Endogenous Knowledge and So-called "Scientific" Knowledge in the Context of Covid-19

From Epistemological Fracture to Knowledge Reconnection

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In the Western scientific world, endogenous African knowledge is often assimilated with ordinary, common-sense knowledge, and above all to popular and vulgar knowledge. This imaginary is part of the production of the endogenous knowledge/scientific knowledge dichotomy, in which the former, dominated by the latter, finds itself in a relationship of subalternity rooted in racial and cultural prejudices for which colonial ethnology constitutes the epistemological and ideological underpinning. The aim of this paper is to invoke the notion of "epistemological discontinuity" theorized by Gaston Bachelard, Émile Durkheim and Pierre Bourdieu, as another factor in explaining this dichotomy, which has the effect of peripheralizing endogenous knowledge. The turmoils and shudders of the Covid-19, which has turned out to be a total social phenomenon affecting all fields of knowledge and those of the social sciences and humanities in particular, are used as a pretext to revisit and relativize the notion of "epistemological rupture". They are also mobilized to advocate both the reactivation of endogenous African knowledge and its reconnection with so-called "scientific" knowledge in a dialectical totalization that gives it meaning and restores its own functionality and historicity. Our reflexive approach is of a theoretical-epistemological and methodological nature. It is an epistemological reflection, not an empirical one, whose ambition is to provoke a historical, theoretical, methodological and even ideological debate around the issue of endogenous knowledge in its interaction with so-called "learned" knowledge.

Keywords

Endogenous knowledge, scientific knowledge, epistemological fracture, reconnection, Covid-19

Abstract

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Received: May 08, 2023 Accepted: December 21, 2023 ublished: March 20, 2024

Introduction

he mixed reception of the scientific discourse on Covid-19 by African populations is a turning point that will shape the political sociology, socio-history and socio-anthropology of pandemics and epidemics. It will also affect all disciplinary fields, and in particular the argumentative field of thesocial sciences and humanities, because Covid-19 will have taken on the face of a total social phenomenon in the Maussian sense of the term¹. Indeed, the so-called "scientific" discourse on the materiality of the pandemic (and hence its existence), on its management (barrier measures, social distancing, wearing masks, hand-washing, etc.), and on vaccines and vaccination, was characterized by a number of uncertainties. These uncertainties, combined with procrastination, trial and error, prevarication and contradictions, have sealed and publicly signed off its limitations, and aroused public resistance on a global scale. The ultimate stage in this questioning of the scientific discourse on Covid-19 has taken the form of resistance to vaccination and the vaccine and, in fact, a refusal to legitimize the vaccine invented by Western pharmaceutical industries to eradicate the pandemic.

Taking the form of a genuine protest against the social-health system, this resistance to vaccination reflects the malaise that exists between the population and those involved in health care, between the population and medical power, between the population and intellectual power, between the population and the neoliberal economic order, and finally between the population and governments. It was precisely to overcome this resistance that governments had to impose vaccines and vaccination, either through authoritarian or subtle measures. As for public policies, whether territorial or sectorial, whether the work of local, international or global public authorities, they have also been marked by contradictions and uncertainties. Faced with a discursive logic that was in a state of flux, and public policies that followed an unreadable trajectory, African populations proposed and even imposed a complementary alternative: a large proportion of these populations turned to traditional knowledge, and in particular traditional medicine, for both disease prevention and treatment.

In this respect, today's social and health challenges are arguing for the reactivation and valorization of endogenous African knowledge. On the one hand, the mobilization of traditional medico-health strategies by many Africans to manage the current pandemic crisis puts the issue of endogenous knowledge back on the agenda. On the other hand, attempts to subalternize this knowledge by proponents of a so-called "modern" science, essentially of Western origin, by neoliberal "globalizers" (Tshibwabwa Kuditshini, 2007) and by African political elites, advocate in favor of this same perspective. Finally, it is useful to build a bridge between the two types of knowledge, in order to draw out their respective comparative advantages. In addition, the project to reactivate endogenous knowledge², which is linked to the pan-Africanist project, is crucial if we are to think critically about Africa's future, because it involves reappropriating the continent's destiny and positioning it on a scale that enables it to grasp global challenges from an African perspective.

To face up to global challenges, Africans³ need to undertake the serious task of decolonizing conventional knowledge, which means, among other things, boosting endogenous African knowledge.

However, there is every reason to believe that there is a gap between the posture of Africa's intellectual and political elites and that of its people. On the one hand, there are elites struggling to break out of the theoretical, epistemological, cognitive and methodological frameworks in which

¹ According to Marcel Mauss, a single fact brings together dimensions that sociological and anthropological analysis tends to separate. The "total" fact, according to this author, is at once economic, political, religious, and so on.

² It's a project that needs to be supported by all actors: political elites, intellectual elites, civil society, artists, writers, etc., but the impetus for this reactivation movement must come first from political decision-makers.

When we talk about Africans, we're referring to people of African origin living on the continent called Africa, both in sub-Saharan Africa and in North Africa, who share the "African" culture. Added to these are people of African origin living on other continents, who form the African diaspora. At the same time, it's important to note that not all Africans are black. But what connects them all is what we might call "African identity", and which is reflected in African culture, in particular.

they have been molded, in order to build new ways of thinking and acting that are innovative and in tune with the social and cultural realities of their societies. On the other hand, we have populations who call on traditional solutions whenever epidemics break out, for example, and who continue to take advantage of remedies derived from endogenous knowledge, although this does not prevent them from continuing to negotiate with Western medicine. African intellectual and political elites, and in particular researchers and elites, need to be encouraged to break out of the epistemological frameworks of thought in which they are embedded. This does not mean abandoning or rejecting, but rather considering alternative and complementary ways of thinking alongside these frameworks of thought and analysis, and in particular endogenous ways of thinking that are currently marginalized.

