

**MULTIPLE APPROACHES IN PUBLIC POLICY ANALYSIS: A CRITIQUE OF  
POSITIVIST APPROACH**

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**Öz**

*Bu çalışma, kamu politikası literatüründeki alternatif yaklaşımlardan yola çıkarak pozitivist yaklaşımı eleştirerek değerlendirmektedir. Çalışmanın temel argümanı, maliyet-fayda analizi ve kapsamlı rasyonel analiz şeklinde uygulamaları görülen pozitivist yaklaşımın, kamu politikası problemlerinin karmaşıklığını hesaba katmaması dolayısıyla başarısız olduğudur. Araştırma bulguları, kamu politikası problemlerinin çözümünde normatif ve değerci yaklaşımların da politika analizcilerince kullanılması gerektiğini belirtmektedir. Çalışma, farklı perspektif, yöntem, ölçü ve veri kaynaklarının, kritik çokçuluk (multiplism) anlayışı içerisinde kamu politikası analizinde kullanılması gerektiği sonucuna varmaktadır.*

**Anahtar Sözcükler**

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*Kamu Politikası Analizinde Çoklu Yaklaşımlar: Positivist Yaklaşımın Bir Eleştirisi*

**Abstract**

*This paper criticizes the positivist approach by drawing on major approaches in policy analysis literature. The article argues that positivist approach in the form of cost-benefit analysis and comprehensive rational analysis is insufficient and likely to fail since it does not account for complexity. The research indicates the importance of normative and valiative approaches in addressing policy problems. Moreover, the paper concludes that multiple perspectives, methods, measures, and data sources in form of critical multiplism can be employed together in public policy analysis.*

**Key Words**

*Public Administration, Public Policy Analysis, Positivism, Critical Multiplism.*

**Introduction**

Public policy analysis involves a set of techniques that seeks to answer the probable effects of a policy before its implementation (Shafritz et al, 2006). It is a sister field of public administration and political science and developed as a field of study especially in the second half of the 20<sup>th</sup> Century in the United States. Policy analysis can be described as “the activity of creating knowledge of and in the policy making process” (Dunn, 2000: p.1). Its purpose is “creating, critically assessing, and communicating policy relevant knowledge” (Dunn, 2000: 4). Traditional policy analysis that is founded on the bases of empiricism and logical positivism is seen responsible for failing to solve complex policy problems with highly technical and quantitative tool kit (Koop, 2008). Different post-positivist theoretical and methodological traditions offers alternative approaches for social problems.

There have been three kinds of questions that policy analysts ask in the process of producing policy relevant knowledge (Dunn, 2000). These questions are about facts (does it exist?), actions (what should be done?), and values (of what worth is it?). Questions about facts are inquiry sources for empirical approaches, while questions about actions are abundant inquiry resources for normative approaches. Moreover, questions of values represent valiative approaches. These three different approaches stand for three different traditions of public policy research and analysis. Cost-benefit analysis (i.e. economic

rationality) is the product of empirical approaches derived from the positivist paradigm. Experimental and quasi-experimental policy design that is one of the scholarly attempts to create “applied policy science” can be categorized under the normative approaches. The valuative approaches essentially come from political science and public administration tradition.

This paper explores different traditions while critically assessing the positivist approach and its main applications. The question addressed in the paper is whether positivist approach is sufficient to deal with complex public policy problems. If the answer is “no”, then what kind of methodology can grasp the complexities of social and policy problems?

### **Positivist Perspectives in Policy Analysis**

The roots of positivism historically comes from August Comte's positivism of the 19<sup>th</sup> century and logical positivism of the Vienna Circle (Diesing, 1991). The most important point of positivist idea is the ontological assumption of reality. Positivism assumes that an orderly external *reality exists* and accepts only things that can be seen or proven. Therefore, positivists believe in the idea that *objective knowledge* of facts can be acquired.

Positivists assume that natural and social sciences are alike. It is possible to discover *universal laws of nature and society*. These laws are deterministic and linear in nature and can be applied everywhere and all the time. The positivist *correspondence theory of truth* is a consequence of such an assumption. According to this theory, it is possible to communicate verifiable objective meanings with a literal language by checking against reality (Yanow 1993). As a result, everybody can possibly have the same understanding of the reality.

Because positivists assume a deterministic and objective reality, they put a special emphasis in “*causality*” (causes of events). Through *experimentation* researchers can break the objective reality in components. Then, they can control and isolate the parts and decidedly find out the objective truth and causality. In positivism, hypotheses are deduced from a general theory. In order to test the hypotheses, random sampling is established and observations in these samples acknowledged as objective. The purpose of testing the hypotheses is to “*verify the theory.*” One of the most important points derived from these suppositions is the fact that empirically testable knowledge can be separated from values and incomprehensible states of mind or heart of individuals (Hawkesworth, 1988).

