

# POLI 343

# Introduction to Political Research

## Session 5: Theory in the Research Process, Concepts, Laws and Paradigms

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# What is Theory?

A theory is a set of statements or principles devised to explain a group of facts or phenomena, especially one that has been repeatedly tested or is widely accepted and can be used to make predictions about natural phenomena. Simply put a theory is a set of concepts plus the interrelationships that are assumed to exist among these concepts.



# Functions of a Theory

Among the functions of theory are the following:

a. It is used to predict observable events and relationships

b. It is used to summarize all existing knowledge in a systematic form

c. It is used to explain the basis of observable events in a systematic form.

# The Relationship between Research and Theory

Social science research relies on the scientific method. The scientific method is cyclical in nature. Empirical social science and social science theory are closely interwoven and mutually dependent aspects of a simple process of knowledge. It is now virtually undisputable that research without some theoretical basis is not only unfruitful but downright impossible. In the social sciences delineating the subject matter and attaching names to social realities are themselves theoretical decisions.

# The Relationship between Research and Theory

Empirical research itself presupposes not only a prior a priori conceptual structuring of its subject matter, but also entails questioning. Each question, however, whether the enquirer is aware of it or not, contains a theoretical element, namely explicit or tacit conjectures about existing relationships or expectations about the nature of an object.



# Relationship between Research and Theory

## ;CoŶt'd:

The actual value of an empirical research in the social science depends on basic assumptions in the philosophy of science about the nature of the objective world and its relationship to it, for example, testing hypothesis of a causal nature by using experiments is only meaningful if we assume that relationships are governed by laws that really do exist and that in principle it is actually possible to ascertain what they are.

# Relationship between Research and Theory

## ;CoŶt'd?:

The empirically minded social scientist aims at the description and explanation of social realities. This tends towards a theory which is deductively and descriptively and axiomatically verifiable statements. This does not mean that a theory consists simply of well-established empirical generalizations. Even empirically based explanations goes beyond what is empirically established because

- ❖ It can include axioms i.e. propositions which cannot be derived within the limits of the theory.

# Relationship between Research and Theory

## Characteristics:

- ❖ Its claims for validity of its propositions may extend beyond what has been established by experiment.
- ❖ It may include propositions for which there is as yet no empirical verification or which, even in future cannot be tested directly but only indirectly through hypothesis derivable from the proposition. The research process rests on four basic elements of theory, namely concepts, definitions, variables and hypothesis.



# What are Concepts?

**Concepts** are generalized abstractions representing empirical phenomenon to serve the social scientist in the process of communication and research. Concepts can also be pictures of reality. There are usually types or classes of events persons and relationships that can be generalized into one word or idea such as status, role, power, legitimacy poverty etc. The significance of concepts stems from their ability to transfer information in the form of images about experiences in the empirical world.

# Definitions-Conceptual and Operational

Social research is based on two types of definitions, namely (a) **conceptual** and (b) **operational**. Conceptual definitions describe concepts using other concepts, i.e. various combinations of concepts would be used to define other concepts e.g. political power might be defined conceptually as aggressive behaviour towards political institutions and persons occupying political roles. Generally conceptual definitions are not empirically observable.

# Operational Definitions

**Operational definitions** bridge the gap between the theoretical conceptual level and the empirical observational level. An empirical definition is a series of instructions describing the operations that the researcher must carry out in order to demonstrate the degree of existence of an empirical occurrence represented by a concept. In effect an operational definition is a working definition to explain what we mean by specific terms.



# Conceptual and Operational Definition

In the course of a researcher's investigation of poverty, income may be used as the main criteria for defining poverty or the poverty datum line (PDL) (the per capita income used by the UN to indicate poor countries) or when you talk of alienation, its operationalization involves indicating exactly how you know the concept when you see it.

# What is a Variable?

A **variable** is a concept that has been operationally defined. It is an empirically applicable concept and it usually takes on two or more values e.g. income as a variable is classified into (a) low (b) medium and (c) high, sex or gender is classified into (a) Male (b) Female and social status is classified into (a) Low and (b) high.

There are three types of variables in scientific research. These are (a) ***Independent*** or ***predictor variable*** (b) ***Dependent*** or ***criteria*** variable (c) **Control** or ***test*** variable.

