

SALVE REGINA UNIVERSITY

MARX'S MATERIALIST SOCIOLOGY OF KNOWLEDGE:
COLLIDING EMPIRICAL FRAMEWORKS OF CONSCIOUSNESS

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PHILOSOPHY

BY

TODD J. MELE
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Abstract

'Consciousness' is among the more problematic and ambiguous terms in social science. In response to modernity, Karl Marx provided a new view of consciousness. The dissertation engages in Marx's work beyond the confining frameworks of economism, history and philosophy. As we await the dawn of Marx's proletarians revolution, the contemporary sciences continue to grapple with explaining consciousness. The dissertation examines how the sciences think about consciousness. What's more, this project illustrates that explaining 'consciousness' will require more than rethinking our conceptualizations of 'consciousness.' Today's understanding of 'consciousness' is such that new analysis is possible, but only in considering how scientific traditions stymie progress; all for the sake of tradition rather than truth.

PREVIEW

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Chapter 1

Introduction

Today's scientific culture is just like any other culture, that is, it has its own traditions and norms. But its 'progress' has not been without its problems. In this study, I will examine the relationship and function of traditions and norms with the production of scientific thought. More specifically, I examine the relatedness between Marxist thought, with insight garnered from contemporary neuroscientific thought, in assessing how we think about 'consciousness.'

In contextualizing Marx's contributions, I will provide comparative analysis between Marx's social theory and cognitive neuroscientific thought. Additionally, I will also provide an examination as to why 'consciousness' remains problematic for scientific thought. Moreover, just as Marx helped to produce a revolutionary view of human consciousness, contemporary neuroscience is also revolutionizing the landscape of consciousness-studies. Catalyzed by advancing technology, this science is inclined to look inward; producing knowledge thanks to innovative views of neural synapsis and neuropathways. Deep within our physiology, they have unveiled previously invisible frontiers found within ourselves. Their findings indicate that we can be examined and, what's more, *understood* like never before.

But the traditions and norms at the center of knowledge-production are a problem, in that, often times, the inclusivity of scientific thought (i.e. the sharing of

knowledge, or “interlearning”¹) is discouraged, undervalued and stigmatized. What remains, as a result, is the potentially, and mutually-informative, scientific fertile ground, left untapped. But *thinking*, that is, the processes and traditions of how specific traditions of thought are reproduced, holds a special relationship to knowledge. Undervaluing this relationship minimizes the function and influence of the culture that drives scientific thinking, and the body of knowledge that each science produces. Additionally, I argue that the scientific disciplines, and, indeed, their object of study, are deserving of an improved dialogue. As such, this project explores how, comparatively, the sciences *think about* consciousness as an academic enterprise.

Thankfully, the academic interrelation that exists between social theory and neuroscience is hardly revolutionary. And there has been much interest in considering how such approaches converge with respect to ‘consciousness,’ dating back to the classical period of sociological inquiry.² The growing curiosity and promise of the confluence of the two sciences was ultimately hindered by what were, at the time, fundamental complications. Though these sciences were in their relative infancy, the ethos of each meant incongruences that spelled trouble for the relationship between the two. At the time, each of these disciplines has only just begun on their respective paths towards their tried and true methodologies. I begin, therefore, with pragmatic inspiration, found in Stephen Turner’s work, “Social Theory as a Cognitive Neuroscience” (2007), published in the *European Journal of Social Theory*. “Social theory,” writes Turner, “cannot get very far without making generous use of

¹ Turner, Stephen. “Social Theory as Neuroscience.” P. 357

² Turner, Stephen. “Social Theory as Neuroscience.” P. 357

mentalistic or cognitive concepts.”³ And when social scientists think about ‘consciousness,’ regardless of how one might operationalize the term itself, this still requires a certain reliance upon on the term as an assumed abstraction:

Even the identification of the domain of social theory, particularly its articulation as ‘sociology,’ that is to say a special discipline concerned with the social, typically relies on cognitive concepts. Weber for example, defines social action in terms of the concepts of subjective meaning. Durkheim conceives of sociology as itself a cognitive science whose special subject was the collective consciousness.⁴

