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Editor's Column: Introducing a New Section—*Databases*

Peter Turchin
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Although the subtitle of our journal emphasizes theoretical and mathematical approaches to history, the overall goal of *Cliodynamics* is to contribute to developing a *mature* theory that integrates models with data. We are particularly interested in articles that combine model development with empirical tests, but in practice it is difficult to do both well in the framework of a single article. A division between modeling and empirically-oriented articles is probably inevitable. Certainly, in physics, which is often thought as *the* model for both natural and social sciences, there is a very clear distinction between theoreticians and experimentalists.

The current issue of *Cliodynamics* illustrates this theoretical/empirical divide, but also highlights cross-connections between these approaches. The first two articles focus on mathematical approaches. Bret Beheim and Ryan Baldini develop a rigorous quantitative framework for studying cultural evolution, while Radek Szulga builds a formal, yet tractable model of pre-Neolithic economy. Although both papers are primarily theoretical, this is not sterile, abstruse theorizing that is found in certain journals of mathematical economics. On the contrary, both articles make explicit connections to empirical issues.

These modeling papers are followed by two empirical articles. When we launched the journal, we promised that we would publish databases, especially those focusing on time-series data (because in order to test dynamical theories of history we need data on how societies change with time). This issue delivers on that promise with an introduction of a new journal section, *Databases*.

The first article by Turchin et al. describes a project that is still in a very early stage of development. Our paper presents no analysis and no results, and most academic journals would not even consider it for publication. I (now wearing my editor-in-chief hat), on the other hand, believe that publishing such papers is critical for a healthy development of the field. The Historical Database of Sociocultural Evolution, described in the article, will require massive amounts of help from historians who are experts on different regions and periods. Publication of the article, thus, is an efficient way of getting the word out. We also invite comments on, and critique of our approach, because

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we are in early enough phase when we can still change most of the aspects of our approach.

No less important goal is to publish the theoretical predictions that we will be testing empirically at the earliest possible stage. Because data have not yet been collected, testing such predictions is a true form of 'strong inference'—after all, scientific predictions do not have to be about the future. They can also be about data that are currently not known (and that is how we can make progress most efficiently in such historical sciences as astrophysics, geology, evolutionary biology, and cliodynamics).

We invite others who are building or contemplating construction of historical databases to submit articles describing their projects to *Cliodynamics*. We also encourage publication of scientific predictions ahead of data collection—this is how Cliodynamics can be transformed into a 'rapid discovery science' (as we discuss in the article).

The second article in the *Databases* section presents not only a database, but also an analysis of the data contained in it. David Sirag's motivation was to determine how well a set of cycles postulated theoretically maps on the empirical landscape of history. Using innovative ways of looking at patterns in historical dynamics, Sirag found that historical data suggest a regular shortening of the periods of secular cycles over the general course of human history. This result must be tentative because, as Sirag emphasizes in his article, the data were collected using online sources such as Wikipedia and have not yet been vetted by professional historians. Because the results suggest very interesting generalizations, I think it likely that Sirag's database (posted as a supplemental online material) will undergo further development, this time with input from professional historians. Again, publication of forward-looking articles that do not necessarily promise any 'final' answers, is an appropriate use of the *Databases* section.

In addition to the modeling and database papers, *Cliodynamics* continues the publication of book reviews and review essays, as well as special features from the *Social Evolution Forum*. In the two years since it was launched *Cliodynamics* have been systematically adding both breadth and depth in its coverage of theoretical and empirical aspects of history-as-science. Overall, the journal and the cliodynamics community it serves have had a very good year in 2012.