

RETHINKING ALTHUSSER: DIALECTICAL MATERIALISM, IDEOLOGY, AND KNOWLEDGE PRODUCTION IN CONTEMPORARY THEORY

ALTHUSSER’İ YENİDEN DÜŞÜNMEK: DİYALEKTİK MATERYALİZM, İDEOLOJİ VE ÇAĞDAŞ TEORİDE BİLGİ ÜRETİMİ

ПЕРЕОСМЫСЛЕНИЕ АЛЬТЮССЕРА: ДИАЛЕКТИЧЕСКИЙ МАТЕРИАЛИЗМ, ИДЕОЛОГИЯ И ПРОИЗВОДСТВО ЗНАНИЯ В СОВРЕМЕННОЙ ТЕОРИИ

Can BÜYÜKBAY*

ABSTRACT

This article explores the enduring relevance of Louis Althusser's dialectical materialism, particularly his theory of ideology and the philosophy of science in contemporary debates within social theory. Drawing on Althusser's key works, including *For Marx* (1970) and *Reading Capital* (1970), as well as recent critical interpretations, this study examines how Althusser's materialist philosophy provides a framework for understanding the production of knowledge and the role of ideology in shaping both scientific and social structures. The article argues that Althusser's conceptualization of science as a “theoretical practice” is central to understanding the dynamics of scientific revolutions and offers a materialist alternative to humanist interpretations of Marxism. By synthesizing Althusser's work with contemporary discussions in the philosophy of science, the article highlights the applicability of Althusser's dialectics to modern scientific and social theory. Additionally, it explores Althusser's contributions to the understanding of class struggle and subjectivity in knowledge production and asserts that his ideas continue to inform critical theory's engagement with the complex relationships between structure, agency, and ideology. This article ultimately seeks to reaffirm Althusser's position as a pivotal figure in the development of Marxist theory and philosophy and offers a robust framework for analyzing the intersection of science, ideology, and social change.

Keywords: Structuralism, Althusser, Marxism, Knowledge Production, Science Philosophy

ÖZ

Bu makale, Louis Althusser'in diyalektik materyalizminin, özellikle ideoloji teorisi ve bilim felsefesinin, sosyal teori içindeki çağdaş tartışmalardaki kalıcı önemini araştırmaktadır. Althusser'in *Marx İçin* (1970) ve *Kapital'i Okumak* (1970) gibi temel eserlerinin yanı sıra son eleştirel yorumlarından yararlanan bu çalışma, Althusser'in materyalist felsefesinin bilginin üretimini ve ideolojinin hem bilimsel hem de toplumsal yapıları şekillendirmedeki rolünü anlamak için nasıl bir çerçeve sağladığını incelemektedir. Makale, Althusser'in

* ORCID: [0009-0007-2013-8188](https://orcid.org/0009-0007-2013-8188), Dr., canbuyukbay2002@yahoo.com

Kaynak Gösterim / Citation / Цитата:

bilimi bir “teorik pratik” olarak kavramsallaştırmasının, bilimsel devrimlerin dinamiklerini anlamak için merkezi bir öneme sahip olduğunu ve Marksizmin hümanist yorumlarına materyalist bir alternatif sunduğunu savunmaktadır. Althusser'in çalışmalarını bilim felsefesindeki çağdaş tartışmalarla sentezleyerek, makale Althusser'in diyalektiğinin modern bilimsel ve toplumsal teoriye uygulanabilirliğini vurgulamaktadır. Ek olarak, Althusser'in bilgi üretiminde sınıf mücadelesi ve öznellik anlayışına yaptığı katkıları incelemekte ve fikirlerinin eleştirel teorinin yapı, faillik ve ideoloji arasındaki karmaşık ilişkilerle etkileşimine katkı yapmaya devam ettiğini ileri sürmektedir. Bu makale, nihayetinde Althusser'in Marksist teori ve felsefenin gelişiminde önemli bir figür olarak konumunu yeniden teyit etmeyi amaçlamakta ve bilim, ideoloji ve toplumsal değişimin kesişimini analiz etmek için sağlam bir çerçeve sunmaktadır.

Anahtar Kelimeler: Yapısalcılık, Althusser, Marksizm, Bilgi Üretimi, Bilim Felsefesi

АННОТАЦИЯ

В данной статье рассматривается сохраняющаяся актуальность диалектического материализма Луи Альтюссера, в особенности его теории идеологии и философии науки в контексте современных дебатов в области социальной теории. Основываясь на ключевых трудах Альтюссера, включая «За Маркса» (1970) и «Чтение "Капитала"» (1970), а также на современных критических интерпретациях, исследование анализирует, как материалистская философия Альтюссера формирует основу для понимания производства знания и роли идеологии в формировании как научных, так и социальных структур. В статье утверждается, что концепция науки как «теоретической практики» играет центральную роль в понимании динамики научных революций и предлагает материалистскую альтернативу гуманистическим интерпретациям марксизма. Через синтез трудов Альтюссера с современными дискуссиями в философии науки подчеркивается применимость его диалектики к современной научной и социальной теории. Кроме того, рассматривается вклад Альтюссера в осмысление классовой борьбы и субъективности в процессе производства знания, утверждая, что его идеи по-прежнему формируют критическую теорию в её стремлении понять сложные отношения между структурой, агентностью и идеологией. В конечном счете, статья стремится подтвердить статус Альтюссера как ключевой фигуры в развитии марксистской теории и философии и предлагает устойчивую концептуальную основу для анализа взаимосвязей между наукой, идеологией и социальными изменениями.

