

II. New Material on Empirical Theories

1. What is an empirical theory Empirical Theories explain why patterns or regularities occur. Some examples: Theory of disease, theory of evolution, theory about a crime or criminal behavior.

The key to identification what explains what? An explanation answers the question “Why did something happen”

- A. In small group apply this test to each of following pairs of statements: identify the theory-statement (the one that does the explaining) and the regularity statement (the pattern that is being explained)

1. a. Engine blocks containing water with no antifreeze tend to crack in very cold weather .
b. Water expands when it freezes.
2. a. Among college students in the 1970's and 1980's, women were less likely to smoke marijuana than men.
b. American society is less tolerant of women engaging in deviant behavior than it is of men, which tends to constrain deviant behavior in women.
3. a. The judge, prosecutor, and defense attorney form a workgroup that carries out shared goals such as disposing of its caseload
b. In the United States, a high percentage of criminal defendants plead guilt in plea bargains.

- B. As chapter 10 indicates the mark of an empirical theory is that they can be used to provide explanations. The statements that make up the theory can often be recognized in prose passages by certain clues: (1) the presence of indicator words, (2) a broader scope, and (3) specialized or technical language. In small group use these techniques to analyze the following passages, pick out what is explained as well as the theory or theories that are put forward to do the explaining.

1. During the 1980s, numerous banks and savings and loans in the United States have failed. Between 1981 and 1984, over 150 failed, and the number has increased since that time. Before that time, since the Great Depression, the number of bank failures for a typical three-year period has been much lower than 150. Why this recent increase in failures? One reason that has been suggested is that banks have been largely deregulated, resulting in less-conservative practices by bankers willing to take risks.
2. Bruce poured some sulfuric acid over some zinc in the chemistry lab and hydrogen gas was released. This reaction is captured by the formula:
$$\text{H}_2\text{SO}_4 + \text{Zn} \rightarrow \text{ZnSO}_4 + \text{H}_2$$

sulfuric acid + zinc yields zinc sulfate + hydrogen gas
3. Natural Selection is an immensely powerful yet beautifully simple theory that has held up remarkably well, under intense and unrelenting scrutiny and testing, for 135 years. In essence, natural selection locates the mechanism of evolutionary change in a “struggle” among organisms for reproductive success, leading to improved fit of population to changing environments. (Struggle is often a metaphorical description and need not be viewed as overt combat, guns blazing. Tactics for reproductive success include a variety of non-martial activities such as earlier and more frequent mating or better cooperation with partners in raising offspring.) Natural selection is therefore a principle of local adaptation, not of general advance or progress

C. Plenary Session

III Criticizing Empirical Theories

- A. Think about empirical theories that you have heard about or read about. Pick one that you think is a bad theory—one that you don't accept. Write down in a phrase what the theory is. Exchange thoughts with a least one member of your group concerning what the theory is and why you are inclined to reject it.

B. Chapter 10 describes an approach for a first stage criticism of empirical theories . In small group review the sample criticism on p. 304. Use this sample as a guide for criticizing the following passages by filling in the boxes for plausible *alternative theories* and *doubtful predictions* in the schema .

1. French sociologist Emile Durkheim undertook a study of suicide. Included among his data was evidence from various European countries about the relationship of suicide to marital status and religion. For example, the recorded suicides for Catholics in Austria for 1852–1859 were 51.3 per million persons and for Protestants 79.5 per million. Similarly, in Prussia for the years 1849–1855 the recorded suicides were 49.6 per million for Catholics and 159.9 per million for Protestants. He also found that during this period the recorded suicides for unmarried men were 975 per million, while there were only 336 per million for men with children. He used this and other evidence to support the view that in general Catholics have a lower recorded suicide rate than Protestants and that married persons living with spouses have a lower recorded suicide rate than single persons living alone. Why? He believed that suicide rates are a function of unrelieved anxieties and stress. Being a member of a closely knit group, like the Catholic community or a strong family, provided a measure of social cohesion that gave psychic support to group members subjected to acute stress and anxieties. Durkheim’s theory of suicide is another instance that shows that we can “get by with a little help from our friends”!

<p>Theory Suicide results from unrelieved anxiety Being a member of a closely-knit group lessens anxiety</p>	<p>Plausible Alternative Theory?</p>
<p>Regularities 1. Catholics have lower suicide rate than Protestants 2. Married persons living with spouses have lower rates than single persons living alone</p>	<p>Doubtful prediction(s)?</p>

2. **Explanation X** Many explanations have been advanced for the political apathy of Generation X [the American generation born from 1965 to 1978], but none seems to tell the entire story. One theory holds that television, which the average child now watches for forty hours a week is to blame for the cynicism and lack of civic education among the young. Another is that growing up during the Reagan and Bush presidencies, when government-bashing was the norm, led many Xers to internalize a negative attitude towards politics and the public sector. A third theory blames the breakdown of the traditional family, in which much of the child’s civic sensitivity and partisan orientation is said to develop. And, of course, the incessant scandals in politics deserve some blame for driving young people into political hiding. Each of these theories undoubtedly hold some truth, but a simpler and more straight-forward explanation is possible--namely, that younger Americans are reacting in a perfectly rational manner to their circumstances, at least as they perceive them.

As they enter adulthood this explanation goes, Xers are facing a particularly acute economic insecurity, which leads them to turn inward and pursue material well-being above all else. They see the outlines of very real problems ahead--fiscal social and environmental. But in the nation’s political system they perceive no leadership on the issues that concern them; rather, they see self-serving politicians who continually indenture themselves to the highest bidders. So Xers have decided for now, to tune out. After all, they ask, what’s the point?

Theory

Plausible Alternative Theory?

Regularity

Doubtful prediction(s)?

C. Plenary Discussion



Assignment for Friday May 16. Read: Ch. 10, pp. 287-289. **Submit:** **Exercise 10.1**
b,d,f #2b, g, h, i; **Exercise 10.2** #2, #4, #5