

Historical Explanation, Theory, and the American Revolution *

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Abstract:

A useful method for historical explanation is analysis in terms of power. This means assessing the power, or ability to affect the outcome in question, of focal actors and entities, determining their use of that power, and, perhaps, accounting for that use. The first of these depends, in part, methodologically on deductive theory: the power of one entity depends on what others can be expected to do, and theory can help assess that. The second is mostly historical accounting, but may need theory to determine what goals are feasible for actors. In the third, theory such as rational choice may be especially useful when the power-holding actor is an aggregate of individuals. These points are illustrated with examples drawn from the American Revolution.

Historical Explanation, Theory, and the American Revolution

Scientific explanation of macro historical phenomena—revolutions, rebellions, wars, and so forth—has proved problematical. In particular, it is difficult to use such phenomena to test hypotheses generated by a theory, such as rational choice theory, as has been recently popular. Historical sociology has seen an ongoing debate, for example, concerning whether such an approach to large-scale historical occurrences is even possible (see, e.g., Goldstone 2004; Gorski 2004; Kiser and Hechter 1991; Mahoney 2004; Sewell 2004; Sica 2004). Perhaps the two most important reasons for this problem are that these events are quite complicated, with many crucial details, and they are each one-of-a-kind.

Take, for example, the American Revolution. It is complicated: anyone undertaking even a cursory foray into the voluminous literature concerning this event soon notices the large number of episodes that historians have labeled critical junctures and turning points, such as the British decision not to return Canada to the French at the conclusion of the Seven Years War (Draper 1996), Lord Chatham's (the elder William Pitt) illness in 1766-68 (Cook 1995), General Howe's failure to finish off the Continental Army in the Battle of New York in 1776 (Ferling 2000), and even lesser episodes such as the Battle of King's Mountain in South Carolina in 1780 (Cook 1995), to name just a few. It is one of a kind: taken as a whole, the American Revolution seems quite different from other revolutions of the modern era, such as the English, the French, the Mexican, or the Russian. And it does not resemble other colonial secessions, such as those of

India, the South American, or the African states. Canada and Australia, the situations most similar to that of the thirteen North American colonies, yielded different outcomes.

An alternative approach is to consider each event unique, but deserving of not just narrative but also explanation, scientific explanation, that is, using theory. Specifically, we can take theory that has already been developed and tested, such as many outgrowths of rational choice theory, and apply it to processes and situations within the larger event (see Goldstone 2004). This is akin to troubleshooting the failure of some device, or that taken by geologists when explaining a volcano's activity (see, e.g., Fisher 1999). The basic idea is, "We know how these processes work, so this is what must have happened."

We still are left with considerable complexity, however, even when examining situations within some larger historical event. We may have brought one or more theories to bear, for example, on a number of social processes contributing to one particular episode. To produce an explanation of the episode out of the variety of processes and their explanations, we need an accounting method: a procedure that makes them all commensurate in some way and displays their relative importance.

For this, I have found analysis in terms of social power and power use useful. Define power with reference to a particular phenomenon as simply the ability to affect that phenomenon. Define power use with regard to a particular goal as the degree to which a power holder uses its power to move outcomes toward that goal. We can state each of these concepts as mathematical measures to make them precise. Then with these measures, we can aggregate all the theoretical explanations of subprocesses into an explanation of the historical episode in question by determining the power of all relevant entities and the power use of those entities. We also may want to fill out our

understanding by accounting for power use, trying to explain why entities used their power as they did.

By taking this approach, we do not test theories, but we do something important for theory: we demonstrate its applicability and usefulness in natural situations (cf. Webster and Whitmeyer 1999). A particular theory, of course, may not be applicable across the board. Rational choice, for example, tends to be useful in situations that call for strategic calculation, such as diplomacy and warfare, and when treating the behavior of a large aggregate of people, as economists have found. At the end, we have an explanation of our historical event that respects its complexity and individuality, while at the same time giving us theoretical understanding and some precision.

In this paper I demonstrate the approach I have described. I begin with a discussion of power and power use, and then apply the method to a pair of empirical examples from the American Revolution. The circumstances of the first of these, the negotiation of the 1783 Treaty of Paris, makes the exercise straightforward. The second, the defusing of the Newburgh Protest on March 15, 1783, is a more difficult case.

Power and Power Use

Again, define social power, or simply *power*, as *the ability of an actor or set of actors to affect some social phenomena* (Whitmeyer 2001). The social phenomena in question could be the behavior or outcomes of others, the outcomes of the power-holder, or other phenomena. The social phenomena affected constitutes the referent of power. As defined, power always must have a referent (see Dahl 1961). That is, we cannot say simply that some actor has so much power; we must say or at least mean that the actor

has so much power concerning some referent. Symbolically, we must speak of P concerning X , denoted P_X , where X is some social phenomenon or set of social phenomena.