# Independent and Dependent Variables

The independent variable is hypothesized cause of another variable i.e. it explains the cause for another variable which is the dependent variable. The dependent variable is the expected or effects of the independent variable i.e. usually the variable that the researcher sets out or wishes to explain e.g. bad governance leads to conflict and political instability. The dependent variable is conflict and political instability and the independent variable, bad governance.

# Control Variable

The control variable is the variable in between the independent and dependent variables which is tested to see whether this relationship is genuine or spurious i.e. that a third variable is influencing the independent and dependent variables. The control variable serves the purpose of testing and observing relations between independent and dependent variables.

# Hypothesis

Hypothesis is a statement about a presumed relationship between two or more variables that have been operationally defined and which is to be empirically tested. They are tentative answers to researchable problems and are expressed in the form of a relationship between the independent and dependent variables. e.g. (a) bad governance leads to conflict and political instability (b) governments that rule well tend to win re-election. The peculiarity of hypothesis consists of the possibility of rejecting them.



# Hypothesis ;CoŶt'd:

Hypothesis can be derived deductively from theories. It can also be derived directly from observations or can be derived from the combination of the two above. Not all hypotheses are researchable. For hypotheses to be researchable they must meet the following four requirements:

- ❖ They must be clear i.e. they must be operationally defined and be precise so that observation and applications become possible.
- ❖ They must be value free. IŶ p̄diŶĐiple the deseadĐhed's own biases should not be allowed not to be a allowed to intrude into the research.

# Hypothesis ; CoŶt'd:

The research must make conscious and explicit effort to

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❖ The hypothesis must also be specific. Here the researcher must explain the expected relations between the variables and the conditions under which these relations would hold.

❖ There must be methods available to test these hypotheses i.e. the researcher must have in existence enough tools or research procedures to test these hypotheses.

# Concepts and Abstractions

Related to the *Questio* of *that is sDieDe*: Alludes to concepts and abstractions that go beyond common sense . In social research it involves specialized discourses concerned with theoretical understandings of social reality linked with empirical evidence. It draws upon empirical (scientific) arguments but integrates them into imaginative *metaphors* and *models*, e.g. *sDiety is like a odga is od Ta guage*. Theory is distinct from commonsense, though everyday experience is based on *informal* or lay theorizing *i ol i g so Diologi Dal Do wpete De* (Lemert).

# What is a Theory?

A Theory is not a unified discourse because it takes a number of different *logical forms*, e.g. *meta-theoretical*, *empirical*, *normative*. Such discourses have distinctive *narrative structures* or modes of argumentation. A **theory** is a scientific opinion of why and how something occurred. It is not fact, but is based on strong evidence and has scientific support to prove it could be possible. The Big Bang Theory is an example of a scientific theory. A theory could also be considered as someone's personal opinion about a topic. A theory is also defined as a scientific suggestion based on strong evidence and logical reasoning. A theory has not been proven, but is believed to be a plausible explanation to a scientific issue.

# Science as Explanation

To understand the scientific method's application to understand the observable world around us we have to note that science is only one way of trying to explain reality, because the complexity and multi-dimensional nature of the world make it impossible for any one aspect of knowledge to provide all the answers or the final truth about the world. In providing its own explanations, each form of knowledge addresses a number of key questions, namely (1) what assumptions are being made i.e. what are the intellectual starting points for such thinking? (2) what sort of questions are being asked?

# Paradigms

The formulation of new theories presupposes some research has been done. Two major problems arise in the research process. One of them is theoretical and the other is methodological. A research report, e.g. long essay, thesis or dissertation, conference paper, etc., will either be accused of being theoretically unfocussed (eclectic i.e. picks bits here and there), or is methodologically weak. This means that to successfully consummate the research process, a researcher must have a clear methodological direction through which the final theory is arrived at.

# Paradigms ;CoÛt'd:

Often in the research process, it is not necessarily what finds out that matters but how one does the finding. Often the researcher is expected to identify his work within the framework of already existing theories. Such theories and their implied methodological approaches constitute a paradigm. A good example of a paradigm is Marxism which is a theory and has a distinctive method of analysis.