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The Inevitability of Future Revolutionary Surprises¹

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Although social scientists have written extensively on revolutions, none of their theories has shown much predictive success in practice. Recent revolutions surprised social scientists as much as anyone else. This article proposes that revolutionary surprises will occur repeatedly, although it is possible to identify countries relatively likely to experience a sudden explosion. The argument hinges on preference falsification—the act of misrepresenting one's preferences under perceived social pressures. By falsifying their preferences with regard to the incumbent regime, disgruntled citizens distort perceptions of the potential for political change. The article's key proposition may be refuted by building a model that successfully predicts when and where revolutions will occur.

THE FALL OF COMMUNISM AND OTHER UNANTICIPATED OVERTURNS

Intellectuals disagree about many things, so there is nothing unusual about the numerous controversies that have followed the fall of East European communism. What is remarkable is our nearly unanimous agreement on the fact that this momentous overturn caught the world by surprise. The evidence is overwhelming that virtually no one expected communism to collapse rapidly, with little bloodshed, and throughout Eastern Europe before the end of the 1980s. The stunned may be grouped in four categories.²

One category consists of observers from outside the region, including journalists, diplomats, statesmen, futurologists, and scholars. Within the

¹ I presented an earlier version of this paper at a session entitled "Why Didn't We See It Coming? The Case of the Soviet Collapse," held in Miami at the August 1993 convention of the American Sociological Association. I benefited from the comments of the session's discussant, Edgar Kiser, and also from those of two *AJS* reviewers. Correspondence should be directed to Timur Kuran, Department of Economics, University of Southern California, Los Angeles, California 90089-0253.

² Further details on the information provided in this section may be found in Kuran (1991). See also Ash (1990) and Tismaneanu (1992).

last group, renowned East European specialists were caught by surprise, as were social scientists who have produced celebrated theories of social change with ostensibly substantial predictive power (for a detailed evaluation of these theories, see Lichbach [1995, esp. sec. 9-2]).

Another category encompasses the peoples of Eastern Europe. A vast number of impressionistic accounts suggest that the East Europeans themselves were stunned by the sudden collapse of their communist regimes. Some systematic evidence comes from a survey conducted four months after the breaching of the Berlin Wall. In March 1990, researchers from Germany's Allensbach Institute asked a broad sample of East Germans, "A year ago did you expect such a peaceful revolution?" Only 5% answered yes; 18% responded "yes, but not that fast"; and as many as 76% admitted to have been totally surprised.³ These figures are all the more remarkable given what psychologists call the I-knew-it-would-happen fallacy—the human tendency to exaggerate foreknowledge (Fischhoff and Beyth 1975).⁴

With regard to the foregoing categories—outsiders and rank-and-file East Europeans—one might say, on the grounds that in a large society it is individually optimal to remain ignorant on social matters,⁵ that people with little influence on the course of events, or with little stake in political trends, have no reason to invest in gathering information concerning the probability of revolution. Yet among those surprised were many individuals with everything to lose or gain from the fall of communism. They form our final two categories.

On the losing side, the surprised included the leaders of the incumbent communist regimes. Even without Soviet military assistance, the local communist parties had the means to suppress the growth of public opposition at an early stage. If they allowed public opposition to gather mo-

³ East German Survey of the Institut für Demoskopie Allensbach (February 17–March 15, 1990), Survey 4195.

⁴ In experiments conducted by psychologists, the I-knew-it-would-happen fallacy worsens over time; i.e., the greater the length of time that has elapsed since an event's occurrence, the larger the number of subjects that report they foresaw it. One would expect, therefore, the share of East Germans reporting that the explosion caught them by surprise to decrease with the passage of time. When asked in March 1991, a year after the first survey and 16 months after the fall of East German communism, "Two years ago did you expect such a peaceful revolution?" 7% answered yes and 33% said, "Yes, but not that fast." The share of respondents indicating that they were totally surprised was down to 54% (Allensbach Archives, Survey 5049). In March 1993, however, when a sample was asked, "Four years ago did you expect such a peaceful revolution?" the first two figures fell back to 4% and 23%, respectively, and the share of the totally surprised rose to 70% (Allensbach Archives, Survey 5078). It is too early, of course, to tell whether recollections of the East German uprising will follow the pattern observed in experimental studies.

⁵ The logic of "rational ignorance" is developed by Downs (1957, chaps. 11–14).

mentum, a major reason is that they failed to recognize how quickly events could slip beyond their control. Remarkably, even after several of the East European regimes had fallen, Romania's Nicolae Ceaușescu went on a state visit to Iran, confident that his domestic support was secure and that he could easily block any attempted uprising.

On the winning side, the stunned included the East European dissidents. For reasons that will become clear, this is the most suggestive category, for some dissidents understood, as few others did, the immense vulnerability of their regimes. For example, in the late 1970s Czechoslovakia's Václav Havel ([1979] 1985) wrote a brilliant essay, "The Power of the Powerless," in which he argued that communism would some day fall like a house of cards, because it was sustained by widespread lying. Yet, when signs of the impending East European overturn began to multiply, as when Gorbachev hinted that the Brezhnev doctrine was dead, even an astute observer such as Havel dismissed the signs as insignificant. On several occasions before the events of late 1989, he counseled his readers to stop dreaming (see Kuran 1991, p. 9).