Moreover, in order to relieve this endogenous knowledge of its position as dominated and marginalized, the working hypothesis on which this paper is based is that it is first important to reexamine the epistemological and methodological tradition established by Gaston Bachelard and Émile Durkheim, a tradition that establishes a break - the famous epistemological break - between ordinary knowledge and scientific knowledge, and subordinates the former to the latter. This critique is crucial insofar as, in the Western scientific imagination, endogenous African knowledge is often equated with "ordinary knowledge", and ultimately with "popular" and "vulgar" knowledge. This imaginary culminates in the construction of the endogenous knowledge/scientific knowledge dichotomy.

Having taken a critical look at the concept of "epistemological rupture", which dissociates scientific knowledge from endogenous knowledge and relegates the latter to the sphere of "non-science", we then take the view that endogenous knowledge is a knowledge system in the same way as so-called "scientific" knowledge, and that it only needs to be reactivated, valorized and energized through research programs funded by African governments. Thirdly, and referring to the previous point, we put forward the idea that there can be no demarcation between endogenous knowledge and so-called "scientific" knowledge, but rather a continuity between the two, a continuity that postulates the imperative need to reconnect the two types of knowledge in an ongoing dialectical totality or totalization that gives each of them their own functionality and historicity.

Finally, the discussion highlights the "battle" to be waged against what we might call the "scientific neoliberalism" promoted by institutions such as the World Health Organization (WHO), the United Nations (UN), the International Monetary Fund (IMF) and the World Bank, which, over and above their official missions, are also involved in the production of knowledge. Some of this knowledge often reinforces the subordinate position of endogenous knowledge. We are putting all these ideas into practice via Covid-19, which constitutes our entry point for this discussion, while trying, as far as possible, to establish a dialogue between traditional and modern medicine, on the one hand, and between the social sciences and humanities and both forms of medicine, on the other.

A Look Back at an Established but Problematic Epistemological Tradition

An epistemological tradition that is certainly Bachelardian in origin calls for an epistemological break to be established between ordinary knowledge, or common sense, and so-called "scientific" knowledge. According to Gaston Bachelard (2004), "the scientific fact is conquered, constructed and observed". This idea is taken up by Bourdieu⁴, Chamboredon and Passeron (2005), and translated into a "hierarchy of epistemological acts" that must be ordered every time scientific work is undertaken. The conquest of scientific fact implies first and foremost a strict break between common sense, i.e. non-science, and scientific knowledge, i.e. science. The notion of the epistemological obstacle developed by Bachelard (2004) provides a good illustration of his thinking in this respect: "When

⁴ For more details on this subject, read other writings by Bourdieu or about Pierre Bourdieu where these notions can be explored in greater depth. These include books such as Les grands sociologues edited by Alain Bruno (2012), Pierre Bourdieu, une introduction written by Pierre Mounier, Lectures de Bourdieu edited by Frédéric Lebaron and Gérard Mauger (2012), as well as Les nouvelles sociologies by Philippe Corcuff (1995), or books published by Bourdieu himself: Le sens pratique (1980), Ce que parler veut dire (1982) or Choses dites (1987).

we look for the psychological conditions of scientific progress," he says, "we soon arrive at the conviction that it is in terms of obstacles that we must present the problem of scientific knowledge" And Bachelard continues:

Science, in its need for completion as in its principle, is absolutely opposed to opinion... Opinion "thinks" badly; it doesn't "think": it "translates" needs into knowledge! By designating objects by their usefulness, it prevents itself from knowing them. Nothing can be founded on opinion: it must first be destroyed. Opinion is the first obstacle to overcome.

In *Le métier de sociologue*, Pierre Bourdieu, Jean-Claude Chamboredon and Jean-Claude Passeron (2005) also highlight the common sense/scientific knowledge dichotomy:

Because their function is to reconcile common consciousness with itself at all costs, by proposing explanations - even contradictory ones - for the same fact, primary opinions on social facts are presented as a falsely systematized collection of judgments for alternative use. These prenotions, "schematic and summary representations formed by practice and for practice", derive their evidence and authority, as Durkheim observes, from the social functions they fulfill.

According to the aforementioned authors and others (Popper, 1985, 1973; Granger, 1991; Bélanger, 1998), scientific knowledge must detach itself from common sense, which is the bearer of opinions, themselves the bearers of false facts, and therefore

step back from the preconceived ideas contained in common sense as much as from its categories of thought. But beyond the idea of disruption or rupture conveyed by these epistemological, theoretical and methodological stances, there is an underlying notion of the hegemony of so-called "scientific" knowledge and its superiority or even supremacy over common sense, the latter being seen as ordinary, vulgar and unimportant knowledge. The benchmark for common sense is therefore scientific knowledge. Indeed, the true meaning of rupture lies in construction, which is an important stage in the three-act epistemological hierarchy. The construction of a scientific fact involves problematizing, and therefore theorizing, and setting up an operating framework that consists in "reconsidering the phenomenon studied from the perspective of social science categories of thought" (Campenhoudt & Quivy, 2011). The aim of reconsidering phenomena from the angle defined by theoretical concepts is therefore to get rid of the "prenotions" that are the schematic, summary representations of "vulgar knowledge" (Durkheim, 1967).