The general measure of power is the proportion of the possible total change in the referent phenomena that we *expect* that the power holder *could* bring about. The word “expect” means that we must take into consideration possible events and likely responses to actions of the power holder. The word “could” means that we are focusing upon an ability, not upon actual behavior. Formally, we may express the general measure of power, P , as:

$$P = E\left[\frac{\text{maximum } \Delta Q \text{ actor can cause}}{\text{total } \Delta Q \text{ possible}}\right], \quad (1)$$

where Q denotes the outcome of the referent phenomenon, ΔQ denotes change in the outcome of the referent phenomenon, and E denotes the expected value function of probability theory. When evaluating expected value (the operator E), take into consideration what all actors except for the power holder and all other elements in the situation are likely to do. In its probabilistic sense, when computing expected value, weight outcomes by the probability that they occur.

Two important properties of P are that $0 \leq P \leq 1$ and that powers (P s) of those who hold power concerning a given social phenomenon typically will not sum to 1. For a given power holder, $P = 0$ denotes complete inability to affect the social phenomenon in question when all circumstances are as expected. $P = 1$ denotes the ability to produce all extremes of the outcome, again given what we would expect from surrounding circumstances including behavior of other actors. For some purposes it may be desirable to have a normalized measure of relative power, such that all power holders' powers sum

to 1. This measure may be obtained by summing the powers (P_s) of all power holders then dividing each power holder's power by that sum.

In contrast to power, the measure of *power use* stipulates that it must concern a goal, some outcome of the referent phenomenon (cf. Whitmeyer Forthcoming). The goal is specified by the analyst; it may be one avowed by the power user, one of interest to other parties, or one chosen by the analyst for his or her own purposes. An important restriction is that the goal must be *feasible*; it can be at the limits of what is possible but not beyond. Thus, for example, if we are looking at Britain's power use in negotiating the Treaty of Paris, a plausible feasible goal is the most favorable terms the British could achieve, including items such as non-repudiation of debts Americans owed to the British. Goals such as non-recognition of the United States as a country, let alone retention of some sort of political hand in the colonies, simply were not feasible and do not figure into the assessment of Britain's power use.

The measure of power use is a measure of the extent to which a power holder is effective at bringing about the goal. For outcomes that can be measured numerically, the formula for power use, U , is:

$$U = 1 - \frac{|s - G|}{|Q_0 - G|}, \quad (2)$$

where s denotes the empirical outcome, G denotes the (feasible) goal, and Q_0 denotes the feasible value of Q farthest from G . An analogous formula holds for categorical outcomes. Clearly, $0 \leq U \leq 1$. $U = 1$ indicates complete effectiveness at achieving the specified feasible goal; the outcome is that goal. $U = 0$ indicates complete lack of efficacy in achieving the specified feasible goal; the outcome is as far away from that goal as feasibly could be.

Example One: Negotiations over the 1783 Treaty of Paris

The Treaty of Paris concluded the American Revolution. Briefly, the historical background is that the war was effectively ended by the Battle of Yorktown, in 1781. The Continental Army under Washington and a French Army under Rochambeau marched down from the North to besiege Cornwallis at Yorktown on the Virginia Coast. A French fleet under de Grasse cut off any escape by sea, and eventually Cornwallis had to surrender. Militarily, the British easily could have continued to fight, but the majority of both the populace and Parliament had lost the will to go on with the war and so the government decided to pull out. Formal negotiations began on the treaty on October 30, 1782, with preliminary articles signed on November 30 and the final treaty signed by all three parties on September 3, 1783.

The referent of power here is attainment of one's own interests. In other words, we are concerned with the ability of the three parties to the Treaty, the United States, Great Britain, and France, to obtain their own interests in the terms of the Treaty. Simply in terms of various resources and bilateral relationships, France should have been the most powerful. The Americans could not have prevailed in the War without French help. France supplied them with considerable amounts of money and war materiel, with military experts, with actual French troops, and, finally, with support from the French Navy. The French had goals in the Treaty, in particular formal recognition of the separation of former colonies from Great Britain, strengthening of her own position, and if possible dependence of the American states on France.

Great Britain of course wanted to quit the War, but that did not put her in quite as weak a position as one might suppose. For Great Britain simply could have achieved her major goal, an end to direct involvement in the American Colonies, without any formal settlement. This would have, however, left important goals unattained, in particular an end to hostilities with France, and the possibility of recovery of debts owed her by Americans. It was indisputably true that Great Britain was a much more powerful country in every way at that point than the fledgling United States, who also needed much more out of the Treaty than Great Britain. It also should be noted that in the since the Battle of Yorktown, the English had won a major naval battle against the French. This did not restore English enthusiasm for the American war, but it did mean that there was little fear of further French depredations, for example in the West Indies.