The East European revolutions were not, of course, the first major uprisings to catch the world by surprise. The French, Russian, and Iranian revolutions are only three of the successful revolts that stunned their leaders, participants, victims, and observers. One of the central points of Tocqueville's masterpiece, *The Old Régime and the French Revolution* ([1856] 1955), is that no one foresaw the fall of the French monarchy. Just weeks before the Russian Revolution of February 1917, Lenin suggested that Russia's great explosion lay in the distant future and that he himself would not live to see it. Even after the onset of the demonstrations that would bring down the Romanov dynasty, diplomats in St. Petersburg were informing their capitals that Russia remained stable. A few months before the Iranian Revolution of 1978–79, a U.S. intelligence report spoke of Iran as an island of stability in a sea of turbulence (Hoveyda 1980, pp. 16–17). For its part, the Iranian Communist Party was so off base in its forecasts that the Soviet government, which had been using the party as a source of information, sacked its entire leadership. Even the Ayatollah Khomeini was stunned by the events that propelled him to power. Although in public he was insisting that the shah's regime was on the brink of collapse, to his close associates he was confiding serious reservations until about two weeks before his triumphant return to Tehran (Heikal 1982, pp. 156–57).

SOME PUZZLES AND TWO CHALLENGES

Why might individuals with deep insight into a social system, or with privileged access to information about its undercurrents, fail to foresee

its impending explosion? What is it that can keep even the most astute and best informed members of a society unaware of imminent political changes of epochal significance? These questions are especially puzzling since now, in retrospect, various signs of the impending revolutions in France, Russia, Iran, and Eastern Europe are transparently obvious. With regard to the last case, we see the economic failures of the Soviet Bloc and the immense frustrations generated by the communist monopoly of political power. It is revealing that, just a few years after the revolution, there already exist multitudes of books and articles that present a vast array of reasons why East European communism was likely to, even had to, fall (see, e.g., Brown 1991; Frankland 1992; Ramet 1991). But if the signs of change are now so clear, why were they not noticed prior to late 1989? Why has our hindsight with respect to the collapse of East European communism proved vastly superior to our foresight?

Several years ago I sought to resolve these puzzles (Kuran 1991), drawing on a general theory of revolutionary surprise that I had developed before the fall of East European communism (Kuran 1989). Below I provide a sketch of that basic argument. The overview will set the stage for addressing two challenges.

The first challenge is to explore what our dismal predictive record implies for the possibility of predicting future revolutions. The answer is not at all obvious. The fact that our foresight has been weak in the past does not mean that all possible future revolutions are equally likely or equally unlikely. It does not imply that, looking ahead in time, we should attach equal probability to a political revolution in Austria as to one in Mexico, Romania, or Egypt. Nor, therefore, does it mean that our capacity for predicting sudden social change cannot be improved.

The article's second challenge is to identify techniques for improving our predictive powers. I shall argue that there are ways to identify the vulnerabilities of a political status quo and, hence, to narrow the range of uncertainty with regard to social change. At the very least, one can identify where future revolutionary surprises are unlikely to occur.

PREFERENCE FALSIFICATION AND THE CONCEALMENT OF REVOLUTIONARY POTENTIAL

What is the appropriate response to the observation that past revolutions have been unanticipated? Inferring that no one has yet developed an adequate model of social change in general, and of revolution in particular, one could try to develop a better model that would yield perfect or near-perfect predictions. Alternatively, one could incorporate the fact that revolutions tend to come as a surprise into the set of phenomena to be explained. In my view, the latter option is both more realistic and

more fruitful. Accordingly, the theory that I am about to summarize does not presuppose the potential availability of all pertinent information. Rather, it includes what people do and do not know among the factors to be illuminated. It seeks at once to produce knowledge and to identify the limits of knowledge.

The theory rests upon interdependencies among the decisions of political actors. Specifically, I recognize that on any given issue (whether trade liberalization, abortion laws, or the appropriateness of a political regime) a person has a private preference and a public preference. When the two differ, the individual is engaged in *preference falsification*. To take the simplest formulation, let an individual's private preference be known only to himself, and let his public preference represent what he chooses to reveal to others. The distributions of these two preferences over the population may be called, respectively, private opinion and public opinion.⁶ In practice, a person's private preference on a given issue is influenced by the social processes that determine public opinion.⁷ For our purposes here, however, we can take private preferences and their evolution as given. The simplification will enable us to focus on the formation and transformation of public preferences and public opinion. Even cursory descriptions of these processes will yield key insights into the puzzles outlined above.

One determinant of a person's public preference is his or her private preference. Preference falsification is costly to the falsifier, in that it entails a loss of personal autonomy and a sacrifice of personal integrity. Relative to a person who approves of the prevailing regime, then, a person who despises it is more likely, holding all else constant, to join an antigovernment rally. Another determinant of the person's private preference is the set of benefits and costs associated with alternative public-preference options. If the likely cost of joining the rally, and thus revealing a preference for political change, is a stint in jail or ostracism by one's peers, the prudent course of action may be to remain on the sidelines, even to cheer on the security forces to leave no doubt as to where one has chosen to stand. The external benefits and costs associated with a public-preference choice generally depend on the choices of others. If only a few people are demonstrating against the regime, the possible external cost of participation is likely to be much higher, and the expected benefit much lower, than if the streets are packed with demonstrators.

Typically, certain configurations of expected benefits and costs will keep an individual loyal to the incumbent regime; others will make him

⁶ For fuller descriptions of these concepts, see Kuran (1995, chaps. 2–4).

⁷ On these processes, see Kuran (1995, chaps. 10–14 and 17–18).

join the opposition. The configurations under which individuals are indifferent between the two options define their revolutionary thresholds. In any given society in which the regime's legitimacy is being challenged, individual members will differ in their revolutionary thresholds. Variations in private preferences are sufficient to generate a distribution of thresholds, as are variations in sensitivity to social pressure.

Under a very broad class of situations, the threshold distribution will generate more than one self-sustaining distribution of public preferences. In other words, public opinion will feature multiple equilibria. One or more of these equilibria may harbor revolutionary implications for the prevailing social order. If such equilibria exist, however, this will not necessarily be known because thresholds are not common knowledge.