As important as this rule of method developed by Durkheim is, and as useful as the repertoires that, following Bachelard and Durkheim, establish the difference between science and non-science are, the fact remains that they both raise several epistemological and methodological problems. The first is that they establish a strict break between common-sense preconceptions and so-called "scientific" knowledge, and regard common sense as an epistemological obstacle to knowledge in the social and natural sciences. Secondly, and this is the second problem, when placed in comparative perspective with so-called "endogenous knowledge", they have the effect of relegating this endogenous knowledge to the sphere of mere pre-notions, mere vulgar knowledge that needs to be "reconstructed" or "reconsidered" on the basis of categories of thought and theoretical concepts developed in the North and often imported and applied in the South, even though most of these theories are often part of a process of "knowledge colonization".

Epistemological Fracture, Methodological Fracture and the Dual Hermeneutics of the Social Sciences

The overly rigid distinction between common sense and scientific knowledge has been challenged by thinkers such as Paul Feyerabend (1979), Anthony Giddens (1984) and Jürgen Habermas (1976). Unable to legitimize this dichotomy, which has the effect of unjustly disqualifying ordinary knowledge, Anthony Giddens believes that, in the process of analyzing realities relating to the social sciences and humanities, both the researcher's interpretations and the subjects' interpretations must be taken into account. This is what he calls the "double hermeneutics of the social sciences".

The double hermeneutic thesis insists first and foremost on the researcher's interpretations of subjects' behavior. But as subjects are reflexive beings, there are also the interpretations they make of the situations they experience: interpretations that condition their own actions and, through them, social systems.

These two types of interpretation, he says, are not mutually exclusive. There exists between the social scientist and the subject a "reciprocity of interpretations, a double hermeneutic". On the one hand, the theories and "discoveries" of social scientists cannot be kept outside the universe of meanings and actions of those who are their subject. On the other hand, those actors who are part of the objects of social science are also social theorists, and their theories contribute to the constitution of the activities and institutions that are the objects of study for social scientists. There is no clear dividing line between "ordinary" actors and specialists when it comes to documented sociological reasoning (Giddens, 1984, p. 43; see also Nizet, 2007).

By integrating "ordinary actors" and "ordinary knowledge" into the scientific process, Anthony Giddens rehabilitates common sense and its prenotions, disqualified in the Bachelardian and Durkheimian epistemological traditions. At the same time, he reconnects the two types of knowledge: scholarly knowledge and ordinary knowledge. Far from separating the two spheres, Anthony Giddens places them in interaction, and establishes the complementarity that is supposed to exist between so-called "learned" and "vulgar" or "ordinary" discourses. He thus rehabilitates the speech of ordinary actors, often stifled by so-called "scientific" actors, the only ones for whom the notion of epistemological rupture reserves reflexive power. This observation also emanates from Jean-Pierre Olivier de Sardan (2008, 1995), who notes that, broadly, the notion of "rupture" does a poor job of accounting for the complex relationships between common sense and scholarly sense. In fact, he says, "the fundamental linguistic and cognitive tools of both are identical". Indeed, Harold Garfinkel's research in ethnomethodology has contributed to the rehabilitation of the role of ordinary knowledge and practical reasoning in the social sciences. Ethnomethodology is characterized by the rejection of the epistemological cut-off; the rejection of a radical demarcation between science and common sense; the idea that the knowledge produced by the researcher unfolds in the same ontological field as other social practices, and therefore that the interpretation and practice of research are not external to the phenomenon (Garfinkel, 2007).

The notion of "methodological fracture" lies between that of epistemological rupture and the dual hermeneutics of the social sciences. Proponents of the methodological rupture thesis believe that it is more appropriate to use the term "demarcation" than "rupture". Admitting that there is continuity between common sense and scholarly sense (an idea close to the double hermeneutic), they nevertheless disqualify common sense as knowledge that cannot be constructed using a methodological approach, thus falling back on the logic of epistemological rupture. In their view, therefore, there is a methodological rupture between common sense and scholarly sense, not an epistemological one. From this perspective, it appears that common sense, because it lacks a methodological posture, because it is not "methodologized" as it were, is a form of non-knowledge. Ultimately, then, it constitutes a form of inferior knowledge that is destined to be transformed into scientific knowledge, and thus to disappear to make way for the only scientific knowledge that is "methodologized" or "methodologizable5". In this respect, then, ordinary knowledge either remains non-knowledge or knowledge of inferior rank, or it mutates and ends its mutational journey in scientific knowledge, with which it must then become one after it has simply disappeared.

⁵ It can be constructed according to the methodological rules that govern the movement of knowledge, and by means of scientific rationality.

Endogenous Knowledge: Outdated, Provisional, Scrappy, Ordinary, Popular or Vulgar?

