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edited by Phillip Anthony O’Hara

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Fernand Braudel Center at
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omic organization and change.

See also:

business cycle theories; evolutionary econom-
ies; major contemporary themes; hegemony
in the world economy; holistic method; knowledge,
information, technology and change

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PHILLIP ANTHONY O’HARA

Lowe’s instrumental method

Adolph Lowe (1893–1995) was a central
figure in the “Kiel School” of political
economy and the business cycle debates of
the 1920s and 1930s. He held several
important positions in the Weimar government,
as well as a professorship at Frankfurt before his
dismissal by the Nazis in 1933. He spent the
remainder of the 1930s at the University of
Manchester, before moving in 1941 to the
Graduate Faculty of the New School for
Social Research for the remainder of his
lengthy career. Lowe’s contributions range
from analyses of growth, cycles, and technical
to methodology, the history of econo-
mic thought, political philosophy and pub-
lc policy. All of these themes play a role in his
political economics.

Significance of industrial capitalism

Lowe studied the technological structure of
industrial capitalism in the 1920s and early
1930s. This led him to the view that since the
structural characteristics of the modern system
Lowr's instrumental method

were not adequately depicted by the data of traditional theory, economic "laws," such as "supply and demand," no longer applied with a high degree of reliability. Small-scale, labor-intensive production, carried out by independent producers with low fixed costs and operating at low levels of mechanization, makes for greater mobility. It therefore results in a high degree of adaptability to price and quantity variations. However, large-scale, modern industrial capitalism, with its huge fixed costs, capital-intensive methods and rapidly changing technologies, is characterized by great immobility, and thus an inability to make rapid adjustments. Nevertheless, in his elaborations of these views from the 1930s through to the 1950s, Lowe held steadfast to the view that the traditional method, if refined, could be used to analyze the modern system.

By the mid-1950s, however, Lowe began to develop the thesis that historical changes to the structure of capitalist society had altered the object of economic inquiry in such a way that the traditional method had to be abandoned. Analysis henceforth had to be conducted within an alternative, "instrumental" methodological framework (Lowe uses this term in his own sense; it has no connection with, for example, Friedman's use of the term). He believed that socioeconomic and technological conditions ironically rendered the traditional deductive method relatively appropriate for the period before modern industrial capitalism (see, for example, Lowe 1959: 163, 1965: 46, 68f). But with the structural transformation of industrial capitalism and associated feedback effects resulting in environmental, institutional, behavioral, and socio-psychological changes, the traditional deductive method was no longer applicable (see, for example, Lowe 1959: 163–6, 1969a: 3, 11, 32, 1969b: 169, 170–71, 180). Such transformations include the increasing concentration and centralization of capital, the rapid pace of technological change, the emerging middle classes in the industrialized nations, the increasing role of the state in the economy and the environmental impact of economic growth.

The inclusive concept of order

From the end of the 1950s, Lowe explicitly rejected the argument that historical transformation from early industrialization to modern industrial capitalism merely indicated a shift from one kind of stable system to another (see, for example, Lowe 1969b: 181). The traditional "deductive method [is] inapplicable...[because] neither the macro-movements of modern markets nor the underlying micro-patterns of behavior exhibit the degree of orderliness that is essential for scientific generalization" (Lowe 1969b: 180). The ability to make abstract generalizations that may serve as highest level hypotheses, from which deduction can proceed, requires that the research object exhibit some minimum degree of orderliness. Without such minimum order, the generalizations necessary for the employment of the traditional deductive method cannot be made.

Discussion of Lowe's methodological work has focused on his thesis that the regular behavioral and motivational patterns upon which scientific generalizations depend can no longer be trusted. In Lowe's "inclusive concept of order," however, the ability to identify reliable and stable phenomena is a necessary but not sufficient condition for the appropriate application of the traditional deductive method (1969a: 15). It is also required that the macro-outcomes of such behavioral and motivational patterns be consistent with society's macro goals (1969a: 6, 7). "Order" must thus be understood in the "double-sense" of underlying regularity of the research object and socially satisfactory macro-outcomes.

Satisfactory macroeconomic outcomes

This position is certain foreign to the traditional method, and contrary to the usual view that theorizing about an economic system is separable from whether or not that system produces an outcome that is consistent with society's goals. In such a view, if society does not approve of the outcomes, economic policy is undertaken. This, of course, is the traditional

.distinction between economics and politics that, according to economic thinking, macro-outcomes, at least in the expanded sense of the term (1969a: 18), are not the result of national policies but are instead the result of incoherent response to unforeseen, "outside" shocks. The argument can, however, be manipulated to address the inability of economic theory to explain the "incoherence" of these shocks (1969b: 188f). The separative "can no longer be trusted" becomes the derivative "can be trusted" on a "wider" (1967: 180).

Rather than taking behaviors as known and objective, predicting outcomes, Lowe takes them as known a priori or as "outcomes of the desired behavior of economic agents in a changing environment" (1967: 180). Rather than taking behaviors as exogenous, "fixed," or "independent" variables, Lowe takes them as endogenous, "dependent" variables, that is, "under the control of the system" (1969a: 32). This position is consistent with the definition of the research object as that of a structure that is capable of accomplishing outcomes of its own making through a process of logical deduction based on the premises of the research object.