A major implication is that, in any given society, cognitive, economic, and social processes may be making it ever easier to spark a revolutionary bandwagon without anyone sensing the potential for social change. The society may be on the verge of a massive explosion, therefore, with everyone continuing to believe—and indeed its members continuing to claim—that it is quite stable. At some point, a small, intrinsically insignificant event will suffice to activate a revolutionary bandwagon—although there is no guarantee that the event will actually occur. If the bandwagon begins rolling, it will catch everyone by surprise, including the very individuals whose actions put it in motion.

When a revolution occurs, long-repressed grievances burst into the open. Moreover, people who were relatively content with the old regime embrace the new one in order to avoid being stigmatized and persecuted as potential counterrevolutionaries. They pretend that their support for the old regime was never genuine, that it involved preference falsification motivated by self-preservation. In the process, they make the toppled regime appear even more vulnerable than it actually was. And they make it doubly easy for scholars to concoct plausible explanations for the observed events. So it is that the social sciences regularly produce multitudes of explanations for revolutions that no one had predicted. This paradox is rooted, I submit, in preference falsification. Before a revolution, preference falsification conceals the potential for a successful revolt. After the fact, it masks the factors that had been working against change.

THE LIMITS OF SOCIAL KNOWLEDGE

Preference falsification thus distorts and conceals information about political possibilities. What benefits could flow, one might wonder, from a theory that exposes obstacles to social understanding and forecasting? Why explore the limits of social knowledge when so much that is clearly

knowable remains uninvestigated? And is it not premature to accept defeat on the matter of explaining and predicting revolutions?

I do not share the apprehensions reflected in such questions, for identifying the limits of knowledge is not a declaration of failure. On the contrary, it is itself a contribution to the pool of useful knowledge. It is also, I would add, a necessary step toward charting a realistic scientific agenda. Darwin did not obstruct or retard science by developing a theory that limits our ability to predict the future course of biological evolution. Producing a quantum leap in biological knowledge, he catalyzed research that has actually improved our capacity to control the evolution of particular species. The goal of all science, not just biology, should be to explain the explicable, predict the predictable, and, equally important, separate the knowable from the unknowable.⁸

Objectors should scan the major social trends of our time and ask themselves whether any had been predicted accurately and whether, even with the benefit of hindsight, any are understood fully. Do we know exactly why the late 20th century has seen a rise in religious fundamentalism, an intensification of nationalism, and the rise of East Asia as an economic giant? Who foresaw, back in the 1950s, that by the 1970s South Korea would be an industrial exporter to reckon with, secularism would be on the defense throughout the world, and ethnic warfare would have escalated? Even a cursory evaluation of the past record of the social sciences will show that, at least on politicized matters involving multitudes of decision makers, neither perfect prediction nor full explanation is the norm. Not even economics, arguably the most disciplined and most advanced of the social sciences, has had much predictive success in domains involving collectively decided outcomes. Theories that explain how economies operate, like Adam Smith's ([1776] 1937) theory about how self-interested agents produce economic order and prosperity, do not furnish credible long-range predictions regarding the economic fortunes of nations.⁹

As a practical matter, then, the dichotomy between social theories that produce complete knowledge and ones that generate only limited knowledge is more apparent than real. The critical difference is that

⁸ This methodological position conflicts in at least two respects with Milton Friedman's (1953) view that predictive success is the sole test of a theory. Where Friedman will settle for manifestly unrealistic "as if" assumptions for the sake of good predictions, I regard assumptions as critical to sound explanation. Second, where Friedman regards predictability as essential to the scientific enterprise, I consider it important that science recognize its own limits.

⁹ For more on the disjunction between the explanatory successes and predictive failures of economics, see Hahn (1993). The dynamic processes that underlie this disjunction have been surveyed and explored by David (1993).

some theories disguise their limitations while others make them explicit.

The limitations of the outlined model of revolution stem from two distinct factors. The first consists of the model's nonlinearity, which is due to interdependencies among the public preferences that form public opinion. Specifically, the sensitivity of public opinion to changes in individual dispositions is variable rather than fixed. Nonlinearity allows huge variations in the consequences of a given perturbation. It permits the effects of the perturbation to be disproportionately large or disproportionately small. Within the present context, massive changes in private opinion may leave public opinion undisturbed, only to be followed by a tiny change that transforms public opinion radically through a bandwagon process. The trigger that activates a bandwagon effect may be events in other societies. In 1989, each successful challenge to communism lowered the risk of open dissent in countries still under communist rule. The consequent relaxation generated a domino effect, with a bandwagon in one country touching off even speedier bandwagons elsewhere.¹⁰

The second limit on the model's explanatory and predictive powers is the imperfect observability of the interdependencies among public preferences. We can never be certain, especially in advance, about the effects of a given switch to the opposition. Where preference falsification is rampant, then, we may fail, however well we understand the pervasiveness and implications of preference falsification, to notice that an incumbent equilibrium is about to vanish. Remember that Havel, who recognized that support for communism was mostly feigned and who understood the consequent vulnerability of the incumbent regimes, did not foresee the events of late 1989.

Let us be clear about the effects of nonlinearity and imperfect observability. Absent preference falsification, which is the source of imperfect observability, we would always be aware of approaching breaks in a society's political evolution. We would know, for instance, that an anti-government bandwagon would begin rolling if just 100 more people became disillusioned with the political status quo. And absent interdependencies among public preferences, the source of nonlinearity, small changes in individual dispositions would not produce explosive changes in public opinion. Whereas an easily observed change in an entire society's stake in the status quo might well precipitate a major shift in public opinion, an unnoticeable change in just a few people's feelings would generate at best a commensurately tiny shift. With both preference falsi-

¹⁰ The domino effect has been analyzed by Kaempfer and Lowenberg (1992).

fication and interdependencies, effects can be unforeseen and disproportionate.