Turner illustrates the interrelatedness between the thinking that drives components of both cognitive neuroscience and social theory. And this is crucial, as “Certain kinds of bridging work with neuroscience,” writes Turner, “would enable us to answer many questions in social theory that empirical sociology has failed to answer.”⁵ Going forward, I aim to address what is problematic with the assumed conceptualizations of ‘consciousness.’ Why is the practice of social science assumed to be of questionable value and applicability amidst the contemporary neuroscientific discourse?⁶

This dissertation addresses this question by considering: How Marx’s understanding of the function of consciousness might relate to contemporary neuroscience? My thesis is that, in deploying Marx’s materialist sociology of knowledge, two seemingly separate modes of interpretation can be simpatico as they have the propensity to once again share a relationship that offers innovative analyses of ‘consciousness.’

³ Turner, Stephen. “Social Theory as Neuroscience” P. 357

⁴ Turner, Stephen. “Social Theory as Neuroscience” P. 357

⁵ Turner, Stephen. “Social Theory as Neuroscience” P. 357

⁶ Turner, Stephen. “Social Theory as Neuroscience” P. 357

“The history of all hitherto existing society,” Marx claimed, “is the history of social struggles.”⁷ Marx’s assertion speaks to the class exploitation that would come to define history. In other words, because our history is wholly circumscribed by social struggle, we are alienated to *making* our own history; as a result, our history is not our own. This occurs when labor relations disembody the workers from the truth of their own experience. And, just as Marx considered their history as not their own, the same is true about their consciousness. More importantly, if the sciences are to help reveal our own nature to us, to fill in the gaps of understanding, then the divides between their analyses reproduces *other* gaps in understanding.

I’ll begin with the inspiring prominence of a particularly curious astrophysicist, author and thinker, Carl Sagan. I say curious because, coincidentally, his profound desire to help make science, evolution and critical thinking part of popular culture earned him some celebrity status as a result. So prolific was his approach, he became a fairly regular and popular guest on *The Tonight Show with Johnny Carson* in the late 1970’s and early 1980’s. In fact, I would argue, among his most impressive contributions to the knowledge of the human condition, was the pluckiness by which he sought to further humanity’s self-knowledge. There was a time when he asked the biggest of questions on the biggest of stages. In 1980, Carl Sagan published *Cosmos*, a fascinating, interdisciplinary approach to explaining our ‘place,’ our meaning-making, amidst the vastness of the universe.

Cosmos was so successful, in fact, that it was fashioned into a television series with Sagan, himself, as its presenter. The series was a fascinating and innovative

⁷ Marx, Karl. *Selected Writings*, p. 158 - 159

approach for both television and education. In each episode Sagan assumed the role of the humble tour guide, guiding viewers on the journey of self-discovery through the ever-important quest of critical thought. *Cosmos* the book, and its television series counterpart, were made with the grand ambitions: to bring the loftiest of advanced, scientific knowledge, to within grasp of those of us who are not scientists or astrophysicists. Providing context to all of this is important for this book because Sagan's work bridged the gaps that exist between advanced scientific knowledge and the masses. In doing so, *Cosmos* became a part of popular culture, and not just at the time of publication. The series earned a reboot, starring Sagan's spiritual successor, Neil Degrasse Tyson, the astrophysicist from Columbia University. Ultimately my research is interested in Sagan's thoughts on the matter of language; to be more specific, the *use* of language. Curiously, though, it is Sagan's inquiry into the social interaction amongst whales that is an important factor in steering the conceptual premise of my work. In particular, Carl Sagan's writing on the observations of whale behavior and the sophisticated communication amongst certain whale populations is an important reminder of the power of one's social environment in forming conscious experience. Sagan claimed that, over a long enough timeline, murky sea environments saw evolution slowly hinder the sense of sight for sea-faring creatures. This made it hugely difficult for sea creatures to rely solely on sight to interact with their environment. As luck would have it, some animals evolved to combat the inefficacy of sight.⁸ Naturally, what would emerge would reveal certain sea life to develop a

