Ages of Discord: A Structural-Demographic Analysis of American History
(Peter Turchin)

January 10, 2020

I am skeptical of those who predict the future by looking at the past. It's not that history follows a random walk, like the stock market. Quite the contrary—it is easy to show certain patterns in history. But predicting how and when those patterns will yield any particular result in any given society seems like astrology. Peter Turchin, however, offers a very convincing, and very well-supported, tying of patterns to data. I'm still not sure it's not astrology, but I'm half convinced. And this is a good book to read in January 2020—because right now is when Turchin predicts, in America, the swelling discord of the title.

This book is, fortunately, nothing like the terrible *The Fourth Turning*, a more famous and very stupid book. Like that book, however, it does posit cycles in societies (as do many other books, ranging from Ibn Khaldun's *Muqaddimah* to Joseph Tainter's *The Collapse of Complex Societies*). "[A] typical historical state goes through a sequence of relatively stable political regimes separated by unstable periods characterized by recurrent waves of internal war. The characteristic length of both stable (or integrative) and unstable (or disintegrative) phases is a century or longer, and the overall period of the cycle is around two to three centuries." Among many other examples Turchin gives, the integrative phase of the Roman Republic was 350–130 B.C.; its disintegrative phase was 130–30 B.C., to be succeeded by Principate Rome. To take a less commonly known example, the integrative phase of Valois France was A.D. 1450–1560; its disintegrative phase was A.D. 1560–1660. Turchin sees America as being in a disintegrative phase that began in the 1970s and will peak starting in 2020. *Ages of Discord* is an attempt to substantiate that claim, and offers predictions of chaos in America's near future. Like Hari Seldon in Isaac Asimov's *Foundation*, Turchin sees this disintegrative phase as inevitable—but also, maybe, ameliorable.

Since this is the turn of the decade, we have, over the past few weeks, been subjected to endless news articles claiming that the 2010s were the best decade ever. Turchin is having none of that. (And all those claims are stupid on their face—their sole substantive "argument" is that due to the spread of free markets, poverty in the Third World has declined sharply—which is true enough, but totally irrelevant to whether America had a good decade, or is going to have one over the next ten years). The method of *Ages of Discord* is to use an enormous amount of data and mathematical modeling to add substance to Turchin's theory of "secular cycles," developed in an earlier book of that name by Turchin and Sergey Nefedov (where secular has its economic meaning of "a long-term trend of indefinite specific duration"). Turchin calls this the science of "cliodynamics," a neologism formed from the name of the muse of history and the term for the science of why things change (and also reflecting that society is a web, a "dynamical system"). Cliodynamics is an attempt to view history through science, primarily through the science of statistics. It seeks to offer general principles that can be tested against historical data, and that testing is what Turchin offers here.

Turchin begins with the observation that, however it may feel to us, human societies are fragile. Somewhat melodramatically, he references the American Civil War, while unconvincingly disclaiming that he believes something like that is imminent. He does not think that Steven Pinker is right that we are now more civilized than we used to be; for Turchin, there is no thing new under the Sun, except for, perhaps the science of cliodynamics. Turchin notes that in 2010 (this book was published in 2016) he predicted "the next decade is likely to be a period of growing instability in the United States and western Europe." He is well-satisfied that he was right, and I think most people would agree.

The framework of Turchin's model, laid out in Part I, is the "Structural-Demographic Theory," originated by Jack Goldstone to apply to agrarian societies and reformulated by Turchin and Nefedov in their earlier book to apply to industrial societies. SDT consists of three basic claims, or "principles." First, population growth exceeding productivity (the Malthusian Trap, in essence) leads to falling wages, migration, and ultimately, wage protests such as riots. Actual starvation due to the Malthusian Trap is no longer a problem in industrial societies, of course—population increases rather lead to declining real wages, with similar negative effects on the wellbeing of the masses, "immiseration" (though the mechanics are more complex than in agrarian societies). This is the "labor oversupply principle." Second, fast population growth also leads to "elite overproduction," where elites compete for a largely fixed number of elite positions, which leads to elite disunity, the creation of a counter-elite, and elite conflict. This problem is worse in industrial societies, since unlike in agrarian societies, declining real wages actually benefit the elite, who get cheaper labor, and respond by engaging in ever greater, "runaway" consumption, exacerbating the intraelite conflict caused by their swelling ranks. This is the "elite overproduction principle." And third, the "instability principle," where population growth also leads to expansion of the state, resulting in increased taxes, which inevitably fail to cover expenses, leading to fiscal crisis. "As all these trends intensify, the end result is state bankruptcy and consequent loss of military control; elite movements of regional and national rebellion; and a combination of elite-mobilized and popular uprisings that expose the breakdown of central authority." This drives the disintegrative phase of the secular cycle, involving increased mortality, decreased productivity, instability, political violence, war, and, potentially, collapse—followed, ultimately, by a new integrative phase, sometimes with a very different society, sometimes with much the same society, where the three principles reverse in unison.

Turchin is not claiming specific causation. He is showing correlations. He troubles himself to clarify that these three principles are simply proxies "for the movements of structural forces postulated by the theory. In other words, the Structural-Demographic Theory provides a holistic explanation not only for these three particular variables, but for a host of others." Occasionally he will suggest possible causal links, the most notable being that elites, exhausted after a long period of instability (often including the death of many members of the elite), turn away from competition to cooperation, helping to end a disintegrative phase. (The end of the Roman Republic is the classic example.) Mostly, though, it is patterns tied to data that he offers, and often patterns within patterns.

