



The Ontology of Social Science: Understanding the Nature of Agency, Structure, and Social Causality

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ABSTRACT

This community service aims to strengthen the academic community's understanding of the ontology of social sciences, particularly in relation to agency, structure, and social causality in the context of the digital age. Activities are carried out through in-depth literature reviews and the development of easily accessible educational materials to improve the philosophical literacy of educators and researchers. The process of service includes identifying key concepts, analyzing contemporary theories, and compiling applicable educational summaries. As a result, the target community gains a more comprehensive understanding of the dynamics of social reality and the epistemological challenges that arise. The contribution of this activity lies in providing a conceptual foundation that strengthens the quality of social research in the academic environment.

INTRODUCTION

Ontological debates in social science continue to evolve with the emergence of new approaches that attempt to explain how social reality works in a more comprehensive manner. In the last two decades, discussions about how social reality is formed and understood have become increasingly important due to the growing complexity of modern social phenomena. Elder-Vass (2010) emphasizes that social ontology must be able to explain social entities realistically without neglecting the role of human actors in them. This shows that ontological position is not just a matter of abstract philosophy, but has become the basis of scientific reasoning in contemporary social research.

The issue of human agency has received considerable attention in recent literature, particularly due to the growing interest in the dynamics of action in digital and global societies. Emirbayer and Mische (1998) – which was reaffirmed in further research by Hitlin and Elder (2007) – describe agency as a temporary process involving reflexivity, present orientation, and future projection. This more dynamic understanding of agency is used to examine how individuals make decisions in situations of social uncertainty. Thus, the role of agency remains a central element in efforts to understand the formation of social action.

Regarding social structure, there has also been development through a more empirical and contextual approach. Martin (2003) argues that social structure is no longer understood only as a stable pattern of relationships, but also as a constantly changing configuration of power and opportunity. This approach is reinforced by Sewell (2005), who emphasizes that structure has a dual nature: it is both rigid and flexible, enabling it to shape actions while also being shaped by ongoing social processes. This contemporary perspective enriches our understanding of the conditions that influence human actions.

In an effort to bridge the tension between agency and structure, recent research has begun to adopt an integrative perspective. Porpora (2015) argues that the relationship between the two is emergent, whereby the actions of actors can give rise to new social phenomena that cannot be reduced solely to individual choices or structural conditions. This emergent approach allows for a more complex understanding of how social reality develops. Thus, contemporary research is increasingly moving towards models that recognize the continuity of interaction between actors and structures.

In addition, social causality studies play an important role in strengthening scientific explanations of social processes. Hedström and Ylikoski (2010) emphasize the importance of identifying social mechanisms rather than simply describing phenomena. This perspective is expanded upon by Little (2016) through the concept of multilayer explanation, which views social causality as a layered relationship between structures and actions. In Indonesian research, Nugroho (2021) asserts that a mechanism approach is important for explaining phenomena such as policy changes, social movement dynamics, and digital transformation. Thus, social causality studies strengthen the ontological foundations of social science in producing more in-depth.

LITERATUR REVIEW

Ontological debates in social science continue to evolve with the emergence of new approaches that attempt to explain how social reality works in a more comprehensive manner. In the last two decades, discussions about how social reality is formed and understood have become increasingly important due to the growing complexity of modern social phenomena

Structure refers to enduring social patterns that shape and constrain human action. While Durkheim views structures as external and coercive social facts, Bourdieu conceptualizes structure through *habitus*, emphasizing how social conditions are internalized and enacted in practice.

Social causality in social science is understood as complex and non-linear. Critical realism and social mechanism approaches emphasize that social outcomes result from interactions between agency and structure under specific contexts. Overall, existing literature shows that understanding social phenomena requires an integrated ontological framework that connects agency, structure, and social causality.

METHODOLOGY

This study uses a literature review as the main approach to analyze the ontology of social science, particularly in relation to the nature of agency, structure, and social causality. This method was chosen because the focus of the study is conceptual and theoretical, requiring an in-depth review of relevant scientific works. In line with Snyder's (2019) view, literature studies enable researchers to identify conceptual developments, integrate findings across studies, and map the theoretical debates that underlie the construction of knowledge in social science.

RESEARCH RESULTH AND DISCUSSION

Philosophy of Science

According to Kaelan (2015), philosophy of science can be defined as a fundamental study of the nature of science, which includes the assumptions, foundations, methods, validity, and implications of science itself. The philosophy of science not only questions "what is known" (ontology), but also "how we know it" (epistemology) and "what knowledge is used for" (axiology). In this context, ontology, as a branch of philosophy that discusses the nature of reality, becomes the first and foremost foundation before epistemological and axiological questions are asked. Without a clear understanding of what exists (being) and reality, the structure of science will not have a solid foundation.

