Introduction: Politics, Universals, Knowledge Claims, and Methods

Presumably you are reading this book to gain insight into politics. Politics means different things to different people. For some it is an electoral fight for city hall. For others it is the legislative struggle to change a law. In non-democratic countries it may be the struggle of an autocrat to maintain power, or of citizens to organize a rebellion. Still others may view it as the bureaucratic hassle of getting a business license. For our purposes these are all politics. Politics consists of behavior undertaken either to make centralized decisions for a group, or to secure interests shared by members of a group.

This book makes claims – big claims – about enduring patterns to be found in politics. Hopefully, these patterns will help you understand why certain things happen, and even how you can make some things happen. The book cannot give us a complete understanding of politics: nothing holistic. But we can explain why certain problems, certain patterns, occur over and over again. Barring a few insights, these are not things I have discovered. Rather, a substantial group of scholars has expanded the theories of rational choice to explain many aspects of politics. They, along with a skilled, and often skeptical, bunch of others have tested these conjectures. In this volume, I present generalizations about politics that are justified by a chain of reasoning. Most have also survived some serious testing. These generalizations amount to claims of knowledge regarding both empirical and normative political questions. Knowledge claims have been made by other political theorists over the millennia, never without contention. Contention continues. So before we begin our exploration of these knowledge claims, let us consider the ground rules.

You will want to know how to evaluate the assertions: how to distinguish wheat from chaff. How *does* one establish or falsify a claim of knowledge – about politics, or anything else? How do our methods of inquiry affect both the quality and the enduring survival of what we claim to know? Lest you consider these idle concerns, notice that this book is being written after the fruits of science have cured diseases, wired every home, recorded all entertainment, and made remote control warfare a thing of joysticks forever. It is also at a time when many Americans reject the scientific findings of evolution and push for the teaching of intelligent design in our schools. Such attacks on science make the task of reasserting and following justified methods to ensure the quality of our judgements a matter that is related to the actual survival of civilization as we know it.[1]

Reason alone is insufficient for deciding disputes regarding empirical truths. Reason yields insufficient grounds to adjudicate empirical claims unless it lets one demonstrate logical error, and hence show that an argument said to justify a conclusion just doesn't. For eons, philosophers felt that they could use reason to understand and identify the truth of both normative and empirical claims. So in his *History of Animals*, Aristotle claimed that women had fewer teeth than men, and he and others argued that it could be shown that slavery was just. Universal claims have been made in these ways, and such claims are still studied by weary scholars. But the disutility and lack of viability of such claims usually ensure that they are museum pieces: not useful bits of knowledge. Empirical methods, *in conjunction with reason*, have, on the other hand, helped us understand such principles as those of motion, energy, mass, evolution, and justice.

Empirical methods in the form of experimental and statistical methods, are widely understood in both the academy and the lay public, and won't be belabored by me. What is less widely appreciated outside the "sciences" is the role of logic in the processes and the accumulation of assertions of scientific knowledge. And to understand that, it is useful to have a short segue to clarify "what is knowledge."

[1] But do not read into this a presumption that we can establish a "method' of science and corroboration. Such a recipe for obtaining sure knowledge is beyond us. At best we can accept some aspects of methods as helpful and reject others as dysfunctional. The search for these methods is the continuing holy grail of the philosophy of science: see the volume edited by Nola and Sankey (2000), or Giere (1988) for illustrative overviews.

KNOWLEDGE

Definition – *Knowledge:* Justified, true belief.

What *is* knowledge? The reader may roll her eyes at this point. Why step into such a quagmire as a prelude to understanding politics? After all, isn't this just another irresolvable, difficult question? Why not let philosophers battle this one out? Surprisingly, philosophers don't battle over this; there is considerable consensus in philosophical quarters as to knowledge's basic properties.[2] And as we shall see, understanding what knowledge *is* helps us know what we are looking for as we search for knowledge about politics. It helps us comprehend why the foundations of rational choice theory have been stipulated so carefully as to have become quite complex. It will illuminate why such complexities are needed to understand what politics *is* and how it works.