Endogenous knowledge is not to be confused with ordinary knowledge or what is usually referred to as "common sense". For us, endogenous knowledge is a genuine knowledge system, a body of knowledge worthy of investigation and frequentation, and worthy of funding by African public authorities in the same way as knowledge inherited from colonization. This is what Paulin Hountondji (quoted by Goudjinou Metinhoue, 1994, p. 38) calls "ethnoscience", which he defines as "the study of bodies of knowledge, the study of traditional knowledge transmitted from generation to generation". Endogenous knowledge, in a given cultural configuration, he says, is "knowledge experienced by the society as an integral part of its heritage, as opposed to exogenous knowledge, which is perceived as elements of another value system". According to Hountondji (1994, p. 15), the term alludes to the origin of the knowledge in question, designating it as "internal products drawn from one's own cultural heritage, as opposed to exogenous knowledge imported from elsewhere". In the context of countries that have been colonized by the West, in this case African countries, exogenous knowledge is therefore knowledge imported from the West, i.e. so-called "scientific" knowledge. Placed in dichotomous perspectives, this so-called "scientific" knowledge has the particularity of setting themselves up against both ordinary knowledge (vulgar or common sense) and endogenous knowledge, which they equate with vulgar knowledge. On the other hand, the notion of ordinary knowledge refers to that of vulgar knowledge, common sense, profane knowledge, popular knowledge or non-knowledge, which we have discussed at length above.

If we focus our analysis on the fact that we need to establish an epistemological break between common sense and scholarly sense, endogenous knowledge appears, by virtue of the "position" it occupies vis-à-vis so-called "scientific" knowledge, as outdated knowledge, In other words, as knowledge that has been useful for a while but has become obsolete, or as provisional knowledge that is waiting to be stripped of its "gangue" to regain a certain "cleanliness" and legitimacy. Above all, in our countries, endogenous knowledge appears to be ordinary, vulgar, popular knowledge that comes under the heading of common sense, and which must be detached from the scholarly sense that overhangs and dominates it. More specifically, we need to recognize that teaching and research are dominated by so-called "scientific" knowledge, which is in reality knowledge produced elsewhere, and which weakens the argumentative field of endogenous knowledge. We have to go back to the colonial period to understand the less than stellar place occupied by endogenous knowledge in the current architecture and constellation of knowledge⁶. Valentin-Yves Mudimbe (2021) has highlighted the role played by the "colonial library" in the constitution of so-called "learned knowledge", which favored the colonization of African populations and contributed to the decline of endogenous knowledge. Criticizing the colonial ethnology that made this devaluation of traditional knowledge possible, Mudimbe (1973) notes that:

Ethnology developed a globalizing discourse which, despite its scientific bias, was dependent on or, at the very least, related to interests, tastes, prejudices and a priori foreign to the object under study... These productions were, as they still are today, dependent on a certain conception of science, itself a function of a more general system, rigorous in its internal logic, ordered and supported by precise representations and concepts, historically anchored in the history of Western society and thought.

Even if ethnology, in the form decried by Mudimbe, has been called into question, it is worth noting that certain forms of knowledge, notably Eurocentric Africanism (Obenga, 2008), continue to perpetuate this tradition and maintain the idea of a certain cultural superiority of the West over African societies and cultures, with Africanism fully in line with France's neo-colonial project in

⁶ The writings of authors such as Hegel *La raison dans l'histoire* (1965) and Lévy-Bruhl *La mentalité primitive* (1922) are examples of a literature that fed the pseudoscience of that era, which other eminent researchers (Fanon, 2002; Said, 1980; Mbembe, 2010, 2013; Ndiaye, 2008) have in one way or another challenged.

⁷ According to Mudimbe, the colonial library consists of all the representations and texts that have collectively "invented" Africa as the place par excellence of difference and otherness.

Africa⁸ (Gondola, 2007). The idea of the alleged cultural superiority of the West over other societies leads to what Rajeev Bhargaba (quoted in Sarr, 2022, p. 69) calls "epistemic injustice". According to Bhargaba, epistemic injustice occurs when the concepts and categories by which a people understand itself and its world are replaced by the concepts and categories of the colonizers. This process of replacing the concepts and theories of colonized peoples has been accompanied by a denigration of the values of African societies and their knowledge. This process of sabotaging and destroying the cultural and epistemic frameworks of colonized peoples was carried out through the knowledge produced by the colonizers and recorded in the social sciences⁹.

Even today, the objects of study, the methods and intellectual standards of research, and the teaching of universities and research institutes located in the North reflect their own experience and social position, but because of the global hegemony they exercise, social science research and teaching in all other parts of the world are strongly affected by current ideas, methods and practices in the North (Beigel et al., 2017; Ouédraogo & Hendricks, 2015). In this context, which is also marked by globalization, it's not surprising that traditional knowledge finds itself on the margins and passes for vulgar knowledge that can't be frequented, not likely to feature in the curricula of our universities. As Paulin Hountondji (1994) so aptly notes:

The integration of the Third World into the global knowledge production process leads, among other tangible effects, to the marginalization of ancient knowledge and knowhow, their progressive erosion, their impoverishment, and even, in the worst cases, their outright disappearance, their repression from the conscious memory of peoples.

Echoing Paulin Hountondji's thoughts, Dipesh Chakrabarty (2009) notes that Europe's colonial domination of South Asia has had the effect of transforming Sanskrit, Persian and Arabic intellectual traditions, once unbroken and very much alive, into "mere objects of research for most, if not all, modern historians of the region, who now treat these traditions as truly dead, as ancient history".