Muhadjir (2017) reinforces this relationship by explaining that the ontology of science functions as a map of reality that determines the scope of study of a particular discipline. In social science, for example, ontology answers fundamental questions about the nature of social reality: is social reality objective outside of individuals, subjective within individual consciousness, or intersubjective, formed through interaction? It is this ontological understanding that then determines how social scientists formulate theories, choose methods, and interpret data. Thus, ontology is not only abstract, but operationally guides the entire research process.

Bagus (2019) asserts that in the development of contemporary science, especially in Indonesia, ontological discussions are becoming increasingly crucial in order to respond to local challenges. For example, in understanding social phenomena such as mutual cooperation or local wisdom, an ontology is needed that is capable of capturing a unique and contextual reality, rather than simply applying a Western framework wholesale. By referring to the Indonesian reality, ontology helps build relevant knowledge based on the real experiences of society. Therefore, studying the philosophy of science especially ontology is not only a philosophical activity, but also an effort to build the independence and authenticity of Indonesian science.

Definition of Social

According to Arief Budiman (2005), social can be defined as all forms of interaction, relationships, and behavior patterns that occur between individuals in a group or society. This concept goes beyond a mere collection of people, emphasizing the dynamic process in which individuals influence each other, cooperate, conflict, and form shared meanings through communication and action. The social aspect also includes institutions, norms, values, and structures that arise from these interactions, which in turn limit and shape individual behavior. Thus, social reality is co-constitutive, that is, it is created and maintained continuously through the daily practices of its members.

Ignas Kleden (2003) defines social ontology as a branch of philosophy that specifically questions the nature, form, and existence of social reality. The main question is: what actually exists in the social world? Does social reality consist of objective facts that are independent of individuals (such as institutions and structures), or is it merely a subjective construction of collective consciousness and perception? Furthermore, Sulistyowati Irianto (2012) adds that social ontology also seeks to understand how social entities such as laws, markets, or cultures emerge, persist, and change through human agency. This study forms a critical foundation for the social sciences because it determines the basic assumptions about what is being studied, before questions about how to know it (epistemology) and for what purpose (axiology) are asked.

The Ontological Foundations of Social Science and Their Epistemological Implications

Discussions about the ontology of social science cannot be separated from fundamental questions about the nature of social reality, which is the object of study. Kaelan (2015) states that ontology functions as a foundation that determines the boundaries of what is considered to exist and can be understood in a discipline. In the context of social science, this foundation is crucial because social reality is not only physical, but also a construction of meaning, power relations, and historically formed institutions. Thus, ontology in social science acts as a framework for “mapping the world” that will determine how researchers position agents, structures, and the causal relationships between them.

Muhadjir (2017) adds that without clear ontological assumptions, social research is prone to methodological bias and categorization errors. For example, if a particular social phenomenon is understood as objective and fixed, then positivistic methods are considered adequate. Conversely, if social reality is understood as an intersubjective construction, then an interpretive approach becomes more relevant. In other words, the ontological discussion is not merely philosophical discourse, but has direct consequences for the formulation of theory, the selection of methods, and the process of interpreting research results.

In Indonesia, Bagus (2019) criticizes the tendency of some studies to directly adopt Western frameworks. This criticism emphasizes the importance of ontological reconceptualization that is capable of capturing local characteristics, such as the values of collectivity, spirituality, and distinctive cultural practices. This criticism shows that a strong ontological foundation not only produces valid knowledge, but also knowledge that is contextually relevant.

Social Reality as a Form of Interaction: Linking Agents and Structures

Discussions about the social as a scientific category require a non-reductive understanding. Budiman (2005) asserts that the social is a dynamic process formed through interactions between individuals and institutions. This definition rejects views that separate individuals from their social context. Social reality is understood as a co-productive manifestation: individuals shape structures, but at the same time structures constrain and facilitate their actions.

Kleden (2003) reinforces this position by pointing out that social ontology must answer the question of what constitutes the basic unit of social reality. Are humans as actors the main source of change, or do social structures have an independent existence? This question is important because it determines the direction of analysis: whether research focuses more on micro actions or macro relational patterns. Sulistyowati Irianto (2012) adds another dimension by emphasizing that many social entities such as laws, norms, and markets are emergent and can only be understood through collective practice. This means that social reality is not static; it is continuously produced and maintained through repeated social practices. This perspective reinforces the relational ontology position, which views relationships as the basis for the formation of social reality.

Agency: Human Action in a Limited Structure

Agency is one of the most crucial concepts in social science ontology because it relates to the ability of humans to act in complex social contexts. Emirbayer and Mische (1998) conceptualize agency as a temporal process consisting of past reflexivity, present orientation, and future projection. This temporal meaning is important because it shows that agents never act randomly; their actions are the result of historical experiences, current situations, and visions of the future.