Ключевые слова: структурализм, Альтюссер, марксизм, производство знания, философия науки

1. INTRODUCTION

Although Althusser's work on ideology, dialectical materialism, and scientific practice has been widely discussed, there remains a lack of systematic analysis connecting these elements to contemporary theories of knowledge production and political struggle. Much of the existing scholarship either isolates Althusser's theory of ideology from his philosophy of science or treats his materialism without considering its implications for modern debates about subjectivity and agency. This article aims to fill this gap by systematically reinterpreting Althusser's dialectical materialism as a comprehensive framework for understanding the intersection of science, ideology, and social change today. The central research question guiding this study is: How can Althusser's dialectical materialism be applied to contemporary scientific and social theories, and what does it reveal about the ideological and class-based structures underlying knowledge production?

In addressing this question, the article offers an original contribution by integrating Althusser's philosophy of science, theory of ideology, and theory of subjectivity into a unified materialist analysis of contemporary social theory.

Louis Althusser remains one of the most influential Marxist theorists of the twentieth century, particularly for his contributions to the philosophy of science, materialism, and the analysis of ideology. In his most prominent works, such as *For Marx* (1970) and *Reading Capital* (1970) with Balibar, Althusser redefined the nature of Marxist theory and distanced it from humanist interpretations and introduced a structuralist framework for understanding social formations. Central to his philosophy is the concept of dialectical materialism, which posits that the material world is knowable through science and that the social world, like nature, is governed by complex, overdetermined structures. This framework challenges traditional Marxist humanism by emphasizing the role of external social structures and ideologies in shaping individual consciousness, rather than focusing on human agency or subjective consciousness.

Althusser's concept of ideology (1970) is perhaps one of his most profound contributions and offering a new way to understand the relationship between ideas and material conditions. In Althusser's view, ideology is not merely a false representation of the world but an essential component of social practice that helps reproduce the conditions of production. Through his theory of ideological interpellation, Althusser argues that individuals are not born as autonomous subjects but are "hailed" by ideological structures that shape their identities and social roles. This concept remains a critical tool for understanding how power is maintained in capitalist societies and how knowledge is produced within these power structures.

While Althusser's work was initially rooted in the analysis of capitalist social formations, his theory has continued to resonate in diverse fields, including the philosophy of science, political theory, and social theory. His ideas about the relationship between ideology and science, the role of philosophy in scientific practice, and the structural causality of social formations provide valuable insights into contemporary debates in the philosophy of science. The theoretical revolution he proposed in the realm of scientific knowledge, particularly his concept of the "epistemological break," has influenced the way that scientific paradigms are understood, particularly in light of Thomas Kuhn's theory of scientific revolutions.

This study employs a theoretical analysis methodology. It critically examines Louis Althusser's key works (*For Marx*, *Reading Capital*, *Lenin and Philosophy*) alongside seven academic articles written on Althusser, through the method of textual analysis. Althusser's concepts of dialectical materialism, ideology, and knowledge production are reinterpreted via an intertextual comparison, analyzing their applicability to contemporary theories of science and society. The method consists of evaluating conceptual structures within their historical context and tracing the development of Althusser's thought across his different writings. The aim of the study is not merely to summarize Althusser's ideas, but to systematically demonstrate their explanatory power in relation to current debates on knowledge production and ideology.

This article seeks to revisit Althusser's dialectical materialism and its contributions to the philosophy of science and social theory, integrating his ideas with contemporary critical thought. By examining Althusser's work in light of recent critiques and discussions, we aim to explore the continued relevance of his theories for understanding the production of knowledge, the role of ideology in scientific development, and the complex relationships between social structures, ideology, and class struggle. In doing so, this article argues that Althusser's materialism offers a crucial framework for

analyzing contemporary scientific and social theories, providing new ways to understand the interplay between structure, agency, and ideology in modern society.

2. ALTHUSSER'S DIALECTICAL MATERIALISM: A THEORY OF KNOWLEDGE

Althusser's dialectical materialism represents a significant shift in Marxist thought, particularly in how philosophy is understood and its relationship to science and ideology. In his work *For Marx*, Althusser defines philosophy as the “theory of theoretical practice,” positioning it as a framework through which scientific knowledge can be analyzed and developed (Althusser, 1970, p.13). This definition aligns philosophy with the practices of science and suggests that philosophical reflection is integral to the production of knowledge. Althusser's dialectical materialism is not merely a philosophical stance but a tool for understanding and organizing scientific practice. It insists that the material world is not just an object to be known but something that is actively transformed through theoretical and scientific practice.