It's therefore easy to explain the lack of interest shown in traditional medicine by the political and intellectual elites of the former colonies, and in this case the African elites, and their preference for so-called "modern" medicine, for example. The social dynamic in Africa today clearly shows that millions of Africans have rejected the Covid-19 vaccine manufactured in Western laboratories. They are questioning the legitimacy of so-called "scientific" medical knowledge, and are turning to traditional medico-health knowledge, which they have validated and elevated to the status of acceptable knowledge. However, the WHO and its experts are constantly trying to attribute Africa's low vaccination rates to insufficient vaccine stocks and other far-fetched factors, even though the governments of some African countries have burned unused stocks of expired vaccines¹¹. What's more, certain African heads of state and personalities who have taken the initiative to promote ideas and projects linked to the valorization of traditional medical knowledge have quickly been

⁸ Charles Didier Gondola shows how this "infused science", in his words (in this case, Africanism), far from benefiting Africa, has on the contrary been working, since its inception, to perpetuate French hegemony in Africa by nurturing a pseudo-intellectual Afro-pessimistic climate conducive to the deployment of France's paternalistic policy in Africa (2007, p. 40).

Let's not forget the role played by colonial ethnology, a science carried out by Western scholars whose theoretical statements on Africa were mind-boggling: African societies were societies without history, societies devoid of political organization, and so on. It's important to stress that colonization was not just an economic enterprise, but also one of cultural domination. With this in mind, the colonizers set about denigrating the values of the colonized peoples, including their knowledge production systems. In the case of Africa, this denigration was also linked to skin color. Paul Broca painted a grim picture of the intellectual inferiority of Blacks: "Prognathism, more or less black skin color, woolly hair and intellectual inferiority are frequently associated, whereas more or less white skin, smooth hair and an orthognathic face are the ordinary prerogative of the most elevated peoples in the human series." (Read Paul Broca quoted in William [1981]).

¹⁰ It goes without saying that the concepts, theories, paradigms and methods taught in most universities around the world are imported from the West and Western universities. The decolonization of the so-called "conventional" social sciences and humanities is part of this agenda.

¹¹ According to the WHO's Covid-19 vaccination bulletin as of June 30, 2022, expired doses have been reported in 32 out of 46 countries. These include Algeria, Namibia, Democratic Republic of Congo (DRC), Nigeria, Congo, Cameroon, Gambia, Niger, Guinea and Mozambique. According to the report, Madagascar (20.1%), Algeria (18.8%) and Senegal (18.1%) recorded the highest percentage of expired doses in relation to doses received.

discredited and discouraged by other Africans¹². And yet, there is every reason to believe that these initiatives should first have been encouraged and placed on an intellectual and scientific agenda, and thus made into a continental public issue whose appropriation by the African Union, as a moral authority, might perhaps have made it possible to move the lines and change the paradigm.

This lack of interest in what is first and foremost African, what is first and foremost rooted in African culture and concerns the interests of Africa by Africans and for Africans, is also underlined by Jean-Marc Ela (1994). The latter alludes to Africans' neglect of what is usually referred to as "African studies". These studies were born during the colonial period and developed in Europe and America, undoubtedly contributing to the advancement of knowledge about Africa. But it should be noted, says this author, that:

These studies have tended to be confined to foreign countries, whereas they remain embryonic in Africa. At national universities, we don't always find centers and institutes specializing in knowledge of Africa, as is only to be expected in Leiden or Boston. We wonder, he says, whether African universities are taking on the task of promoting studies on the realities of African territories. How can we admit that we are abandoning this task to others in a context where, all too often, studies developed outside Africa are part of strategies that escape us?

Reactivating Endogenous Knowledge and Promoting Intellectual Pluralism

However, a movement to challenge dominant knowledge and legitimize other forms of knowledge has been underway in recent years. Fernanda Beigel, Jean-Bernard Ouédraogo and Raewyn-Connell (2017) draw attention to the "great epistemic diversity now brewing beneath the hegemonic surface and staging the need to build knowledge out of epistemological fractures". The coronavirus crisis shows that the question of articulating endogenous knowledge in general, and rehabilitating endogenous medicine in particular, is a vital one. Clearly, revalorizing endogenous knowledge presupposes, firstly, questioning the epistemological rupture, some aspects of which we have analyzed above; secondly, recognizing the interaction that exists between this knowledge and other forms of knowledge; and thirdly, rediscovering the lost traditional foundations contained in this knowledge. The legitimization of this knowledge is part of the process of restoring cognitive justice (Piron et al., 2016; see also Shivji, 2023; Touré, 2023; Tshibwabwa Kuditshini, 2023). However, it is not a question of interrogating these ancestral knowledge and know-how in an accidental and ad hoc manner, following failures or inadequacies of the dominant system:

This commitment to rationality calls for a completely different attitude, a completely different relationship to "traditional" knowledge than that which prevails today. It calls for the implementation, in the various disciplines, of new methodologies capable of testing, assessing and, in the final analysis, discarding or validating traditional knowledge in varying proportions, thus integrating it critically and with all the necessary discernment, into the movement of lively research (Hountondji, 1994).

In this study, we started from the general hypothesis of questioning the notion of an epistemological break between common sense or ordinary knowledge and scholarly sense or scientific knowledge. We then showed that endogenous knowledge is often treated in such a way as to be assimilated to ordinary knowledge, common sense, mere opinions, prenotions and prejudices. In this respect, the tendency has been to establish an epistemological break between endogenous knowledge and so-

¹² In April 2020, the President of the Republic of Madagascar, Andry Rajoelina, who provided institutional support for the Artemisia-based herbal tea (Covid-Organics), declared in an official speech: "Today, we can affirm that we have good results with this potion. It is our bulletproof vest in this war against the coronavirus. We can change the history of the whole world. The WHO was quick to discredit the product. The African Union was very timid in its approach to the issue, and did not seem to support the Malagasy president's approach. Certain countries, such as Congo-Brazzaville, South Africa, Equatorial Guinea, Benin, Guinea-Bissau, Tanzania and Sierra Leone, paid close attention to the product, but in general, the political and intellectual elites did not seem to give any credence to this remedy, most probably because it belonged to traditional modicine.

