Characteristics of a Theory

1. Explanatory function—account for or explain a phenomenon.
2. Usually stated in propositions and concepts.
3. Good hypothesis provides a rigorous test of theory.
Dependent variable

Assumed to depend on or be caused by independent variable
Variable the researcher wishes to explain
Expected outcome of the independent variable
Termed the criterion variable
Discussion

Identify as independent and dependent variables. Write two hypotheses for the independent and dependent variable and state the direction of relationship (positive or negative).

Identify IV and DV for all and write only two hypotheses

- Education vs. income
- Number of hours studying vs. grades
- Political participation vs. education
- Alienation vs. political participation
- Poverty vs. crime
Exploratory research

Seeks to find out how people get along in the setting under question, what meanings they give to their actions, and what issues concern them.

The goal is to learn “what is going on here”?

To investigate social phenomena without expectations

Frequently involves qualitative methods
Major Theoretical Perspectives

1. Positivism—knowable objective reality 2. Conflict theory—domination
3. Symbolic interactionism—meaning/social interaction 4. Structural functionalism—parts of society serve function
7. Postmodernism—questions positivism 8. Critical realism—things real produce effects
9. Social Darwinism—survival of fittest
Negative relation called inverse relation

Indicates that as values of one variable increase, values of the other decrease. High values for one variable are associated with low values for the other.
Qualitative methods

Methods such as participant observation, intensive interviewing and focus groups that are designed to capture social life as participants experience it rather than in categories predetermined by the researcher.

Data that are treated as qualitative are mostly written or spoken words or observation that do not have a direct numerical interpretation.

Goal is to develop an authentic understanding of a social process or social setting.

Inductive research—begins with specific data, which are then used to develop / induce a general explanation (a theory) to account for the data.

Actor’s point of view, subjective.

Interpretivism—social reality is socially constructed, understand what meaning people give to reality, there is no concrete, objective reality that scientific methods help us to understand.

Theory building—grounded theory—start with data, analyze patterns, themes.

Depth and complexity—meaning, convenience samples, special populations, supported by cultural elites such as foundations—Ford, Spencer.

Examples are ethnography, in-depth interviews, conversational analysis.
Science- a set of logical, systematic, documented methods for investigating nature and natural processes; knowledge produced by these investigations.

Social science- the use of scientific methods to investigate individuals, societies, and social processes; knowledge produced by these investigations.
Theory

A logically interrelated set of propositions about empirical reality. An attempt to explain why something happens, helps us make sense of many interrelated phenomena and predict behavior or attitudes that are likely to occur when certain conditions are met. Examples of social theories are structural functionalism, conflict theory and symbolic interactionism.
Two properties of relations

Direction – positive or negative and magnitude-perfect relation or zero relation
Continuous variables

Do not have a minimal size unit
Example, length
Defining and describing social phenomena is often the primary focus of the first research about some issue.
Evaluation research

Considers the implementation and effects of social policies and programs. Often involves some type of experimental design.
Four characteristics of hypotheses

1. Must be clear-have to define all variables in hypotheses
2. Value-free- researcher must be aware of personal biases and make them as explicit as possible
3. Specific- will express the expected relation between variables (positive or negative)
4. Testable with available methods- evaluation of hypotheses depends on the existence of methods for testing them
Independent variable

Presumed to cause or determine a dependent variable
Expected to explain changes in dependent variable
Is called the explanatory variable
Is called the predictor variable
Mesotheory

intermediate level between macro and micro such as organizations, communities
Social capital theory, social network analysis theory
Paradigm

A model or frame of reference
Used to organize observations and reasoning
Methods such as surveys and experiments that record variation in social life in terms of categories that vary in amount.

Data that are treated as quantitative are either numbers or attributes that can be ordered in terms of magnitude.

Deductive research involves moving from theory to data and then back to theory.

Positive science—objective reality exists apart from perceptions of those who observe it.

Use of numbers:
- Objective
- Hypothesis testing
- Start with literature review
- Breadth and generalizability

Supported by political elites who use numbers to justify funding.

Examples are lab and field experiments, survey research.
Scientific method

Process that lies at the center of scientific inquiry:
Fundamental steps are:
1. making observations/collection data,
2. making a prediction/formulating a hypothesis,
3. doing experiments to test the predictions/testing hypothesis.
There is an analytical distinction between

Independent variable, dependent variable, control variable, continuous variable and discrete variable
Variables

Logical sets of attributes
Sets of related attributes, it varies
An empirical property that takes two or more values; Only two values it is termed a dichotomous variable e.g., gender-male/female
Control variable

Are used to test the possibility that an empirically observed relation between an independent and a dependent variable is spurious. A spurious relation is a relation that can be explained by other variables. Their function is to reduce the risk of attributing explanatory power to independent variables that in fact are not responsible for changes in dependent variables.
Discrete variables

Have a minimal size unit
Example, amount of money in your bank
Explanatory research

Seeks to identify causes and effects of social phenomena, to predict how one phenomena will change in response to another. Often involves experiments or surveys, both of which are more likely to use quantitative methods.
Hypotheses

Tentative answers to research questions or problems
Macrotheory

Aimed at understanding the “big picture” of institutions, whole societies and interactions among societies e.g., conflict, functional theories
Microtheory

aimed at understanding social life at the intimate level of the individual and their interaction
e.g., symbolic interactionism, ethnomethodology
Positive relation

Means that as values of one variable increases, values of the other also increases.
Variable X and Y are related means there is something common to both variables, they go together or they covary.
Cannot resolve value questions
Uses logical, systematic, documented methods to investigate individuals, societies, social processes
Can be descriptive, exploratory, explanatory or evalative or combination of these
Scientific claims must rely on both theoretical and empirical support.
Two methods of developing theory

1. Deductive theorizing- move from general to specific, hypotheses testing,
2. Inductive theorizing-move from particular to the general, leads to grounded theory, theory is grounded in sense it was generated from data
What Makes a Good Theory

1. Predictive Accuracy—can it reliably predict behavior?
2. Internal Coherence—are there any logical inconsistencies between any of the theoretical ideas?
3. Economy—Does it only contain what is necessary to explain the phenomenon in question?
4. Fertility—Does it generate research and can it be used to explain a wide variety of social behavior?