2.1. The Epistemological Break and Knowledge Production

Althusser's concept of the “epistemological break,” borrowed from Gaston Bachelard, introduces a key aspect of his materialism. He argues that scientific knowledge is not a gradual accumulation of facts but rather a rupture from previous forms of understanding. This epistemological break marks a shift in how knowledge is produced: ideology, once the dominant mode of understanding, is transformed into a scientific problem. Althusser's view of the epistemological break parallels Thomas Kuhn's concept of scientific revolutions, where shifts in scientific paradigms are driven by profound ruptures in established theories (Schwartzman, 1975, p. 323). In this way, Althusser's materialism offers a theory of knowledge that is rooted in historical and structural changes and emphasizes that knowledge production is inseparable from ideological struggles and class relations.

This structural understanding of knowledge production stands in contrast to humanist interpretations of Marxism that emphasize subjective consciousness and agency. As Assiter notes, humanist Marxism often focuses on individual agency and the conscious subject as the starting point for understanding social change. Althusser's approach, however, emphasizes the role of structures in shaping human subjectivity. The material conditions of society, through ideological apparatuses, determine the formation of subjects, suggesting that individuals are not autonomous agents but are interpellated by ideological forces that shape their identities and social roles (Assiter, 1984, p. 274).

2.2. Ideology as a Structuring Force in Knowledge

The relationship between materialism and ideology in Althusser's work is crucial for understanding his theory of knowledge. Ideology, for Althusser, is not a mere distortion of reality but an integral part of social practice that helps to reproduce the conditions of production. This idea is outlined in *Lenin and Philosophy*, where Althusser asserts that ideology is a “practice” that organizes and structures individuals' perceptions of the world, playing a vital role in the maintenance of social order (Althusser, 1971, p. 86). Ideology, therefore, is not external to knowledge but shapes the very way in which scientific and social knowledge is produced.

This view of ideology as a structural force that shapes knowledge production challenges more traditional views that treat ideology as a mere reflection of material conditions or as an abstract realm of thought. According to Gordy, Althusser's theory of

ideology provides a robust framework for understanding how knowledge, including scientific knowledge, is never neutral but is always shaped by the social and ideological structures within which it is produced (Gordy, 1983, p. 9). Althusser's materialist theory of knowledge, therefore, provides a critical lens through which to examine the production of both scientific and social knowledge in terms of its ideological underpinnings and class dynamics.

Furthermore, Althusser's insistence on the relative autonomy of ideological structures, as discussed in *Reading Capital*, suggests that while economic structures determine the conditions for the reproduction of society, ideological, political, and cultural structures have their own relative autonomy and can influence social change (Althusser & Balibar, 1970, p. 158). This concept allows for a more nuanced understanding of how different forms of knowledge interact with one another and how change in one domain can lead to transformations in others. By focusing on the structural conditions that shape knowledge and subjectivity, Althusser's materialism offers a comprehensive theory of how ideological forces are embedded within scientific practice and how they function to reinforce or challenge existing social formations.

In summary, Althusser's dialectical materialism provides a framework for understanding knowledge production as a dynamic, historical, and ideological process. His theory emphasizes the importance of structural causality in shaping the production of knowledge and highlights the role of ideology in determining how individuals and social formations understand and interact with the world. By situating knowledge within the context of class struggle and ideological interpellation, Althusser's materialism offers a powerful tool for analyzing the relationship between theory, practice, and social change.

3. THE ROLE OF IDEOLOGY IN KNOWLEDGE PRODUCTION

One of the most critical and enduring aspects of Althusser's philosophy is his theory of ideology and its role in the production of knowledge. For Althusser, ideology is not merely a false representation of reality, nor is it simply a set of beliefs or ideas that individuals might hold in error. Instead, ideology is a deeply embedded social practice that serves to reproduce the conditions of production within a society. In Althusser's structuralist framework, ideology plays an essential role in the reproduction of social formations. Ideological State Apparatuses (ISAs), such as schools, media, churches, and family structures, serve as mechanisms through which the dominant ideology is perpetuated. These ISAs function to interpellate individuals, or "hail" them, creating subjects who are not free agents but are shaped by ideological forces outside their control (Althusser, 1970, p.28). The concept of interpellation is crucial here: it underscores how individuals come to recognize themselves as subjects within particular ideological structures, accepting their roles in the larger social order without conscious awareness of the mechanisms at play. As Assiter notes, Althusser's view of ideology is not one of distortion but of "a necessary part of social practice" that helps ensure the continuity of the social structure (Assiter, 1984, p. 274).

Ideology, in Althusser's framework, is not an abstract set of beliefs but a practical force that organizes individuals' relations to the social and material world. As Schwartzman argues, Althusser's approach to ideology provides a robust framework for understanding how knowledge, including scientific knowledge, is never neutral but always shaped by the social conditions in which it is produced (Schwartzman, 1975, p. 324).

This theory of ideology extends to the understanding of class struggle, a central theme in Althusser's work. Althusser asserts that ideology is a primary means through which class struggle is articulated and sustained. In a capitalist society, the dominant

ideology serves to justify and naturalize the existing class structure, making the unequal relations of power appear legitimate and immutable. At the same time, subordinate classes are interpellated into ideologies that either reinforce their position or, at times, inspire resistance to the status quo. The contradictions within these ideological structures are a key site for understanding social change and revolution.