Let's dive in. What does it mean to make a knowledge claim? For example, what does it mean to say, "I know my hat is on the kitchen table"? Philosophers and others who have examined this agree that if I assert that "I *know* my hat is on the kitchen table," then for it to be a true assertion, my assertion must have three properties.

First, I must *believe* that "my hat is on the kitchen table." If I don't believe it, how could I assert that I *know* it? For example, if I actually believed the hat to be in the hall closet but asserted, "I know my hat is on the kitchen table," we wouldn't say that my assertion ("I know my hat is on the kitchen table") was true, even though the factual component regarding the whereabouts of my hat may (or may not) be accurate. I must believe what I assert to know.

Second, what I believe must be *true*. Assume I do *believe* the hat *is* on the kitchen table. What if it is actually in the closet? Certainly we wouldn't want to say that "I know my hat is on the kitchen table" is true.[3] I may believe it, but I wouldn't know it.

[2] A quick check of this in Wikipedia or at the Stanford Encyclopedia of Philosophy, http://plato.stanford.edu/, should convince the skeptic and provide some understanding of the range of debate on the subject.

[3] Implicit in my illustration is an acceptance of a popular theory of "truth:" the correspondence theory of truth. Theories of truth are given an accessible treatment in White (1970). And the two major theories, Correspondence and Coherence, are well described in White (1967) and Prior (1970) respectively. But standard accounts can also be easily found at http://plato.stanford.edu, the major online philosophy encyclopedia. In correspondence theory, the truth of a statement ("My hat is on the table,") is dependent upon the conditions in the real world: is my hat *really* on the table? If so, then the statement is true: it corresponds with the real world. If not, *tant pis*. Although this is the "standard" theory, many of our

And finally, my belief must be *justified*. For example, imagine that I believe it is on the table but my belief stems from a message in a computer game that said, "Your hat is on the kitchen table." If this were the basis for my belief, you might object "a computer game message is not a viable justification for the empirical belief concerning the placement of your hat." Even if the hat were to end up being on the kitchen table, we wouldn't endorse that I *knew* it if the only basis I had for my claim was the message. In other words: true belief is insufficient to claim knowledge. The quality or strength of the justification is an essential element.

How then do we justify claims of knowledge? To say a claim is justified means that some argument has been put forward to justify the claim. Justification is comprised of the grounds we use to make our claim. We can get this via an argument (or deduction), as contrasted with justification via observation (or induction). Justification via an argument requires that some premises *imply* the conclusions (i.e., the thing we claim we know).

For such a justification to be valid, we would want to know two things about the premises. First, are they true? And second, does the claim follow as a valid conclusion from the premises (is the reasoning correct?). In other words, if the premises were true, the conclusion would *have to be*. In part, that is what was wrong with the assertion based on the message received from the computer game. Of course, the message could have said that my hat was on the kitchen table, but that certainly wouldn't ensure that my hat would be there! If the argument justifies the conclusion, then *if* the premises are true, the conclusion *must* be. Such a relationship between one's claim and its justification a logical one: it is the relationship of logical deduction.[4] Let us examine why these two elements are important, and yet, why both of these aspects of justification raise problems.

claims of knowledge are not backed by simple observations of the real world and often they go beyond what we can directly observe (think of such cases as string theory, quantum mechanics, and preferences). Partly driven by the lack of direct observation, alternative theories of truth have flourished. The major alternative is known as the "coherence" theory of truth. It insists that our knowledge claims "fit" together to make or maintain a coherent pattern or fabric. Disputes then entail as to what precisely is to be the role of the existing claims regarding the empirical world in the determination of "truth" regarding new claims (see White, 1967). But virtually all conceptions of the empirical science use some conception of the "correspondence" theory as part of their methodology. Just as tires must grip the road, the claims of science must grip reality (Nola, 2004).

[4] That would make our claim the conclusion of a valid argument. When based on true premises such an argument is referred to as "sound."

