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SCIENCE, SUSTAINABLE DEVELOPMENT, AND PEACE IN AFRICA: MILESTONES FOR DECONSTRUCTING MINDSETS

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ABSTRACT

Banalization has, among other functions, to remove concepts from critical interrogation (Popper, 1981), and this is precisely what we witness when addressing issues related to science, sustainable development, and peace in the African context. Based on an exploratory conceptual analysis (Russell, 2008), this paper aims to highlight the various representations of the concepts of science, development, and peace currently in use on the African continent and proposes a deconstruction of current mentalities. The results reveal an unequal appropriation of these concepts by the relevant African actors, which renders ineffective the mechanisms put in place to meet the challenges of sustainable development and peace in Africa. This paper therefore suggests a paradigm shift (Juignet, 2025) towards a contextual understanding of the links between science, sustainable development, and peace.

Keywords: Africa, Deconstruction, Development, Mentality, Peace, Science.

1 INTRODUCTION

Any reflection on the issue of meeting the existential needs of Africans begins with a fundamental imperative: the duty incumbent upon all Africans to work towards the production of knowledge—specifically science, development, and peace. How do Africans perceive these concepts in their daily lives? Clearly, one effect of trivializing such concepts is to remove them from philosophical inquiry; this is precisely what we are witnessing today across much of the African continent regarding science, development, and peace. Indeed, faced daily—and with particular historical urgency—with challenges related to scientific research, development, and the promotion of peace, Africans struggle to formulate

adequate solutions to their existential problems. This is a fact, and one we must unfortunately acknowledge! The order of things calls for and establishes the order of truths. Beyond the socio-economic, conflict-ridden, and geopolitical upheavals observed in Africa, a new awareness is emerging—one that seeks to incorporate an anthropological perspective into the discourse on knowledge production, development, and peace on the continent. What, then, can be done to formulate adequate and appropriate solutions to the challenges surrounding science, development, and peace in Africa? This article proposes an approach that integrates the anthropological dimension—focusing on the interplay between science, development, and peace—with a central emphasis on deconstructing the current mindsets that Africans have formalized into a system. Upon analysis, it is indeed impossible—or even ill-advised—to undertake any development policy or peace initiative without centering on the human element and, consequently, taking into account people's mindsets. In this context, fundamental questions arise, one of which might be phrased as follows: do Africans possess a sufficiently clear understanding of the concepts of science, development, and peace? This question prompts another: can it be said that the mindsets currently observed across the African continent effectively contribute to the generation of knowledge, to development, and to a culture of peace? These inquiries invite reflection on the structural and operational relationships between science, development, and peace in Africa. The challenge for us—or rather, the objective of this approach—is to open up future possibilities through a critical analysis of the prevailing ideas regarding science, development, and peace in Africa. This critical exploration will help identify the endogenous and exogenous factors capable of giving meaning to an education grounded in a culture of science, development, and peace on the continent.

2 KNOWLEDGE PRODUCTION IN AFRICA: MYTH OR REALITY?

In Africa, knowledge production takes place—on the one hand—primarily within universities and research centers regarding so-called modern science, and—on the other—within traditional, endogenous settings. Should we, in fact, speak of a universal body of knowledge accepted and recognized by all as such, or rather of forms of knowledge that assert themselves within specific cultural contexts? In philosophy—with due regard for nuance—relativism has, from antiquity to the present day, raised a fundamental question regarding the meaning and scope of knowledge. Clearly, knowledge production cannot occur in isolation from human rationality and logic. To meet human existential needs, every culture develops mechanisms for generating knowledge in which the significant influence of identity-based stances and claims justifies the legacy passed on to posterity.

Does there exist, then, within this context, a universal knowledge that holds true across all times and places? In reality, philosophical theories as a whole have sparked debate on relativism and enabled an analysis of the historical trajectory of the knowledge-production mechanisms characteristic of each culture. Indeed, the endogenous African knowledge base—which constitutes the very essence of how existential issues relevant to the African context are framed—calls for a rethinking of the prevailing models of representation on the continent. The educational systems established in Africa in the wake of independence remain problematic to this day. Universities operate according to a logic of merely absorbing and continuing secondary school tracks, rather than functioning as research universities—that is, as engines of innovation capable of addressing the existential needs of Africans. Education in scientific culture remains in its infancy; the same applies to the development mindset and the promotion of peace. Across universities and research centers in Africa, the situation is the same: research findings are not being adequately utilized.