In this regard, Schwartzman notes that Althusser's theory of ideology helps to clarify the ways in which ideological struggles are embedded within scientific and social practices, making it a powerful tool for analyzing how knowledge is produced, maintained, and transformed (Schwartzman, 1975, p. 328). This is particularly relevant when considering Althusser's view of the "epistemological break" in scientific progress, which parallels the way scientific paradigms shift as they encounter contradictions within the prevailing ideological framework (Schwartzman, 1975, p. 323). Althusser's work challenges the assumption that science is inherently objective and independent of ideology, calling attention to the ways in which even scientific knowledge is situated within broader ideological struggles.

In sum, Althusser's theory of ideology offers a critical lens through which to examine the role of ideology in the production of knowledge. Althusser provides a comprehensive framework for understanding how both scientific and social knowledge are shaped by the material conditions of society. Ideology is not an external distortion of reality but an integral part of the social and scientific process, influencing both the production of knowledge and the practice of science itself.

4. ALTHUSSER AND THE SCIENCES: A NEW PHILOSOPHY OF SCIENCE

Althusser's contribution to the philosophy of science is significant, particularly in how he theorizes the relationship between dialectical materialism and scientific practice. Althusser's conception of science is rooted in his broader theory of knowledge, which challenges both empiricist and idealist approaches. As Stewart emphasizes, Althusser's structural Marxism, while not rejecting science, seeks to differentiate it from ideologically motivated knowledge by maintaining the independence of scientific theories from philosophical or political interference. Althusser's materialism insists on the importance of an objective reality that is accessible through scientific inquiry, a perspective that is both critical of the subjective tendencies in classical Marxism and opposed to the idealist interpretations of science found in some Marxist traditions (Stewart, 2008, p. 430).

4.1. The Epistemological Break and the Structuring of Scientific Practice

In *For Marx* (1970), Althusser addresses the issue of the "epistemological break," a concept borrowed from Gaston Bachelard that marks the shift from ideology to scientific practice. This break, according to Althusser, is not just an intellectual rupture but a structural transformation in how knowledge is produced. Science, in Althusser's framework, is not simply the accumulation of empirical data but a practice that transforms the ideological categories through which we interpret the world (Assiter, 1984, p. 274). Althusser's theory of the epistemological break parallels Thomas Kuhn's notion of scientific revolutions, where shifts in paradigms represent moments of rupture rather than gradual development (Schwartzman, 1975, p. 323). Althusser's work on scientific knowledge emphasizes the necessity of these breaks for the advancement of science, suggesting that scientific progress often occurs through radical changes in the way the world is understood.

The interaction between science and ideology in Althusser's theory is crucial for understanding how scientific knowledge functions within broader social formations. While science is theoretically autonomous, it is still embedded within an ideological context that shapes its development. Stewart discusses how Althusser's structuralism opens up a space for understanding how ideological forces can influence the course of scientific inquiry. By rejecting both the idealist reduction of science to philosophy and the empiricist view of science as a simple reflection of reality, Althusser's dialectical materialism offers a more nuanced understanding of how knowledge is shaped by both social conditions and scientific practice (Stewart, 2008, p. 431).

In contrast to more conventional philosophical treatments of science, Althusser insists that philosophy's role is not to guarantee the truth of scientific knowledge but to examine the structural conditions that make knowledge possible. As Schwartzman points out, Althusser's philosophy provides a framework for understanding how scientific knowledge interacts with ideological practices, emphasizing that scientific knowledge is always situated within a particular historical and social context. Althusser's theory of the "problematic" helps to explain how science is not a neutral or objective practice but one that is shaped by the ideological structures of its time (Schwartzman, 1975, p. 328).

4.2. Overdetermination, Systems Theory, and the Dynamics of Scientific Knowledge

The relationship between Althusser's dialectical materialism and contemporary scientific theories is particularly relevant when considering the intersection of science with new developments in cybernetics and systems theory. Systems theory, with its focus on complex, interdependent systems and feedback loops, shares a conceptual affinity with Althusser's understanding of overdetermination and structural causality. As Gordy suggests, Althusser's focus on the relational aspects of social structures offers a useful framework for understanding the dynamic and interconnected nature of both social and scientific systems (Gordy, 1983, p. 9). Althusser's notion of "overdetermination" – the idea that social contradictions are multiple and interrelated – can be applied to understand how scientific knowledge, like social structures, is shaped by a multitude of forces that interact with one another in complex ways.

In this sense, Althusser's dialectical materialism provides a basis for integrating modern scientific concepts such as systems theory and cybernetics into Marxist theory. By emphasizing the interrelationship between different elements within a system, Althusser's work resonates with contemporary efforts to understand scientific knowledge as a dynamic and evolving process that is influenced by both material conditions and ideological frameworks. As Schwartzman argues, Althusser's contributions to the philosophy of science can help illuminate the ways in which scientific knowledge is not merely a reflection of objective reality but is always shaped by the ideological and social context in which it is produced (Schwartzman, 1975, p. 330).