Many scholars argue that policy research and analysis have been influenced by positivism especially until 1980s (Bobrow and Dryzek, 2000). The key characteristic of the positivist approach (i.e. comprehensive rational policy analysis) is its consideration of policy analysis as value-neutral, ethically detached, and restricted to predicting the outcomes of alternative policy actions. According to this view, methods of policy analysis are neutral instruments that may be used by analysts who are unbiased and detached from policy problems. Therefore, facts and values can be strictly separated in the course of analyzing the problems. The role of the policy analyst is confined to discovering the best means to grasp ends that are specified and thus lie beyond the realm of reasoned debate.

This dominant paradigm in policy analysis has been established under the concepts and principles of welfare economics. Cost-benefit analysis and cost-effectiveness are the main analysis methods in order to produce value-free policy relevant information and create a rational decision-making process. The practices of U.S. Army Corps of Engineers and RAND Corporation have led this movement. Main criteria for these practices are efficiency and opportunity cost. Positivist approach is also observable both in international and domestic policy environments. For instance, the policy recommendations of the International Money Fund for developing countries are mostly based on economic rationality principles (Ariff, 2007).

#### **Critiques of Positivist Analysis**

Whether there can be an objective social science is a question riddled policy-oriented scholars since the growth in the fields of public policy took off since 1960s (Koop, 2008). Regardless of its dominant influence in policy analysis, many scholars claim that the failures of policy analysis for solving practical problems of societies in the 1960s and 1970s are partly due to the positivist orientation of policy analysis discipline (Cook, 1985). The critiques assert that policy analysts have traditionally built their work through largely using “empirical” approaches borrowed from natural sciences and tended to ignore “valuative” and “normative” approaches because of their desire to separate values and facts in policy research and analysis. These purely rationalist approaches have not helped policy analysts to fully grasp the complexities of social and policy problems, since no objective truth is out there waiting to be discovered (Kelly, and Maynard-Moody, 1993).

“Ubiquitous circumstances of complexity and uncertainty surrounding policy choice are frequently sufficient to render ineffective any attempt to solve social problems through the application of public policy”(Dryzek, 1983: 346). There have been considerable critiques and efforts among scholars to shift from traditional question of value-free policy analysis to normative and valuative ones. The critiques of positivism can be better understood by stressing the differences in their ontological, epistemological, and methodological assumptions as well as their definitions for the role of policy analysts in the policy making process.

#### **Normative Approaches**

Campbell and his colleagues have presented the most challenging methodological critique of positivism in policy studies. They offer intricate assessments of positivist methodologies and their epistemological underpinnings (Campbell and Stanley, 1963; Cook and Campbell, 1979; Campbell, Cook and Shadish, 2002). They construct their methodology based upon J. S. Mill’s normative logic of reasoning and K. Popper’s fallibility theory of induction (Campbell and Cook, 1979: 31-37; Dunn, 1995: 2).

First segment of quasi-experimentation methodology is Mill’s normative logic of reasoning. Campbell and Cook stress three criteria that are substantial in Mill’s causation model for inferring cause. These criteria are as follows: “Covariation between the presumed cause and effect; the temporal precedence of the cause and; the need to use control concept implicit in his ‘Method of Concomitant Variation’ to rule out alternative interpretations for a possible cause and effect connection” (Campbell and Cook, 1979: 31).

The second segment is Popper's theory of fallibilism and falsificationism. Popper asserts that knowledge is fallible and is not certain. He claims that testing can involve falsification as well as verification (Diesing, 1991: 29). Popper argues that a scientist does not start with observations, but with theories, from which they formulate testable hypotheses. According to Popper, testing a hypothesis means trying to falsify it, not trying to confirm it (Coldwell, 2007). If hypotheses are falsified, they should be abandoned and another one should be formulated to replace it. Popper asserts that we cannot know for sure if any general scientific law is true and we can get closer to the truth only "by correcting errors and inventing better theories..." (Diesing, 1991: 29).