called "scientific" knowledge, which in fact implies that endogenous knowledge does not have the status of scientific knowledge, but that of simple ordinary knowledge as found in every individual, every community, every society. However, as pointed out above, we must not confuse endogenous knowledge with common sense or ordinary knowledge. Everyone possesses ordinary knowledge that enables them to organize their daily activities - knowledge that is, moreover, the subject of Harold Garfinkel's ethnomethodological research (2007). But not everyone has endogenous knowledge, and therefore endogenous science. This is particularly true of traditional medicine. Traditional doctors, whom we have taken to calling "traditional practitioners" precisely to mark and establish a break between them and university-trained doctors (whereas what is required is a spirit of collaboration between them), are technicians of traditional medical knowledge, the acquisition of which requires training, learning and initiation¹³.

Our mind and consciousness have been so "colonized" and "washed" by foreign categories of thought that we've even come to forget that such medicine has existed since time immemorial, i.e. even before colonization and the introduction of Western medicine into Africa. More extensively and regrettably, we come to forget that political life existed in Africa before the colonial period; that parliaments, governments, provinces, civil servants, governors, etc., and states (empires and kingdoms) maintaining diplomatic relations, existed before European penetration of the continent. We hardly need to remind you that wars for the conquest of land and natural resources, and thus geopolitical conflicts, also punctuated the rhythm of pre-colonial African history. It's easy to forget that great warriors, steeped in military strategy and tactics, did not only exist in Europe, but also in pre-colonial Africa. It's easy to lose sight of the fact that pre-colonial African women were just as much agents of historicity as men, like the exceptional Congolese woman Kimpa Vita, whose resistance against the Portuguese in the pre-colonial period was part of the quest for democracy and "Kongolese" nationalism (Tshibwabwa Kuditshini, 2011).

Learning from Traditional Medicine in Times of Pandemic Crisis

Traditional African medicine has something to teach us, and the current social dynamics at work highlight the lessons that Africa's political and intellectual elites need to draw from the virtues of traditional medical treatments as seen through the positive effects they have exerted on the African populations who use them. In fact, it has now been established that African populations have resisted vaccination, given the low vaccination coverage observed in Africa. According to WHO (2022), as of June 30, 2022, 252 million people had received at least one dose of Covid-19 vaccine, representing 22.7% of the population in the African region (20.1% at end-May 2022), while 197 million people had received the required number of doses of vaccine in the primary vaccination series (fully vaccinated people), representing 17.7% of the target population in the African region (15.1% at end-May 2022). Globally, 61% of the population was fully vaccinated by June 30, 2022. Until that date, continues the WHO report, only two countries had fully vaccinated more than 70% of their population: Mauritius (76.9%) and Seychelles (82.1%). The WHO bulletin also reports on out-of-date vaccine doses. The cumulative number of expired doses rose from 9,695,058 at the end of May 2022 to 17,797,294 at the end of June 2022 (an increase of 84%). Madagascar (20.1%), Algeria (18.8%) and Senegal (18.1%) recorded the highest percentage of expired doses in relation to doses received.

As can be seen, these data reflect the low Covid-19 vaccination coverage in Africa. The least we can say is that, if we take into account the fact that some people have resorted to this vaccine against their will, all the more so because they were forced to do so in one way or another, it is clear that the total percentage of the African population who have agreed to be freely vaccinated should

¹³ Indeed, traditional knowledge is passed down from generation to generation in a variety of fields. Examples include ethnozoology, which Paulin Hountondji defines as the study of traditional knowledge about animals, ethnobotany, which studies traditional ideas about plants, and ethnomineralogy, which studies traditional ideas about minerals. Mastering ethnotechnological or ethnomedical knowledge requires initiation and learning.

normally be revised downwards. It's paradoxical to cite insufficient vaccine stocks as the reason for this low vaccination coverage, given that the number of expired doses at the end of June 2022 stood at $17,797,294^{14}$.

Furthermore, according to data from John Hopkins University in Boston, Africa had recorded 254,661 deaths by June 20, 2022, out of an estimated total of 11,979,753 cases. Cross-immunity¹⁵, the climatic factor and the youth of the African population are often cited to explain the low rates of infection and death. Of course, most of these hypotheses remain unproven.

And yet, the scholarly literature makes no mention of the preventive measures adopted by African populations as soon as the arrival of Covid-19 on the continent was announced, and even before it occurred, measures which also largely explain the low contamination rates. Indeed, when the coronavirus arrived on African soil, the population's first reflex was to rush to the remedies offered by traditional medicine. Africans didn't wait for some vaccine to come from somewhere to deliver them from the pandemic, men and women took the initiative to turn to pharmacists and traditional doctors. They haven't waited for the initiative to come from the WHO, public authorities or the socalled "modern" medical establishment to find African solutions, notably through ancestral medical knowledge. Plants such as lumba-lumba, kongo bololo, neem, Artemisia, ndolé, tsitsitsimba, sinki, clove, ginger, thyme, white wormwood, mint, verbena, cinnamon, eucalyptus, etc. were used by traditional practitioners and offered to the public. According to the latter, they have the power to cure patients suffering from Covid-19, or to be used as preventive medicines, because they have always been used to treat illnesses whose symptoms are similar to those of Covid-19. This is a working hypothesis, or rather a research hypothesis, derived from an expertise that draws on endogenous medical knowledge, and which must be taken into consideration in the same way as a hypothesis formulated by practitioners of so-called "modern" biomedicine.