5. ALTHUSSER, SUBJECTIVITY, AND IDEOLOGY: THE ROLE OF THE SUBJECT IN KNOWLEDGE PRODUCTION

Althusser's theory of ideology and his concept of the subject are critical for understanding how knowledge is produced and how social structures reproduce themselves. His argument that ideology interpellates individuals into subjects who are both shaped by and active in maintaining the ideological state apparatuses (ISAs) introduces a radical shift in how we think about subjectivity and its relationship to knowledge production. This

section explores Althusser's concept of the subject and its implications for understanding how ideologies shape both scientific and social knowledge.

El Hassan provides a crucial critique of Althusser's treatment of ideology and the subject. He argues that Althusser's focus on the externality of ideology—its ability to interpellate individuals into predetermined roles—undermines the agency of the subject and fails to account for the dialectical interaction between individual praxis and ideological structures. El Hassan critiques Althusser's rejection of the humanist Marxist notion of individual agency, which sees individuals as autonomous agents capable of transforming social relations through conscious action. For El Hassan, Althusser's model of subjectivity, which emphasizes the role of ideology in shaping individuals' perceptions and identities, risks reducing human agency to a mere function of ideological interpellation (El Hassan, 1986, p. 53). While Althusser rightly emphasizes the structural forces at play in shaping the subject, El Hassan argues that his theory fails to fully integrate the role of human agency in overcoming or transforming these forces.

This critique is echoed in Sprinker's examination of Althusser's relationship with Sartre. Sprinker notes that the tension between Althusser and Sartre revolves around the question of human agency and the capacity for individual subjectivity to influence the course of history. For Sartre, as for traditional Marxist humanism, the subject is central to understanding history and social change. Sartre emphasizes the ability of individuals to engage in revolutionary praxis, which is the conscious, intentional activity that challenges the social order. In contrast, Althusser's structuralism tends to obscure the role of individual subjectivity, instead focusing on the ways in which social structures dictate individual behavior. Sprinker highlights the contrast between Althusser's theory of subjectivity, which sees the subject as primarily determined by ideological structures, and Sartre's existentialist notion of subjectivity, where individuals are free to define themselves through their actions (Sprinker, 1985, p. 991).

Stolze (1998) also provides a significant contribution to this discussion by examining how Althusser's ideas relate to structuralism and their implications for understanding subjectivity. Stolze argues that Althusser's engagement with structuralism, particularly his focus on how the subject is constituted by ideological forces, remains essential for understanding the functioning of class society. However, Stolze also points out the limitations of Althusser's structuralism, particularly in his treatment of subjectivity. While Althusser provides a detailed analysis of how individuals are interpellated by ideology, Stolze argues that this approach risks reducing individuals to passive recipients of ideological forces without recognizing the active role they play in the reproduction or transformation of social structures. Stolze contends that while Althusser's theory is valuable for understanding the structural dynamics of ideology, it does not fully account for the complexities of human subjectivity and the ways in which individuals navigate, resist, or reinterpret the ideological systems into which they are interpellated (Stolze, 1998, p. 59).

Althusser's theory of ideology is undoubtedly foundational for understanding how knowledge, both scientific and social, is shaped by ideological forces. Ideology does not simply distort or obscure reality; it actively shapes the way individuals perceive and understand the world. As Sprinker notes, Althusser's concept of ideology is not merely about false consciousness but about the fundamental ways in which individuals come to understand their social roles and positions within the larger structure of society (Sprinker, 1985, p. 991). The subject, in Althusser's view, is not an autonomous, pre-existing entity but is formed through its interaction with ideological structures that hail it into being.

The subject's role in knowledge production, therefore, is intricately linked to its ideological conditioning. El Hassan (1986) and Stolze (1998) both highlight the limitations

of Althusser's theory, particularly in terms of how it conceptualizes the subject. For Althusser, the subject is shaped by external ideological forces, but this view does not fully address the potential for subjects to resist or alter the ideological structures that define them. While Althusser's theory remains useful for understanding how ideology functions to maintain social order, it falls short in providing a clear account of how individuals or groups might transform or subvert these ideological structures.

Despite these critiques, Althusser's concept of the subject remains essential for understanding the relationship between ideology, knowledge, and power. The subject, as interpellated by ideology, is both a product of social structures and a participant in the reproduction of those structures. The dynamic interplay between ideology and subjectivity highlights the complexity of knowledge production in capitalist societies, where scientific knowledge is never neutral but always shaped by the ideological forces that govern social life.

6. ALTHUSSER'S STRUCTURALISM AND THE INTERRELATION OF SCIENCE, IDEOLOGY, AND SOCIAL CHANGE

In *Reading Capital* (1970), Althusser asserts that social change occurs through a process of overdetermination, where the contradictions within each structure interact with those in other structures. These contradictions can lead to shifts in the overall social formation, though they do so in ways that are not predetermined by the economic base. As Stolze (1998) discusses, Althusser's focus on structural causality emphasizes the interconnectedness of social structures while maintaining the autonomy of each. This enables a more dynamic understanding of social change, one that is not merely driven by economic forces but by the complex interactions between ideology, politics, and science (Stolze, 1998, p. 57).