The Status of the Premises: Truth

Consider the truth of the premises. In most scientific arguments the premises include vast generalizations about, for example, motion, or cells, or carbon molecules. Such claims are both necessary and problematic: the generalizations cover many observations, but we can't be sure they hold for the entire hypothesized class. In other words, they are always questionable. Further, some generalizations are known to be only approximations of the realities that we observe. Take for example, a Newtonian model that allows us to predict a ball's velocity at the end of a roll on an inclined plane. It usually yields wrong predictions! Unaccounted-for factors are said to cause the predictions to be inaccurate. "Bridge principles," such as those dealing with air resistance and friction, are added to explain the deviation from the predicted results. More to the point, generalizations are often simplifications: fruitful in helping to develop theory but only approximations. "Firms attempt to maximize profits" is a good example from economics. In much of what follows, the major premises of rational choice theory that are employed are also mere approximations. Sometimes we might settle for such approximations as useful for the logical inferences they permit. Other times, we will find that small tinkering will generate more useful inferences and models.

Ideally, the premises in arguments are true: the conclusions of sound arguments are then knowledge. But in reality, we can rarely be sure of the truth of the premises. The conclusions, as in all science, aren't strictly knowledge, but rather only good candidates for knowledge, or "knowledge claims."[5] Although in the end, scientific progress and claims rest on judgments rather than absolutes, this is the best we can do. To understand why the methods are still powerful, we need to examine the other aspect of justification: the relation between an argument and its conclusions. Such an examination helps illuminate why this style and method of argument have led to progress in so many of the empirical sciences, including, recently, political science.

The Relationship of the Premises to the Knowledge Claim: Logical Inference

Now let's explore that second property, justified: if the premises are true, the conclusion must be. In other words, logic. Logic requires a particular

[5] Although Karl Popper (1959) didn't use the term, he might recognize these as conjectures that have survived repeated tests of falsification.

structure to an argument: for one, it sets down rules as to what you can conclude from any starting point. Most specifically, in a logical argument, if you start with some true point, then by following the rules, all that you can arrive at are other truths. In other words, providing you begin with truthful statements, logic preserves the truth all the way to the conclusion (see Sidebar 1).[6] Here, then, is some of the power that one gets from logic. Let's say you begin with what you believe to be truthful premises, and a logical argument leads to some "testable" conclusion.

As an example, say you are a "strong believer" in the value of the messages from the computer game. You presume that every prediction of the messages from the computer is true. This logically implies that you presume that the message that predicted that my hat was on the kitchen table was true. Now we look in the kitchen, and the hat isn't on the table. Given the power of logic, there was something wrong with at least one of the premises. Indeed both are false: the message's prediction was wrong *and by virtue of the logical link between those premises (and given the facts)* the game messages are NOT always right. Logic gave us the power to construct an *indirect* test of the premises. So logic enables one to construct these tests and allows us to see the relation between theory and test. Indeed, this simple property of logic lies behind the construction of all scientific tests: one tests a conjecture by seeing if something that it logically requires is true. If that is not true, the conjecture must be false.

Theories, in the sciences, are premises coupled to logically related conclusions (usually referred to as conjectures[7] or hypotheses). These conclusions are often appended to some other premises to allow application of the theory to an empirical problem. In this fashion, scientists may be said to expand the theory by developing a model of an empirical problem. This development of "models" is a particularly useful move: it increases the range of indirect tests of the theory.[8] If the model and its tests are properly constructed, and the test is negative, something must be wrong with one or more of the premises.

[6] Indeed, logic is *the* set of rules that preserves truth in argument (providing that truth is two-valued). Although mathematics is not the same as logic, there are sufficient family resemblances and ties so that this property is maintained in mathematical arguments.

[7] A conjecture would be a testable generalization.

[8] One can't develop an application of a theory to a new circumstance without the use of auxiliary hypotheses (i.e., regarding contextual changes). Then, the indirect tests are not of the theory alone, but also of these auxiliary hypotheses. (See Hempel, 1965 or Lambert and Brittan, 1970 for a good introductory account of some of these aspects of theory's role in the pursuit of knowledge.)

