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The Epistemological Approach to the Critique of the Human Sciences in the Work of Gilles-Gaston Granger

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***Abstract*—**This article, entitled "The Epistemological Approach to the Critique of the Human Sciences in the Work of Gilles-Gaston Granger," falls within the framework of an investigative strategy aimed at exploring the problem of conceptualising the human sciences from an epistemological perspective and identifying the most significant transformations that have shaped the development of these sciences. It also seeks to examine the expansion of scientific inquiry through an intensified critical approach undertaken by Granger, who directed epistemology towards investigating the system of conceptual structures and philosophical conceptions underpinning the fields of psychology and sociology. Consequently, critical inquiry has increasingly focused on renewing epistemological perspectives concerning the nature of the scientific outlook shaped by contemporary cultural transformations.

***Keywords*—**Critical and Epistemological Approach, Psychological Studies, Sociological Studies, Human Sciences.

Introduction:

The ongoing epistemological debate in scientific circles concerning the human sciences, which has come to dominate the contemporary philosophical landscape, represents one of the major intellectual and scientific concerns that have broadened the scope of debate between philosophical and scientific perspectives. This development has taken place following methodological advances that have become particularly evident in their epistemological orientation, especially after these sciences achieved independence in terms of their subject matter and methodology from the philosophical dominance to which they had previously been subjected. Philosophers and scientists have increasingly aspired to draw inspiration from the progress achieved by the natural, physical, and mathematical sciences in seeking opportunities to establish an appropriate scientific model for the human sciences, while attempting to distance them from the metaphysical influences to which they had fallen prey. In this regard, what is the nature of the critical and epistemological approach that Granger (G. G. Granger, 1920–2016) proposed concerning the human sciences?

1. The Human Sciences and the Problem of Conceptualisation:

Before embarking on a philosophical examination of the content of epistemology in relation to the subject matter of the human sciences, methodological necessity requires us to define epistemology, which means "the study of scientific knowledge from a critical perspective" [1]. This indicates that epistemology tends towards critical inquiry in its investigation of the truths of science. Lalande, for his part, emphasises that "this term means the philosophy of science, or, more precisely, it is not a specific study of the methods of the sciences, since such a study falls within the scope of methodology, which is part of logic. Nor is it a synthesis or an intuitive prediction of scientific laws in the positivist manner. Rather, it is essentially the critical study of scientific principles, hypotheses, and results, that is, a study aimed at demonstrating their logical origin, rather than their psychological

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origin, and their objective value" [2]. This definition places epistemology at the heart of the harmony between logic, the methodology of science, and critical inquiry.

This early epistemological approach to the subject matter of the human sciences, advanced by Granger, emerged within the context of a growing impetus to transform the system governing philosophical inquiry, particularly in terms of the range of questions it raises in scientific fields and the subjects it addresses that possess a tangible, real-world character. It also reflects an intensification of opportunities for philosophy to engage with science from a critical perspective. The adoption of an epistemological dimension within the field of the human sciences was prompted by an issue that Granger sought to explore more deeply: the affirmation that epistemology is not a science, but rather a branch of philosophy that possesses its own particular perspective on the sciences. At its core, it is based on a theory of the specific production of scientific concepts, which makes scientific thought fundamentally different from the reflections embraced by philosophical thinking in its various fields of inquiry and epistemological determinations. This is based on the premise that "it is clear that epistemology is concerned with scientific knowledge" [3], as well as with the conceptions, concepts, and forms of knowledge about reality that emerge from it.

Given the distinctive position occupied by epistemology in contemporary philosophical thought, Granger raises, at the fundamental level, "a radical epistemological question concerning the mechanism through which concepts are formed" [4] within the human sciences. He therefore maintains that its objectives are defined by the task of interpreting the dynamics of scientific concepts in the fields of psychology, sociology, history, and anthropology. In this way, he began investigating the various aspects of epistemological developments that provide us with a deeper understanding of these sciences.