The fact that an outcome was unforeseen does not imply that it must remain a complete mystery. With the benefit of hindsight, many unanticipated events are understood reasonably well. We know much about the conditions and frustrations that propel modern fundamentalisms, even though their rise was scarcely predicted. We know why and how the East Europeans brought down their communist regimes, even though the breaching of the Berlin Wall amazed us all. The above-summarized theory explains, in a manner compatible with its own logic, why explanation is often easier than prediction: a shift in public opinion brings to the surface a plethora of information that is consistent with the shift just as it conceals information that is inconsistent with the shift.¹¹ The problem is compounded by the fact that data consistent with an event are noticed more readily than are inconsistent data (see Fischhoff and Beyth 1975; Nisbett and Ross 1980, esp. chaps. 5–7).

A model's ability to demonstrate why explanation is easier than prediction should not be taken lightly. In the social sciences the two concepts are often used interchangeably, as though a model that yields insights into the past must be equally good at predicting the future. Moreover, retrospective accounts seldom make clear what actors actually knew and what they could have known. Such accounts generally suggest that recorded events just had to happen, failing to explain why, if so, the events were not predicted.

As a case in point, many accounts of the East European revolutions propose that they were inevitable. These accounts are all very misleading. If the old communist order were still in place, would we not be advancing persuasive reasons for the permanence of communism? Who would have paid serious attention to signs of communism's vulnerability? The truth is, if no revolution had occurred, few observers of Eastern Europe would have considered the ongoing stability of Eastern Europe a puzzle.

For another revealing case, consider the recent history of Western scholarship on the Iranian state. Until the Iranian Revolution, almost all students of Iran subscribed to the view that the Iranian state was traditionally despotic and the Iranian nation submissive and fatalistic. Beginning in 1979, many started depicting Iran as a country whose history is marked by a strong society and a weak state. The Iranian clergy,

¹¹ There exist theories that predict better than they explain. For example, the Ptolemaic theory of the universe is quite successful at predicting the movement of planets, but by modern standards its explanation for these movements is very inadequate (see Kuhn 1957).

until 1979 portrayed as quietistic, was now said to control a revolutionary force capable of making and breaking regimes.¹² If Iran were still ruled by the Pahlavis, today's fashionable theories would probably be confined to the fringes of Iranian studies.

From the practical difficulties of social prediction some scholars infer that general social theories are useless. We should limit ourselves to case studies, they say, without seeking to achieve conceptual unity. In the context of revolutions, for example, repeated predictive failures have made some political scientists call for an end to the quest for a general theory of revolutions (see, e.g., Dunn 1989, pp. 2–3; Bunce 1991, esp. pp. 152–53). Such writers are to be applauded for drawing attention to our dismal record at predicting social upheavals. They are wrong, however, to dismiss the possibility of general insights into the revolutionary process. The problem lies not with theorizing *per se* but with the type of theorizing that has dominated the social sciences. What we need are theories that account explicitly for their own limitations and that distinguish between explanation and prediction. Theories that meet these two criteria are capable of accommodating the observations that are said to prove the futility of searching for conceptual unity and generality.

It will be instructive, before we move on, to contrast the notion of imperfectly observable nonlinearity with its polar opposite, observable linearity. Let a and b be observable variables, and consider the linear equation $b = 3a + 2$. This equation indicates that changes in a , however small or large, result in three times larger changes in b . As such, it cannot capture variations in the sensitivity of b to changes in a . Variations might be accommodated, of course, through “noise”—the statistician's euphemism for chance events, data imperfections, and just plain ignorance. The equation $b = 3a + 2 + \epsilon$ indicates that the effect of a change in a may vary by ϵ , the amount of noise. When ϵ , whose determinants may be unknown, is 0.5, a jump in a will produce a change in b that is more than three times as large.

Readers will recognize the second equation as the type used in linear regressions. Does a regression accommodate, by virtue of its noise term, the possibility of surprise? It does. Yet it attributes surprises to unexplained noise rather than to a specific social process. Also, statistical noise is meant to accommodate small surprises, not enormous ones of the sort we faced in late 1989. Only a nonlinear model featuring imperfectly observable variables can capture the fact that revolutions often catch us unprepared.

¹² The point is developed by Sadowski (1993, p. 16), who offers several additional examples of changing scholarly fads in response to unanticipated events.

TOWARD IMPROVED EXPLANATION AND PREDICTION

Because preference falsification afflicts every society, albeit in varying forms and degrees, we will be surprised by future revolutions. Moreover, we are likely to face, after each unanticipated explosion, an abundance of information pointing to the high likelihood, if not the inevitability, of the observed course of events. Interpreters will notice the warning signals of the impending revolution, but not the contradictory and competing signals. And such retrospective distortions will be compounded by citizens' postrevolutionary incentives to hide their past and present sympathies for the toppled order.

To identify limits of knowledge is not to say, of course, that we are doomed to total ignorance about the past. Nor is it to propose that unfolding events must always amaze us. The limits of knowledge about revolutions stem not from the unobservability of the interdependencies among public preferences, but rather, the imperfect observability of those interdependencies. The signs of preference falsification are seldom fully hidden, and the pressures that promote it are often partially identifiable. Depending on the context, for instance, much relevant information may lie in the results of anonymous polls. Sometimes, helpful information may be drawn from such sources as memoirs, diaries, confidential letters, deathbed confessions, and secret archives. One can often distinguish, therefore, between genuine social consensus and suppressed controversy and between honest devotion to a regime and fear-driven obedience.

Private opinion is generally harder to measure and interpret, it might be said, in countries where democratic freedoms are limited or fragile than in countries with strong democratic traditions. In the former the very forces that discourage truthful expression also inhibit the collection and dissemination of opinion data. As a case in point, the communist regimes of Eastern Europe regulated opinion research. They used various means, moreover, to mislead the world about the nature of private opinion. Nevertheless, we knew all along about the existence of widespread hidden opposition to communism. Most of us realized that the East European regimes enjoyed less genuine acceptance than, say, the French government did in France. What we could not know are the exact characteristics of East European private opinion, to say nothing of the precise distribution of individual revolutionary thresholds.