⁸ Sagan, Carl. *Cosmos*, 225

profound reliance upon their sense of sound.⁹ Of particular interest among such sounds were patterns of whale sounds. These patterns, often called 'songs,' became apparent to the scientific community.¹⁰ 'Whale songs,' as they would come to be known and understood, were not arbitrary, random, illogical or unconscious acts exhibited by whales. Instead, in the case of the whales he references, the complete opposite is true. These observed patterns, or songs, were fully intentional and deliberate acts made by what can only be regarded as sentient life. These creatures exhibited an apparent semblance of awareness and consciousness. It is their use of language that informs us as to their particular awareness of the world and themselves. "We are still ignorant of [the] true nature and meaning [of whale songs]," Sagan argued, "They range over a broad band of frequencies, down to well below the lowest sound the human ear can detect. A typical whale song last for perhaps fifteen minutes; the longest, about an hour."¹¹ Now, what is most telling about this example of consciousness is the finer details *about* the patterns of such songs. Whale songs are "Repeated, identically," claims Sagan, "beat for beat, measure for measure, note for note."¹² These complex arrangements provide a glimpse into the potential of these animals; of their consciousness. What must be inferred about such behaviors and patterns, on some level - at the very least – is that they indicate the propensity for social interaction and communication. These whales are exhibiting a linguistic

⁹ Sagan, Carl. *Cosmos*, 225

¹⁰ Sagan, Carl. *Cosmos*, 225

¹¹ Sagan, Carl. *Cosmos*, 225

¹² Sagan, Carl. *Cosmos*, 225

capacity – their practical consciousness. Whales use ‘song’ as language, as the processes of meaning-making and, therefore, exchanging meaning(s) amongst one another. We might even go as far as calling this - quite literally - a reasonable and intellectually meaningful form of networking. In ‘song,’ these creatures are clearly expressing an explicit form of meaning, and their ‘singing’ is the cooperative process of meaning-making. Their ‘songs’ are geographically organized and time-sensitive; these whales are intent on sharing with one another.

As trade evolved, stretching its reaches across the seas, commercial shipping vessels would come to be common throughout the oceans. The multitude of shipping vessels saw an equal, but invisible growth in noise pollution. And this fact would forever change life for the whale population. Noisy seas would be cut off whale pods from one another. As their ‘songs’ were fractured, their interaction interrupted, and as a result, their world would never be the same. I’ve included Sagan’s whale ‘songs’ as it is analogous to my conceptualization of human consciousness. As I will unpack, Marx’s analysis of labor relations and its dehumanization has isolated humanity from who and what we are.

With overwhelming labor demands on the countless working masses, the division of labor, and the ubiquity of the consumer culture, capitalism, it seems, has cut us off, in ways, not only from one another, but ourselves too. And the very same is true about how we seek to investigate, interpret and explain our own ‘consciousness.’ These are revolutionary times on the frontiers of consciousness. Unfortunately, obstacles remain along the path toward better understanding. Consequently, I argue that the sciences need to carefully re-examine how the sciences

think about ‘consciousness,’ and, moreover, that there is much promise to a holistic approach this component of our humanity.

PREVIEW

Chapter 2

Methodology

Each discipline has its own way of explaining the world. To a biologist or virologist with a light-microscope, for example, the cellular level reveals one particular story of our world; while to the astronomer or physicist, refractions of light, glimpsed through advanced telescopes, tell another kind of story. Nevertheless, one is no more “correct” than the other, and one is no more valid than the other. Each discipline has a particular mode of decoding the world, and the very same is true for social scientists.