Sidebar 1 – On the Power of Deduction

An argument has a conclusion, or set of conclusions, that are *justified* by a set of premises. What does this mean? It means if the argument is correct, the conclusions follow from the premises. In other words, if the premises are true, the conclusions MUST be true. Or, if the conclusions prove to be false, then there was something wrong in the premises. But how do we ensure that we have such a relationship?

In the relationship that we are seeking, the deductive argument needs to be correct – or as it is called, valid. This lets us know that *if* the conclusions are false then the premises must be. For example, imagine that I am having an argument with my neighbor John. I claim his dog kept me up by barking; he denies it:

"I saw you come in with your dog last night! You brought him into your apartment – right next to mine. About 10 o'clock the dog started barking and it kept me up all night."

John responds, "My dog can't bark."

"Nonsense," I respond, "all dogs can bark."

Have I established my conclusion that his dog kept me up? My premises could be wrong: John might not have a dog (but he admits to having one); his dog might not have been the one who came in (but John doesn't dispute that). But the notion that "all dogs can bark" is being disputed. Indeed, John's next line could be:

"My dog is a basenji dog, a breed also known as the barkless dog."

That would sink my argument. Knowing that the conclusion was false, he actually shows me why that might have been: one of the premises was a loser – not all dogs can bark. Indeed, his can't.

But unfortunately, my argument was faulty in other ways. It was not quite deductive: I began with premises including: 1) all dogs can bark; 2) John, you have a dog; 3) barks came from your apartment and your dog was home; and concluded 3) your dog barked. But other dogs could have barked, even in his apartment. For example, John's girlfriend might have arrived with a second dog, and hers might have been the dog that barked. In other words, the conclusions don't follow from the premises.

Note now that both things had to work: the conclusions must follow from the premises, and the premises must be true.

But the real power of the deductive argument comes from the case where the premises *do* imply the conclusions and were thought to be true (I believed all dogs can bark) and the conclusion proves false. For then I learn something I didn't know before: I have to revive my premises. In other words, our deduction helps us test our premises.

However, this is a simplification. If premises can't be known to be true (and sometimes turn out quite false), the description above has to be more flexible. Judgement enters in.

One might wonder, if the premises are not true, what is to be gained by generating truth-preserving arguments? From false premises, we can't ensure anything about the truth of our conclusions. And then the conjectures remain just that, and our knowledge really must be understood to be conjectures: claims of knowledge which are well, but not perfectly, justified (see Maxwell, 1972).

Theoretical science, along with its procedures and methods, generates two great benefits. First, the theoretical structure and logic facilitate correctable predictions, and the discovered errors generate questioning that improves our claims of knowledge. These two classes of benefits are quite distinct, but both tie to correctability.

Improving Knowledge Claims

Knowledge claims are all we can ever have from science: knowledge is beyond our grasp. For who really knows when our theoretical scheme will be overturned by a better one that helps account for the anomalies we have had to put aside? But like knowledge, knowledge claims require justification. The criteria of justification might be made a bit more forgiving, but needn't be substantially different if when we say "I *know*," we understand that "I claim to know." A claim to knowledge may not be required to be true, but it must be thought to be true, and still needs justification (Popper, 1959). But then what is to be gained by this shift?

Using derived conjectures that are believed to be true to examine the world, leads to a recipe for weeding out false conjectures and a continual reexamination of our premises. Testing the inferences of our theories and following the clues spurs us to improve the surviving remnants. It helps lead to a growth in both the reliability and the breadth of knowledge claims. In this volume, I develop conjectures of interest about political events justified by the core assumptions of rational choice theory. By having the conclusions "follow" from the premises, the arguments can help us both understand and explain how the conjectured events come about.

