

M U N I
E C O N

Understanding Policy from Data – Evidence-based Policy

Analysing Public Policy – Forecasting Expected Policy Outcomes

Evidence-based policy

- „Evidence-based policy (EBP) is an aspiration rather than an accomplished outcome“ ([Head, B., 2009:13](#))
- „Evidence-based policy...encompasses two core elements: the application of rigorous research methods to build credible evidence about “what works”; and the use of such evidence to focus public and private resources on programs, practices, and treatments (“interventions”) shown to be effective.“ ([Baron, J. 2018:40](#))
- The implied contrast here is with policymaking based on *ideology* or '*common sense*'. ([Head, B., 2009:13](#))

Critiques

- Policy-making encompasses also other types of decisions such as institutional reforms and actions based on predictions. *Woodward, J. (2005). Making Things Happen: A Theory of Causal Explanation. Oxford University Press.*
- Therefore, mechanistic evidence and observational studies suffice for introducing institutional reforms and undertaking actions that do not modify the causes of a causal claim. *Maziarz, M. (2020). The Philosophy of Causality in Economics: Causal Inferences and Policy Proposals. London & New York: Routledge.*
- Decision-making in order to hit pre-ordained targets...*Muller, J.Z. (2017) The tyranny of metrics. Princeton.*

EBP requirements:

- good data,
- analytical skills,
- and political support.

The cutting-edge issues in modern EBP debates focus on **problem-framing**, methods for **gathering and assessing reliable evidence**, communicating and **transferring knowledge into decision making**, and **evaluating the effectiveness** of implementation and program delivery in complex policy areas.

Types of knowledge relevant to evidence-based policy



Source: ([*Head, B., 2009*](#))

Key concepts

Data Source: information that may be used as the basis for measurement, including public surveys, administrative records, interviews, focus groups and observations. Encompasses information collected specifically for the purpose of measurement and pre-existing sources, such as budgets, reports and legislative documents.

Indicator: a quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance of a development actor

Forecasting in policy analysis (Dunn, W.N. Public Policy Analysis)

- Types of future
- Principal forms:
 - Projection
 - Prediction
 - Conjecture
- Selected methods

Types of future

- Plausible futures
- Potential futures (alternative)
- Normative futures

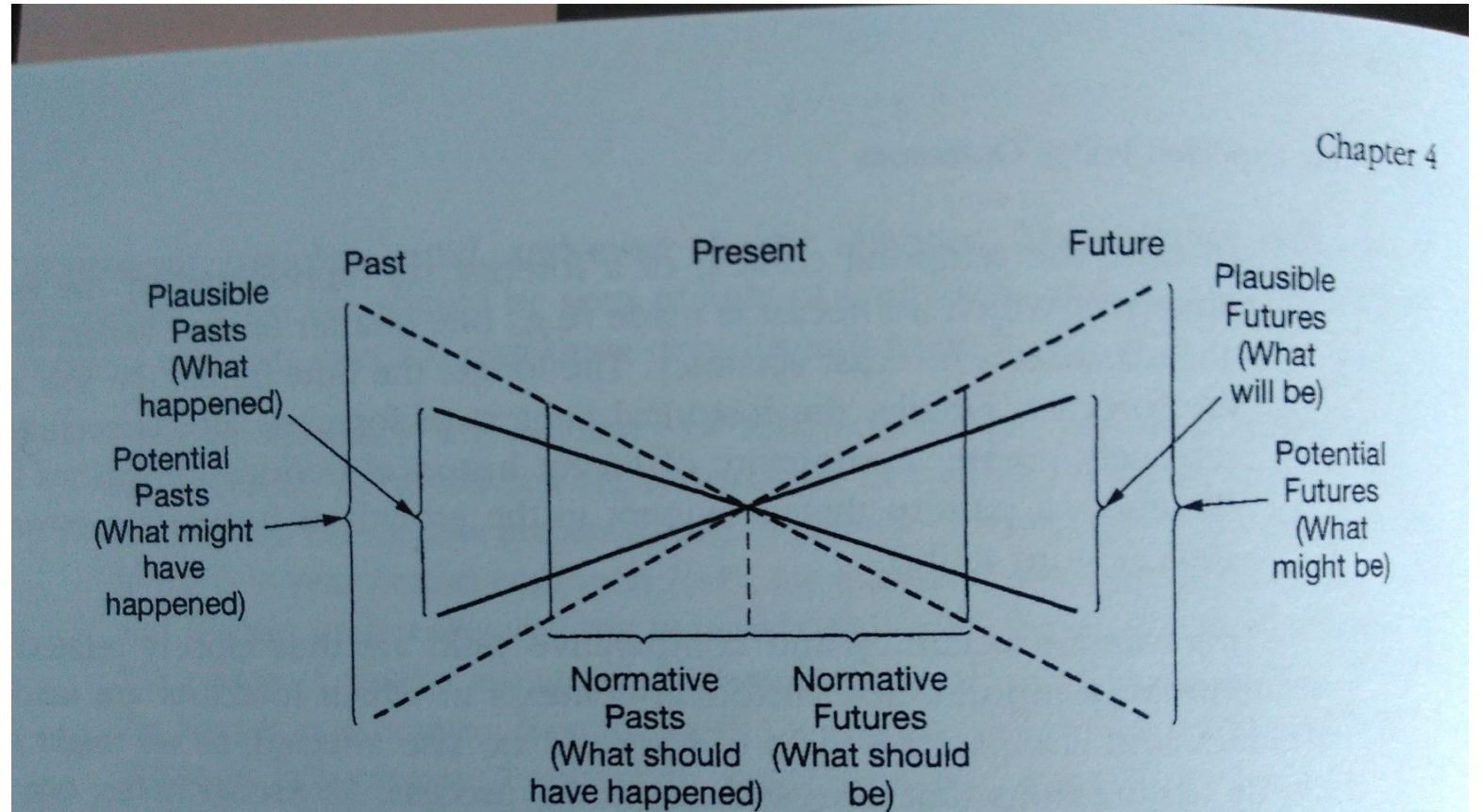


Figure 4.2 Three types of societal futures: potential, plausible, and normative.

