
ON THE BRINK OF SCIENTIFIC REVOLUTION: PROBLEMATIZING THE SCIENCEHOOD OF AREA STUDIES

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Introduction

Broadly defined, area studies is a field of inquiry that employs an interdisciplinary approach to generate an encapsulated understanding of an area with all its peculiarities. Denotatively, an area refers to a portion of the earth's surface inhabited by individuals whose identities are shaped and have been shaped by their social, political, economic or cultural interactions. "An area is, so to speak, a cross-disciplinary unit of collective experience within which one can discern complex interactions among economic, social, political, religious, and other spheres of life."¹

Area studies developed in the modern period although its roots can be traced back to the Enlightenment. In that period, Western experiences were drawn to formulate universalizing knowledge. The entry of modernity marked a surge in the number of structures founded on reason and belief in science.² Together with this remarkable development arose two intellectual traditions that came to complement each other in one's pursuit of obtaining knowledge: the universal and the contextual. The manner in which they are utilized has featured in the practice of social science throughout this period.

Three comments pertinent to the standing of area studies in social science are necessary. First, the discipline is relatively new in contrast to other sciences. Second, it employs an integrative approach to study the area by utilizing concepts and methods from other disciplines. Lastly, the scope of its scholarship encompasses even that of the humanities like literature and languages.

1 Benjamin Schwartz, "Presidential Address: Area Studies as a Critical Discipline," *Journal of Asian Studies* 40, no. 1 (1980): 15.

2 Rhoderick John Abellanos, "The United Nations After Modernity," *Kinaadman*, 18, no. 1 (March 2007), under "UN After Modernity," <http://www.hnu.edu.ph/main/publication/kinaadman/1180307/11803076.pdf> (accessed December 2010).

Philosophically speaking, periods of history are demarcated by different paradigms. These paradigms serve to filter knowledge and classify the scientific knowledge from the non-scientific, pseudo-scientific from metaphysical, the rational from the non-rational and the certain from the uncertain. Whereas the modern period has canonized certain criteria that legitimize what is scientific, rational or certain, postmodernity signals “incredulity towards metanarratives” and the “obsolescence of the metanarrative apparatus of legitimation.”³ With these developments, any known body of knowledge that lacks the markers of scientificity, rationality, certainty or has evolved as a metanarrative that “represents an internal erosion of the legitimacy principle of knowledge”⁴ is cast with doubt. This situation reflects the academic quagmire of area studies.

This essay inquires into the sciencehood of area studies.⁵ Presently, a number of scholars denigrate the discipline by arguing that, first, it lacks theoretical and conceptual bases; second, it departs from the social sciences into the camp of the humanities; and third, it is politically tainted as it was used in response to World War II and the ensuing Cold War. In examining these, this essay makes use of Thomas Kuhn’s analysis on science as an analytic framework.

It is this essay’s contention that in the period of modernity, context or area-based knowledge, which area studies endeavors to generate and accumulate, has acquired scientificity. With the currency of rational choice analysis and the postmodern analytic approach, however, academic quarters began to question, if not cease to recognize, the sciencehood of the discipline.

Paradigm, Scientific Community and Scientific Revolution

In *The Structure of Scientific Revolutions*, Thomas Kuhn presents a philosophical analysis of science. He argues that science develops by adherence to what he calls “paradigm.” A paradigm may be described as a constellation of the scientific community’s theoretical beliefs, values, instruments and techniques that scientists share in order to understand and explain scientific problems. It works to supply puzzles for scientists to solve and to provide tools for their solution.

For him, science achieves stable growth when the dominant paradigm is successful in supplying answers to difficult puzzles. However, later on scientists would encounter new sets of problems, which may be grounded on a

contesting theory invented by a rival paradigm. If the dominant paradigm is not successful in providing solutions to these new sets of problems, the scientific community begins to lose its confidence. It may result in the replacement with a better puzzle-solving paradigm.

The development of science is not uniform but has alternating normal and revolutionary phases. Normal science is “research firmly based upon one or more past scientific achievements, achievements that some particular scientific community acknowledges for a time as supplying the foundation for its further practice.”⁶ Research involves a rigorous process of confining different scientific objects into the conceptual boxes supplied by professional education.