There's no reason to think that Western medical knowledge resources are the ones that are safe and drinkable, and that knowledge rooted in African culture is low-level knowledge. The idea of a link between the use of traditional medicine and low rates of infection and death in Africa should be taken seriously. We believe that this direction should be explored and exploited because, although our research is not empirical, this presumption is formulated on the basis of empirical observation, i.e. on the basis of a finding made on several people who revealed, during our exploratory interviews, that they had been relieved after inhaling the steam released by medicinal plants for three days, even though they had been diagnosed as positive for the coronavirus. Others reported that they had used medicinal plants to prevent contamination, following the advice of their traditional healers.

Another reason for this conjecture is the vagueness that continues to surround the figures put forward by the various institutions providing statistics on the evolution of cases and deaths due to Covid-19. Indeed, if, as the data from John-Hopkins University attest, Africa has recorded 11,979,753 cases of people contaminated by Covid-19 as of June 20, 2022, this means that most of these people have been cured, or are in the process of being cured, because the number of people who have died is already known at that date, i.e. 254,661 people. Questions: can we be sure that these millions of people who have recovered or will recover their health were all interned in hospitals and treated using modern medicine on a continent that lacks health infrastructures? Given the mistrust that African populations have shown towards modern medicine, which has proved powerless in the face of tens of thousands of people dying in official hospitals in Europe and the USA, is it not reasonable to believe that most of those infected in Africa have found refuge in traditional medicine? How could they have continued to have complete confidence in official hospitals, which had ultimately become dangerous places where hospitalization meant possible death rather than possible recovery?

Unless we take Africans for "cultural idiots¹⁶" devoid of any reflexive powers, it would be unwise to admit that traditional African medicine has not played a major role in saving the day in the wake of the current pandemic crisis. In the Democratic Republic of Congo (DRC), for example, persistent rumors of dubious practices involving deaths caused by doctors in order to swell the ranks of

¹⁴ See the above-mentioned WHO bulletin.

¹⁵ In immunology, cross-immunity occurs when an antibody specific to an antigen, i.e. a protein specific to one pathogen, is also effective against another pathogen with a closely related antigen.

¹⁶ Term borrowed from Patricia Paperman (2006).

Covid-19 deaths - with the aim of capturing artificial rents from the various aid packages provided by donors - have been making the rounds on social networks, creating a psychosis that has led people to distrust institutional health structures. In any case, it should be made clear here that not all Covid-19 sufferers were under the medical care of official health structures. This also means, in other words, that all official statistics relating to cases of contaminated people are erroneous because they are incomplete. The level of contamination was underestimated due to a number of factors related to the population's attitude towards the pandemic¹⁷.

In the DRC and in Kinshasa in particular, four scenarios were observed during our exploratory surveys. The first scenario deals with patients who had tested positive for Covid-19 and who were actually being cared for by state structures. These were patients who displayed no hostile attitude towards modern medicine. Some of them had died. These were the data used to draw up the official statistics. The second scenario involved people whose disease was so serious as to require medical care, but who were reluctant to go to hospital. These people were offered products prescribed by doctors to be taken at home, and were forbidden any physical contact with other family members or their immediate entourage; they were therefore quarantined but not hospitalized. Their data was also partly used to compile statistics, but it is possible that they contaminated other people in their immediate environment because the observance of barrier measures was not rigorous. These contaminations may have gone unnoticed, thus escaping the control of health authorities and not contributing to official statistics. In addition, most of these patients who were not hospitalized were, as a result of various influences, forced to combine products prescribed by doctors with those from traditional medicine.

The third scenario is about patients who, having tested positive, turned to traditional medicine. In fact, although the official standard laid down by the authorities was for Covid-19 patients to be immediately admitted to appropriate health facilities, the practice observed in the field was such that many people who tested positive chose to deviate from this standard and stay at home to undergo traditional treatment. Although many doctors followed official standards and respected the protocol set by the government, this was without counting on the determination of certain patients who did not intend to follow this protocol and distrusted modern medicine. It should also be pointed out that some patients, although hospitalized, had traditional products brought to their bedside, unbeknownst to health professionals who could not control their patients' every move 24 hours a day. Traditional products could reach these patients via family members who acted as "patient guards".

Finally, and this is the last scenario, we must mention those people who, based on certain suspected symptoms, hinted that they might be contaminated; but did not want to go to hospital to be tested, preferring to turn directly to the consumption of medicinal plants supposed to have curative or preventive virtues. These people do not appear in official statistics, and therefore in biomedical analyses. In the same vein, we need to mention the situation of certain people who, having tested positive, managed to have their cases treated anonymously, certainly in exchange for a few arrangements with health professionals, because patients suffering from Covid-19, at least during the first few months of the pathology's onset, were stigmatized and almost assimilated to those carrying HIV. It is largely this same reason that explains the determination of many potentially infected people to keep out of the sight of official state bodies by boycotting hospitals and tests.