Consciousness *can* be analyzed by any number of fields. There are, for example, fields that seek the origins of consciousness, while others investigate its physiological processes. The very concept of “consciousness” presents researchers with a unique opportunity. This project explores how the sciences *think about* consciousness. More specifically, this project asks how two seemingly separate modes of interpretation might share a relationship that might better explain “consciousness.” In existing in both abstract *and* physical form, consciousness remains problematic for scientists to explain. Understandably, the many conceptualizations of consciousness still puzzle those investigating it. This research responds to such problems by asking how Marx’s understanding of the function of consciousness relates to that of contemporary neuroscience.

The sociology of knowledge is, itself, a useful model for the study of consciousness as per the description of Karl Mannheim. According to Mannheim, the

sociology of knowledge, “Seeks to analyse the relationship between knowledge and existence; as historical-sociological research it seeks to trace the forms which this relationship has taken in the intellectual development of mankind.”

¹ The consideration of context, for example, permits understanding consciousness as measured by the very tools used to quantify, qualify and explain it. “Only in this way,” writes Mannheim, “Can we hope to overcome the vague, ill-considered and sterile form of relativism with regard to scientific knowledge.”² In the most basic of terms, any scientific assertion is, at its core, a “product of thought.”³ What’s more, each claim is *produced* by a particular scientific tradition.

With respect to scientific tradition, Thomas Kuhn’s *The Structure of Scientific Revolutions* (1970) proves particularly useful. Kuhn’s analysis on paradigms is essential for understanding how contemporary neuroscience ‘thinks’ about consciousness. Neuroscientific practice reflects our digital age - as does its insight. Thanks to neuroscience, ‘consciousness’ now takes the form of digitized images. As a result, these digitized depictions and representations have become the foundation upon which we frame our understanding. Of interest to me, is Kuhn’s assertion that science, “Seems an attempt to force nature into the performed and relatively inflexible box.”⁴ Therefore, I deploy Kuhn to investigate whether today’s neuroscientific paradigm has

¹ Mannheim, Karl. *Ideology and Utopia*. P. 237

² Mannheim, Karl. *Ideology and Utopia*. P. 237

³ Mannheim, Karl. *Ideology and Utopia*. P. 237

⁴ Kuhn, Thomas. *The Structure of Scientific Revolutions*. P. 24

incurred a ‘drastically restricted vision.’⁵ This is important in that, for many across the sciences, the contemporary situation is one in which ‘consciousness’ is now visible in new ways. A good deal of credit is due to the practice of neuroscience as it has revealed veiled frontiers within us with respect to consciousness. However, this constitutes a new type of critical insight, never before encountered, *because* it was not yet possible.

The problem of ‘explaining’ consciousness is that its function, meaning, and even conceptualization, has been fractured across disciplines (even *within* disciplines). There is an ever-growing disconnect between what we know about consciousness and how we have come to understand it. To endorse the production of knowledge of ‘consciousness’ when so much about it remains marginalized by scientific processes and embedded in its tradition constitutes a problem. The sociology of knowledge is relevant to this problem as it demonstrates accountability between an object of study and the analysis we rely upon to explain it. Furthermore, this framework holds scientific findings accountable by recognizing them not as science or consciousness as if they were in a vacuum, but rather, as they *are*, as interrelated social processes.

The sociology of knowledge is concerned with questions oriented toward the context to which particular findings belong. On the one hand, there is the matter of consciousness; for example, its study, and that which we come to know. Yet on the other hand, there are also important questions as to *how* that knowledge comes about. There are many whom examine, among other components, the influences and formation of consciousness. Karl Marx’s response to modernity and his subsequent

⁵ Kuhn, Thomas. *The Structure of Scientific Revolutions*. P. 24

findings are rooted in historical method, and as such, his work has helped to ground theory in real-life activity. For this project, I deploy Marx as his line of inquiry addresses philosophical abstractions by his emphasis upon life-activity and action, thereby *grounding* theory to the literal world.