Goals and Objectives of Normative Futures

An important aspect of normative futures is the specification of goals and objectives.

Three approaches to forecasting

Approach	Bases	Appropriate technique	Product
Extrapolative forecasting	Trend extrapolation	Classical time-series analysis	Projections
		Linear trend estimation	
		Exponential weighting	
		Data transformation	
		Catastrophe methodology	
Theoretical forecasting	Theory	Theory mapping	Predictions
		Causal modelling	
		Regression analysis	
		Point and interval estimation	
		Correlation analysis	
Judgmental forecasting	Informed judgement	Conventional Delphi technique	Conjectures
		Cross-impact analysis	
		Feasibility assessment	

Bases – (the boundaries between inductive deductive, and retroductive reasoning are often blurred).

Trend extrapolation is based on **inductive** logic, that is, the process of reasoning from particular observations to general conclusion or claims.

Theoretical assumption is based on **deductive** logic, that is, the process of reasoning from general statements, laws, or proposition to particular sets of information or claims.

Informed judgment often expressed by experts and based on **retroductive** logic, that is, the process of reasoning that begins with claims about the future and then works backward to the information and assumptions necessary to support claims

A) Extrapolative forecasting - projection

Three basic assumptions:

- Persistence (Patterns observed in the past will persist in the future.)
- Regularity (Past variations observed trends will regularly recur in the future.)
- Reliability and validity of data.

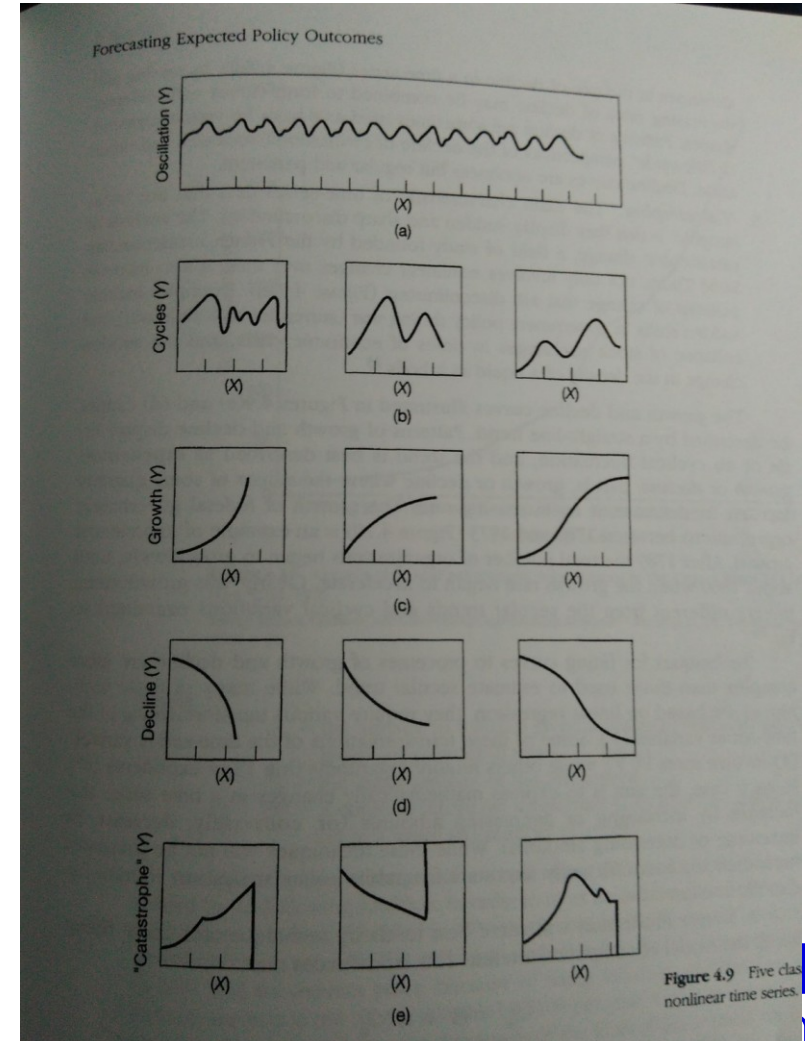
Oscillations

Cycles

Growth curves

Decline curves

Catastrophes



B) Theoretical forecasting - prediction

In policy analysis, deductive reasoning is most frequently used in connection with arguments from cause that seek to establish that if one event (x) occurs, another event (y) will follow it.

Some procedures are concerned with ways to identify and systematize theoretical assumptions, while others provide better estimates of future societal states predicted from theory.

Casual modeling (covariations), Regression, Correlation analysis...

C) Judgemental forecasting – conjecture

Assumptions about the creative powers of persons making the forecast are used to warrant claims about the future.

The logic of intuitive forecasting is essentially retroductive, because analysts begin with a conjectured state of affairs and then work their way back to the data or assumptions necessary to support the conjecture.

A task for you: Test the hypothesis, answer “research questions”.

- Is it true that richer countries spend a larger part of their GDP on healthcare?
- Is there any correlation between tobacco consumption and countries life expectancy? How strong is it?