6.1. The Political Dimensions of Scientific Knowledge

The role of ideology in shaping scientific knowledge is particularly important when considering the political implications of Althusser's theory. Althusser's focus on ideology as a tool for social reproduction has significant implications for understanding the relationship between science and politics. In capitalist societies, science is often seen as a neutral tool for understanding the world, but Althusser's materialism suggests that scientific knowledge is always embedded within and shaped by ideological practices that serve the interests of the ruling class. As El Hassan notes, Althusser's theory helps to expose the ways in which science is not merely an objective search for truth but is influenced by the political and ideological interests that govern society (El Hassan, 1986, p. 54). This view aligns with Althusser's broader critique of humanist Marxism, which he sees as overly focused on human agency and neglectful of the structural forces that shape knowledge and social change.

However, Althusser's structuralism also opens the door for a more radical understanding of how science can contribute to social change. If scientific knowledge is always situated within a specific ideological context, then it is also subject to change when new ideological formations arise. As Stolze points out, the transformations that occur in science are not just the result of new empirical data but are driven by shifts in the underlying ideological framework (Stolze, 1998, p. 59). Althusser's emphasis on the epistemological break and the role of ideology in scientific practice suggests that scientific revolutions are not only a matter of changing facts but involve a deeper transformation in how knowledge is structured and understood.

In sum, Althusser's structuralism provides a comprehensive framework for understanding the interrelations between science, ideology, and social change. His materialist philosophy emphasizes the role of science as a practice embedded within social and ideological structures, while also highlighting its potential to contribute to transformative change. By situating scientific knowledge within a broader materialist and ideological context, Althusser's work provides valuable insights into the ways in which knowledge production is always influenced by the ideological forces that shape it.

6.2. Science, Class Struggle, and the Politics of Knowledge

El Hassan (1986) underscores that Althusser's theory of ideology has profound political implications. He argues that Althusser's work provides a materialist critique of the way in which knowledge is used to perpetuate capitalist structures. Althusser suggests that knowledge, including scientific knowledge, is never neutral; it is shaped by the political and ideological context in which it is produced. Scientific knowledge, while often seen as objective, is in fact a part of the broader ideological apparatus that helps maintain the power of the ruling class. El Hassan notes that Althusser's materialism helps to reveal how science can be complicit in reproducing the dominant social order, even as it seeks to understand and explain the world (El Hassan, 1986, p. 55). By understanding the ideological context in which scientific knowledge is produced, Althusser opens the possibility for a critique that is both scientific and political.

Sprinker builds on this critique by discussing Althusser's engagement with the political implications of science. Sprinker notes that while Althusser insists on the scientific nature of Marxist theory, he also emphasizes the need for science to be politically engaged. Althusser's materialist conception of science is not simply about uncovering facts but about recognizing how those facts are embedded within broader ideological and political struggles. Althusser's work on science is inherently linked to the political struggle, as knowledge production is a site of ideological contestation. For Althusser, scientific knowledge must be understood as part of the broader political project of class struggle. Science, in this sense, is both a tool for understanding society and a means of transforming it (Sprinker, 1985, p. 992).

This political dimension of science is further explored by Stolze (1998), who emphasizes the dialectical nature of Althusser's approach to knowledge. Stolze argues that Althusser's theory of science rejects both positivism and idealism, instead asserting that scientific knowledge is produced through a dialectical process in which contradictions within society and the scientific field itself are resolved. Stolze (1998) highlights that Althusser's theory of science is grounded in a materialist conception of social reality, where the contradictions within society—such as those between labor and capital—are reflected in the development of scientific knowledge. In this view, science is not an autonomous, apolitical endeavor but is shaped by the material conditions and social struggles of the time. As Stolze points out, science, like other forms of knowledge, is embedded in the social totality, meaning it cannot be separated from the political and ideological struggles that shape society (Stolze, 1998, p. 60).

The political nature of science, as articulated by Althusser, is crucial for understanding how knowledge production relates to social change. By recognizing that scientific knowledge is never politically neutral, Althusser calls for a politics of knowledge that challenges the dominant ideological and social structures. The role of science, in this sense, is not only to understand the world but also to change it. In capitalist societies, scientific knowledge is often used to legitimize the existing social order, but Althusser's materialism provides a framework for understanding how science can also be a tool for

resistance and transformation. Scientific revolutions, as Althusser suggests, are not just the result of changes in empirical data but reflect deeper ideological shifts that challenge the existing order (Schwartzman, 1975, p. 330).

7. THE ROLE OF ALTHUSSER'S DIALECTICAL MATERIALISM IN CONTEMPORARY KNOWLEDGE PRODUCTION

The research question driving this article asks how Althusser's dialectical materialism can be applied to contemporary scientific and social theories, and what implications it has for understanding the role of ideology, subjectivity, and class struggle in the production of knowledge. Throughout the analysis, we have explored Althusser's theory of dialectical materialism, his views on ideology and subjectivity, and the political dimensions of knowledge production. Based on these discussions, we can conclude that Althusser's materialist philosophy provides an indispensable framework for understanding how knowledge is shaped by and shapes social structures, ideological forces, and class struggle.