Do the prevailing mindsets held and fostered by Africans within these institutions acknowledge that science—viewed as a method of knowledge production—is a genuine tool for development and peace-building? Indeed, "modern" science in Africa operates within a framework of outward orientation. Unfortunately, the proliferation of universities and research centers in Francophone Africa has failed to provide sustainable solutions to the existential challenges facing Africans—solutions that could have been achieved by integrating indigenous knowledge into the continent's ongoing development processes. In this context, what are the major challenges and stakes regarding knowledge production in Africa?

The adoption of Western values by African intellectuals—often at the expense of the socio-economic realities of their own environments—remains problematic in every respect. It is within the spheres of education and research in Francophone Africa that the seeds of underdevelopment are sown. "No concrete assessment of the populations' actual needs was conducted before embarking—with eyes fixed on the outside world—on the hitherto unknown path of development" (Nouhouayi, 1990, p. 42). Amidst the unequal fulfilment of Africans' existential needs, knowledge production in Africa operates within a dynamic of outsourcing, leading Hountondji (2001) to observe: "Today, as in the past, the demand for theory comes from elsewhere, just as the demand for economic goods does." "The science practiced in former colonies remains dependent—even in its framing of problems and the questions it asks—on the scientific concerns and, consequently, the economic and technological needs of the West" (Hountondji, 2001, p. 53).

How, then, can we design appropriate public policies in Africa to support knowledge production while taking into account the existential needs and interests of various stakeholders? The task involves analyzing individual and

collective perceptions of knowledge production methods in Africa, using development and the promotion of peace as key reference points. Such an analysis requires a framework that integrates modern science with indigenous African knowledge production, even though their respective modes of production differ in several respects. The silent juxtaposition of these two forms of knowledge production needs to be rethought in terms of its foundations and structures. Indeed, the prevailing discourse among African intellectuals in universities and research centers often implies the inferiority of indigenous knowledge production methods; this leads to a persistent denial that any form of logical thought or coherent logical-discursive articulation exists within indigenous African knowledge production.

By adopting the norms and principles of so-called modern science as a benchmark, we must examine how traditional African knowledge production methods can be integrated—with the ultimate goal of valuing research into indigenous knowledge production. Ricoeur (1961) emphasizes the need to deconstruct mindsets when he states:

"While promoting humanity, the problem of universalization constitutes a kind of subtle destruction—not merely of traditional cultures (which might not be an irreparable loss), but of what I shall provisionally call (before explaining it at greater length) the creative core of great civilizations and cultures: that core from which we interpret life, and which I term, in anticipation, the ethical and mythical core of humanity. That is where the conflict arises;" "We can clearly sense that this single global civilization is simultaneously exerting a kind of wearing-down or erosive effect on the cultural foundations that gave rise to the great civilizations of the past." (Ricoeur, 1961, pp. 445–446)

It is therefore necessary, here and now, to examine the approaches taken toward the production of endogenous knowledge—by both university and research center scholars and policymakers in African countries. Indeed, we must foster individual and collective awareness among all stakeholders regarding the current state of knowledge production in Africa, with the aim of deconstructing prevailing mindsets and ultimately elevating the production of African endogenous knowledge to a universal level. Regarding the question of how to steer scientific research toward fostering a culture of development and promoting peace, it is essential to emphasize the need to establish mechanisms for interaction and integration between the two modes of knowledge production existing in Africa: modern science and the production of African endogenous knowledge.

Deconstructing mindsets also entails a fundamental need to rethink the governance and regulatory systems required to ensure a fair, equitable, and inclusive distribution of the outcomes of knowledge production—whether derived from modern science or endogenous processes. UNESCO emphasizes that Africa must break free from the logic of dependency, external orientation, and outsourcing: "African countries need to rely on locally developed expertise and innovation to address the economic, technological, environmental, and social challenges they face" (UNESCO, 2015).

Any research activity within a country falls within the realm of national sovereignty and the cultural and identity-related sphere of its citizens. Research must be approached from two angles: the first concerns the formulation of issues linked to daily lived experience, while the second focuses on developing solutions to the problems identified. In this context, it is essential to involve all social actors—local communities, businesses, and households—in the production of both modern and traditional knowledge, engaging them at various stages of the process to better understand the African lived experience.