Granger recognised that the transfer of scientific meanings from one field to another enables us to understand the transformation involved, which, in turn, constitutes a central focus of epistemological inquiry, including within the field of the human sciences. This is because "the direction of the philosophical development of scientific concepts aims to organise thought, while science itself organises philosophy, since scientific thought provides a basis for classification and for the study of the progress of reason" [5]. This progress seeks to liberate philosophical reason from the ambiguity of metaphysical concepts that have become deeply entrenched in the intellectual imagination of philosophers. It has thus become clear that the intellectual strategy adopted in epistemological inquiry centres on identifying the most significant scientific conceptions and concepts surrounding the human sciences and uncovering the nature of the relationship between epistemology, in its critical functions, and the human sciences.

The problem that Granger seeks to address and whose features he attempts to clarify reveals the competing nature of scientific theories that have sought, each in its own way, to respond to the subject matter of the human sciences in light of the methodological and epistemological transformations they are undergoing, as well as the results achieved by the experimental sciences. "Thus, the emergence of the human sciences reveals to us a state of intellectual upheaval experienced by reason, perhaps more clearly than the achievements of the physical sciences do. This is because the psychological and social sciences are still far from finding a form of epistemological equilibrium of their own. This is why their point of departure is of considerable importance" [6]. This is based on the premise that these human sciences seek to enrich their conceptions and cognitive tools through scientific and symbolic language that enables them to provide an objective and scientific understanding consistent with their findings.

For this reason, the human sciences, in Granger's view, have come to draw sustenance from scientific conceptual activity, meaning that the intellectual structure upon which they were previously based is no longer fixed. They have therefore sought a scientific path that would protect them from the metaphysical deviations that had confined them within the strongholds of subjectivity and distanced them from the spirit of scientific objectivity. This is what led him to intensify his epistemological critique of these sciences, moving beyond the traditional conceptions upon which their overall systems had been established.

In this context, it is evident that, in Granger's view, epistemology seeks, through its critical function, to harmonise with objective facts when it adopts a scientific form in the construction of its knowledge and in the nature of its language. This "epistemological status attained by the human sciences was raised within the general epistemological framework of the sciences and the problems they periodically bring to the fore. This paves the way for defining the field of knowledge within which they can operate, as well as the objective and methodological classifications that determine their scope, given that the human being has become both a scientific

object and an actor within this world" [7]. In their own way, these sciences seek to establish realistic scientific research and investigation in order to understand the nature of the human being in his various psychological, social, and historical dimensions.

In Granger's view, this desired scientific inquiry within the field of the human sciences has acquired considerable potential in terms of its epistemological orientation and conception, thanks to the critical practice that has introduced a new methodology for understanding human behaviour. This has enabled researchers in these fields to delve into how human beings perceive, understand, and interpret their existence, away from the metaphysical and philosophical interpretations that had imposed their vision on rational inquiry. "Primitive mentality believes that it possesses the ability to explain everything, that is, it attributes all things, whether physical or mental, to psychological tendencies. Escaping this predicament is therefore one of the tasks that scientific development sets for reason in its understanding of the human being" [8]. This endeavour confirms that adopting the philosophical approach alone is no longer sufficient to achieve objective knowledge of the human being.

In Granger's view, this scientific and epistemological orientation to which he remained committed will eliminate all the general conceptions that have been formed concerning the subject matter of the human sciences. Consequently, critical inquiry in this context constitutes a strong foundation for changing perspectives on the possibility of acquiring knowledge at both the theoretical and experimental levels, as derived from philosophical and scientific approaches, notwithstanding the specific characteristics and meanings of these sciences. "These epistemological particularities of the human sciences relate to the conditions of their objectivity, the manner in which they conduct observation and experimentation, and the relationship between theory and experience in research. This concerns their relationship with the exact and natural sciences, as well as with major cultural and ideological currents" [9]. This reflects the existence of an underlying assumption that the human sciences must seek scientific legitimacy and advance towards establishing methodological and conceptual approaches suited to their specific nature, enabling them to confront the fragility of the philosophical concepts commonly employed in their field.