In aiming to provide a more holistic approach to the study of consciousness, Marx's use of 'consciousness' appeals to a discourse which correlates the role of the body its social function and formation. Moreover, these aspects make Marxian thought well suited for the sociology of knowledge. Additionally, it fosters innovative inquiry as to how consciousness makes us human. I have included works that situate Marxist thought as belonging to classical sociological theory. Equally important, however, I have also attempted to highlight where Marx breaks from the likes of Hegel. This includes Marx's analyses on the role of action, life-activity and the body. Highlighting this material, as well as the distinctions that make Marx's conceptualization unique, demonstrates the functionality of his work in contemporary consciousness studies. In simplest terms, Marx's map of consciousness *is* the body. This linking of behavior, action and consciousness is intrinsic to the work that follows. Emphasizing these links helps to illustrate Marx's use of 'consciousness' as a catalyst for innovative interdisciplinary dialogue.

For example, Marx's critique of political economy, according to Mannheim, dealt with the world within terms of economics and class conflict. In calling for the working masses to unite, Marx's work "spoke" more about a group (the mass laborers and the capitalists) and not so much on the individual level. This is important to Mannheim's sociology of knowledge in that both power and, more importantly,

thinking, belong to the masses. Mannheim argued that no one individual “thinks,” but rather, that each individual inherits a specific mode of thinking from others, and one’s thinking is likely to reflect the sort of thinking belonging to his or her peers.⁶ The sociology of knowledge is also practical to this research as it approaches knowledge with two aspects. Firstly, there is the question of ‘how do we know what we know?’ And secondly, by asking how disciplines generate knowledge about a particular phenomenon. These are important questions because, as knowledge is produced - changing our understanding of ourselves and the world - it is important to examine how that knowledge impacts the disciplines themselves. The fundamental strategy and intended outcome of the sociology of knowledge, found in both Karl Mannheim and Michel Foucault, for example, provide useful models in an approach to consciousness. Such examples highlight the relationship(s) between knowledge itself and the very forces that produce it. Michel Foucault, a practitioner of the sociology of knowledge, was concerned with the means by which the sciences *think about* an object of study, the questions they propose, and the answers they produce. With respect to the study of social events, Foucault pointed to the pitfalls of systematic traditions that undermine validity by dissociating an event from its social context.⁷ According to Foucault, this ‘dissociation’ occurs the moment a scientist reduces the object of study through a particular use of scientific language.⁸ This is a cautionary proclamation by Foucault, to recognize the imprecision that is baked into the processes of knowledge

⁶ Lemert, Charles. *Social Theory*. P. 219

⁷ Foucault, Michel, and Rabinow, Paul. *The Foucault Reader* p 56

⁸ Foucault, Michel, and Rabinow, Paul. *The Foucault Reader* p 56

production. I consider this caution to be relevant to the study of consciousness.

Ritualized disciplinary traditions inherently stymie processes by which new insight is possible. Perhaps most importantly, this is not a mystical occurrence, but rather, a social byproduct, inherited by the manner by which the sciences reproduce and reinforce themselves. This is a point that each discipline *must* consider.

The natural sciences rely on empirical axioms to organize and generate knowledge about the world.⁹ In dealing with the physical world, their methods and findings have garnered much credibility because of the reliability of their findings and empiricism. And, more importantly, their quest for truth has earned them a legitimacy unlike that of, for example, those in social science. This is a reasonable assessment, in that natural science and its methods, deal with the physical world while social science contends with the study of typically more abstract, human behaviors. The cornerstone of the natural sciences is the ability to decode the world, through the use of quantified data, as a means of generating knowledge with the utmost consideration for objectivity. There are, however, problems with the notion of objectivity, namely, that natural science is itself, intrinsically, an extension of human thought.

The problems that I encountered in my research arose from the sheer volume and breadth of the many disciplines that engage in the study of consciousness. As such, I have navigated the relevant materials, engaging only resources that have met two criteria: Firstly, any account of consciousness must include social action and/or interaction. A scientific approach that neglects this ‘social’ theme, or instead solely focuses on the physiology or biological component of the brain, for example, would

⁹ Kundu, Abhijit. *The Humanities: Methodology and Perspectives*. P. 3

not be practical for this interdisciplinary study. And, second, such works must also emphasize the role of the human body in the performance of said action/interaction. Meeting these two requirements helped steer my research towards the dissolution of the mind/body debate itself, rather than attempting to provide a ‘solution to the problem.’