7.1. Althusser's Dialectical Materialism: A Framework for Understanding Knowledge

Althusser's dialectical materialism is a critical framework for understanding the relationship between knowledge and the material world. His theory asserts that knowledge is not an autonomous, neutral reflection of reality but is deeply embedded in the social and ideological conditions of its time. As we discussed in the earlier sections, Althusser's view of science as a "theoretical practice" means that scientific knowledge is shaped by the broader ideological apparatuses of society. This approach challenges both humanist and positivist understandings of science by insisting that scientific knowledge is shaped by material, social, and ideological conditions.

In contemporary scientific and social theory, Althusser's ideas remain relevant in understanding how scientific paradigms evolve. The concept of the "epistemological break," as described by Althusser, provides a lens through which we can understand how scientific revolutions occur—not through incremental additions to knowledge but through radical shifts in how knowledge is conceptualized. This insight, especially when combined with the work of contemporary scholars like Thomas Kuhn on paradigms and revolutions, helps us recognize that scientific progress is not linear, but instead characterized by profound ruptures in theoretical understanding that reshape entire fields (Schwartzman, 1975, p. 323). Althusser's theory suggests that science, while striving for objectivity, cannot escape the ideological contexts that shape its development, offering a materialist critique of the "neutrality" often attributed to scientific inquiry.

7.2. Ideology and Knowledge Production

Althusser's concept of ideology and its role in the production of knowledge plays a crucial role in answering the research question. He posits that ideology is not merely a distortion of reality but an integral component of social practice that helps to reproduce the conditions of production. Ideology functions through Ideological State Apparatuses (ISAs), such as education, religion, and media, which interpellate individuals into subjects who accept their positions within the social structure. This theory helps us understand how knowledge, including scientific knowledge, is never free from ideological influences.

In contemporary society, the intersection of science and ideology is increasingly visible, especially in fields such as climate science, economics, and medicine, where ideological forces often shape the framing and interpretation of knowledge. Althusser's

work provides a critical perspective on how knowledge is not just an objective pursuit of truth but a socially embedded activity that reflects and reinforces dominant ideologies. This insight is crucial in understanding how scientific knowledge can either challenge or perpetuate the status quo. For instance, the political dimensions of climate change science are deeply intertwined with ideological forces, where economic and political interests often shape how environmental issues are framed and addressed. Althusser's theory of ideology allows us to understand that scientific knowledge, like all knowledge, is shaped by the social and political struggles that characterize its historical moment (Sprinker, 1985, p. 992).

7.3. The Role of the Subject in Knowledge Production

Althusser's theory of subjectivity, particularly his notion of interpellation, is central to understanding the production of knowledge in contemporary society. According to Althusser, individuals are not born as autonomous subjects but are interpellated by ideology, which shapes their understanding of themselves and their roles in society. This concept has important implications for how we understand the role of individuals in the production and dissemination of knowledge.

The critiques from El Hassan (1986) and Sprinker (1985) highlight the tension between Althusser's structuralism and the humanist Marxist emphasis on agency. While Althusser's theory focuses on how subjects are shaped by ideological forces, the critiques suggest that this approach risks downplaying the active role of individuals in resisting or transforming ideological structures. In contemporary political and social struggles, this tension remains relevant. Althusser's theory provides a critical lens for understanding how subjects are formed through ideological practices, yet it also leaves open the question of how individuals or collective agents can intervene in or transform these structures. In modern political movements, for example, we see both the influence of ideological interpellation on individuals' identities and the potential for collective action to disrupt or challenge these ideologies.

In contemporary social theory, Althusser's theory of subjectivity offers valuable insights into the dynamics of power, knowledge, and identity. As Stolze (1998) notes, while Althusser emphasizes the structural forces that shape the subject, the potential for resistance and transformation remains a crucial question. Althusser's model of the subject highlights the importance of understanding how knowledge is not just produced by objective structures but is also contested and transformed by individuals and social movements. This provides a foundation for analyzing how knowledge can be a site of both ideological reproduction and resistance.

7.4. Class Struggle and Knowledge Production

Finally, Althusser's emphasis on class struggle as the motor of historical change provides a critical lens for understanding the production of knowledge in capitalist societies. Knowledge production is always tied to the broader social and economic structures that define the distribution of power. Althusser's materialism asserts that scientific knowledge is always embedded within these structures, reflecting and reinforcing the interests of the ruling class. However, as the work of El Hassan (1986) and others suggests, Althusser's theory also opens up the possibility for resistance through the transformation of the ideological structures that support capitalist systems.