Hitlin and Elder (2007) expand on this concept by emphasizing the dimensions of morality and identity in agency. This means that human actions are not merely responses to structures, but also reflections of personal values and aspirations. This perspective rejects the deterministic assumption that structures are the sole determining factor. The dynamics of agency can be seen in collective practices such as mutual assistance or community-based social mobilization, which show that agency is not only individual but can also be communal. This enriches the ontological discussion of agency, especially in societies with collectivist cultures.

Social Structure: Not Just Patterns, But Dynamic Networks of Power

Social structure is often misunderstood as a static pattern that merely regulates behavior. Martin (2003) criticizes this view by pointing out that structure is a configuration of opportunities, constraints, and resources that change over time. Structure not only regulates, but also “invites” certain actions. In other words, structure is a dispositional condition that influences the choices of agents.

Sewell (2005) introduced the idea of structural duality, namely that structures are both flexible and stable. This perspective is in line with Giddens' thinking but places greater emphasis on the capacity of agencies to change structures through repeated practices. An important implication of this view is that social change is not an anomaly, but a logical consequence of the continuous interaction between agents and structures. In the Indonesian socio-political context, for example, policy changes often arise from the mobilization of civil society, which is able to exploit gaps in the political structure. This shows that structures are not monolithic entities; they have spaces that can be entered and modified by social actors.

Social Causality: From Description to Understanding Mechanisms

Social causality enriches ontological discussions because it explains how social phenomena are connected and produce change. Hedström and Ylikoski (2010) emphasize the importance of understanding social mechanisms, rather than merely the correlations between variables. Mechanism analysis allows researchers to see the steps in the process that connect specific conditions with specific social outcomes.

Little (2016) offers a multilayer explanation approach that shows that social causality is layered: individual actions, structural patterns, and macro contexts work simultaneously. This means that a good social explanation is one that is able to capture the interactions between these levels. Nugroho (2021) shows how social mechanisms are key to understanding digital transformation, public policy changes, and social movements. This mechanism approach helps avoid deterministic conclusions and provides a richer explanation of how change occurs.

Social Ontology Challenges in the Digital Age

Digitalization has changed the place where social reality is formed. Sulasman (2018) explains that social reality is now formed not only through physical interaction, but also through digital spaces that create virtual communities, identities, and relationships. This shift raises ontological questions: do social entities that exist in digital spaces have the same ontological existence as social practices that occur directly or physically? This phenomenon directly challenges the classical social ontological framework and demands a redefinition of what is referred to as social reality.

A crucial ontological challenge is the emergence of hybrid agency, where human social actions no longer stand alone but interact with algorithms and technology. Nugroho (2021) shows that in many contexts – such as information consumption, political preferences, and economic interactions – algorithms take on the role of non-human actors that help shape individual decisions. This condition raises ontological questions about the limits of human agency: are humans still at the center of social actions, or has technology now become part of the entities that help direct actions? This question is increasingly relevant in Indonesian digital society, which is very active in using social media.

The digital era has increased the complexity of social causality. Wicaksono (2019) explains that social phenomena in Indonesia now move in non-linear patterns and are influenced by interactions across levels, ranging from individual actions to global policy changes. This complexity makes social mechanisms difficult to map in a singular manner. Thus, social causality can no longer be explained through a single level of analysis, but requires a multilevel approach that is appropriate to the nature of contemporary social change. Ontological understanding must be more comprehensive of the relationship between agents, structures, and social contexts in digital networks.

Overall, the challenges of social ontology in the digital age demand an update to the concept of the nature of social reality. Kuswarno (2020) argues that Indonesian social sciences must be able to develop an ontology that is not only adaptive to global developments but also sensitive to local values and cultural dynamics. With the emergence of digital reality and hybrid agency, social ontology requires a new formulation that can explain social change more accurately, relevantly, and contextually.

CONCLUSIONS AND RECOMMENDATIONS

The study of social science ontology shows that social reality is the result of dynamic interactions between human agency, social structures, and causal mechanisms that influence each other. Agency cannot be understood separately from structural conditions, while structures are not static but constantly changing through social practices. The causal mechanism approach provides a more in-depth explanation of how social phenomena are formed and change over time. In the digital age, new challenges have emerged, such as virtual reality, hybrid agency, and interactions between humans and algorithms that change the way social reality is constructed. Thus, social ontology needs to be updated in order to explain contemporary phenomena more accurately and contextually in relation to the dynamics of modern society, including Indonesian society.

To strengthen the ontological study of social sciences, future research needs to integrate classical approaches with the new dynamics of the digital age, including the emergence of hybrid agencies and structural changes in virtual spaces. Researchers are also advised to consider the cultural and social context of Indonesia so that the theories used are more relevant and authentic. In addition, the philosophical literacy of academics needs to be improved so that social research has a strong ontological foundation and is not merely descriptive. A multilevel approach and cross-disciplinary collaboration are also important in order to understand the complexity of social causality more comprehensively.

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