As a sociologist interested in how the ‘harder’ sciences think about consciousness, I began by broadly looking over the natural sciences. My curiosity about consciousness led me toward other sciences who are similarly interested in this component of our humanity. With social-psychology, physiology, biology, anthropology, and neuroscience – to name only a few - there is no shortage of academic discourse of consciousness studies. Nor is one left wanting for varied scientific frameworks. What I required, however, for my study, was a scientific approach that sought to analyze consciousness while speaking to the broader role of the body – in action. This is important, with respect to consciousness, because when assumptions of it remain incomplete, then the knowledge we produce will reflect that. This is something David Chalmers addressed in *The Conscious Mind* (1996), asserting that consciousness is problematic for the sciences. “Conscious experience,” writes Chalmers, “is at once the most familiar thing in the world and the most mysterious.”¹⁰ How can this be? More importantly, how can this problem be addressed? As he claimed, “There is nothing we know about more directly than consciousness, but it is far from clear how to reconcile it with everything else we know.”¹¹ Consciousness is

¹⁰ Chalmers, David J., *The Conscious Mind: In Search of a Fundamental Theory*. P. 3

¹¹ Chalmers, David J., *The Conscious Mind: In Search of a Fundamental Theory*. P. 3

so familiar to us, something we experience firsthand. And if the natural and social sciences are to explain it, they must consider such concerns. Or, as Chalmers' asks, why is it that, "We know consciousness far more intimately than we know the rest of the world, [yet] understand the rest of the world far better than we understand consciousness?"¹² With this dilemma being what it is, it seems apparent that sciences must acknowledge that, at least with respect to the scientific knowledge of consciousness, that something is amiss. Surely, somewhere amidst the various intellectual discourse of consciousness, *better* answers are hiding.

As such, it is my hope to explore how sociological inquiry might 'talk to' philosophical neuroscience, and vice versa. Similar to the work of Sherry Ortner within anthropology, I aim to examine the 'disjunctive investigations'¹³ with respect to conceptualizations of consciousness. Similar to Ortner, I am also concerned with the relationship between thought and knowledge as a means to 'elucidate' their relations to examine their consequences.¹⁴ As Ortner posits, it is essential to, "Unite

¹² Chalmers, David J., *The Conscious Mind: In Search of a Fundamental Theory*. P. 3

¹³ Ortner, Sherry. "Theory in Anthropology Since the Sixties" *Comparative Studies in Society and History*, Vol. 26, No. 1, Jan. 1984 P. 126. More from Ortner on 'disjunctive' sub-fields:

[Anthropology] appears to be a thing of shreds and patches, of individuals and small coteries pursuing disjunctive investigations and talking mainly to themselves. [Anthropologists] do not even hear stirring arguments any more. Although anthropology was never a unified field in the sense of adopting a single shared paradigm, there was at least a period when there were a few large categories of theoretical affiliation, a set of identifiable camps or schools, and a few simple epithets one could hurl at one's opponents. Now there appears to be an apathy of spirit even at this level... We are no longer sure of how the sides are to be drawn up, and of where we would place ourselves if we could identify the sides. P. 127

¹⁴ Ortner, Sherry. "Theory in Anthropology Since the Sixties" *Comparative Studies in Society and History*, Vol. 26, No. 1, Jan. 1984 P. 127. Ortner's essay is, "Primarily concerned with the relations between theoretical schools or approaches, both within periods of time, and across time... [Her] "concern... is with elucidating relations." P. 127

theory *and* practice” (my emphasis).¹⁵ There are encouraging signs that consciousness studies ought to be inclusive, however; namely, a path of thought, belonging to the broader field of neuroscience. And it is along this path that this project began to take shape.