These various scientific endeavours aim to establish a precise epistemological concept of the human sciences. This suggests that the conceptual construction of this term has taken different forms because of the diversity of scientific positions adopted towards it. Although an initial examination of these sciences may suggest that they are separate from one another, this is essentially due to the complexity of the fields of human phenomena and the diversity of the problems surrounding them. Hence, "the designation 'human sciences' remains a subject of controversy. There are numerous terms that their proponents prefer to apply to the body of research and studies concerned with human beings and their activities, which distinguish them from all other creatures. Examples of these designations include social sciences, cultural sciences, behavioural sciences, mental or spiritual sciences, and moral sciences. The term 'social sciences' is, however, closer to being synonymous with the term 'human sciences'" [10]. This characteristic essentially stems from the intellectual position adopted by philosophers within their respective doctrinal approaches to the concept of the human sciences, which may sometimes be laden with ideological residues.

The problematic and philosophical character that has emerged within the field of the human sciences is fundamentally attributable to philosophers' attempts to impart a scientific and epistemological character to these studies, driven by their desire to acquire more precise knowledge and provide more comprehensive explanations through drawing on the experimental method applied in the natural sciences. "Natural sciences therefore study bodies and movements in space and seek to identify the laws that explain the occurrence of phenomena. Human studies, by contrast, are concerned with ideas, purposeful behaviour, and the rules that human beings establish and impose upon themselves in order to make their lives meaningful" [11]. This meaning represents the underlying significance of deepening the scientific perspective derived from reality in order to understand the causes of phenomena, after philosophical perspectives had come to dominate their intellectual content.

For this reason, scientific status has come to represent the path that the human sciences aspire to pursue and establish, as is the case with the natural and physical sciences, with the aim of securing the conditions necessary for objective explanation. Nevertheless, numerous obstacles have prevented them from fully achieving the desired epistemological objectives. This led Granger to emphasise "that the human sciences, by virtue of their particular nature, have found themselves in a predicament" [12]. This predicament essentially stems from philosophers' acceptance of metaphysical assumptions that were far removed from the realistic and experimental principles

advocated by science in the pursuit of knowledge free from philosophical rigidity.

1. Continuation: The Epistemological Approach to the Human Sciences

It is evident in this context that philosophers' engagement with the epistemological dimension, in its critical form and through the conceptual, logical, and objective grounding of truths derived from experience, suggests that "general epistemology has come to encompass all the experimental sciences and the entire range of formal sciences, with the aim of identifying, for example, their logical origins, methods, value, and degree of proximity to objectivity" [13]. This makes Granger's intention to investigate a conceptual dimension quite clear. Indeed, "the specific subject matter of epistemology is to be found in every science and in the process of conceptual creation. What epistemology seeks to achieve lies in the applications of science, its development, and the way in which it creates and operates" [14]. In this way, the place of epistemological inquiry within the scientific horizon becomes clearly defined.

These epistemological extensions have enabled scientific reason to experience a contemporary dynamic that differs entirely from the past of science, gradually freeing itself from conceptual rigidity and transforming the stereotypical image it had previously followed. In this regard, "the focus is placed on the way philosophers and epistemologists have attempted to define science as an expression of human rationality" [15], which seeks to realise the epistemological objectives of the human sciences in their objective form. This is achieved by relying on the functions performed by the epistemological system in its theoretical and practical dimensions and by establishing a precise scientific and methodological foundation for these sciences. Through its critical activity, epistemology also seeks to consolidate scientific concepts as part of its clear endeavour to conceptualise the knowledge circulating within the field of the human sciences.