Amidst the denial of identity and the marginalization of African endogenous knowledge production, it is necessary to restore the natural order of things and, above all, avoid a silent juxtaposition or mere coexistence between the Western cultural repertoire and traditional African cultural heritage. We must therefore shift from external orientation toward human-centered knowledge production. Furthermore, the imperative of responsibility calls for a rethinking of research funding policies in Africa, at both international and national levels. A multitude of international actors support African research, generally without coordination or alignment with long-term national or regional strategies (Bonfoh, 2016). The analysis conducted and the hypotheses formulated could assist in identifying the key factors influencing knowledge production as well as the development and promotion of peace in Africa.

3 THE CONCEPT OF DEVELOPMENT PUT TO THE TEST BY MINDSETS IN AFRICA

A recurring debate surrounds the idea of development in Africa, focusing on the effectiveness of the various development policies implemented across the continent following the independence era. The mixed results regarding the continent's historical and economic trajectory raise a major concern centered on how the concept of development is embraced—or "owned"—by the vast majority of Africans, and especially by the political classes responsible for steering daily community life. The complex, multifaceted, and long-standing relationship between Africa and the West—shaped by the post-colonial legacy—fundamentally determines how the state of underdevelopment in which African countries have found themselves ever since is understood. This situation compels us to explore new perspectives regarding principles and meaning, drawing upon the socio-cultural realities that demonstrably influence the ways in which Africans think and act.

To articulate the complexity of the existential and contemporary challenges at the very heart of development in Africa, the issue must be framed by taking into account the paired concepts of "subjectivity and intersubjectivity," "identity and difference," and "centrality and marginality"—all viewed through the lens of the post-colonial condition. Indeed, it must be emphasized that the development model transposed to Africa from the West does not necessarily align with the profound aspirations of the vast majority of African peoples; their own conception of development stands in stark contrast to the model being advocated. In practice, this situation manifests as a theoretical and practical inability on the part of African intellectuals to adequately formulate the question of a sound development policy centered on endogenous African realities.

For Africans, the "development mindset" is not necessarily a product of rationality, nor is it synonymous with a scientific mindset—contrary to what Bébé-Njoh (2001, p. 59) suggests in the following statement:

"By 'development mindset,' we refer specifically to the search for invariant relationships, conceptualization and unification, the drive for mental economy, the constant pursuit of objectivity, the principle of causality, a belief in determinism, the requirement for alignment with reality, and so forth. All these ideals are organized around the ideal of rationality—a rationality rooted in the fundamental requirements of human reason: the principles of identity and non-contradiction."

To understand the disconnect between this conception of development and the actual existential issues facing Africans, it is essential to re-examine the essence and implications of underdevelopment as the antithesis of development. The Larousse dictionary (2022) defines underdevelopment as:

"the state of a country characterized by a poor average standard of living (reflected notably in low food consumption—compounded by malnutrition and famine—low life expectancy, and a still-high illiteracy rate), often associated with rapid population growth, a specific distribution of economic sectors (with a dominant rural sector), and a particular composition of the trade balance."

In this process of underdevelopment, the pace of investment growth remains problematic in every respect, negatively impacting the accumulation of capital and wealth. Regarding development policy in Africa, one must acknowledge the sobering reality that overall outcomes concerning the population's well-being require improvement. In this context, Seynes (1981) emphasizes that African countries focused more on growth rate figures—which, in reality, failed to reflect the poverty experienced by the vast majority of the population or their actual participation in decision-making processes affecting their well-being.

Consequently, the concept of development was not initially well understood in African countries; for the majority of stakeholders, adopting it simply meant embracing an outward-looking—or "extraverted"—approach. Kiyindou notes that: "Development is a global phenomenon, a process encompassing every aspect of human life; it differs from economic growth, which relies on existing resources while also borrowing the best elements from other societies" (Kiyindou, 2009, p. 95). The development mindset expressed and demonstrated by Africans in their daily lives fails to take into account the existential challenges they face. There is, in fact, an epistemological gap between the formulation of the issues and the realities experienced by the stakeholders involved.