The outcome of the negotiations could have been quite unfavorable for the United States. It would not have been the first or last time that a small, relatively weak country won on the battlefield, only to have its achievements snatched away from it by a diplomatic settlement controlled by some Great Powers. While the United States had persuaded the British government not to try to govern them any longer, and no treaty negotiations were likely to change that, the United States wanted several items in the treaty that it would have been unable to obtain otherwise. First, it wanted recognition as a nation, which Great Britain was still reluctant to give. Second, the United States wanted Britain to cede the wilderness lands to the west of the established states, between the Appalachian mountains and the Mississippi River, and to withdraw all British troops from these lands as well as the former colonies. This would have been hard to compel

militarily. Third, the U.S. wanted several specific items, such as fishing rights in various places, which again it was in no position to force militarily.

Despite these considerations, however, the United States was the most powerful of the three parties. Here we bring theory into play, theory concerning exchange in networks. What we have is a three-actor exchange network, with the United States in the middle (see Fig. 1). Both Britain and France were most afraid of being excluded. The British feared that the U.S. and France would agree to continue hostilities against them and that the U.S. would become strongly dependent on France, and thus fall heavily under France's influence. France, on the other hand, was afraid that the U.S. would cut a separate deal with Britain and leave France and her goals out in the cold. Finally, Britain and France, as major powers, rivals, and near neighbors, were more concerned about each other than about the U.S., and more fundamentally antagonistic to and distrustful of each other. This meant that they would have been unable to form a coalition, to reach a bilateral agreement cutting out the U.S. and its aspirations.¹

Fig. 1 about here

Rational choice theory, developed as exchange theory, tells us that if all actors share interests to the extent of desiring exchange, but have opposing interests in the outcomes of the exchange, then the central actor in the network has overwhelmingly more power than the other two, and should be able to obtain nearly everything it could want (Emerson 1972). The central actor, the United States in this case, can play its two partners off against each other. When the central actor's interests overlap somewhat with

those of one of its partners—France, in this case—then the partner also has some power, some ability to attain its interests (Whitmeyer 1999).² I should point out, also, that these predictions depend on all actors behaving as expected, in other words, that they all try to obtain their interests as much as possible, as rational choice theory would predict.

The negotiations over the Treaty of Paris and its terms hew closely to the exchange theory predictions. In the pre-negotiation sparring, the month of negotiation between the British and Americans, and communication of the outcome to the French, the American negotiators, Benjamin Franklin, John Adams, and John Jay exploited each of their partners' fear of being cut out of the settlement altogether to obtain excellent terms for themselves, almost everything they wanted. The terms of the Franco-American alliance forbade the United States from reaching a separate peace with Britain, and the French Foreign Minister, Vergennes, had managed to get the American Congress to instruct the negotiators to get approval for all terms of the treaty from his Ministry. But the American negotiators decided simply to disregard these instructions, expecting that in the end the French would go along with whatever the Americans had negotiated with the British, in order not to be cut out entirely. And that is what happened. The British had a number of goals going into negotiations. For example, they wanted to avoid recognizing the United States as a distinct country. In fear of not obtaining an agreement at all, however, they conceded on almost all of the Americans' demands (McCullough 2001).

So our analysis of power and application of the relevant theory tells us that the United States in fact had the most power, and should have been able to determine the contents of the treaty far more than the other two parties. I should point out that the

powers of Britain and France were far from zero. For an actor's power concerning its own interests (denoted P_{OI}), we can write eqn. 1 more precisely:

$$P_{OI} = \frac{E[V_B] - E[V_W]}{E[V_H] - E[V_L]}, \quad (3)$$

where V_L is the value (typically, 0) assigned to the worst possible outcome for the actor in the event, V_H is the value (typically, 1) of the best possible outcome, V_W is the value outcome for the actor if the actor does the worst behavior for realizing its interests, and V_B is the value outcome for the actor if the actor performs the optimal behavior for realizing its interests (see Whitmeyer 2001). The reason for bringing up eqn. 3 is that for each of Britain and France, V_B and V_W were not the same, which would show them with zero power. On the contrary, V_B was more than V_W , especially for France. France could have insisted that the United States do everything that Britain wanted, which would have resulted in terms much worse for herself. Even Britain could have produced terms somewhat worse for herself, by insisting that the United States do everything that France wanted.