Scientists during normal science neither test nor seek to confirm the guiding theories of their paradigm. Normal science mainly involves puzzle-solving done in a way that the “puzzle-solver expects to have a reasonable chance of solving the puzzle, that his doing so will depend mainly on his own ability, and that the puzzle itself and its methods of solution will have a high degree of familiarity.”⁷ Because the scientists know the solution of the puzzles, they tend to gauge any accumulable knowledge. “Normal science often suppresses fundamental novelties because they are necessarily subversive of its basic commitments.”⁸

Through a strong commitment of the scientific community to a paradigm, normal science becomes a mature science. It succeeds in achieving progress in developing a research tradition that solves puzzles in a uniformly impressive fashion. “This success draws away adherents from other schools, and a widespread consensus is formed around the new puzzle-solutions.”⁹

In this new picture of scientific development, the scientists who propose puzzle-solutions are guided by a shared view that what they propose reflects verisimilitude to what Kuhn calls ‘exemplars.’ Exemplars are model scientific achievements acknowledged and accepted by the scientific community as better and parsimonious in contrast to the existing ones. Conversely, if a proposed puzzle-solution is not similar to the paradigmatic one, then it can less expect to gain acceptance from the community. Based on acceptability, knowledge is accumulated, and this cumulative process is carried out in terms of application of scientific method that lays down rules of scientific rationality.

3 Ibid.

4 Ibid.

5 As used in this essay, sciencehood pertains to the way a community of scientists recognizes or acknowledges a discipline or a form of knowledge in accordance with a dominant overarching paradigm.

6 Thomas Kuhn, *The Structure of Scientific Revolutions*, 2nd ed., (Chicago: University of Chicago Press, 1962), 10.

7 Alexander Bird, “Thomas Kuhn,” *Stanford Encyclopedia of Philosophy*, <http://plato.stanford.edu/entries/thomas-kuhn/#6.3> (accessed November 2010).

8 Kuhn, *The Structure*, 5.

9 Bird, “Thomas Kuhn.”

Mature science does not aim at discovering novel facts or theory. Nonetheless, “new and unsuspected phenomena are repeatedly uncovered by scientific research, and radical new theories have again and again been invented by scientists.”¹⁰ By the emergence of new facts well accounted for by new theories, the stability of mature science dwindles gradually, and the community begins to lose confidence in an existing paradigm and its ability to provide solutions to troublesome puzzles known as “anomalies.”

Potentially, an anomaly can cripple the practice of science. It can ignite a change in the “disciplinary matrix,” which Kuhn calls a “paradigm shift.” If the crisis that science experiences arising from widespread failure in keeping the community’s confidence is not properly addressed and resolved, the existing paradigm may suffer a legitimacy crisis and be superseded by a rival. In this development, the search for a revised disciplinary matrix “that will allow for the elimination of at least the most pressing anomalies and optimally the solution of many outstanding and unsolved puzzles” takes place.¹¹ The revisionary process that paradigm undertakes is called “scientific revolution.”

A scientific revolution is “a noncumulative developmental episode in which an older paradigm is replaced in whole or in part by an incompatible new one.”¹² Since the ability to assimilate either a new sort of phenomenon or a new scientific theory demands rejection of an older paradigm, cumulative acquisition of novelties is improbable. Thus, while accumulation of puzzle-solutions is the task mainly involved both in normal and mature science, the same process occurs but only after scientific revolution culminates.

After a paradigm shift, science enters yet a new phase called revolutionary science in which the “community recognizes that a new paradigm displays a precision strikingly better than its older competitor.”¹³ Unlike previously, the new paradigm in revolutionary science may completely be different. It offers promise of being able to generate solutions to emerging tougher, novel puzzles. There are newly formulated bases of acceptability of puzzle-solutions and scientific methods which shall serve as the new guide for scientists in doing tasks.

Scientific development, however, does not stop with the culmination of scientific revolution. Science develops continuously, undergoing the same phases of normal through mature to revolutionary science. This dialectical pattern of

development makes progress of science discernible, ostensible and assured.

