

# 2

## THE EMPIRICAL APPROACH TO POLITICAL SCIENCE

In chapter 2 of the textbook, we describe the scientific method and argue that it underlies empirical political science research. We note that empirical claims are sometimes difficult to distinguish from other kinds of statements. Also, it is not always clear whether and how empirical analysis can be applied to propositions stated in theoretical and practical terms. The following questions, problems, and assignments therefore offer opportunities for you to think about the application of the empirical approach. Note that not all of the questions have one “right” answer. Many, in fact, require a lot of careful thought. And it is often necessary to redefine or clarify words or phrases, to look for hidden assumptions, and to consider whether or not statements can be “translated” into scientific terms.

**Exercise 2-1.** The empirical approach to research involves many technical terms. These terms describe important concepts in the scientific method. Below you will find a number of terms that appear somewhat similar but represent very different concepts. Define each term and explain how they differ.

a. Empirical and nonempirical

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b. Normative and nonnormative

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c. Induction and deduction

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d. Theory and fact

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**Exercise 2-2.** In the space below, define the scientific method by identifying the most important concepts included in the method. Why are these the most important components?

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**Exercise 2-3.** Chapter 2 mentions several characteristics of scientific knowledge. It also warns about confusing commonsense and casual observations with verified or potentially verifiable claims. In this exercise you will try to identify and differentiate between normative statements, which are statements that suggest how things *should* be, and empirical statements, which are statements that can be measured, tested, or verified through observation. For each of the following statements, decide if the statement is normative, empirical, a combination of the two, or if there is not enough information in the statement for you to decide. Write your responses in the space provided after each statement and briefly explain why you think your answer is correct.

a. Hillary Clinton won the Catholic vote in the 2016 presidential election.

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b. North Korea should be deterred from continuing to pursue development of a nuclear weapons program.

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c. Early voting periods should be shortened because they disproportionately favor Democratic candidates for office.

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d. Multiparty systems are better for representation than two-party systems.

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e. Nevada has a higher proportion of female state legislators than any other state.

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f. Senior citizens are more likely to vote than college students.

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g. The Brazilian runoff election was close enough that there should have been a recount.

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h. Freedom of religion is a fundamental right of all people.

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i. Republican presidents are better communicators than Democratic presidents.

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j. Too many people have been unable to find work.

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**Exercise 2-4.** Below you will find several paragraphs that might appear in a letter to the editor. Read the paragraphs, then answer the questions below.

The opioid crisis in the United States is getting worse with each passing year. Hundreds of millions of opioid prescriptions have been written by doctors each year, and those prescriptions lead to overdoses. Over the last twenty years, more Americans have been overdosing on opioid prescriptions. The availability of heroin and synthetic opioids like fentanyl make the problem even worse. We should be devoting more resources to crisis response, with a special emphasis on rehabilitation. When lives are at stake, especially our young people, the government must act.

Anyone who pays any attention to national news has seen countless stories of lives destroyed by opioid addiction. The federal government should provide more resources to state and local health care agencies that have been overwhelmed in the crisis. The most important factor in solving the crisis is rehabilitation for those suffering through opioid addiction. Only by offering the necessary support to help those in need will we be able to reverse the trend of increasing overdose deaths.

The opioid crisis is the most important domestic policy issue facing our country and must be addressed before more lives are lost.

- a. Identify two normative statements or claims from the preceding text that cannot be tested empirically as currently expressed.

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- b. Write down two statements or claims in the preceding text that are empirical and can be tested.

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**Exercise 2-5.** Many people make the following claim: “You cannot predict human behavior.” In light of our discussion of the scientific approach to political science, do you find this claim to be valid? (*Hint:* Try breaking human behavior down into more specific traits or properties. For example, consider if people are naturally aggressive. Then think of ways that this might be empirically investigated.)

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**Exercise 2-6.** Chapter 2 of the textbook highlights criticisms of the empirical study of political science.

- a. List the criticisms of the empirical study of political science here.

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- b. Which of the criticisms do you find most compelling and why?

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## HELPFUL HINTS

### DECODING THE AMBIGUITY OF POLITICAL DISCOURSE

As we stated earlier, political discourse is frequently ambiguous, and you have to think carefully about what words really say. Sometimes a politician's meaning is clear. Consider President Obama's Rose Garden speech on a proposed nuclear deal with Iran.<sup>1</sup> In his speech President Obama said, "The Islamic Republic of Iran has been advancing its nuclear program for decades," which was a straightforward factual statement that could be verified empirically. But he also claimed, "I made

clear that we were prepared to resolve this issue diplomatically, but only if Iran came to the table in a serious way." The word *serious* makes this statement a judgment, not a factual proposition. Whether something is serious or not is an opinion. In some people's minds, Iran had been making serious attempts at diplomacy, but others thought differently. Who was right? It is hard to see how the proposition could be scientifically proven true or false.

**Exercise 2-7.** Chapter 2 in the textbook focuses on empirical research and using the scientific method. Empiricism is defined as “relying on observation to verify propositions.” In this exercise you will want to consider *how* you might make observations to verify propositions. For each of the following empirical statements, indicate where you might look or how you might make observations to find information to verify the statement. In the example below, you will see that while you only need to provide one answer, there are many potential verification methods.

Example: A majority of voters oppose the use of the death penalty.

Answer: “I would search for survey results on national news organization Web sites,” or “I would randomly sample students at my university and ask if they support the death penalty,” or “I would call an interest group that focuses on the death penalty and ask about support for the death penalty among voters.”

a. More voters are registered with the Democratic Party than the Republican Party in Pennsylvania.

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b. The British Parliament currently has more than twelve parties represented by members.

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c. Someone working forty hours a week and earning the minimum wage will still be below the federal poverty level for a family of two.

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d. People are not willing to pay higher taxes to address climate change.

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e. Texas has the most stringent voter identification law in the United States.

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f. Ninety percent of deaths attributed to diarrheal diseases like cholera are children five years of age or younger.

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**Exercise 2-8.** In order to think about the scientific components of empirical research it is useful to compare research projects that are more scientific with projects that are less scientific. For this exercise you will compare *two* examples of empirical research with publicly available results on the Internet.

The first survey is part of Gallup’s research on worldwide migration using the Gallup World Poll. You can download a pdf copy of the report, called *Gallup Migration Report*, from the student Web site at <https://edge.sagepub.com/johnson9e>. You will also find a second pdf file, *Gallup World Poll*, that describes the methodology behind the survey results.

The second survey is an online instant poll created by HGTV Magazine that asked respondents to choose their favorite chair. Web site readers were asked to choose their favorite among four options—wingback, slipper, barrel, and Chinese Chippendale—and then the results were made available to the reader. The results were wingback (59.2%); slipper (18.4%); barrel (16.5%); and Chinese Chippendale (4.7%). No additional information about the poll was available on the Web site.

Compare and contrast the scientific nature of each project. Make sure to describe the scientific components each project made use of, such as random samples, replicability, generalization, etc.

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1. The White House, “Statement by the President on the Framework to Prevent Iran from Obtaining a Nuclear Weapon,” April 2, 2015, [www.whitehouse.gov/the-press-office/2015/04/02/statement-president-framework-prevent-iran-obtaining-nuclear-weapon](http://www.whitehouse.gov/the-press-office/2015/04/02/statement-president-framework-prevent-iran-obtaining-nuclear-weapon).