When we turn to power use, for each actor we can specify whatever feasible goal we want. The most useful feasible goals to specify in this situation are the most obvious: for each party, its most favorable attainable outcome. The American negotiators clearly used their preponderance of power effectively and were able to attain the American goals almost completely. Britain and France also clearly avoided their worst possible outcomes, V_W in eqn. 3, and in fact probably obtained the best outcomes they could. Neither, especially Britain, was able to do as well as the United States, but that is because they had less power. All three used the power they had maximally, toward their different goals, which gives us complete power use, power use of 1, for each.

We can account for this complete use of power easily: each actor tried to achieve its best outcome in light of its preferences. This rational choice explanation fits here probably because rational choice is often a good model for political behavior, such as that of legislators or diplomats concerning international relations. We can expect that treaty negotiators will be instructed to do their utmost to attain their country's interests, and will be chosen because it is believed that they have the ability and motivation to do so. If their government perceives they are not doing the best possible, then their government almost certainly will replace them.

To sum up, we have the following explanation of the contents of Treaty of Paris. The network structural position of the three countries gave the United States the most power concerning the Treaty, followed by France since her interests coincided most with those of the United States. All three countries, through their negotiators, behaved rationally and used their power maximally, and that is why the terms of the Treaty were most favorable to the United States and least favorable to Britain.

We can summarize the role of theory in the explanation. The theory of exchange in networks, a rational choice theory, gives us the distribution of power concerning the three parties' achievements of their own interests. For assessment of power use, taking the three parties' ideal outcomes as goals, the same theory also gives us the *feasible* goals, that is, the most preferred outcomes that were attainable given the expected behavior of other actors in the situation. Consider the British in the treaty negotiations. Britain's ideal outcome probably would have been a return to the status quo of 1763, but such a goal was not feasible. And that is for reasons that are obvious but also theoretical: the United States and France did not want that outcome, they had far more power than

Britain in the situation, and they would use their power toward reaching the outcomes they preferred. Finally, the rational choice model fits the behavior of each of the parties in the negotiations, each party's use of its power.

Example Two: Washington's Rubicon

The Event

An important event in the history of the United States took place in early 1783, what Ferling (2000:265) calls the "Newburgh Protest." The war was in essence over, although the peace treaty, the Treaty of Paris, had not yet been signed. The officers of the Continental Army were disgruntled to the point of mutiny, for they were owed arrears in pay and wanted pensions from an unwilling Congress. And so, a group of them proposed to march on the governing body of the United States, the Continental Congress, seated in Philadelphia, to demand what they were owed. Should they not be appropriately compensated, they would go into revolt: if ordered to disband and go home they would refuse and remain with the army, a clear threat to the government. If ordered to continue their army service, in order to ensure the British were not tempted to resume the war, they would go home. They were encouraged in their protest by a few members of Congress who wanted to increase Congress's powers vis-à-vis the states (Middlekauff 2005). The officers attempted to enlist the Commander-in-Chief, George Washington, to support and in fact lead their action. Although in the past, he always asserted a belief that military authority must defer to civilian authority, he did not tip his hand in this case, but instead called a meeting of the officers on March 15. It was not known even if Washington himself would appear at the meeting, but he did, and he made a speech.

Faced with an assembly of long-suffering and justifiably angry men, Washington argued that although their claims were just, they must not march on the government. The military must obey and defer to the civilian government, he told them, even when it was treating them badly. Washington, not a good speaker, made his arguments, but they were having little effect. It appeared that if the men could not proceed with Washington, they would proceed without him.

And then, several accounts tell us (see, e.g., Ellis 2004; Ferling 2000; Flexner 1974; Phelps 1993), Washington engaged in a little bit of theater, almost certainly planned out beforehand, which comes down as one of the turning points in the history of the United States, and perhaps in the history of modern democracy. Washington told the assembly he wanted to read them a letter he had received from a Congressman. He pulled it out of his pocket, and started to read, fumblingly. He stopped, reached into his pocket again, pulled out a pair of reading glasses and put them on. His men had never seen him wear glasses before. Washington looked out over his officers and said, “You see, I have grown old and nearly blind in the service of my country.” And this gesture turned the tide. The men were emotionally overcome, many of them moved to tears, and just like that, the will to protest, to take action against the government, vanished. Washington read the letter, which was moot at that point, then walked out and his lieutenants quickly obtained a resolution from the assembly to take no action.³