"The rejection of certainty and its replacement by inductive plausibility and statistical probability as defining characteristics of policy relevant knowledge is one of the several characteristics of Campbell's work that properly place him within post-positivist research tradition" (Dunn, 1998: 7). "Like many other post-positivists in social sciences, Campbell has drawn on the philosophy, history and sociology of science as bases for developing his views on the fallibility, contextuality, contingency, and corrigibility of knowledge process" (Dunn, 1998: 7). Similar to Popper, Cook and Campbell stress "the need for many tests to determine whether a causal proposition has or has not withstood falsification" and asserts that "such determinations cannot be made on one or two failures to achieve predicted results" (Cook and Campbell, 1979: 31). However, their method varies from Popper's, since they "stress attempts to gain knowledge by pitting causal hypotheses not against other explanatory or descriptive theories but against mundane nuisance factors that suggest an observed relationship may not be causal or may involve different constructs than those in which the investigator is interested" (Cook and Campbell, 1979: 31). In quasi-experimentation varying degrees of confirmation are conferred upon a theory through the number of plausible rival hypotheses available to account for the data. "The fewer such plausible rival hypotheses are, the greater the degree of confirmation is" (Campbell and Stanley, 1963: 35).

In many social issues, researchers do not have a full control of experimental processes. There are many unmanageable contingencies which prevent policy researcher to conduct a true experiment and accurately interpret causality. At this point, Campbell and his colleagues propose quasi-experimental design techniques that represent normative and applied tradition of policy research and analysis (Campbell and Cook, 1979; Campbell and Stanley, 1963; Campbell, Cook and Shadish, 2002). Quasi-experimenting tradition favors "eliminative induction which involves a search for an evidence which either corroborates a rival hypothesis, and thus weakens or eliminates the originally favored hypothesis, or which fails to corroborate the rival hypothesis, which is then eliminated" (Dunn, 1995: 2). If one wants to assess the gun-control policy interventions, for instance, he/she should eliminate the possible rival explanations such as history, (i.e. unemployment, race, income, education), instrumentation, selection bias and use a control group. Otherwise, the research will make incorrect interpretation of causality between gun-control policies and violent crimes. Quasi-experiment methodology catches the complex and interdependent characteristics of policy problems. Quasi-experimenting tradition

helps policy analysts to find possible ways of how to cope with all the policy complexities, “messes” in Ackoff’s sense (1974) that Cook and Campbell (1979) calls “threats to validity”.

### **Valuative Approaches**

The critiques of positivist and comprehensive rationalistic policy analysis from public administration and political science perspectives can be drawn from decision making theories, organizational-political theories, knowledge utilization theories, problem structuring perspective, and policy research theories. H. A. Simon’s (1997) bounded rationality model that was originally developed in early 1940’s has been the most challenging decision making analysis to comprehensive decision making theory that was developed by Harold Lasswell in policy analysis in early 1950s (1971). Laswell’s “Stages heuristic” model has been recognized as a rationalistic perspective in policy analysis (Lasswell 1971). This model separates the process of policy analysis into several stages. Although different scholars define different stages, the basic stages of this framework are “agenda setting, policy formulation, implementation and evaluation”. Laswell’s framework helps rationalize a new problem-oriented perspective. Some scholars perceive Laswell as the representative of rationalist perspective of policy analysis. However, it can be argued that he is not a supporter of positivistic policy analysis; because he stresses the importance of the practical orientation of policy sciences (Dunn, 2000: 46).

Even though Simon is in favor of rational decision making processes in policy analysis, he stresses the impossibility of “administrative man’s” ability to make fully rational decisions. According to him, practical difficulties of policy environment and the cognitive capacity of human mind limit the ability of “administrative man” to select and implement the best policy action. Instead, he chooses the satisfying policy action among the available ones. In similar sense, Arrow shows the impossibility of realizing the conditions of positivist decision making theory in today’s democratic society (Arrow, 1963), as shown in his “Arrow’s paradox”.

Simon and Arrow are not the only scholars that critiqued the rational decision-making process. One of the most important challengers that rejected the rational approach is “incrementalism” (Lindblom, 1959; Wildavsky, 1964). Lindblom in his ground-breaking article “The Science of Muddling Through” asserted that most policy changes are incremental and rarely meet the criteria of comprehensive rational decision making theory in real political environments (1959). Changes are minor that consist of repeated adjustments in response to already existed policy consequences. According to Lindblom, along with the limits of human rationality, decision-making process itself is not rational, since it is almost impossible to classify and rank the values since competing parties will prefer different ordering of values in a democratic society; impracticality of assumed means and ends relationship; and the impossibility of testing what the best policy option is based one the given means-ends relationship (1959). Later, Lindblom and Braybrooke (1963) have enlarged and refined incrementalism under the label of disjointed-incrementalism.