2. The Epistemology of Psychological Research

Psychological studies constitute one of the fertile fields into which epistemological research has deeply penetrated through its critical orientation, particularly following the decline of philosophical explanations. Psychological phenomena had previously been studied by philosophers from an exclusively philosophical perspective. However, with the scientific developments that emerged in the intellectual and cultural spheres, scientists shifted their strategy towards the objective and experimental study of psychological phenomena and functions in order to understand the psychological states experienced by human beings, including feelings, inclinations, desires, perceptions, memories, and so forth, while drawing on the findings obtained through experimentation.

In this regard, Granger did not hesitate to follow closely all the profound changes that had taken place in psychological studies and research, as well as the developments involved in the transition from philosophical concepts to scientific concepts. This strategy shifted towards the interests of psychologists, who sought to understand and diagnose the psychological component and its direct influence on understanding the system of human behaviour through the use of observation, analysis, and experimentation. From its inception, this science began to expand its research methods. The circumstances surrounding "the birth and emergence of this science, as is well known, resulted from the critique of psychology that focused on consciousness, on the one hand, and, on the other, from the critique of psychology that focused on the issue of stimuli" [16]. These subsequently acquired considerable epistemological value and became a methodological foundation for studying behaviour, which reflects psychological influences, through investigating its subject matter and identifying the subjective and objective factors that shape it.

In this context, it can be emphasised that these developments in psychological studies did not emerge all at once. Rather, they ultimately culminated in subjecting human states of consciousness to objective study. This influence had a positive impact on the expansion of epistemological inquiry into the nature of psychological perception and the exploration of its depths. Consequently, psychologists became increasingly concerned with establishing a scientific perspective and moving beyond the simplistic view of psychology that had prevailed since its earliest beginnings. This was despite the fact that psychology had been slow to achieve independence from philosophy and to establish a precise definition of the subjects it investigates from scientific, methodological, and epistemological perspectives. These developments, "as demonstrated by the works of psychologists, reveal the growing interest in investigating the nature of individual and empirical knowledge" [17], particularly with regard to the possibility of comprehensively understanding both.

This anticipated comprehensive understanding opened up significant opportunities for experimental psychology to engage with the issue of the development of knowledge in children, investigate its concepts, and clarify the

nature of their circulation within the field of epistemology, which had previously assumed a philosophical form but subsequently evolved into precise epistemological problems. These problems were brought to light by the scientific orientations imposed on psychological issues, ultimately revealing “the transformation of the task of epistemology and logic in general into an endeavour to uncover the structure of the system of scientific thought” [18]. This system has come to respond directly to the need to establish scientific concepts precisely, on the basis of empirical data.

These successive changes in the establishment of scientific concepts from an experimental perspective, together with the intensive activity of applied rationality, accelerated the pace of revolutionary discoveries in the fields of physics and mathematics. They also contributed to the creation of an advanced symbolic and scientific language that strengthened a sound understanding of the concept of development. “This led Piaget to regard psychology as a fertile field for discovery and new scientific contributions. It became evident that psychology, which emerged relatively late compared with biology, would allow for new discoveries” [19]. These discoveries became a powerful foundation with a remarkable capacity to displace the traditional understanding of psychological activity in its relationship with the various forms of knowledge.

Granger believed that the development that had taken place in psychological research resulted from psychology’s interaction with scientific theories and its expansion into the study of human behaviours. The purpose was to understand these behaviours and analyse their significance through experimental methods, while integrating the conditions of scientific investigation designed to overcome the metaphysical dimensions that had previously affected the discipline. This also involved thinking methodologically about establishing a scientific and epistemological approach capable of providing an objective explanation of psychological phenomena. Its guiding direction consequently became the understanding of the processes of lived reality. This led Granger to resume the task of “searching for a precise methodology for analytical psychology, which would make it possible to derive a general perspective on the human sciences and the particular problems they raise” [20]. These particularities were essentially represented by the scientific developments in studies and research concerning the findings of psychoanalytic theories, which had revealed the reality of hidden behaviours deep within the human psyche.

