política

Este texto é um comentário ao livro *Natural, racional, social: razão médica e racionalidade científica moderna*, de Madel T. Luz. Sua crítica à racionalidade e à metodologia científica baseia-se no reconhecimento de um quê ideológico nessas dimensões, delineado principalmente a partir da Revolução Industrial. As reflexões da autora buscam respostas para explicar a marginalização de outros modos de lidar com a realidade (com destaque para o vitalismo, cuja presença é marcante na homeopatia), que foram e ainda são atacados pelo modelo hegemônico instituído pela ciência moderna. Ressalta-se que a estética desempenha um papel importante na produção e disseminação do conhecimento, como base capaz de ampliar a visão para diferentes perspectivas de racionalidade e de elaboração ética.

Palavras-chave: Conhecimento. Homeopatia. Políticas de saúde.

Resumen

Construcción del saber médico: crítica ético-política

Este texto es un comentario al libro *Natural, racional, social: razón médica y racionalidad científica moderna*, de Madel T. Luz. Su crítica a la racionalidad y a la metodología científica se basa en el reconocimiento de un aspecto ideológico en estas dimensiones, delineado principalmente a partir de la Revolución Industrial. Las reflexiones de la autora buscan respuestas para explicar la marginalización de otros modos de hacer frente a la realidad (con destaque para el vitalismo, cuya presencia es destacada en la homeopatía), que fueron y aún son atacados por el modelo hegemónico instituido por la ciencia moderna. Se resalta que la estética desempeña un papel importante en la producción y difusión del conocimiento, como base capaz de ampliar la visión a diferentes perspectivas de racionalidad y elaboración ética.

Palabras clave: Conocimiento. Homeopatía. Políticas de salud.

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A reference in contemporary health thinking, the work *Natural, racional, social: razão médica e racionalidade científica moderna*, by Madel T. Luz¹, relaunched by Editora Fiocruz in 2019, celebrated 30 years of its first publication. A search on Google Scholar made on July 8, 2018, revealed that the Portuguese version of the book was cited 682 times. The search was repeated on different dates, with similar results. The consideration of different editions of the book in the count is responsible for the numerical variations. Even so, Google Scholar referred only to two specific editions: one in Portuguese, from 2004, and another in Spanish, from 1997, while more recent searches, after 2019, also account for the free access new edition.

Natural, rational, social reflects on paradigms, adherences, and resistances of medical practices from a sociological perspective. The author shows how biosocial are medical reasoning categories, theories, and conceptions and, thus, not only guided by supposed scientific neutrality, but also by a way of perceiving the world that reduces social relations to the normative classification of subjects according to binary polarities, such as *normality-pathology*, *balance-deviation*, *harmony-disturbance*, *integrity-degeneration*². From a critical point of view, Madel T. Luz exposes modern scientific rationality over six chapters, which will be briefly commented throughout this essay: “Objectives, bases, and guidelines: scientific rationality and history” (Chapter 1); “The construction of modern scientific rationality” (Chapter 2); “Nature and reason in mechanical time and space” (Chapter 3); “The rationalization of society in the classic period of the Modern Age” (Chapter 4); “Disease discipline and social reasoning: medical-social categories in the 19th century” (Chapter 5); and “Medical reason and political passion: organic mechanism vs. homeopathic vitalism in the 19th century” (Chapter 6)¹.

Navigations: book organization

In chapter 1, Madel T. Luz maintains that the practice of medicine has been based on objectifying all human aspects – life, suffering, death –, and its fabric is established under the

discourse of modern rationality, which does not care to explain the reality, but mainly seeks to model it. This rationality is not only concerned with the origin and causality of the phenomena, but also tends to construct and manufacture them by anticipatory theories.

The author points out that life, suffering, illness, and death reflect social relationships, leading individuals and social groups to different experiences in caring for the body. Therefore, as the modern subject is shaped by the forces that operate on the body – the clock, the machine, the social norms, the surveillance of the self, the surveillance of the other, the surveillance of the State, the police, the gossip, the labels – corporeality becomes the target and, at the same time, the core of events. The anthropocentrism of modern science sets aside “divine laws” to focus on man and their individual and social body. Thus, the rules of the social contract comprise science’s political extension. The world is, thus, explained by regulations founded on ethical-philosophical principles with moral values defined differently from those of religion. In modern thought, the naturalization of the norms applied to the body is part of a plan of social control in which medicine becomes *perhaps the most social of modern disciplines*³.