Not that preference falsification is a problem for social analysis only with respect to undemocratic countries. Even where the right to express offensive views enjoys legal protection, there exist sensitive issues on which people think twice before venturing an idea in public. In the United States, race relations represents just such an issue. We know this

through data ranging from scientific polls to everyday observation. Over the past quarter century, scores of scientific surveys have found that the racial admission and employment policies instituted under the rubric of affirmative action are overwhelmingly unpopular (Sniderman and Piazza 1993, esp. chaps. 4–5). Yet overt opposition to racial affirmative action is rare (for a detailed analysis of preference falsification in American race relations, see Kuran [1995, chaps. 9, 14]).

Where open and honest conversation is blocked, there will generally exist signs of hidden opposition to positions that enjoy vast public support. One can identify, therefore, the existence of a potential for social explosion. So, notwithstanding its acknowledged limitations, the theory I have outlined does enhance both explanation and prediction. It can improve our readings of history and alert us to future possibilities.

However democratic or undemocratic, all polities feature openly contested issues on which one can express a wide range of views without enduring significant penalties. On such issues public opinion will not make unforeseen jumps, except in response to a major shock that changes many minds simultaneously, as when an earthquake jolts millions into reconsidering the importance of strict building codes. Also, past changes in public opinion can be explained without worrying much about poorly observed interdependencies. It is on socially sensitive issues that preference falsification may sharply limit our predictive and explanatory capabilities. Yet even on such issues, I repeat, we are never totally in the dark. With respect to the past, we can understand the persistence and the consequences of repressive conditions. With respect to the future, we know where to look for possibilities of sudden change.

The task of identifying instances of widespread preference falsification will generally involve the consideration of data difficult to document and interpret. Before 1989, a scholar trying to demonstrate the pervasiveness of East European preference falsification might have invoked (1) opinion surveys conducted by Western organizations on East European travelers, (2) the claims of dissidents like Havel, Adam Michnik, Andrey Sakharov, and Aleksandr Solzhenitsyn, and (3) the observations of informed outside observers. All such data could have been, and were, discounted as biased. They could not be supplemented with credible opinion surveys, however, because the governments in power refused to grant the necessary permissions. Not that polling data were nonexistent. The secret services of the communist regimes regularly conducted surveys to keep themselves informed about the true thoughts and feelings of the citizenry. Before 1989, however, these data were kept from the public. Now we understand, and then we had reason to suspect, that communist governments were secretive precisely because they recognized their private un-

popularity. A regime that enjoys genuine legitimacy has no reason to keep its opinion surveys classified. Nor does it need to prohibit independent polling.

It may appear unscientific to assert, when systematic polling data is unavailable, that a regime, institution, policy, or political agenda is privately unpopular. But the scientific ethos demands only that we gather the best data available and interpret our evidence in the light of sound theory. It does not require us to ignore problems on which data are relatively scarce or imperfect. The fact that the obtainable evidence on Eastern Europe was less precise than, say, data on the average class size in West European schools was no reason to ignore the realities of communism. In any case, for reasons already noted, the unavailability of good opinion data was itself an important sign of preference falsification. Just as it was significant to Sherlock Holmes that the dog did not bark, it was politically significant that, unlike West Germany, East Germany prohibited independent polling.

In contexts where preference falsification is rampant, then, we often have little choice but to employ whatever data can be found, even very inexact data. Whether interpreting the past or exploring future possibilities, we may have to pay attention to the scattered perceptions of observers who seem well informed about happenings behind the public stage. Impressionistic accounts do not provide the precise number of people who despise the status quo, but at least they point to the existence of widespread discontent.¹³ After repression eases or disappears, of course, the relevant information is likely to improve. Since 1989 we have gained access to many secret surveys conducted, over the years, for the benefit of Eastern Europe's communist regimes.

Social predictions based on perceptions of preference falsification may suffer, it deserves mention, from a problem absent from historical explanation. Predictions interact with the phenomena they predict. However accurate its reading of social undercurrents, a report that society is about to erupt may become self-fulfilling; or, by provoking the government to take precautionary measures, it may become self-negating. Such effects are not specific, however, to contexts where people are afraid to express themselves truthfully. Any social observation may affect what is being observed.¹⁴ An economist who predicts a rise in unemployment may contribute to a recession that would not have occurred had he kept quiet. And reports of a candidate's invincibility may scare off her most qualified opponents, thus compounding her advantage.

¹³ A similar point is developed by Bermeo (1992, pp. 184–87).

¹⁴ For an illuminating discussion, see Carr (1962, pp. 90–91).

MEASURING PREFERENCE FALSIFICATION

To suggest that the concept of preference falsification can improve our predictive and explanatory capabilities is not to say, then, that it can be incorporated into social analysis risklessly. A further problem is that we lack a sufficiently developed set of scientific techniques for identifying and quantifying preference falsification. The latter problem does not necessarily point, I hasten to note, to a flaw in the foregoing argument. Techniques for forming new databases rarely get developed until new theories establish their usefulness (Lakatos 1978). Methods for quantifying temperature were devised only after physicists crafted theories featuring temperature scales. Techniques for measuring the velocity of money emerged only after the concept became commonplace in economic texts.

When a theory precedes the measurement techniques needed to verify or use it, it will generally be harder to test in historical contexts than in contemporary ones. Data on the velocity of coinage in 14th-century Anatolia are not as reliable as information on the modern velocity of the Japanese yen. This is reason for caution in Ottoman economic research, however, not a cause for spurning the concept of monetary velocity. Similarly, one can acknowledge the difficulties of measuring discrepancies between private and public opinion in the past, especially the distant past, without declaring the concept of preference falsification useless. The fact that no scientific opinion surveys were conducted during the French Revolution does not mean that it is pointless to introduce the concept of public opinion into research on 18th-century France.