This scientific contribution is attributable to Freud, who deepened and developed experimental research and produced findings that broadened the scope of psychology. Through his use of analytical methods, he was able to move beyond the superficial understanding of psychological life, which had previously been dominated by philosophical reflections. In this regard, he resumed the research of his predecessors, Joseph Breuer and Charcot, in order to demonstrate the reality of the unconscious, which subsequently became a legitimate hypothesis. At the same time, he emphasised the limitations of philosophical explanations in describing the psychic apparatus. This philosophical position, which confined psychological life to the notion of self-consciousness, could not withstand the scientific and experimental orientation that revealed the reality of the unconscious as a means of understanding human behaviour on the basis of the available evidence. This demonstrates that the transition from theoretical rationality to applied rationality has its justifications, since experimentation has sufficiently demonstrated the collapse of philosophical conceptions that relied on an illusion of rationality in explaining the relationship between consciousness and behaviour.

3. The Epistemology of Sociological Research

Psychological studies have had a profound impact on bringing about radical changes that contributed to destabilising the general understanding of the discipline. Their influence subsequently became apparent at the conceptual level of sociology, as a result of the considerable degree of maturity and development they had attained. Granger therefore believed that the adoption of contemporary methodologies “made it possible to combine empirical elements with hypothetical elements” [21], thereby helping sociologists construct conceptions characterised by scientific qualities. Their knowledge consequently became subject to organisation, precision, and rigour. This explains the incorporation of the “epistemological conception” into contemporary scientific debates, which emerged “with the development of the human sciences and the advent of sociology, psychology, political economy, linguistics, and so forth, which came to represent one of the major philosophical events of the twentieth century” [22]. These developments shaped the cultural landscape amid the transformations taking place in social studies, particularly in their epistemological dimension, with the aim of understanding them objectively and identifying the most significant phenomena associated with them.

These objective and scientific incentives, which attracted the attention of sociologists and epistemologists alike, enabled them to delve deeply into the investigation of all the components of social phenomena. They did so by

adopting methods of description, analysis, investigation, experimentation, and statistics, with the aim of revealing the relationships and similarities governing these phenomena, whose study has developed considerably, particularly in contemporary times. “These emerging social sciences needed freedom and flexibility in order to search for the most advanced methods of defining their areas of concern, particularly with regard to methodological issues” [23]. This is because attention to contemporary scientific methodologies has become one of the fundamental concerns underpinning scientific theories in the investigation of these social sciences.

This explains why the development of methodological research within the field of the social sciences paved the way for establishing a perspective characterised by scientific and objective standards. Their fields consequently expanded to accommodate advanced epistemological theories, given that “epistemology actually studies the structure and formation of scientific concepts and theories, while also delving more deeply into the methods and practices adopted by scientists” [24]. This enables these scientists to resume constructing their theories around the idea of the continual generation and development of scientific discourse concerning the study of human dimensions.

There is, therefore, a diversity of scientific theories that have addressed research issues relating to the human sciences within clearly defined critical parameters. “In sociology, as in any other science, scientific inquiry does not stop at understanding phenomena alone; it also extends to the precise formulation of findings. However, the overlap between knowledge and scientific knowledge once again obstructs such precise formulation. Just as there is an overlap between scientific concepts and general concepts at the level of understanding (...), the sociologist must maintain constant epistemological vigilance” [25]. Such vigilance makes scientific activity more closely aligned with critical and epistemological inquiry into the nature of the phenomena being studied.