Medical reasoning operates, therefore, under the logic of the dispute of political-social hegemony, intrinsic to the model of rationality, which supports a certain class ideology. This rationality represents discourse production strategies and social policies applied to medicine through classifications that often reflect divergent and opposing concepts and theories on the relationship between study and medical practice. The categories and concepts that must be subjected to critical analysis include “rational,” “natural,” “social,” “life,” “health,” “disease,” “normality,” “pathology,” “balance,” and “deviation,” considering that *reason and the “scientific method” as a fundamental norm for obtaining knowledge or, more generally, as a way of producing truth*⁴ are intended to represent a truth devoid of intentions. Truths are produced by the work of human thought and are not exactly characteristics of nature, or human nature, but a product of the human gaze on nature and the phenomena it observes.

As a tool of a certain class ideology, science reproduces thoughts that influence methods and practices. In this sphere, ideology acquires the contours of a subliminal statement, present in policies that cross the bodies of modern subjects, organizing themselves in biopolitics orchestrated by biopower devices. Charged with maintaining social order, medicine is one of those devices. Its disciplinary discourse evokes a rationalized order, while the method intends to maintain that such rationalization and all divisions arising from it are part of an order present both in nature and the structure of bodies.

When it comes to epistemology – here understood as a theory of knowledge – one cannot forget that language is one of those devices. It reveals the culture and its poetics. As recalled by Michel Foucault, to know is to interpret signs, and the game of the sign seeks similarities as a reference for the discourse *language is not what it is because it has a meaning*⁵. Thus, the naturalization of certain premises within the sphere of knowledge fails to consider cultural and social contexts, as well as the universe of beliefs and affinities of authors and scientists at the time they formulate their theories. The universalization of knowledge – considered neutral regarding culture – turns them into biopower devices.

In Chapter 2, Madel T. Luz recalls that the development of the defining rationality of modernity started in the 16th century, during Renaissance, also defined as the so-called “scientific revolution” period. The necessary break with the view of the world preceding this revolution reflects not only profound transformations in social relations but also the emergence of the autonomous, “independent” individual, capable of creatively transforming their personal and social context.

Renaissance humanism becomes humanistic anthropocentrism, and man begins to perceive themselves as nature’s owner. The colonizer and the conqueror are no longer “adventurers” or “looters,” and gain a new social *status*, supported by a new paradigm in which the decision-making process is restricted to human judgment: *The “objective” and “independent” existence of nature in the face of the human world is, therefore, an epistemological and ontological condition so*

*that man gets to know and shape it, so that they may leave the mark of their order on the kingdom of nature. The order of Reason*⁶.

Experimentalism is part of the modern scientific method, both exploratory and intervening, *as it creates instruments for empirical observation, kickstarting the era of scientific technology*⁷. We must also note that this method gives rise to disciplines seeking to isolate phenomena to better understand them, reinforcing the alienation of the whole⁸, which, little by little, is reflected across the entire structure and organization of industrial society.

The epistemological rupture is also reflected in the separation between being and nature. Bipolar categories reinforce exclusionary separations as if opposites and the annulment of one by the other were natural occurrences. Thus, there are not only relations such as “nature-man,” “quality-quantity,” “object-subject,” “body-soul,” “sense-reason,” “organism-mind,” “passion-will,” “form-matter,” etc., but the very reason for these dichotomies is multiplied by ways of doing science, its methods, and the whole theory of knowledge. Furthermore, the rationalization of life manufactures statements under specific truths, reinforcing rules of production and values perceived as more important within this model of rationality. These are truths communicated by the rules of the method and which will influence the development of new rules to help the individual navigate modern life. *Descartes defines the mechanistic, dualistic, and quantitative traits of modern rationality as the “concepts”*⁹.