There have been attempts, in fact, to identify cases of preference falsification in the distant past. For example, medievalists have developed a technique for determining concealed messages in old philosophical texts. It is based on a simple principle: when an experienced writer expresses a view at odds with public opinion, one has reason to believe that he is expressing himself truthfully; but when he conveys a view in line with public opinion, one cannot rule out the possibility that he was trying to avoid punishment, especially if the view contradicts what he wrote elsewhere. Medieval philosophers wrote at a time when challenges to widely held beliefs often brought swift retribution. Under the circumstances, they made it a practice to present their most original and potentially most controversial thoughts "between the lines" for the exclusive benefit of other independent thinkers. As Leo Strauss (1952) and others have documented, in the depths of a treatise an able writer would surreptitiously contradict an orthodox tenet that he had defended in many conspicuous passages, with an eye toward exposing his dissent to cultivated readers likely to be sympathetic, while simultaneously hiding it from unsophisticated readers likely to be offended. Careful readings of

the works of Farabi (Alpharabius), Maimonides, Ibn Khaldun, Hobbes, Spinoza, and other towering philosophers suggest that they tended to express their heretical thoughts in relatively inconspicuous passages, and in deliberately ambiguous terms, probably to escape persecution.

Reading between the lines is not an infallible technique. But to reject it for this reason alone would be like denying emergency aid to a wounded sailor at sea on the grounds that he could get better treatment from a fully equipped hospital on shore. The value of any datum is contingent on what else is available. In any case, to presume that past writers had neither incentives nor a capacity to hide their true thoughts would contradict certain basic facts of human nature. Moreover, it could lead to serious historical misinterpretations.

The point remains that in historical contexts we rarely have access to ideal data. If future historians are to have better data on our own age, we must make systematic efforts to collect data that distinguish between private and public opinion. In the meantime, such data may help us improve our predictive capacities with regard to social stability and instability. In particular, they may contribute to the identification of societies that are prime candidates for political upheaval.

The essential tasks consist of qualitative field research and quantitative surveys. Field research would be performed by scholars trained in the anthropological techniques of "thick description"—establishing rapport with a community, selecting informants, keeping a diary, and so on. Living for awhile in the community under investigation, they would try to win the community's trust in order to gain exposure to the perceptions, ideas, resentments, aspirations, and ambitions that its members tend to keep private. The research would thus capture differences between the community's life on stage and its life off stage. The political scientist James Scott (1985, 1990) has shown how this can be done through his own fieldwork in Malaysia. He has documented that poor peasants deliberately and routinely mislead their landlords and government officials about their knowledge, aspirations, and resentments.

As for quantitative surveys, certain techniques that contribute to predicting and explaining revolutions have already been developed. I shall discuss two, beginning with one of the many tests developed by the Allensbach Institute under the leadership of its founding director, Elisabeth Noelle-Neumann. A representative Allensbach technique is the "two-stage train test" (Noelle-Neumann [1980] 1984, pp. 16–22). In 1972 this test was used to measure the incentives to take public positions for and against *Ostpolitik*, Chancellor Willy Brandt's attempt to come to terms with communist Eastern Europe. In the first stage of the test, a sample of individuals were presented with a sketch showing two people in conversation, one making a statement favorable to *Ostpolitik* and

the other an unfavorable statement. Each respondent was then asked individually to state his or her own opinion. In the second stage of the test, both those in favor of *Ostpolitik* and those against it were invited to imagine being at the start of a five-hour train ride. Half of each group heard that they would have a pro-Brandt compartment mate, the other half that their compartment mate would be anti-Brandt. Each interviewee was then asked: "Would you like to enter into a conversation with this person so as to get to know his or her point of view more closely, or wouldn't you think it worth your while?" The goal, of course, was to measure the perceived social pressures. People do not like to think of themselves as cowards, so if asked about their fears directly they may seek to hide them. The train test gets at the fears indirectly, and it allows the quantification of opposing pressures.

Of the survey sample, 50% of those favorable to Brandt's policy, as against 35% of those unfavorable, indicated a preference for entering into a conversation. Correspondingly, "would not think it worthwhile" was the answer given by 42% of the favorable group, as against 56% of the unfavorable group. At the time of the survey, the Brandt camp appeared larger than the anti-Brandt camp. The survey results suggest that, to a degree, the perception reflected the fact that pro-*Ostpolitik* citizens were relatively more willing to state their positions publicly. Evidently, preference falsification was benefiting the cause of *Ostpolitik* by tilting public discourse, and thus public opinion, in its favor.

Let me turn now to another survey technique, developed, like the train test, as a means of predicting an election outcome. In the heat of an election campaign social pressures favoring one side or the other may give misleading signals as to the outcome of the pending election. The induced preference falsification may bias preelection polls, especially if polltakers are suspected of dangerous partisan sympathies. As a case in point, a Washington Post-ABC News poll completed 10 days before the Nicaraguan election of 1990 gave the Sandinista presidential candidate, Daniel Ortega, a 16-percentage point lead over the candidate of the Union Nacional Opositora (UNO), Violeta Chamorro. Other polls gave Ortega an even wider lead. Chamorro would go on to win the election by 14 points. Yet, taking the projections at face value, many news organizations had interviewed Sandinista leaders right before the election to discuss how they planned to exploit their imminent victory. The only polls that turned out to be in the right ballpark were ones conducted by organizations linked, in fact or in the popular imagination, to UNO.¹⁵ Foreign news organizations had dismissed the latter polls as partisan.

¹⁵ For evidence, see Miller (1991) and also Schwartz (1992, esp. chaps. 4, 7).

Consequently, they were stunned by Chamorro's victory, much as they had been stunned just a few months earlier by the fall of East European communism (Uhlig 1990; Ornstein 1990).