Before moving on to explanation of this event, let us note its importance. As one of the best of Washington’s biographers, Flexner (1974), points out, had Washington sided with the officers, their cause almost certainly would have been successful, and a precedent dangerous for democracy would have been set. Furthermore, it could easily

have led to some kind of autocracy—military dictatorship, perhaps, or even monarchy. For it is unlikely that the country would have resisted such a progression; it would have been home rule, at least, and by the immensely popular Washington. Note also that at the time, there were no known governments democratic to the extent the new country was. Great Britain and even the Low Countries had hereditary rulers with significant powers. In the previous century, England's experiment with the elimination of the king had quickly ended up a military dictatorship led by a general, Cromwell. In earlier times, Julius Caesar had indeed crossed the Rubicon. The future would show too how fragile new democracies were, beginning with Napoleon's rise to power in France and continuing through military dictatorship in numerous countries in the twentieth century. Washington's successful decision, therefore, was crucial for American democracy.⁴ Arguably, it was important on the wider world stage as well, for by its example the United States showed the rest of the world that a fairly pure sort of republican government was viable.

Power

Let us examine this event, the officers' march on the Continental Congress, in terms of power. For eqn. 1, assessing the total change possible is simple: the officers could have marched on government and they could have not marched on the government. If we assign the former a value of 1 and the latter a value of 0, we have set the denominator of eqn. 1 to 1. As usual, the work in determining the power of significant actors lies in determining the expected total change they could have caused, taking into account what all others were likely to do.

We could specify a long list of actors, but four actors are particularly relevant: the officers as a whole, the ordinary soldiers of the Continental Army as a whole, the Continental Congress as a whole, and Washington. In their entirety, the officers had nearly complete power, power of 1, over whether they marched. To spell it out, clearly, they could have not marched. Could anything have prevented them from marching had they tried to march? Probably only the ordinary soldiers could have done so, but the chances of their doing so were virtually nil. They had no reason to stop their officers from marching on the government, and they had no leadership that could have directed any opposition they might have tried. So, for the officers as a whole, the range defining the numerator of eqn. 1 runs from 0 to nearly 1, giving power of nearly 1. Now, subgroups of officers and individual officers had less, although probably for some it was not 0.

The above discussion suggests the ordinary soldiers had some power. They certainly outnumbered their officers and had they wished to prevent the march it is hard to imagine how they could have been thwarted. That makes the low end of eqn. 1's numerator 0. To assess the high end is more complicated, for we need to know the likelihood of the officers marching if their men had encouraged them to do so. We know that the chance of the officers marching if the ordinary soldiers did nothing was not negligible; we might hazard that it was as high as 70 or 80 percent, since that meeting with Washington was a near-run thing. Could they have pushed the probability even higher with their support? Probably not much, because, for one thing, theory tells us that lower status people do not have much influence over the decisions of higher status people

(Berger, Fisek, Norman, and Zelditch 1977). We are still left assessing the power of ordinary soldiers as a whole concerning this matter at about .8.

Washington's power must be assessed at 1. If he had sided with the rebellious officers, the march on Philadelphia would have been guaranteed, and on the other side, his performance at the meeting stopped the march. One could make the argument that the probability of the success of his performance was something less than 100 percent, and that his power correspondingly comes out to less than 1, with perhaps sheer chance or luck accounting for his accomplishment. But that argument, I think, would be wrong. Washington, the unquestionably paramount man in the Army, made his appearance, made his lack of cooperation with and opposition to the proposed action known, and presented his arguments against it. And this all apparently failed. But Washington evidently understood human nature better than to stop there. He understood the emotional hold that a leader can have on people—that he had on his men—and knew how to take advantage of it.

The Continental Congress had the ability to prevent the march or lessen its probability by acquiescing to all or some of the officers' demands. Although Congress was well aware of the officers' discontent (Phelps 1993), most Congressmen probably did not know of the brewing mutiny; but this ability existed, regardless. Likewise, the Congress could have made the action even more likely by piling on additional burdens or insults. Thus, expectations are that the Continental Congress could have produced outcomes from 0, with nearly 100 percent probability, to 1, with perhaps ninety percent probability. As a result, I estimate Congress's power concerning the officers' insurrection at about .9.

I would highlight one other actor. It is the Continental Congress again, but in the years preceding the event in question. The Congress appointed Washington to be commander-in-chief in 1775, and he remained in that position throughout the war. Congress could have replaced him, and on different occasions throughout the war there were serious movements within Congress to do so. Although he had his successes, Washington was not a great general tactically or strategically. Indeed, he probably never would have fought at Yorktown, his only major victory of the war, but was manipulated into doing so by the French commander Rochambeau, his supposed subordinate (Ferling 2000; Tuchman 1988). Washington had offsetting strengths, however, in particular his character, such as displayed in the incident of the officers' march.