Mechanism – a mechanistic view of the world – will influence the organization of disciplines and, regardless of its experimental, inventive, and reality-building characteristics based on abstractions of the imaginary, the belief in a pure reason, capable of producing knowledge through an infallible scientific method, dogmatizes the method to the point of canonizing it as a universal procedure to be adopted as a means to purify concepts from its imaginary sources. *The modern reason “imagines” itself as it imagines the world, that is, as a “machine,” a device*¹⁰. Cartesian-inspired rationalism organizes the method to be applied to the sciences and the search for the truth for this knowledge in general. But one of

the issues of transforming a method into dogma⁴ is that the repetition of theoretical models in different disciplines, instead of generating unity, makes way for the dissociation phenomenon, whereby scientific rational knowledge is little – or not at all – far from the understanding metaphysics of the world.

Modern rationality revives *the allegory of the “pure” knowledge of pure forms, from Plato’s Republic*¹², an aspect addressed by Madel T. Luz in Chapter 3, in which she discusses nature and reason in mechanical time and space. As the idealization of pure forms is translated in the Modern Age by the understanding of matter and the difficulties of dealing with the unmeasurable – the fourth dimension, where movement takes place –, the sciences of nature not only sought accuracy but also, whenever necessary and possible, tried to adjust the phenomena to the understandings most familiar to them, as a means to establish more control over processes and developments. From this perspective, the machine-universe, measured, automated, operated, and commanded by the *Homo sapiens*, is part of the mechanistic ideal of modern science, which, later on, is also translated into human sciences via positivism – order, scientific accuracy, and neutrality are categories inherent to the method, the only one supposedly capable of leading scientist to the truth.

The theorists’ – philosophers and scientists of the modern era – epistemological synthesis translates into the explanatory model (mechanistic), the method (both experimentalist and deductivist), and the language (mathematizing). This synthesis remains hegemonic in the understanding, creation, and construction of technologies, both at work and in the arts, in morals and customs. Thus, *disciplinary fields such as Medicine and several of its branches adopted the mechanistic model, elaborating concepts and theories on its methodological and epistemological basis*¹³. Even if *the discoveries of the sciences had a practical effect of qualitative change in social and economic life*¹⁴, their rationality is still focused on the conquest and control of the world. Thus, according to the author, society and reason are merged into a pact named “social contract,” in which science becomes the theology of the present time.

Chapter 4 analyzes the classical historical period, in which the foundations of modern

rationality are constituted. Madel T. Luz recalls that *the rationalization of customs and mentalities in classical society does not begin with natural philosophy, but with the moral resulting from the Christian religion*¹⁵, and that religious orders were the moral shapers that led to the structuring of modern ethics. In this context, the social subject becomes the object of a biopolitical project to be operated in social relations, and the Church is one among other institutions of moral control where biopower relations are established.

Bear in mind that moral rationalization is part of an aesthetic construction of a view of the world centered on “ideal categories,” outlining disciplinary codes based on a political philosophy that, traditionally, marginalizes the senses and separates *praxis* from *aisthesis*. The material world commanded and explained by reason defines priorities based on their pragmatic, hierarchical, and distinctive beliefs. Thus, according to Madel, *sensuality is an enemy of two reasons: the natural sciences and the Christian, either religious or secular morality*¹⁶. The author, however, affirms: *if art does not “tell” the truth, it “expresses” realities*¹⁷. This way, there is a counterpoint in morals whose purpose is the spiritual control of society – aesthetics is the transmission mechanism converting theory into practice. It translates the ideas of ethics into everyday life through feelings and senses, transforming ideology into spontaneous social practice¹⁸.

In Chapter 5, Madel T. Luz discusses concepts that shape medical practices, such as the privilege of science over art. Here, clinical conditions are a reflection of the belief that evil is alien to man. An example of this is the discourse on autoimmunity as a meaningful action plan to build and maintain the boundaries between *me* and the *other* within the crucial domains of normal and pathological¹⁹. Subdivisions such as anatomy, physiology, and pathology are part of the observation methods that add to the disciplinary project of controlling bodies by categories of diseases. The power exercised over bodies determines which of them are allowed to be free or should remain confined, as well as measuring and determining how free those bodies can be. The limits of freedom to a body are defined based on its existential location: social *status*, residence, living, and working conditions. The perception of

illness dissociated from social conditions makes the methodology applied to medical sciences fictional. In the same chapter, the author looks for sources representative of other types of medical rationality, such as those perceiving the disease as a bodily response to stimuli received through sensory experiences. She recalls that positivism, evolutionism, and mechanism are biosocial categories reflecting hierarchical orderings across the knowledge base.