Post-War Knowledge Deficit and Area Studies

Even prior to the formal institutionalization of area studies in universities, the utility of context-based knowledge has already been widely acknowledged and accepted. Since the Enlightenment period, the social sciences and the humanities have been making use of both universal and contextual methods in order to understand man and his society. Whereas theories and principles are formulated to universalize man’s many-dimensional nature, indicators that are context-sensitive are also devised to see if these principles are valid and grounded. These mutually reinforcing methods have guided the practice of social sciences in the modern period, highlighting the evaluative role of context-based knowledge to universal theories and principles.

Two ways of knowing – universal and contextual – underpin all the social sciences and humanities. These are modernity’s Adam and Eve, or, better yet, its original twins: one asserts that humanity must be understood by using universally valid, scientific principles, and the other proclaims that human groups and contexts are so fundamentally different that they demand separate study and representation.¹⁴

Area studies began to evolve with an accumulation of universal and contextual knowledge from various disciplines as part of a broad effort to make university education commensurate with the expansion of European power. The birth of area studies can be seen in Enlightenment efforts to support theories of human progress by comparing Europe to other regions of the world, and this tradition of universal comparison and ranking is being carried into the twenty-first century by theorists of modernity and development [...] .¹⁵

Thus, social science research is carried out using conceptual tools provided by past area-oriented scholarship.

From the onset of the Enlightenment period up until the interregnum period in the first half of twenty-first century, the academic practice in the social sciences had been conscious that universal theories and principles able to substantiate regularities in human phenomena are conceivable. This view is widely

10 Kuhn, *The Structure*, 52.

11 Bird, “Thomas Kuhn.”

12 Kuhn, *The Structure*, 92.

13 Frank Pajares, “The Structure of Scientific Revolutions by Thomas Kuhn: Outline and Study Guide,” <http://des.emory.edu/mfp/Kuhn.html> (accessed November 2010).

14 David Ludden, “Why Area Studies?” in *Localizing Knowledge in a Globalizing World: Recasting the Area Studies Debate*, ed. Ali Mirsepassi et al. (Syracuse: Syracuse UP, 2003), 131.

15 *Ibid.*, 131-2.

held in such fields as political science, economics, psychology, sociology, anthropology and history. In order to verify a universal theory, however, it is tested against particular empirical referents which are oftentimes context-oriented.

Another feature of social science during this period is its stable growth which may be measured in terms of the number of scholars engaged in its practice. In political economy, a figure that cannot be missed is Karl Marx, whose analysis on class struggle in society highlights the value of context-based observation as a groundwork for generalizations. His intellectual, economic and revolutionary perspectives reflected the Hegelian philosophical tradition in Germany, Industrial Revolution in Great Britain and nationalistic sentiment-accentuating French Revolution, respectively.

With philosophy's intellectual penetration, from the Enlightenment through the modern period, social science has been practiced in accordance with the overarching anthropocentric paradigm. Unlike the cosmo-centric and theo-centric paradigms respectively in the ancient and medieval periods, the core of anthropocentric scholarship is man. In every analysis, man is the point of departure. Through this, the social sciences witnessed evolving variegated academic traditions that embrace the complementary contextual and universal methods in solving puzzles concerning man.

The entry of Enlightenment may be regarded as a dawning in social science – the normal phase, although its practice may be contemplated as an outcome of a scientific revolution in medieval period whose culmination inaugurated a new paradigm that gained currency in the period that followed. Throughout modernity, the anthropocentric paradigm has guided the theorizing and philosophizing in social science.

In the second quarter of the twenty-first century, a significant development occurred in social science. With the outbreak of World War II and the ensuing Cold War, knowledge on unfamiliar areas of the world was essential but not readily available. Since then, institutions have started paying attention to and sought ways to address this knowledge deficit, most often ending up with collaboration between governments, academes and private foundations.