The ability to appoint and to replace the commander-in-chief constituted considerable power concerning a variety of events, which I have called elsewhere (Whitmeyer 2000, Forthcoming) "appointment power." Washington was ambitious, as were probably all of the leading men during the revolution, yet clearly he also was principled and scrupulous. A less principled man than Washington, and there were plenty of those around, might well have seized the opportunity presented by the officers' protest march and used the army to propel himself to power. How likely was it that Washington would not back the officers? We might hazard 80 or 90 percent; to be cautious, let us take the smaller. How likely was it that the most unprincipled viable alternative, perhaps Charles Lee (see Flexner 1976), would have refused the officers? Let us guess 20 percent. Then, concerning this event, Congress in the past had power through appointment of .6 (that is, $(.8 - .2)/1$).

We might even focus on one person within the Continental Congress, John Adams, in later years Washington's vice-president and then Washington's successor in the presidency. Adams was the leading member of the Second Continental Congress, the one that initially appointed Washington, and he was the person who nominated Washington for the position. In fact, we know from Adams' correspondence that he was concerned about the dangers to republican government posed by a commander-in-chief with a standing, national army. Adams even anticipated that the man also would have the gratitude and perhaps adoration of the country, and thus would have a wide latitude for pursuit of his ambitions. Washington's character, the likelihood of his resisting the temptations of power in situations like those of the officers' protest, was a major reason Adams backed him (Ferling 2000; Flexner 1976). So Adams too had appointment power, although to calculate it we would have to estimate Adams' ability to affect the Congressional choice, which takes us too far afield here. Let me note that Adams and *a fortiori* Congress had power vis-à-vis this event through appointment of the commander-in-chief regardless of whether they were aware of it or considered it in their action. But the fact that it was a concern of theirs, in particular of Adams, testifies to its importance.

Power Use

Let us turn to power use. If we set the feasible goal to "no march," we would get s equal to G for all of our actors, which would give each of them power use of 1. More informative would be to set different feasible goals for each actor. We can leave "no march" as the feasible goal of Washington and the Continental Congress (the sitting and previous ones), and their power use comes out to be 1. For the officers, we might use

“compensation from the Continental Congress,” which after all was the point of the march. Let us estimate the chance that their march would bring concessions at 50 percent, and the chance that Washington would convince Congress to grant them—for the officers did get Washington to so promise—at 20 percent. In eqn. 2, then, the feasible value of the goal G is .5, the achieved value of the goal s is .2, and Q_0 , the feasible value of Q farthest from G , is 0. The officers’ power use with reference to the goal of compensation is then $1 - .3/.5 = .4$. This means that of their full ability to get them what wanted, they used enough to bring them 40 percent. As for the ordinary soldiers, perhaps most appropriate would be to note that while they had power, they apparently had no goal in this matter, which makes assessment of power use with respect to *their* feasible goal meaningless.

So here is the explanation this analysis produced. Several actors had power close to 1, complete power, concerning the officers’ march. That is, given others’ expected behavior, each of them had a high probability of being able to either prevent or bring about the march. In decreasing order, we have Washington with 1, the officers themselves with nearly 1, the sitting Continental Congress with .9, the ordinary soldiers with .8, and the appointing Continental Congress with .6. If we take the goal of power use to be “no march,” then all actors fully used their power: they each did what was necessary for them to do to prevent the march. Lest that seem absurd, note that the sitting Congress did not aggravate the problem with additional legislation, the ordinary soldiers did not agitate to get the officers to march, and earlier Congresses did not install a more opportunistic man as commander-in-chief. If we allow individual goals of power use, the officers’ use of power toward their goal, compensation by Congress, is only .4.

If desired, we can try to explain why the actors used their power as they did. Washington apparently deeply believed that the military must be subordinate to the civil government and that he must do everything he could to uphold that principle. The members of the sitting Continental Congress were perhaps less attentive and alarmed than they should have been. In part, however, they simply were trusting that, given their earlier appointment, they did not have to worry about the army, which turns out to have been true. The members of the appointing Continental Congress, or at least some of them, especially John Adams, were mindful of the danger that a successful military leader posed to a nascent republican government, and made minimization of that threat an important criterion in their selection of the commander-in-chief. The ordinary soldiers were not a group capable of collective action. And finally, the officers wanted compensation but also were strongly attached to Washington.

