COMPARATIVE CONTINGENCIES

History Quantified

O REGARD HISTORY as an imprecise discipline is to sell it short, say Jared Diamond '58 and Florence professor of government James A. Robinson. In Natural Experiments of History (Harvard University Press), a new book they coedited, Diamond, a geography professor at UCLA, and Robinson argue that quantitative methods can and should be used alongside the qualitative methods more often used to study the past.

The book presents eight examples of such quantitative analysis: included are chapters on "Exploding Wests: Boom and Bust in Nineteenth-Century Settler Societies," "Politics, Banking, and Economic Development: Evidence from New World Economies," and "Colonial Land Tenure, Electoral Competition, and Public Goods in India." The chapter co-written by Robinson evaluates Napoleon's legacy. Scholars long considered the nineteenth-cen-

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tury emperor a modernizing force in the territories he conquered; recently, though, this favorable view has fallen out of fashion. Robinson, working with Davide Cantoni, a doctoral student in economics, and MIT economists Simon Johnson and Daron Acemoglu, used Germany as a test case, asking how regions controlled by Napoleon fared compared to those that were never under French rule. The authors determined that occupied areas that kept the reforms Napoleon put in place (a written civil code; abolition of serfdom and, in the cities, of guilds that hampered economic freedom) subsequently experienced the most rapid economic development. Areas that the French never controlled developed less quickly (measured in terms of urbanization), and those regions that were invaded, but returned to their old ways after liberation, developed most slowly of all.

Robinson and his colleagues encourage other scholars to extend this analysis to different territories that Napoleon controlled; they believe such comparative work can bring a broader understanding of what causes the uneven distribution of prosperity around the world. They began with Germany because it allowed them to compare invaded and uninvaded areas and because Germany's constituent parts were similar enough, culturally and otherwise, to limit the number of potential confounding factors.

The gold standard of quantitative methods is the randomized controlled trial (RCT), in which experimenters choose an intervention and apply it at random, and then, after some fixed period of time, compare the "treatment" group that received the intervention to the "control" group that did not. This type of experiment is virtually impossible in the study of history, the authors write—but the same is true of other disciplines that involve reconstructing the past: evolutionary biology, paleontology, historical geology, or astronomy. Furthermore, in many disci-





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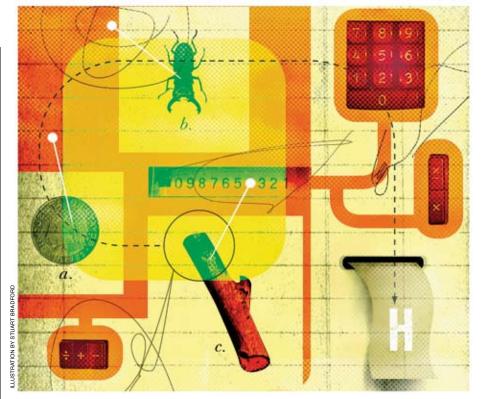
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plines that study the present, the RCT is impossible for ethical reasons: scientists understand how smallpox works not because they injected people of different blood types with smallpox at random, but because they observed how the disease operated in real life. This "natural experiment" established, with as much certainty as an RCT, which blood types confer smallpox resistance. In crafting the book, the authors looked for examples of other such "natural experiments."

The contributors take great care to explain how they accounted for possible confounding factors. For instance, in a chapter that assesses the impact of the slave trade on modern Africa, Harvard assistant professor of economics Nathan Nunn raises the question of whether slave traders perhaps preyed on underdeveloped areas. To the contrary, research revealed that slaves came disproportionately from the *more* developed parts of the continent, because those were the places most likely to have economies already organized for trade more generally. Nunn writes that using statistical analysis helped him determine how likely he was to be wrong, and how that would affect his findings.

Nunn sets out a thorough assessment of the enormous difficulties inherent in his research, but concludes that the contemporary nations that, historically, lost the highest proportion of their populations to slavery are economically the worst off today. In fact, he computes that per-capita annual income in Africa—\$1,834, on average—would be between \$2,679 and \$5,158 if the slave trade had never occurred. Statistical analysis makes statements like this possible; it also enabled Nunn's conclusion that all of the possible confounding factors would, if they had any effect at all, mitigate rather than exaggerate the slave trade's effects. If measurement error exists, he writes, "we can be reasonably certain that the relationship" between the slave trade and poverty "is in spite of measurement error and not because of it." (For more on Nunn's research, see "Slavery's Sway," November-December 2008,

Diamond, whose previous books include Guns, Germs, and Steel and Collapse: How Societies Choose to Fail or Succeed, writes about why Haiti and the Dominican Republic, neighbors on the same Caribbean island, developed so differently. He also explores the



devastating deforestation of Easter Island. The damage is sometimes blamed on the islanders themselves, but Diamond compares a list of 81 Pacific islands on a matrix of nine factors including climate, geological age, elevation, island area, isolation, and even the presence of makatea, "a sharp coral terrain resembling huge irregular

piles of broken glass" that tends to keep people away from forests they might otherwise want to cut down. He found that these nine variables accounted for most of the variation in deforestation among the islands, and that Easter Island in particular had a "perfect storm" of conditions. On all nine factors, chance was pushing Easter Island toward deforestation.

The eight cases presented in the book are related by method more than theme, and Robinson and Diamond extend an open invitation to add to the literature. "History is full of such potential experiments," Robinson and colleagues write in the chapter on Napoleon's influence. "It is just that historians have not yet thought of them in these terms. We believe that exploiting these experiments in a systematic way will greatly improve our understanding of the important forces that have driven long-run processes of historical, social, political, and economic change."

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