Ultimately, my findings led to the discovery of a particular junction within neuroscience. On the one hand, the theorists I incorporate are intent on uncovering a deeper explanation of consciousness. And yet, on the other hand, they also possess humility in how they approach discovery. What I deploy is framed upon the notion that the natural sciences are a social behavior; that the gathering and collection of data, and the extrapolation of meaning through analysis is done by humans. Each science having its own specific methodology means, in short, that each “makes” knowledge in a particular way. Even if the study of consciousness is at an important cross-roads of explanation, the study of the physical brain long predates a good portion of social theory. As such, it was not necessarily apparent that scientists in neuroscience would have research that might dovetail with social theory. Additionally, how might social theory relate to that of neuroscience? On the surface, neuroscience appears to lend itself toward the interiority by means of neural activity interrelated with physical, but minute, synapses. Yet, social science, as implemented by Marx, emphasized social activity as the instrument by which to shape interiority (what he called ‘consciousness’). What my inquiry needed were scientists (from the ‘harder sciences’) who relate to the brain *beyond* its biological components, and beyond its biological functioning.

¹⁵ Ortner, Sherry. “Theory in Anthropology Since the Sixties” *Comparative Studies in Society and History*, Vol. 26, No. 1, Jan. 1984 P. 126.

Contemporary experimentation within neuroscience has done a great deal to explore the complex relationships between the body, the brain and consciousness. Such neuroscientists and theoreticians, include, for example, Kristof Koch, Alva Noë and V.S. Ramachandran. These theorists engage not only the function of the brain, as an organ, but also unpack its role in social processes. These theorists fully acknowledge and rely upon the importance of ‘consciousness’ being “seen.” This new ‘sight’ is derived from quantitative studies, using techniques involving MRI’s and other brain scans. Yet, Koch, Noë, and Ramachandran also advocate going beyond these snapshots of consciousness. This ‘opening of the dialogue,’ within the discourse of consciousness studies, is essential to my project. As such, other facets of neuroscience, those that preclude inclusionary language and practice, have not been included in this study as they do not engage the world ‘outside’ of their scientific tradition.

I am interested in the consequences of viewing consciousness as a problem ‘to be solved.’ This framework is entrenched in the fundamental scientific tradition. This fundamental approach in science is, however, problematic. To be wholly invested in the pursuit of truth while simultaneously framing one’s findings, as if in a vacuum, stands as a dilemma that could compromise validity. To combat this, I have focused on those practicing the theory of consciousness, in neuroscience, who have not isolated themselves. Additionally, I engage those who remain inclusive; those who recognize that ‘consciousness’ challenges the boundaries of scientific tradition.

In performing comparative analysis, I investigate the relationship between: first, a system *belonging* to the body itself, and second, social processes belonging to social interaction. It is apparent, then, that consciousness is not *just* a part of the body itself. It is equally important, however, to advance the argument that consciousness is not possible through social interaction *without* the body. As a result, it is both reasonable and plausible to consider how a dialogue with relevant social theory yields innovative knowledge about consciousness. In what follows, I will provide, first, a chapter on Marx's theory of consciousness. The following chapters will then argue for a need for a holistic approach to the study of consciousness.

Marx's theory, chiefly his analysis and critique of political economy, informs us as to the social order of a particular epoch of human history. As such, I seek to highlight Marx's theory against the backdrop of the likes of Hegel and Engels. Performing a comparative analysis of Marx's work with that of his influences, his theory of 'consciousness,' indicates an important shift in how we have come to think about consciousness. In what appears to explain labor relations and exploitation, Marx's work offers an innovative view of the relationship between body and mind. In exposing labor relations and exploitation as occurring as a result of actions of the body, Marx's theory extends beyond historical context and stretches to the contemporary frontiers of consciousness studies. More specifically, how might Marx's theory relate to the manner by which the sciences think about consciousness today. It is in light of his analysis of life-activity, that his particular science in the study of "consciousness" may inform other disciplines such as neuroscience. The thrust of this project reflects the sociology of knowledge in that I accentuate