The findings of a study carried out by a team of Congolese, German, Japanese and French scientists (Delaporte & Nkuba, 2021), between October 22 and November 8, 2020, support the results of our exploratory research. They show that "the disease has circulated, but without any increase in severe forms", notes Antoine Nkuba, one of the members of this research team. According to Éric Delaporte, another member of the team, there are several possible explanations for these low morbidity and mortality rates. One is demographics. The population is younger than in Europe," he says. Yet young people are the ones least affected by severe forms of Covid-19. He also points to a more developed

¹⁷ This means that there have either been fewer cases of contamination in Africa than in Europe or the USA, thanks to the use of traditional medicine, or that there have been several cases of contamination which have escaped the notice of the health authorities, but which have not led to serious forms of the disease because they have been attenuated by the effectiveness of the traditional plants consumed by millions of Africans as part of the preventive measures put in place.

immunity. Finally, climatic conditions, particularly the heat, could also have contained the spread of the virus. In fact, the results of this survey show two essential points that partly overlap with our research data: firstly, the level of contamination was very high, contrary to official statistics, which means that several cases of contamination escaped the official health circuits embodied by modern medicine; secondly, despite this high level of contamination, the mortality rate remained low, which can be explained by the still hypothetical factors brought to light by the members of this team, but also and above all by preventive measures adopted by a large part of the population through the consumption of medicinal plants. However, the reader will note that preventive treatment using traditional medicine does not appear as a working hypothesis in the conclusions of this team of scientists.

So, where biomedicine could have collaborated with the holders of traditional medical knowledge to consider the possibility of carrying out large-scale research with a view to inventing an African remedy capable of curing the disease, all we saw was a split between the two types of medical knowledge: on the one hand, doctors confined to their bubble, cogitating on solutions to eradicate the crisis with a vaccine that was to come from elsewhere, and for which Africans were to serve as guinea pigs18 to test its efficiency, according to the proposal put forward by these two French professors; on the other hand, traditional doctors invested in research into plants supposed to have preventive and curative virtues, of course also evolving solo. Lacking the pharmaceutical industrial capacities of the Western powers, Africa's political and intellectual elites should have first exploited and explored the path within their reach, that of the innumerable medicinal plants that populate our rich forests, and tested, through rigorous scientific procedures - within the framework of collaboration between modern and traditional medicine - those that are likely to have curative or preventive effects. Hence the importance of reconstructing the knowledge landscape in African countries if we are to succeed in the challenge of reactivating endogenous knowledge. According to Felwine Sarr (2022), this reconstruction of knowledge requires us to "rethink the plurality of the journeys of human thought, starting from the idea of the equality in principle of different traditions of thought or discursive practices, while recognizing their incommensurability".

Conclusion: Endogenous knowledge and the pitfalls of "scientific neoliberalism"

The ambition to reconnect endogenous knowledge with so-called "scientific" knowledge, by questioning the Durkheimian or Bachelardian epistemological rupture, nevertheless comes up against a number of other difficulties that resurrect this rupture in a different way. One of the obstacles to this reconnection is neoliberalism. We know the role played by institutions such as the IMF, the World Bank, the UN, the WHO, etc. in consolidating the neoliberal order. These multilateral institutions, often instrumentalized by the major powers, are the channels through which neoliberal actors pass in order to achieve the agenda of Western domination of African societies. The ideology of development is merely a pretext for masking the real objectives pursued by the North through these institutions. As Lwazi S. Lushaba (2009) attests, the real objectives are to keep African societies in a state of neo-colonialism. According to him, "contemporary development, in theory and in practice, is a continuation of the Enlightenment project, which uses the Western idea of 'modernity' to promote the exploitation and oppression of Africa by the West".

It has even been established today that these institutions, in addition to the official missions they are recognized for or have granted themselves, have become veritable structures for the production of scientific knowledge. Neoliberalism has thus invaded all sectors of life, and the field of science is no exception to its authoritarian grip. The knowledge produced by these institutions not only serves neoliberalism, but is also used to shape the equally neoliberal public policies imposed on the countries of the South. At a conference organized by the United Nations Institute for Social Change

¹⁸ Allusion can be made here to Jean-Paul Mira, head of the intensive care unit at Cochin Hospital in Paris, and Camille Locht, who, speaking on the French television channel LCI in 2020, raised the idea of Covid-19 screening tests being carried out in Africa, where there are fewer masks and the population would therefore be more exposed.

(UNRISD, 2004) on the theme of "social knowledge and international policy-making", Adebayo Olukoshi pointed out that "in general, the UN's actions tend to reproduce the asymmetrical structure of scientific power, which is tilted in favor of the North"

It is important not to underestimate the impact of the knowledge produced by these institutions, as it consolidates their leadership and increases their power. This knowledge also perpetuates inequalities between North and South, reinforces the hegemonic position of so-called "scientific" knowledge and thus marginalizes endogenous knowledge. Given that these institutions serve as transmission belts for ideas and points of view from outside and hardly exploit African research at all, as Olukoshi writes, they also contribute to the peripheralization of endogenous knowledge and the construction of the hegemony of dominant knowledge, while consolidating the effects of the epistemological rupture. From this perspective, the battle against the epistemological rupture, with its counterpart, the rupture between endogenous knowledge and so-called "scientific" knowledge, and therefore the battle for the reconnection of these two forms of knowledge, is not just an epistemological battle. It goes beyond the strictly scientific framework, and must also be waged in the political, geopolitical and economic spheres, insofar as science, and especially imperial science, sometimes fulfills non-scientific functions. It is often at the service of states, governments, parties, lobbies of all kinds, ruling classes and moneyed powers who have an interest in using it to establish their hegemony, which means they have an interest in avoiding intellectual pluralism to ensure the maintenance of a monoculture of knowledge that excludes other forms of knowledge, through, among other things, the epistemological rupture as analyzed in this paper.

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