The Role of Theory

With the analysis done, let us be introspective about the method and consider the role of theory in the measurement of power and power use. To calculate the officers' power, I deemed that no one, in particular, not the rank-and-file of the army, would have stopped the officers had they decided to march. This is a theoretical prediction. Concerted behavior by a substantial number of the ordinary soldiers would have been collective action, which theory tells us is difficult even when people value its end result (Marwell and Oliver 1993; Olson 1965). In particular, organizers and leaders are crucial (Wickham-Crowley 1991), and some mechanism for diminishing the free rider problem is important. It may well be that not many of the ordinary soldiers were opposed to the

officers' march, as its success may have made benefits for them more probable. They had no apparent leadership within their ranks, and no obvious mechanism for reducing the free rider problem. On the other hand how do we know that the ordinary soldiers could have prevented the officers' march? Simple but theoretical reasoning tells us that faced with superior numbers of armed men, the costs of attempting to pull off the protest would have become too great for the officers and they would have given up the try. Finally, theory, tested inside and outside the laboratory, concerning the cognitive processing of status differences, tells us that, short of using force, ordinary soldiers could not have had much influence over their superiors (Berger, Fisek, Norman, and Zelditch 1977).

I used rational choice reasoning to assess the power of the sitting Continental Congress. Meeting some of the officers' demands would have lowered the incentive for protest and induced at least some of the not to do so. This in turn would have kept the officers from the critical mass necessary for collective action to get off the ground (Marwell and Oliver 1993). By the same token, adding to the incentive to mutiny would have increased the likelihood the officers would go through with the protest. Here, however, we may want to add the importance of the prestige motivation and the effect of emotions. Namely, we can imagine that the Congress could have made the mutiny more likely by insulting them, which given the tinderbox that existed, may have provided the spark of outrage that made the march certain. Whether some kind of praise or commendation of the officers could have had the opposite effect is more questionable.

To determine Washington's power, however, and power through appointment of Washington, we must go beyond rational choice theory. We can formulate the

expectation that the angry and frustrated officers will acquiesce to him—or at least enough will do so to make a difference—only by understanding the emotional hold that a leader can possess. We can attribute power concerning an event in 1783 to an organization through a single appointment they made in 1775 only by recognizing the importance of character and its endurance as a trait. In a situation of great temptation, some ambitious men will yield to it and others will not, and that distinction may be perceived well before the occurrence of an occasion when it matters.

Given a feasible goal, assessment of power use does not require any theoretical reasoning. Such reasoning may be required, however, in defining a goal for an actor, in the determination of the extent to which it is feasible, and if we propose an explanation for power use. Consider, for example, the Continental Congress. Suppose its goal had been that of a few of its members: to provoke the Newburgh Protest, in order to accrue more power to the central government vis-à-vis the states (Ellis 2004). It then would have failed and we would assess its power use as 0. The aims of those few members notwithstanding, however, we can reasonably take Congress's goal to be subordination of the military, a rational goal for a civil authority to have.

Next, consider the officers' goal. Many of them probably would have preferred to overthrow the civilian government altogether and install Washington at the helm, as general or king. Given Washington's opposition to this and related schemes, however, as he had consistently made clear both publicly and privately (Brookhiser 1996; Phelps 1993), this goal was not feasible and we should not assess power use with respect to this ideal outcome. Note that this conclusion is an application of theory, but here not rational choice as when we determined feasible goals in the Treaty of Paris example, but one

concerning human behavior. Namely, if a person consistently professes and practices a given principle, the person is likely to continue to do so, even when rewards are considerable for doing otherwise.

In explanation of power use, rational choice theory is likely to be effective especially when the actor is collective. It may have been rational, for example, for Congress as a whole to do little to avert the possibility that the army could stage a coup. Given that Congressmen had a variety of other goals to pursue, both collective and individual, the most advantageous action may have been to trust to Washington and, accordingly, ignore those issues. For individuals, explanation may be more difficult. Why, for example, did Washington creatively oppose the officers' march? If we attribute it to his preferences, we are caught in the well-known tautological trap that can ensnare unwary users of rational choice theory: Washington opposed the protest because of his strong preference for military subordination to civil authority, which we know existed because of actions such as opposing the protest. The interesting question is why he had such a strong preference, and no social scientific theory of which I am aware can help us there.

Conclusion

In this article, I have described a method of historical explanation, analysis in terms of social power, and demonstrated it on two events from the American Revolution. The method consists of the following procedures: identification of a set of relevant actors, specification of the referent of power ("the ability to affect *what*"), assessment of the

actors' power, and assessment of the actors' power use. It also may be valuable to suggest why the actors may have used their power as they did.

What makes this method, analysis in terms of social power, valuable? It provides explanations of historical phenomena that on the one hand acknowledge the complexity, contingency, and uniqueness of events (Gaddis 2002), but on the other hand are theoretical, taking advantage of the systematic knowledge social scientists have accumulated concerning various social processes.