At the end of the book, in Chapter 6, Madel T. Luz speaks of the activist character intrinsic to homeopathic vitalism in the 19th century, which opposes the organicist mechanism typical of hegemonic theories. The author points out that the epistemological debate – especially the ethical, and perhaps aesthetic – regarding medicine will hardly advance without a careful assessment of the *political battle of allopathy versus homeopathy, which should overcome the perception of these differences and theoretical competition*²⁰. Indeed, the strategies for systematic demoralization of non-allopathic practices and understandings on how to treat diseases and cure them deserve to be ethically questioned, since, under final analysis, they represent power and market disputes specific to the logic of late capitalism²¹. Such questions are perpetuated by the understanding that the disease – an abstraction, a model to make sense of clinical findings²¹ – can be associated with the empiricist David Hume's understanding that reason is also a kind of feeling, which has imagination as its judge¹⁸.

The idea that the rational is also “objective” leads to treating symptoms separately and discarding everything understood as “subjective” and “vague.” In these terms, for homeopathic vitalism, it is not a matter of “curing” by “inflammation of devices,” but the “art of healing,” as there is beauty in the act of healing, and it is part of the territory of aesthetics that refers to sensitive life and the apprehension of information by the senses. The affective body that dialogues with the world by symptoms and signs is a body that creates what is possible, according to its environment's stimuli.

Final considerations

Madel T. Luz's work adds to the questions directed to medicine's know-how, which, as a social practice, is not neutral, nor are its concepts and methods. Her book presents the construction of medical knowledge from a critical, sociological, and historical perspective. However, based on the knowledge of criticism and the existence of other ways (rationalities) to seek solutions for human problems, health professionals will be able to increase their awareness and contribute to potential changes. Thus, with academic rigor and originality, *Natural, racional, social: razão médica e racionalidade científica moderna* points to the possibility of an inseparable work from the ethical, aesthetic, and epistemology triad, recognizing that the original power of medicine is precisely the art of caring.

References

1. Luz MT. *Natural, racional, social: razão médica e racionalidade científica moderna* [Internet]. Rio de Janeiro: Fiocruz; 2019. Disponível: <https://bit.ly/3t5Eds7>
2. Luz MT. Op. cit. p. 39.
3. Luz MT. Op. cit. p. 47.
4. Luz MT. Op cit. p. 49.
5. Foucault M. *As palavras e as coisas*. São Paulo: Martins Fontes [Internet]; 2000 [acesso 10 maio 2021]. Disponível: <https://bit.ly/3hla2v5>
6. Luz MT. Op cit. p. 60.
7. Luz MT. Op cit. p. 62.
8. Santos BS. *Um discurso sobre as ciências*. 7ª ed. São Paulo: Cortez; 2010.

9. Luz MT. Op cit. p. 70.
10. Luz MT. Op cit. p. 72.
11. Feyerabend PK. Contra o método. Rio de Janeiro: Francisco Alves; 1989.
12. Luz MT. Op cit. p. 71.
13. Luz MT. Op cit. p. 84.
14. Luz MT. Op cit. p. 85.
15. Luz MT. Op cit. p. 94.
16. Luz MT. Op cit. p. 97.
17. Luz MT. Op cit. p. 98.
18. Eagleton T. A ideologia da estética. Rio de Janeiro: Zahar; 1993.
19. Haraway D. Simians, cyborgs, and women: the reinvention of nature. New York: Routledge; 1991.
20. Luz MT. Op cit. p. 168.
21. Siqueira-Batista R, Gomes AP, Albuquerque VS, Cavalcanti FOL, Cotta RMM. Educação e competências para o SUS: é possível pensar alternativas à(s) lógica(s) do capitalismo tardio? Ciênc Saúde Coletiva [Internet]. 2013 [acesso 12 jan 2021];18(1):150-70. DOI: 10.1590/S1413-81232013000100017
22. Siqueira-Batista R. Conhecimento e saúde: entre ciência e arte. In: Rego S, Palácios M. Comitês de ética em pesquisa: teoria e prática. Rio de Janeiro: Editora Fiocruz; 2012. p. 53-70.

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Authors' contribution

The authors have equally collaborated to write the text.

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