To the extent that we have doubts about the status of the premises, the explanations become more conjectural, and corrigibility is again underscored. But this point of view changes our perspective regarding the benefits of logic. Rather than logic being a simple tool for justification, it

becomes an instrument in the task of discovery. By developing inferences from core conjectures to new applications, one uncovers possibilities for both new errors, as well as for new extensions of knowledge claims. A theory is no longer a static "argument" but rather a developing and improvable approach to understanding the problems of interest to us.

As pointed out above, the core premises of all theories are quite generalized statements. Imperialistically, research scientists advance arguments by projecting them onto the empirical puzzles they see: "the solar system is a 'Newtonian system;'" "collective action problems are 'prisoner dilemma games;'[9]" and the like. Some of these are better fits than others. But the dialectic that ensues leads to long-term refinements in our understanding of the targets (the solar system and the collective action problems) as well as the theories (our understanding of gravity, and our understanding of rational choice). Hemmed in, at least partially, by our insistence on both greater accuracy in predictions, and by a "more detailed understanding of reality," we work dialectically, back and forth, between improving the theories, and expanding their reach.

In what follows we explore the applications of rational choice theory (see page 14) to political behavior and political questions. In doing so, we might at times bemoan the inaccuracy of the assumptions. This will lead us in the two directions indicated: on the one hand, I detail some of the successes in model development, and on the other, I highlight the research agenda implied by the failings of the predictions that have been found. Hopefully, I will be whetting the appetites of both those who wish to understand politics better, and those who wish to search for better explanations: more accurate knowledge claims.

UNIVERSALS, SYNERGY, AND CONTEXT

What sorts of premises are needed to make for an interesting argument about politics? Premises that are useful in scientific explanations are a collection of generalizations, or universalized claims (e.g., water boils at 100°C; social welfare can't just be the aggregation of separable individual welfare – see Chapter 8) and then some contextual premises that allow one to tie a class of instances to the generalization.

Universality is often misunderstood by social scientists and political theorists. The misunderstanding is helped along by two distinct meanings of universal. First, we think of "universal" as being an "accidental

[9] A subject discussed in Chapters 1 and 2.

generalization." For example, a universal social observation could mean "generally done by all Parisians" or even "affecting all in London." Second, universal could mean "applicable to all cases." Logically it is via this bold second meaning (that can subsume the first) that the structure of universal claims is tied to scientific progress. For when one says something is applicable to all cases, then the criteria for the falsification of the claim is clearly set out: the claim is falsified by a non-conforming case. Then falsification of the claim has potentially infinite implications. After all, the original claim had many more implications than the ones that were used in the trial that showed it was wrong. For example, all crows are black is falsified by the existence of a non-black crow, or a set of them that can be observed by those who wish to test the generalization. Simple characterizations of what science is about are often tied to the establishment of "universal laws" (Hempel, 1965). Their ease of correction (in principle) generates a potential continual development of subclasses to take care of the more varied classes of "exceptional" events that one might find. So "all crows are black" might then be changed, after considerable observations, to "non-albino crows are black." Albino exceptions may not prove to be the only ones: that is, this universal statement might also prove false, but the universal continues to develop subclasses until a "better" or more powerful encompassing universalization arises.

The complexity of the world is captured in statements that are universal, but only with clauses that permit the development of more nuanced arguments, so that they do not show up to be obviously false. Indeed, we search for correctable, presumably true, law-like statements.

Universal laws in the physical world are usually quite complex, and full of conditionals. Take, for example, the common sense notion that water boils when it reaches a specific temperature. What does it take to change the common sense notion to a "universal law" of some value? Impurities may be found to matter: well water and tap water and salt water are different substances and will behave differently. Adding minerals can impede or facilitate boiling when heating takes place. And altitude matters: at higher altitudes water boils "more quickly." But altitude and impurities aren't sufficiently powerful theoretical concepts[10] to give us a lot of leverage.

[10] There is some dispute as to what constitutes a useful theoretical concept. But certainly it has to do with its utility in other accepted generalizations. Altitude is related to boiling in cooking, but not to many other empirical problems.