With regard to complexity, consider the analysis of the Newburgh Protest. Historical accounts of this affair attribute the cause of the outcome to Washington and his performance at the March 15 assembly (e.g., Ferling 2000; Flexner 1974), although Nash (2005), for example, is less interested in a causal explanation than in exposing the behavior of the officers. When we look at power and then power use, however, we are forced to acknowledge that Washington was only one player in this drama, that other actors had equal or at least substantial power over its outcome, and that they necessarily played their parts too. The officers did yield to Washington, and ultimately, of course, the outcome was in their hands. The ordinary soldiers and the sitting Congress did their bits by doing nothing. And were it not for the Second Continental Congress and, most likely, the vision and advocacy of John Adams, Washington would not have been there to dissuade the Protest. It would have been someone else, who may or may not have tried what Washington did, and may or may not have been successful.

By assessing power as it does, this method allows for overdetermination and contingency in how outcomes are produced. The analysis of the Newburgh Protest, for example, granted both Washington and the sitting Continental Congress powers of 1 and

.9, and power use of 1. With regard to Congress, this may seem peculiar, given that Congress did little. Suppose, however, that Washington were not Commander-in-Chief—perhaps he had been killed in battle, a definite possibility (Flexner 1974)—and a man the Congress trusted less held that position. It is entirely possible that the Congress would have paid more attention to danger from the army, would have detected the growth of the Newburgh Protest, and would have done something to deflate it, perhaps before any march began granting the officers their pension and sending them home. The possibility of that something like that scenario, although it did not happen, is implied when we assess the Congress's power and power use so high. Parenthetically, note also that in the alternative scenario the commander-in-chief's power concerning the Protest would come out much lower than 1, suggesting that Washington's power stemmed in part from the trust the Congress placed in him.

This method is theoretical, in that it involves the explicit application of theory, for example, the theory of exchange in networks in the analysis of the negotiations for the Treaty of Paris. This in turn means the user of this method can adhere to the scientific maxim that explanations, not just interpretations, are possible, and that at any given moment a best, in the sense of most accurate, explanation is possible, although an even better one is likely to emerge in the future.

Rarely, however, will the theory be macro. This echoes the concerns of many historians and historical social scientists, as noted above. In the two examples presented, it is difficult to see how a useful macro theory could have been possible. The nullification of the officers' march, for example, may well have prevented the slide of the United States into a military dictatorship or some sort of monarchy. It seems unlikely

that macro theory could predict this outcome, the triumph of the republican form of government in the United States.

In contrast, theories at a lower level that concern some of the social processes involved in the events in question are likely to prove useful, as they did here. Application of the lower-level theories is a matter of finding the right tool, matching the theory to the social process and conditions. Theory concerning exchange networks, a rational choice theory, was appropriate for negotiations over the Treaty of Paris. In the officers' march crisis, rational choice theories proved useful in assessing the power and power use of the ordinary soldiers, the Continental Congress, and, to a certain extent, the officers, but not Washington. A theory of status-related behavior also helped, but still more understanding was needed.

Let me emphasize that analysis of historical phenomena in terms of social power, as I have advocated and demonstrated here, is not a theory but a method. It distinguishes between the possibilities inherent in a situation and the choices made. It systematically organizes the important actors, their possible actions, and the applicable theories. For purposes of comparison and presentation, it uses numerical estimation. To elaborate on this, calculation of power and power use is not to camouflage uncertainty with false precision, for we can be as imprecise as we like!⁵ Rather, it introduces an accounting system, a weighting of possibilities, into the historical complexity that facilitates comparison of actors and actions, even when they operate at different times, and a net assessment. This method is, therefore, a systematic way of doing what historians and historical social scientists typically do, at least implicitly.

NOTES

1. There were some moves along these lines, such as the French sending a secret envoy to London to tell the British that France did not support all of the Americans' demands (McCullough 2001).
2. If we take the overlap of interests to be 70 percent for one pair (i.e., the U.S. and France) and 0 or 10 percent for the other (England and the U.S., a modification of Toshio Yamagishi's algorithm for the prediction of the distribution of outcomes (Whitmeyer 1999) yields that the central actor (the U.S.) will obtain 100 percent, the actor with similar interests (France) 57 percent, and the actor with completely opposing interests (England) 0 percent of their respective desired outcomes.
3. Some accounts have the drama of the spectacles at the beginning of his speech (e.g., Ellis 2004), but most place it at the end (e.g., Flexner 1974; Phelps 1993).
4. Note Thomas Jefferson's comment on this incident: "The moderation and virtue of a single character probably prevented this Revolution from being closed, as most others have been, by a subversion of that liberty it was intended to establish" (cited in Flexner 1974:175).
5. We can include any uncertainty as part of our numerical estimates, not only by using probabilities but also by presenting those probabilities as ranges. We could estimate, for example, the probability that the officers would rebel if Washington supported them at 90 to 100 percent.

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