In the critique of disjointed-incrementalism, Kingdon, Sabatier, True et al present alternative policy processes that recognize the occurrence of both

incremental and discontinuous changes in policy analysis process (Sabatier, 1999). Kingdon's multiple streams (MS) model (1995) emphasizes "time" which brings problem and political streams together and opens a "policy window" as a source of major changes in policy agenda. The influences of 1999 Marmara Earthquake tragedy on disaster mitigation policy is an example since a policy window is channeled through a problem stream. True et al. claims in punctuated-equilibrium (PE) theory that most policy changes are incremental (1999). However, when problems are questioned in "parallel processing", between sub-political systems and macro-political systems, they are raised into macro politic level where major policy changes occur.

Sabatier and Jenkin-Smith's Advocacy Coalition Framework (1999) claims that both Laswell's (1971) "stages heuristic" approach and Lindblom's "disjointed-incrementalism" do not adequately explain the policy process. Different from the "stages heuristic" and "disjointed-incrementalism", Advocacy Coalition Framework model sees policy analysis process as a battlefield of coalitions of different belief systems (Sabatier and Jenkin-Smith, 1999). Major changes happen when core beliefs of coalitions change. This process may include consensus or adversary debate, and mutual learning. Regardless of all these differences among these different models of policy process, they all see that the policy analysis process is under the influence of political, environmental, organizational, and administrative circumstances. The role of policy analysts is limited within the boundary of these practical conditions, and therefore, is restricted.

Many post-positivist scholars from the political science perspective underline the importance of political and social complexities in policy analysis (Lindblom and Cohen, 1979; Wildavsky, 1979; Stone, 2001). Comprehensive rationalist inquiry (i.e. professional scientific inquiry) of policy analysts is ineffective, inefficient, and mostly failing (Lindblom and Cohen, 1979), because professional scientific inquiry produces inconclusive evidence due to cognitive impairment of policy analysts and need to combine with ordinary knowledge of citizens (i.e. "usable knowledge") that better represent the complexity of society (Lindblom, 1990). According to political approaches, policy analytic knowledge is contextual, and therefore, criteria such as efficiency, equity, individual liberty, and security in policy analysis are created in political contexts. The numbers used that are considered to be representations of objective and empirical knowledge by positivists are in fact symbolic in policy analysis (Stone, 2001). In positivist policy analysis, economic rationality-based policies have put more emphasis on the value of efficiency and ignore the community value. For instance, the point of efficiency can not be enough to solve the social problems that "affirmative action" policies intend to solve. The right policy analysis should not only seek for the most efficient alternative, but also to incorporate the value of the community into analysis and increase democratic values' and citizens' participation. Policy analysis cannot be created in a vacuum, and it needs to incorporate views from multiple stakeholders (Wildavsky, 1979). The social problem-solving method should include "social learning" and "interactive continuing inquiry" (Lindblom, 1990) combined with intellectual cogitation (Wildavsky, 1979).

Knowledge utilization is another perspective that criticizes the rationalistic social policy science since it does not produce policy relevant knowledge to practical social problems. The main reason of this gap is the value-fact dichotomy that traditional policy analysis assumes. As a constructivist, Carol Weiss (1977) claims that policy analysis is socially constructed and reflects the values of policy analysts and society. The positivist knowledge production is, in fact, deeply affected by the social arrangements and power structure (i.e. Lindblom's cognitive impairment). Therefore, value-free analysis actually does not exist and can not assist to solve practical problems of social life. Weiss states that the main function of policy analysis should be "enlightenment" within the policy making process that is the function of conceptualizing the complexities of social life.

According to a group of scholars, practical argumentation models can be a solution in policy making process because policy analysis and planning are actually the practical process of argumentation (Toulmin, Rieke, and Janik 1984; Fischer and Forester, 1993; Majone, 1992; Macrae, 1993). The argumentation focusing on solving practical problems through optimally plausible arguments involves "free public discourse", "evidence" and "persuasion". Supporters of the model believe that broadening participation in policy analysis can yield better results.

Dunn emphasizes on "problem structuring methods" to solve the complex policy problems that traditional problem solving methods can not solve (Dunn, 2000). Dunn argues that traditional problem solving methods (i.e. cost-benefit analysis) can not capture complexity of most policy problems that are "ill-structured." Complexity reveals itself in terms of multiple policy-makers in decision-making process, unlimited alternatives, conflict about utilities (values) on goals, unknown outcomes, and incalculable alternatives (Dunn, 2000: 145-146). As a result, economic rational problem solving methods incorrectly supposes that the boundaries of social problems are already defined prior to analysis (Dunn, 1997). Dunn proposes a problem structuring method as a core function of policy analysis. According to this method, problems should be systematically structured and restructured not only in the beginning but at all stages of analysis. As a result, the policy analyst will not fall into Type III error, which is "solving the wrong problem" (Dunn, 2000: 150).