In contemporary society, where the power dynamics between different classes are increasingly visible in knowledge production, Althusser's insights remain crucial. The control of knowledge—whether in media, academia, or the scientific community—remains a site of ideological struggle. Althusser's theory of the ideological state apparatuses helps

explain how class struggle is not only a political or economic issue but also a cultural and intellectual one, as dominant ideologies seek to shape the way knowledge is produced and understood. By understanding knowledge production as a site of class struggle, Althusser's work offers a materialist critique of how power and knowledge are intertwined in maintaining or challenging the status quo.

8. CONCLUSION

While Althusser's contributions to Marxist theory, the philosophy of science, and ideology critique remain foundational, his work has also faced significant criticisms. One major concern is that his structuralist framework tends to underplay the role of human agency and political subjectivity, presenting individuals primarily as products of ideological interpellation. Critics such as E.P. Thompson and later post-structuralist thinkers argue that Althusser's view risks rendering political action and resistance almost impossible within his theoretical system. Furthermore, the notion of ideology in Althusser's theory has been criticized for its functionalist tendencies, portraying ideological apparatuses as seamlessly reproducing capitalist relations without adequately accounting for contradictions, fractures, and possibilities of dissent within ideological structures. Despite these critiques, Althusser's work continues to offer valuable tools for analyzing the relationship between knowledge, ideology, and power, especially when combined with more dynamic theories of subjectivity and social change.

Louis Althusser's dialectical materialism provides a transformative framework for understanding the relationship between knowledge, ideology, and social structures. Through his emphasis on the material conditions that shape both scientific knowledge and everyday social practices, Althusser offers a robust critique of the traditional humanist and positivist perspectives on knowledge production. His theory of ideology, centered on the concept of interpellation, demonstrates how individuals are not autonomous agents but are instead shaped by the ideological structures that govern their existence. These insights are crucial for understanding how knowledge, particularly scientific knowledge, is never neutral but is always situated within the ideological and material conditions of its time.

Throughout this article, we have explored Althusser's contributions to the philosophy of science, his critique of humanist Marxism, and his understanding of the role of ideology in maintaining social order. By examining how Althusser's ideas have been applied in contemporary social movements, academic disciplines, and political practice, we have seen that his materialist framework continues to provide valuable tools for analyzing power relations and ideological struggles in modern society.

Today, Althusser's legacy is visible across several key fields. In critical theory, his concept of ideological state apparatuses remains central to understanding how cultural institutions maintain capitalist hegemony. In Marxist thought, Althusser's emphasis on structural causality and overdetermination offers a way to rethink historical materialism without resorting to economic determinism. Moreover, in political sociology and the study of social movements, Althusser's theory of interpellation helps explain how identities and political subjectivities are produced and contested within ideological frameworks. His critique of humanist voluntarism also continues to resonate with theorists seeking to understand the limits of agency in contemporary capitalist societies.

In the philosophy of science, Althusser's insistence on the epistemological break and the ideological embeddedness of knowledge challenges dominant neoliberal conceptions of science as a purely objective and apolitical enterprise. His work thus provides a foundation for critical approaches that expose the political interests underpinning

scientific discourses today, particularly in fields like environmental science, economics, and public health.

By reinterpreting Althusser's dialectical materialism and its integration of science, ideology, and subjectivity, this study contributes to a deeper understanding of how knowledge production remains a site of political and ideological contestation. Althusser's work offers not only a critique of existing social structures but also a theoretical framework for imagining transformative change in contemporary societies. In an era marked by intensified ideological struggles, from climate crisis narratives to the politics of identity and technology, Althusser's materialism remains an indispensable resource for critical theory and political praxis.

Bibliography

Althusser, L. (1970). *For Marx*. New York, NY: Penguin Books.

Althusser, L. (1971). *Lenin and philosophy and other essays*. New York, NY: Monthly Review Press.

Althusser, L., & Balibar, É. (1970). *Reading Capital*. New York, NY: Pantheon Books.

Assiter, A. (1984). Althusser and structuralism. *The British Journal of Sociology*, 35(2), 272–296. <https://doi.org/10.1111/j.1468-4446.1984.tb00104.x>

El Hassan, I. S. (1986). Consciousness and ideology: A critique of Lukács, Althusser, and Poulantzas. *Dialectical Anthropology*, 11(1), 49–62. <https://doi.org/10.1007/BF00147826>

Gordy, M. (1983). Reading Althusser: Time and the social whole. *History and Theory*, 22(1), 1–21. <https://doi.org/10.2307/2505233>

Schwartzman, D. W. (1975). Althusser, dialectical materialism and the philosophy of science. *Science & Society*, 39(3), 318–330. <https://www.jstor.org/stable/40401861>

Sprinker, M. (1985). Politics and theory: Althusser and Sartre. *MLN*, 100(5), 989–1011. <https://doi.org/10.1353/mln.1985.0019>

Stewart, A. (2008). Althusser's structuralism and a theory of class. *Critique: Journal of Socialist Theory*, 36(3), 421–443. <https://doi.org/10.1080/03017600802434524>

Stolze, T. (1998). Deleuze and Althusser: Flirting with structuralism. *Rethinking Marxism: A Journal of Economics, Culture & Society*, 10(3), 51–63. <https://doi.org/10.1080/08935699808685540>