Any development process is first and foremost a matter of identity, deeply rooted in the cultural and existential essence of the peoples driving it; consequently, simply disregarding endogenous realities inevitably leads to the failure of implemented development policies. "No country in the world can develop without relying on strong, autonomous national research to devise its own solutions to its development challenges." (d'Aiglepierrre & Botton, 2020, p. 21)

What, then, are the fundamental aspects of development upon which we must focus our reflection?

"Development is a process that enables human beings to develop their personalities, gain self-confidence, and lead a dignified, fulfilling life. It is a process that frees populations from the fear of want and exploitation and pushes back political, economic, and social oppression. It is through development that political independence acquires its true meaning. It presents itself as a process of growth, a movement whose primary source lies in the society that is itself evolving." (*The Challenge to the South: The Report of the South Commission*, 1990, pp. 10–11)

A genuine development process, from conception to implementation, must be grounded in the effective and efficient participation of all citizens involved. Participatory development makes it possible to take into account the deep-seated aspirations of the masses and fosters integral development—that is, development that serves all citizens. This concept of effective citizen participation points, **de facto**, to the essential role of shaping consciousness—a process rooted in the ethical and moral principles that define "living together." Development cannot, therefore, do without the human element; fundamentally, it must aim to realistically enhance human creative capacity in all its dimensions. Developing the whole person essentially means increasing not only material wealth but also—and above all—axiological wealth.

Upon analysis, successive development policies in Africa have not always prioritized the ideal of making citizens aware of their creative power so that they may take responsibility for their own destiny. A sound development policy must indeed set as its fundamental and primary objective the education of citizens to take initiative, enabling them both to recognize their existential needs and to responsibly formulate appropriate solutions. It is worth noting that it is precisely through the realm of education that nations can successfully achieve development—conceived as a platform for creativity and innovation. The concept of development, as understood in African countries, falls far short of meeting this requirement. There is, therefore, a need to return to the original idea underpinning any development process: the promotion of every person and of the whole person. A radical re-examination of the concept of development in Africa is urgently needed, one that integrates the cultural dimension as a determining factor in human thought, action, and knowledge. Thus, a valid conception of development in Africa must center on the promotion of human values; this aim of humanizing the notion of development points to the need to nurture the individual from birth—that is, through moral and ethical education (BAH 2021). Education in a culture of development is essential for achieving integral human development across all social, economic, and cultural aspects; indeed, the success of any such education presupposes lasting peace.

4 THE CULTURE OF PEACE AS THE FOUNDATION FOR LIVING TOGETHER

Etymology reveals that the concept of peace derives from the Latin word **pax**—meaning literally "peace" or "agreement"—which in turn comes from the verb **pacare**, meaning "to appease" or "to calm." The original concept of peace thus clearly points to notions such as appeasement, calm, serenity, agreement, tranquillity, and well-being—understood as the absence of conflict, violence, and imbalance in the relationships that structure "living together." In reality, peace is a complex concept; its definition varies according to context, objectives, and perspectives considered over the short, medium, and long term. The idea of peace implies the need to acknowledge otherness—or, more precisely, the interdependence of people living in society. Inner peace, at the individual level, refers to a state of tranquillity, calmness, and serenity experienced by a person, which depends fundamentally on their relationship with others and their surroundings. Similarly, social peace is gauged by the state of harmony among individuals or groups within the social fabric; it manifests as freedom from the fear of threats or violence. Within this context of conflict-free coexistence, one can speak of "positive peace," which refers to the socio-economic and political conditions that promote respect for human rights, well-being, and human dignity. Defining peace as the absence of conflict is the most widespread and universally accepted view. Indeed, peace is frequently associated with the absence of violence, conflict, or war between individuals, social groups, and nations. As UNESCO states, "Peace is defined as a dynamic and multidimensional process that requires understanding, tolerance, and cooperation among individuals, groups, and nations." UNESCO emphasizes the importance of education, science, and culture in promoting peace and preventing conflict. This encompasses peace education, the promotion of cultural diversity, international cooperation, and the protection of human rights.

Theories on peace confirm this concept of a foundation for living together. One example is the democratic peace theory (Kant, 1948), which posits that democracies are less likely to engage in armed conflict with one another due to their peaceful nature and tendency to resolve disputes through negotiation. Addressing the question of whether a culture of democracy exists in Benin, Holo (2024) responds as follows:

"In other countries, parties educate their citizens on the operational rules of democracy and the requirements of the rule of law. Are we political party activists, or are we clients of political parties—selling ourselves to the highest bidder rather than committing to the defense of our freedoms? Democracy is never a smooth, untroubled journey; there are always ups and downs [...] Let us continue to fight, affirming that we live in a democracy and that we must fight for democracy" (Théodore Holo, Gaskiyani Info, March 20, 2024).