An ingenious experiment run by Katherine Bischoping and Howard Schuman (1992) points to the source of confusion. A few weeks before the election, Bischoping and Schuman conducted 300 interviews in and around Managua, all administered identically except for the type of pen used to record responses. In one-third of the interviews the interviewer used a pen featuring the red and black colors of the Sandinista Party and the inscription "DANIEL PRESIDENTE." In another one-third the interviewer used a pen featuring the blue and white colors of the opposition and the inscription "UNO." And in the remaining one-third the interviewer used a neutrally colored pen with no lettering. Interviewers did not draw attention to their pens or make claims about their own political sympathies. Yet, the results show clearly that the pens influenced the respondents. When the interviewer held a Sandinista pen, the respondents voiced support for Ortega by a 26-point margin. Ortega also came out ahead in the neutral-pen condition, by 20 points. However, when the interviewer held a UNO pen, Chamorro was the winner by 12 points.

The UNO-pen condition thus came close to predicting the election outcome, whereas the Sandinista-pen condition replicated the highly inaccurate preelection polls. Remarkably, the neutral-pen condition generated a result similar to the Sandinista-pen condition. Bischoping and Schuman suggest that after a decade of Sandinista repression a pollster lacking partisan identification would have been perceived as a Sandinista activist. Insofar as their intuition is correct, we have an explanation for why the Washington Post-ABC News poll was so far off the mark. Precisely because it was conducted by interviewers striving for a neutral image, respondents sympathetic to UNO considered it prudent to keep their private preferences concealed. Evidently, only interviewers with apparent UNO connections gave UNO sympathizers the courage to reveal the truth. Sandinista sympathizers needed no such assurance, for Chamorro was stressing her readiness to tolerate dissent. And in any case, widespread preference falsification on the part of UNO sympathizers had lowered her perceived chances of winning.

Like the Allensbach train test, the pen experiment identifies fears and sensitivities. It thus alerts one to possible incongruities between public and private opinion. Since elections by secret ballot measure private opinion, polls undertaken to predict electoral outcomes will yield misleading forecasts unless the respondents feel comfortable expressing themselves honestly. Of course, interpreting a poll designed to overcome preference falsification is anything but a mechanical matter. Drawing sound inferences from the pen experiment required an understanding of

Nicaraguan political realities. An analyst ignorant of Nicaraguan politics may well have designated the source of fear as UNO, for it was the UNO pen that registered a dramatically different outcome from the neutral pen. One needs to know the history of Sandinista rule—the use of informants, the persecution of opponents, the biases of the media—to see that a pollster trying to appear neutral would probably be perceived as pro-Sandinista. So, while clever experiments may provide valuable social insights, they are not self-explanatory. Analysts in agreement that an experiment points to widespread preference falsification might disagree on the character of the falsification.

For all their ambiguities, experiments like those just discussed have uses also in nonelectoral contexts. They can be brought into broader studies of social stability and political evolution. They can be used to identify possible political upheavals and to explain ones that have already occurred. Oddly, contemporary students of political revolution have taken little advantage of developments in the field of opinion studies. Yet, as I have endeavored to show here and elsewhere (Kuran 1989, 1991), the dynamics of private and public opinion offer many clues into the process of social change.

Measurement techniques like the ones I have illustrated may be criticized on the grounds that they yield imprecise readings and that they are not standardized. Let me address each point in turn.

It is true that pen experiments and train tests provide inexact readings of private opinion, preference falsification, or perceived social pressures. But I am not suggesting otherwise. Because I recognize that the determinants of political outcomes are imperfectly observable, I am arguing merely that techniques exist to provide rough readings of the political climate and crude estimates of private opinion. Techniques that yield more exact measurements may yet be developed. However, barring the invention of an instrument for reading the individual mind, they will never attain microscopic precision. In any case, not every domain of analysis requires the same precision. Just as the appropriate unit for measuring the distance between two stars is not the micron, we do not need to know private opinion exactly to uncover the existence of a latent revolutionary bandwagon effect. If a variant of the pen experiment had been run in East Germany in 1988, and the nature of the interviewer's pen had been found to make a huge difference, the finding would certainly have been informative. We would still not have known that the Berlin Wall would be breached in a year's time. But at least we would have obtained controlled evidence against the argument that the Soviet Bloc was incapable of self-driven change.

It is also true that I have not offered standardized procedures for measuring hidden variables—procedures that can be applied more or less

mechanically to every possible situation. The train test was developed for a country where people commonly ride the train. It would not be as meaningful in a place where few people even lay eyes on trains, except in movies. Perhaps standardized tests will someday be developed and put into regular use. They will still need to be interpreted, however, in the light of their political and social contexts. Inflation figures can be compared meaningfully without attention to background conditions. If the Mexican inflation rate is double the Turkish rate, we know something specific about the respective price movements. But train tests conducted in Mexico and Turkey would be meaningful only in the light of information about social and political conditions in the two countries. Identical results might signify widespread political fear in one country, customary politeness in the other.

REFUTABILITY OF THE FOREGOING PROPOSITIONS

It is time to pull together the threads of the foregoing argument. I have advanced three propositions.

PROPOSITION 1.—*The ubiquity of preference falsification makes more revolutionary surprises inevitable.*

PROPOSITION 2.—*Unanticipated regime changes will tend to occur in politically repressive countries—ones whose regimes enjoy little genuine legitimacy and are sustained by general fear. Politically repressive countries can be identified through techniques for detecting instances of widespread preference falsification.*

PROPOSITION 3.—*Obstacles to predicting revolutions preclude neither the explanation of particular revolutionary surprises nor the development of elaborate retrospective accounts of mass uprisings.*

Each of these propositions makes a refutable claim. The first proposition can be debunked simply by constructing a theory that predicts future revolutions accurately. Here are some examples of predictions that could cast doubt on the claim:

1. In Egypt, Hosni Mubarak's regime will be overthrown between 1995 and 1997.
2. Brazil and Venezuela will experience mass uprisings around the year 2000, whereas Mexico, Colombia, and Ecuador will remain stable.
3. The communist monopoly of power in China will end abruptly during the next five years, but North Korea's communist regime will manage to hold onto power for another four decades.