Starting in the late 1940s, area studies in the United States was institutionalized into departments, centers, institutes or programs in universities like Berkeley, Chicago, Columbia, Cornell, Harvard, Michigan, Pennsylvania, Princeton, Wisconsin and Yale, teaching and scholarship programs were sponsored by private foundations like the Fulbright Program, the Rockefeller Foundation, the Carnegie Endowment for International Peace and the John D. and Katherine T. MacArthur Foundation. “But it was the long term commit-

ment and massive support of training and scholarship by the Ford Foundation at key research universities, and through the [Social Science Research Council] / [American Council of Learned Societies] joint area committees, that established Area Studies as a powerfully and academically legitimate approach to generating knowledge about the non-Western world.”¹⁶

Cognizant of their limitations on particular areas to where they had vested strategic political and military interests, governments had to find ways to pursue their objectives and not accept the paucity of knowledge on those areas. “During and immediately following World War II, governments discovered an alarming shortage of individuals who were seriously acquainted with the languages, cultures, and topographical characteristics of the world areas in which troops had to fight and about which important political and social decisions had to be made.”¹⁷

Recognizing the need to further enhance education, the US Congress “amended the National Defense Act of 1957 which established the Department of Education’s program that now partially funds the primarily administrative, language teaching and public service (outreach) costs of some 125 university-based Area Studies units as National Resource Centers.”¹⁸

Within the social science community, all these developments conferred area studies the legitimacy to explore unfamiliar areas of the world and to deparochialize knowledge on human development. Reflecting the nature and practice of area studies in other countries, Szanton identified two broad goals of area studies in US universities, *videlicet*:

to generate new knowledge and new forms of knowledge for their intrinsic and practical value; and more reflexively, to historicize and contextualize – in effect, to de-naturalize – the formulations and universalizing tendencies of the US social science and humanities disciplines which continue to draw largely on US and European experience.¹⁹

Szanton argues that “the fundamental role of [area studies] in the United States has been – and continues to be – to deparochialize US and Euro-centric visions

16 David Szanton, “The Origin, Nature, and Challenges of Area Studies in the United States,” in *The Politics of Knowledge: Area Studies and the Discipline*, ed. David Szanton (Berkeley: University of California Press, 2004), 12.

17 Bryce Wood, “Area Studies,” in *International Encyclopedia of Social Sciences*, ed. David Sills, vol. 1 (New York: Macmillan, 1968), 401-402.

18 Szanton, “The Origin,” 11.

19 *Ibid.*, 2.

of the world in the core social science and humanities disciplines, among policy makers and in the public at large. Within the US university, [area studies] scholarship attempts to document the existence, internal logic and theoretical implications of the distinctive social and cultural values, expressions, structures and dynamics that shape the societies and nations beyond Europe and the United States.²⁰

In its early stages, area studies was practiced with the help of scholars from the social sciences. “During the 1960s, and clearly by the 1970s, the overwhelming majority of MA and PhD students specializing on the non-Western world were being trained in, and then hired to teach in, the core social science and humanities departments; anthropology, art history, geography, history, language and literature, music, sociology, political science, etc.”²¹ This is why the discipline is marked by an astonishing growth as the number of students finishing degrees in area studies rose notably in the first 50 years. This demonstrates that area studies has successfully brought about a consensus from the social science community. The paradigmatic puzzle-solving instruments and techniques that political scientists, economists and other social science scholars have shared are informed principally by context-based knowledge.

In the latter half of the twentieth century, however, certain anomalies surfaced within academic circles and began to subvert area studies’ legitimacy and consensus it quite successfully had drawn. Following Kuhn, the emergence of unearthed facts and contesting theories advanced by rival scientists ignited a crisis within social science that is critical to area studies.

Anomaly, Crisis and Area Studies

Exactly when area studies was at its peak of winning the legitimacy and consensus it needed for its sciencehood, pivotal developments in social science began to intervene. Rational choice theory and postmodernism gained currency and became area studies’ main contenders. Essentially, the central criticisms against area studies now derive from them. Some adherents of rational choice theory hanker for area studies to be extricated from the social sciences as it traverses towards the camp of humanities, while Edward Said argues that the discipline is the Occident’s new mode of dominating the Orient.