This critical spirit, which epistemology seeks to promote within the human and social sciences, indicates that the epistemological and methodological structure that Granger carefully pursued possesses a strong scientific and epistemological dimension. It moves towards liberating scientific reason from its narrow understanding of human phenomena by analysing these phenomena, undertaking epistemological investigation, and uncovering the interpretations associated with them. This demonstrates “the tendency among psychologists and sociologists to simplify their general and intuitive conceptions of facts and to provide human action with an interpretation based on understanding. However legitimate and inevitable this position may appear, an important obstacle nevertheless confronts reason in relation to these sciences. On the one hand, understanding often reaches a point at which the investigation of complex facts comes to a halt, although analytical methods must continue to be applied to them. On the other hand, it is then necessary to proceed to the rational interpretation of social facts” [26]. This interpretation will ultimately provide the theoretical principles that enable sociologists to understand the content of these phenomena.

In this context, it has become clear that the concept of interpreting social facts is, in Granger’s view, a natural approach whose significance needs to be understood, despite the presence of certain philosophical features resulting from the functions of critical reflection on its subject matter. This category of intellectual subjects addressed by sociologists in their respective fields reflects their direct inclination towards reshaping the theoretical foundations underlying observed social facts. They attempt to follow the paths of experimental logic, whose influence extends to positivist thought. These factors are therefore considered clear indications of Granger’s insistence, through the “epistemological critique” he adopted, on uprooting the metaphysical conception of these sciences and creating opportunities to replace the theoretical dimension of reason with an applied project that effectively engages with the requirements of understanding empirical reality in the human sciences. Through this process, such research reaches the stage of objective inquiry. As Granger states: “It seems to us, from a fundamental perspective, that the effort to objectify human reality can provide a concept of human action” [27], together with the scientific concepts and meanings embodied in this action, which help diagnose the reality surrounding it.

In Granger’s view, the nature of this research, which concerns the study of human reality from an objective and experimental perspective, constitutes an essential foundation for developing a scientific approach to it. It has revealed the existence of an important epistemological orientation that had previously been adopted by positivism. Its powerful influence has begun to extend towards the scientific project through which sociologists seek to construct a scientific perspective based on objective and experimental foundations, without allowing any distortion to undermine the reality of the subject matter of the human sciences or deprive these sciences of their original identity. Therefore, “the issue is not one of halting the development of the human sciences as they engage

with the experimental approach. Rather, it is simply a matter of identifying, through reflection and practice, the methodological rules that make this research productive" [28], whether in terms of the nature of the methods adopted by researchers or the value of the results they obtain.

Consequently, the human sciences should not remain closed in upon themselves. Granger therefore considers it necessary for these sciences to move beyond their traditional framework and carefully open themselves up to other disciplines in order to benefit from their methodological, epistemological, and objective advantages. One example is the openness of sociology to psychology. This confirms, in this case, that there are shared conceptual, scientific, and objective characteristics between the two disciplines that have been put to use. This is because "there is a method of understanding the individual, such as psychoanalysis, which has come to be employed as a method for understanding social life, since it points towards a multidimensional epistemological development" [29]. Its effectiveness has been demonstrated by the validity of the findings and discoveries achieved through the expansion of the concept of scientific applications.

Within this intellectual context, Granger understood that these scientific applications form part of the procedural work encompassing social studies, which, in turn, seek to reinforce the objectivity of the scientific interpretations derived from the body of observations made by researchers concerning changes in customs and traditions, on the one hand, and the structure of the family and society, on the other. This has been made possible by revealing the effects of economic factors and working conditions. "Even the studies conducted by sociologists on the division of labour, suicide, and the tribal system were all essential points of reference for them. For philosophers, however, the situation represents something different: the emergence of an epistemological position in which the critique of the human sciences inspired by Marxism and phenomenology seeks to invalidate them" [30]. This has given rise to extensive disagreements concerning the nature of social studies.