Structural and functional constraints

The "instrumental method" approach, according to Lowe, is the only way to analyze the political and economic system in a way that takes into account the "structural" as well as the "functional" constraints on the system. According to this approach, the system is not able to achieve its goals because of the constraints imposed by the "structure" of the system (1967: 143–4). Analyzing the macro-goals of the system and the conditions for their achievement is, according to Lowe, part of the "structural analysis" of the system. The "structural analysis" is not "prior" to the "functional analysis" (1969a: 2). In other words, the system is not capable of accomplishing its goals solely through the process of logical deduction based on the premises of the research object.
concept of order

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Lowe’s methodological work’s thesis that the regular motivational patterns upon aralizations depend can no Lowe’s “inclusive concept of the ability to identify phenomena is a necessary addition for the appropriate ditional deductive method required that the macro-historical and motivational ont with society’s macro “Order” must thus be “double-sense” of under the research object and macro-outcomes.

economic outcomes

ily foreign to the traditional contrary to the usual view an economic system is her or not that system that is consistent with a view, if society does not comes, economic policy course, is the traditional distingition between positive and normative economics. But Lowe emphatically rejects the approach that neglects a consideration of macro-outcomes at the ground level of theoretical analysis as “a radical positivism interested only in the explanation and prediction of movements, wherever they might lead” (1969b: 17). Furthermore, he believes that “primary interventions” – traditional liberal utilization policies are no longer adequate to address the stability of the market system to result in goal-adequate outcomes (1969b: 169, 196). The separation of positive and normative “can no longer be justified… recent developments demand the conscious integration of the analytical and normative aspects” (1967: 180).

Rather than taking only the initial conditions as known and addressing theory to predicting outcomes, Lowe proposed also taking as known a predetermined end-state: a vision of the desired outcomes. The task, then, becomes the derivation or the discovery of the unknown technical and social path(s) by which those outcomes might be achieved; the behavioral and motivational patterns capable of setting the system onto a suitable path; and the environmental context(s) capable of encouraging or inducing these patterns, and policies (“controls”) shaping and creating the environmental context(s). For Lowe, a “suitable path” refers to an instrumentally-derived route to an independently determined end. Economic theory must not determine the ends (macro goals), but devise the means for their attainment.

Structural and force analysis

The “instrumental method” begins from where we want to go and works backwards to our present state, or a state within our reach (Lowe 1965: 143–4). Analysis works backwards from the macro goals to the structural-technological conditions for their attainment. This is the realm of “structural analysis,” which is analytically “prior” to “force analysis” (the consideration of suitable motivations and behaviors). In other words, the technical means capable of accomplishing some goal(s) may be derived in advance of the suitable action directives. Because structural analysis precedes force analysis, investigations of the physical-technical consistency conditions relevant for goal attainment may be undertaken without any reference to assumptions concerning behavior or motivation. The procedure is, therefore, independent of any behavioral assumptions (1969a: 23–4; 1969b: 182).

Such independence from behavioral assumptions broadens the range of economic theory. Remember that Lowe believed the traditional deductive method to be relatively appropriate for the special case where motivational and behavioral patterns promoted a minimal degree of orderliness, such as that found during the early period of capitalism. Instrumentalism encompasses this special case, as well as other cases where actual motivational and behavioral patterns do not satisfy these conditions (1969a: 32). Political economics may be seen as a general theory of economic structure and behavior in the sense that it requires no initial assumptions concerning the nature of either.

Instrumental-deductive method

Since the traditional deductive method is no longer possible, it might be thought that deduction itself is rendered obsolete. However, through the conscious recreation of the conditions appropriate for its application, the possibility for powerful economic reasoning of this type is recaptured. Lowe’s analysis thus provides the foundation for “the restoration of deductive theory” (Lowe 1992: 326–7). Since the conditions are established by design and control, Lowe refers to the alternative replacing the traditional deductive method as the “instrumental-deductive method,” which he considered to be “the core of Political Economics” (1969b: 179).

Far from endorsing “rational planning,” Lowe explores the possibilities of instrumental inference as a policy discovery procedure. This involves investigating aspects of the policy formulation process that employ “tacit knowledge,” “retroduction” and other heuristic problem-solving techniques. Lowe describes
Lowe's instrumental method

implicit search procedures and tactics of problem solving that are “taken for granted” in the scientific community, yet for the most part remain behind the scenes. Lowe's call is for making these conscious and recognizing their potential contribution to enhancing the power and success of the policy-formulating process.

See also:
capitalism; Heilbroner’s worldly philosophy; normative and positive economics

Selected references

MATHEW FORSTATER

Maddison's analysis and development
The rich interplay of institutional analysis, economic history, and Joao Pedro de Michon’s analysis of economic development. His studies of comparative and spanning a rich array of cross-section data sets in integrated a user-friendly guide produced by Maddison of pioneering empiricism, often unrelated to his work on his critical school.

Maddison’s analysis extends the work and contributions of other scholars. He pays particular attention to the national income accounting work of Kuznets and Colin Clark, and incorporates the work of Irving Kravis for developing a method of making national accounts comparable across nations. He is noted for developing the concept of “non-economic” growth and for emphasizing the role of education and knowledge in economic development. Edward Denison for his contributions to accounting methodology.

Growth and development proximate causes
The focus of Maddison’s analysis of the advanced industrial economies. However, Maddison...