20 Ibid., 1.

21 Ibid., 7.

Rational Choice Theory

Reckoned as social scientists’ triumph in their pursuit to emulate the success displayed by economics, rational choice theory attempts to analyze, explain and forecast social phenomenon drawing on universally held and tested principles. Rational choice analysis has two cardinal assumptions, *viz*: that individuals have preferences (know what they want); and that they try to pursue those preferences.²²

It has assumed that people are motivated by money and by the possibility of making a profit, and this has allowed it to construct formal, and often predictive, models of human behavior [...] These sociologists and political scientists have tried to build theories around the idea that all action is fundamentally ‘rational’ in character and that people calculate the likely costs and benefits of any action before deciding what to do.²³

Some scholars embarked upon an open attack on area studies in order to advance the rational choice agenda within political science. Robert Bates, for instance, contends that since area scholars who have acquired the skill to do empirical research in non-Anglo-American environments do not fit the definition of a “scientist,” and also that they should be discriminated against within the discipline.²⁴

Bates anchors his reasoning on the widely held notion that social science is a universalizing endeavor. Unlike political science that seeks reliable knowledge about empirical phenomena through a constructed systematic theory to uncover law-like regularities in every social reality, area studies departs from this tradition by insisting on each phenomenon’s context-bound properties, which may deride generalizations and law-based explanations.

Sensitive to every single area’s political, economic, historical and cultural distinctiveness, area studies is chided for having followed the path of the humanities rather than that of social sciences. “Area studies have defected from

22 Margaret McKean, “Rational Choice Analysis and Area Studies: Enemies or Partners?” in *Beyond the Area Studies Wars: Toward a New Institutional Studies*, ed. Niel Waters (Hanover: Middlebury College Press, 2000), 30.

23 John Scott, “Rational Choice Theory,” *Understanding Contemporary Society: Theories of The Present*, ed. G. Browning, A. Halcli, and F. Webster (Sage Publications, 2000), <http://privatewww.essex.ac.uk/~scottj/socsof7.htm> (accessed April 2009).

24 Chalmers Johnson, “Preconception vs. Observation or the Contribution of Rational Choice Theory and Area Studies to Contemporary Political Science,” *PS: Political Science and Politics* 30, no. 2 (June 1997): 170.

the social sciences into the camp of the humanists. A certain sign of this ‘defection’ is the area specialists’ commitment to the study of history, languages, and culture.”²⁵

The controversy has been compounded by a trimmed budget for area training and diminishing interest in area scholarship as the Cold War ended. As a result, it has unsettled and disrupted the social sciences. In universities, “[g]raduate students, whose resources of time and money are necessarily limited, increasingly shift from the study of a region to instruction in theory and methods.”²⁶ The impact that this controversy has had on scholars, especially in the field of political science, has led to a division between those of different generations, locations within the university and stages in their careers. These tensions can be attributed in part on the rising concerns over government budget deficits and the end of the cold war. Because a growing number of scholars have disembarked and withdrawn from area studies and actually started to decry the rational choice critiques substantiated against the discipline, its legitimacy and consensus grow weaker.

Orientalism

Informed by the postmodern approach, Edward Said is a pioneer in analyzing the discourse in area studies. He argues that area studies is a form of Orientalism, of the West dominating the East, emphasizing that its generation of knowledge is driven and largely sustained by the Occident’s power.

Said has a three-fold definition of Orientalism. First, it is “a way of coming to terms with the Orient that is based on the Orient’s special place in European experience. The Orient is not only adjacent to Europe; it is also a place of Europe’s greatest and richest and oldest colonies, the source of its civilizations and languages, its cultural contestant, and one of its deepest and most recurring images of the Other.”²⁷

Second, “Orientalism is a style of thought based upon an ontological and epistemological distinction made between ‘the Orient’ and (most of the time) ‘the Occident.’ Thus a very large mass of writers, among whom are poets, novelists, philosophers, political theorists, economists and imperial administra-

tors, have accepted the basic distinction between the East and the West as the starting point for elaborate theories, epics, novels, social descriptions and political accounts concerning the Orient, its people, customs, “mind,” destiny, and so on.”²⁸

Third, “Orientalism [is] a Western style for dominating, restructuring, and having authority over the Orient [...] . [His] contention is that without examining Orientalism as a discourse one cannot possibly understand the enormously systematic discipline by which European culture was able to manage – and even produce – the Orient politically, sociologically, militarily, ideologically, scientifically, and imaginatively during the post-Enlightenment period.”²⁹