This intellectual reconsideration of the epistemological status of the concept of objectivity will lead to a distinction between its applications in the field of the experimental sciences and those in the field of the human sciences. Nevertheless, the characteristics of the latter require that the idea of empathy with the subject of study should not be neglected, alongside the endeavour to understand that subject from within its psychological and cultural dimensions. Even Émile Durkheim's (1858–1917) call to study social phenomena as external things is based on the premise that they should be investigated using the same methods employed in the study of natural phenomena, while preserving their essential characteristics and specific laws, and recognising that they exist independently of individuals' consciousness. "Sociological study therefore presupposes knowledge of the different states of the mind" [31], in light of the developments that have taken place within the structure that constitutes it.

These specific procedures, which seek to establish an advanced concept of objectivity in its scientific form, represent an important transformation in the historical development of the human sciences. These sciences, in turn, aspire to benefit from the procedural application of scientific concepts and their methodological expansion. This indicates that they have begun to make progress in fulfilling their tasks as they have increasingly resorted to criticism and interpretation, both of which have penetrated the very core of scientific theories and the methods used to diagnose social and historical phenomena. This has ultimately led to the conclusion that "sociology, as well as history, is based above all on the characteristic of interpretation, which takes the form of understanding human activity" [32]. This is regarded as an established mechanism adopted by researchers engaged in understanding the content of these disciplines.

These successive epistemological developments led Granger to believe that sociology had become a fertile field for the emergence of scientific discourse concerning its subject matters. Consequently, they enabled scholars to move beyond the arbitrary assumptions that had been constructed around it in the collective imagination. This approach thus equipped them to bring about an epistemological break that dispelled the common views that had become associated with this discipline and its subject matter. This became possible when sociologists prepared themselves to identify their objective aims by acquiring the tools of criticism and analysis, thereby moving beyond the confines of popular ideas, whose tyranny and ideology they were exposed to. They also benefited considerably from scientific language and its terminology, as well as from developing a substantial capacity to free themselves from colloquial language. Therefore, "sociology has recently become more advanced as it has followed the tradition of studies conducted by linguists" [33], which served as a contributing factor in understanding the internal structure upon which it is based.

This intellectual cross-fertilisation between sociology and psychology strengthened the prospects for establishing conceptual approaches. In Granger's view, it thus became a major contribution to revitalising the idea that the human sciences should be open to one another. This available possibility led to the construction of theoretical foundations and scientific and conceptual horizons for these sciences, "which come into contact with the applied sciences through their relationship with the theoretical sciences" [34]. The experimental strategy thereby enabled the development of knowledge in both disciplines and the emergence of an objective vision and an advanced epistemological approach. This led scholars to become convinced that the scientific work they undertake does not deviate from the objective of acquiring precise knowledge through this research.

Conclusion:

The major transformations witnessed by the human sciences in contemporary times represent a remarkable leap in methodological and epistemological expansion, imposed by advanced epistemological and experimental works that have intensified their critical role and asserted their influence at all levels of knowledge. These transformations, in which Granger consciously engaged, suggest the existence of a strong epistemological desire to investigate the most important factors contributing to the transformation of the profile of these sciences in terms of understanding, analysis, and interpretation. The transition from theoretical sciences to the application of applied sciences, and from theoretical rationality to experimental rationality, constitutes a major breakthrough in renewing our understanding of the human world in both its subjective and objective dimensions. It also involves identifying the most significant epistemological obstacles that had stood in the way of the human sciences. Nevertheless, Granger did not hesitate to diagnose the scientific and mathematical concepts that influenced the development of these sciences as they sought to free themselves from the metaphysical and philosophical residues that had been responsible for their delay.

Accordingly, Granger believes that the way for the human sciences to emerge from their intellectual and philosophical predicament lies in intensifying critical epistemological work, which represents the proper scientific path leading them to dispel the metaphysical and ideological illusions that have proliferated in the subject matters of psychology and sociology. They therefore have no alternative but to adopt conceptual grounding derived from reality and attempt to adapt it to their respective subject matters. These concepts have increasingly been drawn from the physical, natural, and mathematical sciences, despite the fact that the degree of certainty within them is very limited.

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