As indicated by various scholars and their theories in this and previous section, policy analysis is a complex process that needs to take into account different factors and perspectives. Therefore, avoiding the pitfalls of positivist and comprehensive approach requires employing multiple research theories and methods.

### **Critical Multiplism in Policy Analysis**

In order to eliminate the deficiencies of rationalist research perspectives, a few group of scholars stressed the necessities of using multiple perspectives in decision making process (Allison, 1971; Linstone, 1984; Cook, 1985). According to Cook, the failures of social programs in the 1960s and 1970s in the US created a methodological crisis. As a result, a "multiplist mode" appeared and legitimized the use of multiple perspectives in policy analysis. Multiplism accepts differentiated conceptions of reality and promises a policy research that is more intellectual, value-conscious, and debate-centered. Cook (1985) proposes

a "critical multiplism" that is self-questioning. The fundamental methodological injunction of critical multiplism is "triangulation". If analysts seek to develop policy-relevant knowledge, they should employ multiple perspectives, methods, measures, data sources and communications media (Cook, 1985; Coldwell, 2007). Four types of triangulation approaches were distinguished in the literature; methodological triangulation, data triangulation, investigator triangulation, and multiple triangulation (Denzin in Oppermans, 2000). Methodological triangulation involves using more than one research method such as interviews and questionnaires in measuring the same object of interest. Data triangulation requires using more than one data set to verify or falsify generalizable trends. Investigator triangulation is about using different investigators with different backgrounds for an analysis. Finally, multiple triangulation involves using at least a combination of two types of triangulation in research.

Many evaluations involve or require multiplism that provides a more comprehensive view of the outcomes experienced (Datta, 2001). Critical multiplism can involve multiple value stances, multiple program theories, multiple operationalization of construct, multiple methodology of paradigms, multiple professional affiliations of investigators, and multiple contexts of inquiry (Cook, 1985). Dunn (2000) perceives critical multiplism as a response to the shortcomings of positivism. He further argues that critical multiplism has become the methodological core of policy analysis today, since it successfully recognizes the complexities in policy process (Dunn, 2000: 6-10). In their landmark article, Cook and Reichardt (1979: 21-25) examine the possibility of reconciliation of two different research method traditions. They challenge the traditional arguments that different methods of different paradigms can not be compatible. According to the authors, the notions of researchers who use quantitative methods are not necessarily positivist and who use qualitative methods are not necessarily phenomenologist. Both methods can be "influenced by human judgment" and close to data. Moreover, while they can be reliable and valid based on the logic of research tasks, qualitative data as well as quantitative ones verify and generate theory (1979: 12-15).

Triangulating different methods can be critical to minimize bias and threats to validity (Cook and Reichardt, 1979), even though it does not guarantee it. Some scholars reject the idea that theoretical and methodological triangulation necessarily decreases bias and increases validity (Fielding and Fielding in Oppermans, 2000). According to their approach, combination of different methods and theories are useful for breadth and depth in the analysis but not for pursuing objective truth. However, at least for the depth and breadth, deficiencies of one method can be overcome by using quantitative and qualitative methods together (Oppermans, 2000). Moreover, as Cook and Reichardt (1979: 12-15) assert, combining quantitative and qualitative methods are critical because: First, social researches have often multiple purposes, and thus necessitate multiple methods. Second, "different methods provide different insights that neither one of them can provide alone".

### Conclusion

Traditional policy analysis based on positivism is incapable of creating effective solutions for practical social problems. Unlike the assumptions of instrumental and linear models, public policy problems are generally complex and uncertain, involving hundreds of policy stakeholders with different goals, perceptions, and policy preferences. Traditional forms of policy analysis also fail to meet the needs of practicing public policymakers.

Therefore, a different perspective that accounts for both the complex characteristics of policy analysis process and social life is needed. Achieving such a goal requires expansion of traditional policy analysis to include evaluative and normative questions as well as empirical ones. In the new approach, the policy analysts are supposed to work for both rationalizing policy analysis process and incorporating community values along with citizen participation for generating plausible policy recommendations. Then the main task of policy analysts is *probing the plausible, testable truths to solve practical problems*. In this sense, critical multiplism can replace the conformist methodological perspectives. Moreover, multiple methods of inquiry and multi-disciplinary analysis are needed as core characteristics of contemporary public policy analysis in addressing complex problems. In brief, instead of being restricted with some methods and theories, policy sciences should find optimal choices among different methods and theories to solve practical problems.

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