Kolluoglu-Kirli expounds that “Orientalism is organically linked to European capitalist expansion. It is a distinctively European approach to the non-Western world, taking its form and content from the historical process of European capitalist expansion and the colonization that accompanied it. That is, Orientalism may be seen as a complex and growing phenomenon deriving from the overall historical trend of modern European expansion and involving whole set of progressively expanding institutions, a created and cumulative body of theory and practice, a suitable ideological superstructure within an apparatus of complicated assumptions, beliefs, images, literary productions, and rationalizations.”³⁰

More than the impact that rational choice theory has on area studies, Orientalism cast a doubt on the ontological and epistemological foundations of area studies. It subjects the discipline into suspicion and deconstruction. It focuses attention on the objectivity of area studies, especially in that it was institutionalized at the height of ideological and military competition involving the East and the West.

In response to Said’s critique that took the limelight and legacy, defenders of area studies sought resolve to address the crisis as their discipline indubitably began losing legitimacy and consensus from the scientific community. Noteworthy is the *Presidential Address* of Benjamin Schwartz where he said that:

At times Said seems to imply that orientalism and area studies have been designed to serve political purposes or have at least been used to serve political and other interests. The latter statement is indeed true but probably not a

25 Ibid.

26 Robert H. Bates, “Area Studies and the Discipline: A Useful Controversy?” *PS: Political Science and Politic* 30, no. 2 (June 1997): 166.

27 Edward W. Said, “Introduction,” *Orientalism: Western Concept of the Orient* (New York: Vintage Books, 1978), 1.

28 Ibid., 2-3.

29 Ibid., 3.

30 Biray Kolluoglu-Kirli, “From Orientalism to Area Studies,” *The New Centennial Review* 3, no. 3 (Fall 2003): 98.

whit more true of orientalism and area studies than of the “human sciences” in general and even of the natural sciences. The sense of superiority that he finds embedded in orientalism, after all, found its spiritual source in such disciplines as philology, ethnology, and Darwinian biology interpreted in racial terms [...].³¹

On the Brink of Scientific Revolution

The goal of this essay has been to examine the sciencehood of area studies using Kuhn’s analysis on science as the framework. This essay has shown that decades after its institutionalization, area studies has acquired a scientific status, mustering academic legitimacy and consensus from the social science’s scientific community. Area studies’ sciencehood has been manifested through scholars’ collaboration with governments and private entities to explore unknown world areas so as to deparochialize knowledge on human development which was in the past centered in the West.

The emergence of rational choice analysis and postmodern analytical approach has, however, challenged this status. The exponents of rational choice theory denigrate area specialists for having departed toward the humanists’ camp, and hence should be discriminated against in social sciences. Postmodern critiques also subtly weaken area scholarship. Said’s *Orientalism* has challenged area studies in its objectivity and its foundations. Said assails the discipline as a form of metanarrative that constitutes the West’s latest form of dominating the East.

Whether or not rational choice theory and postmodern analysis offer better puzzle-solutions than area studies requires yet another intellectual enterprise. It may be sufficient at the moment to say that both rational choice theory and postmodern analysis have presented new paradigmatic problems to an area-oriented scholarship. Rational choice theorists question the utility of context-based studies in what should be a universalizing endeavor of the social sciences, while postmodernist scholars like Said center their criticism on area studies as a discourse of power. Nevertheless, one can glean from the present literatures the growing number of scholars who argue against rational choice theory and postmodernism.

Going back to Kuhn, he suggests that a scientific revolution is indispensable after a crisis in science erupts where a revolutionary science, now based on a new paradigm more able and sophisticated in solving arising puzzles, re-

places the old one. So, two pertinent questions are relevant and worth raising: Is area studies now in a stage of scientific revolution? With a defenestrated sciencehood, will the discipline survive after modernity?

Unfortunately, there is no data immediately available to answer the latter question. What is clear is that as of the moment and in light of the compelling evidence just examined, area studies is on the brink of scientific revolution. Whether area studies will survive after modernity is a question yet to be answered in the unfolding of events in the social sciences. As we reach the vertex of modernity and advance to postmodernity, area studies has to inevitably face critiques both borne by modernity and postmodernity – from rational choice theory and postmodernism.

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31 Schwartz, “Presidential Address,” 22-23.