If successful, such a string of predictions would suggest that preference

falsification is not, contrary to what I maintain, an obstacle to foreseeing revolutions.

The second of my three propositions would be discredited if unanticipated political revolutions began to occur primarily in countries where political freedoms are widely respected, rather than in politically repressive countries. Since preference falsification with respect to the incumbent regime is a hallmark of politically repressed countries, we would have to conclude that preference falsification is not, after all, the main obstacle to prediction. Finally, my third proposition would be refuted if future historians began having difficulty explaining unanticipated revolutions.

STRUCTURE, CHOICE, AND THE PERMANENCE OF OBSTACLES TO PERFECT PREDICTION

Although I have argued that our dismal record at predicting revolutions may be improved marginally, some scholars maintain that, armed with the right model, we can do very much better. For instance, Jack Goldstone (1993) holds that, despite the impediments to observing private opinion, it is possible to identify the “objective conditions” for revolution. He bases the claim on a “demographic-structural” model that he has used to explain various political instabilities in the early modern world, including revolutions and rebellions in England, France, Turkey, and China (Goldstone 1991). If he is right and I am wrong, his demographic-structural model (or some other model) will begin yielding precise predictions. The predictions would have to be genuine, of course; that is, they would have to be prospective rather than retrospective. And they would have to be accompanied by successful predictions of political stability. Future decades should provide sufficiently many new cases for impartial observers to evaluate whether his optimism about predicting regime changes is warranted. The empirical validation of Goldstone’s proposition would jeopardize my own first proposition.

Another thinker who holds that future revolutions can be predicted is Randall Collins (in this issue), who bases his claim on a “geopolitical theory” that he used, in 1980, to predict that the Soviet Union would disintegrate “within 30–50 years.” Though Collins himself was “surprised that it happened so soon” (which is consistent with my thesis and inconsistent with his), he maintains that his theory can continue to provide accurate forecasts within “units of about 30–50 years.” This is a testable hypothesis. If Collins ventures to propose what macropolitical changes will occur between 1995 and 2045, future scholars may be invited to judge, perhaps in this journal’s sesquicentennial issue, the success of his projections. On the basis of arguments I have advanced here and elsewhere, I would expect most of the projections to turn out false. Preference falsification

is one constraint on predictability in the medium run. Another is that the private preferences that feed into public opinion are subject to change over time, partly in reaction to shifts in public opinion itself.

It is notable that Collins allows for a range of unpredictability of up to half a century. Yet such a range does not flow from the logic of geopolitical theory. One has to step out of geopolitics and appeal ultimately to the pervasiveness of preference falsification to explain why short-term geopolitical predictions are bound to be highly unreliable. This, I would argue, is a serious shortcoming. The objective of science is not only to predict but also to explain. A model that does not explain its own limitations is missing something important.

As I have suggested on other occasions (Kuran 1989, 1991), structuralist theories provide valuable insights into processes of political change. Structures do indeed affect political possibilities, partly by helping to shape people's incentives to revolt against an established order. Nonetheless, structuralist theories will remain incomplete even as explanatory devices until they are linked to a model that can account for poorly observed interdependencies among individual political choices.

Structuralists will answer, perhaps, that political structures do not just help shape people's incentives to revolt; they fully determine how individuals behave. Putting aside the question of whether there exists such a thing as free will, I would point out that the structures that constrain individual choices do not have lives of their own. They are the possibly unintended products of earlier individual choices. Just as market outcomes result from interactions between supply and demand, political outcomes result from interactions between social opportunities and individual dispositions. A critical feature of the latter interactions is that minor structural variations can make all the difference between continued political calm and an explosive growth in political opposition to the status quo.

If we could know exactly how the members of a given society would react to any given structural shock, we could foretell the society's political future. In practice, however, such knowledge is unobtainable. And an important part of the reason is precisely that individuals often conceal their political desires and motivations. Might the structuralists explain their predictive failures without appealing to considerations of individual choice? A possible attempt at rescuing the approach might be to suggest that, when many structural changes occur simultaneously, the consequences will be hard to predict. But one would have to go outside the structuralist framework to explain why multiple shocks hinder the task of prediction. And sooner or later one will have to come to terms with the impossibility of knowing with certainty how individuals will perceive the changes and how they will react to them.

I do not mean to imply that it is only the structuralist approach that exaggerates what is foreseeable. Certain arguments that share this article's commitment to methodological individualism make the very same mistake, albeit for different reasons. An example is the theory of revolutions developed by Susanne Lohmann (1994), which attributes revolutions to "informational cascades." The gist of her argument is that a revolutionary bandwagon effect develops as the potential opponents of the incumbent regime draw on their observations of others' political choices to make inferences about social conditions and political possibilities. Lohmann acknowledges that individuals are cognitively limited. The "private information" on which people base their political choices consists, she says, of a limited number of variables, including "the size of the protest movement and its changes over time." Yet, her entire argument rests on the empirically untenable notion that individuals can make fine distinctions among the characteristics of demonstrators. As she would have it, an East German citizen was able to look out his window at a crowd of antiregime demonstrators and estimate rather accurately its shares of "moderates" and "extremists."

Even more troubling is that Lohmann draws from her model—whose strength lies in the insights it provides into the oscillations that may occur in opposition size—the inference that demonstrations occur in "predictable ways." I doubt that anyone, not even a specialist in political revolutions, can look at a demonstration in the making and state with certainty where it will lead. Ultimately, of course, this is an empirical matter. Insofar as Lohmann's model has predictive power, it will doubtless become a prized instrument of political forecasting. My own expectation is that, like all the other theories of revolution considered in this article, including my own, Lohmann's model will derive more of its value from explaining revolutions than from predicting them.

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