There is also the liberal peace theory (John Stuart Mill, 1859), which posits that economic and political freedom fosters international cooperation and reduces the risk of conflict. Still within the economic realm, one can cite the theory of peace through economic interdependence (Norman, 1910). According to this view, economic interdependence among nations makes war less likely because the economic costs involved would be prohibitively high. Clearly, the daily reality in Africa does not always align with the tenets of these peace theories. The shifting nature of conflicts across the continent—geopolitical tensions, socio-economic divides, environmental crises, the rise of information disorder, the disastrous situation in El Fasher (the main city in Sudan's Darfur region, 2025), the war in the Democratic Republic of the Congo, chronic instability in Somalia, terrorism in Nigeria and the Sahel, arbitrary political persecution, and more—remind us that peace is a scarce commodity in Africa.

In this context, conflict resolution theory (Burton, 1990) can contribute to promoting conflict resolution in Africa. Burton developed the theory of "positive peace," which emphasizes creating the social, economic, and political conditions that foster peace. Furthermore, knowledge production in Africa offers an opportunity to meet Africans' existential needs and promote peace. We must simply liberate the future from the burdens that prevent mindsets from

cultivating the humanity within the individual. Africa needs to train and educate citizens in a culture of peace—an education that can draw upon traditional African knowledge and practices. Indeed, traditional African societies are characterized by modes of thought that effectively nourish the spiritual, economic, and social life of the entire community. These modes of thought give rise to the metaphysical and religious concepts underpinning social and political institutions, as well as the precepts guiding the upbringing of children—that is, their integration into the community. Traditional African thought has thus always existed, focused on resolving the concrete problems Africans face in their daily lives. It enables them to establish laws, educate, and forge the social bonds that form the foundation of society. Educational activities, inherent to human nature, are therefore—in Africa as elsewhere—a creation of the human spirit.

Within the traditional African repertoire, educational concepts and the content they convey constitute a cultural repository where values acquired throughout history converge to foster harmonious coexistence. It is through peace education in Africa that elders pass on the sum of their experiences, professional skills, and conflict-resolution mechanisms to their descendants. Educating for a culture of peace is thus vital for living together in harmony. It is essential to embed mechanisms for learning about peace, solidarity, and coexistence at the heart of African educational systems. Education—aimed at individuals of all ages and backgrounds, at every stage of life—must instill a sense of shared values to help them make crucial life choices. Empowering the individual to become a decisive, responsible agent in promoting peace in Africa thus becomes, in effect, an institutional imperative.

5 CONCLUSION

The deconstruction of mindsets—so keenly desired in Africa—is an invitation for Africans to awaken and to achieve individual and collective awareness. This process aims to build solid foundations for a culture of knowledge production that bridges modernity and tradition; a culture of sustainable development focused on efficiently addressing and satisfying Africans' fundamental needs; and a culture of peace grounded in education regarding values and responsible citizenship. Knowledge production that is both modern and endogenous is, in reality, an essential component of any development process and of peace promotion. Effectively linking knowledge production to the satisfaction of human needs fosters the development of the human spirit—and thus peace—by giving meaning to the experience of living together. In Africa, human development—whether in form or practice, across cultural, economic, political, social, and religious spheres—cannot be properly achieved without deconstructing current mindsets. Fundamentally, the goal is to ensure the citizen's full development, thereby facilitating their active integration into the social fabric. The shortcomings observed in practices across Africa partly explain the limited citizen participation in the pursuit of development and peace. Consequently, all stakeholders must develop an individual and collective awareness, embracing the existing normative and value-based frameworks to effectively implement development and peace-promotion policies in Africa. This entails a commitment to ethical responsibility, guiding the youth toward a culture of science, development, and peace through a shift in mindset. Development primarily concerns the human being in both essence and existence; therefore, the individual must be placed at the heart of any process aimed at their well-being.

6 STATEMENTS ON COMPLIANCE WITH ETHICAL STANDARDS

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