Thus, his project is to develop mathematical models, then feed them historical data from different eras and see what comes out. This book is specifically written to apply such a model to the United States from its formation (roughly 1780) to the present (2016). It is not an easy read. Lengthy entire chapters are taken up with mathematical formulas—Turchin says the reader can skip these, but that undermines understanding, so I recommend against skipping. The point of the mathematics is to quantify and weight factors in a model that can be applied across different times and places, as well as perform various transforms and shifts, all of which Turchin explains (and he apparently offers most of his data and models for others to review). Complexities abound—for example, finding quantitative proxies for cultural mood, or for the willingness of elites to cooperate with each other, rather than engage in conflict. Much else goes into this, such as rejecting the idea of discrete generations, and instead modeling transmission of behavior across time, paying attention to the "fathers-and-sons dynamic," feedback loops, and the intersection of different resulting sub-cycles, which aggregate to show certain patterns. Any reader is going to wonder if Turchin is fitting the math to his theories, but looking around, nobody seems to accuse him of doing that.

After introducing the three principles of SDT as applied to industrial societies, and offering an explanation and justification of his mathematical approach, in Part II Turchin expands on each of the three principles as applied to America. In "Demography and Wellbeing," Turchin examines statistics about and patterns in labor supply since 1780. He analyzes both immigration and native births, compared to real wages over time, both absolutely and relative to GDP per capita. He then ties the resulting graphs to measures of wellbeing, such as height of adults (which declined four centimeters from 1830 to 1900!), life expectancy, age of first marriage (which he notes is "only imperfectly correlated with social optimism"), and so forth.

Tellingly for modern debates, Turchin here draws the firm conclusion that when immigration is high, not only wages, but wellbeing, are low, and not just for a few years, but correlating over decades—including the most recent phase, since 1970, where wellbeing has objectively declined (contrary to the propaganda we are fed), while immigration has skyrocketed and real wages stagnated. He takes this as demonstrating the accuracy of the labor oversupply principle. As he goes along, Turchin is also combining the data, in the form of various graphs, that he discusses. So, for example, he shows that when you overlay a graph of mass wellbeing on a graph for elite overproduction, you see that since 1780 there is a precise inverse relationship between the two—just as the SDT predicts.

In "Elite Dynamics," Turchin focuses on the ruling class, defined as the (small) fraction of the population in whom social power is concentrated.

Different societies exhibit this in different ways—for example, in some societies, the power of the ruling class is largely military, and in others, it is ideological or economic. In most modern societies it is administrative—that is, bureaucratic. But not in America, where there is sociological dispute, as Turchin admits, though for his purposes, he settles on a definition of the ruling class as being primarily economic in nature—the owners of property and capital, and the managers thereof. I think it's broader—it should include the entire "professional-managerial elite," as well as cultural centers of power, and the media and universities. No matter; the broader point is that there is a small elite that benefits as the mass is immiserated, which can be shown by measuring wealth disparities and their change over time, along with direct measurement of the percentage of elites on non-wealth metrics and calculation of their competition and fragmentation.

Turchin offers a straightforward analysis of inequality on various measures, and demonstrates that inequality has increased or decreased in America as labor oversupply has waxed and waned. Intraelite competition is measured by, among other statistics, the numbers of law and business students, and their starting salaries over time. His point is that more and more it is winner-take-all, demonstrating increasing intraelite competition. Some newly-minted lawyers get very high salaries, but there is now a bi-modal distribution, where the other peak, with many more students, is low salaries that are inadequate to pay back law school loans. He analyzes law school itself in great detail, such as tracking tuition since 1840 as expressed in terms of manufacturing worker annual wage. If he were writing today, he would doubtless adduce the recent college admissions scandal, where the elite bribed their children's way into prestigious colleges.

Then he uses as a proxy for elite fragmentation such measures as political polarization in the House of Representatives. Turchin points out that elite conflict is tied to Robert Putnam's distinction between bridging and bonding social capital, and cites Putnam for the proposition that "cultural dissimilarity within a group tends to decrease the capacity for within-group cooperation." That is, diversity is the very opposite of our strength—not just because people tend to trust those like them, but because different ethnic groups have their own norms of cooperation, and coordinating those between groups while maintaining trust is difficult or impossible.

Then, for "The State," which is, I think, the least coherent portion of the SDT, both in the abstract and as applied, Turchin discusses debt, wars, and the like. He points out that American expansion, continentally between 1803 and 1848, and then globally between 1941 and 1970, coincided with the integrative phases of America, which were also peaks in the wellbeing of Americans (and valleys in the overproduction of elites, therefore eras of elite cooperation). He correlates not war, but *successful* wars, with integrative phases, and ascribes it to societal cooperation in common sacrifice. Not so much in disintegrative phases. Turchin uses, as usual, clever proxies, such as the naming patterns of counties to show trust in government prior to 1950 (when direct polling data on trust in government first became available). No shock, in disintegrative phases, trust in government is low. Finally, Turchin describes what he means by "instability," a term he seems to apply sometimes to the state and sometimes to broader society, which he says dominates disintegrative phases. In essence, this is violence, from minor riots to civil wars. He is careful not to claim the Civil War was inevitable; there was more to it, much more to it, but it was certainly made possible by the United States being in a disintegrative phase, and on the continuum of violence resulting from instability.

In Part III, winding up to application of the SDT to today, Turchin looks backward to apply his SDT model to the first complete secular cycle in America, from 1780 to 1930, in his reckoning. Those dates are not ones he chose; rather, they are the ones that result from the empirical analysis of his data, run through his model. In particular, he focuses on "trend reversals"—the inflection points at which all the factors, feeding back into each other, resulted in a major shift of direction within the period of perhaps a decade. The years around 1820, called the "Era of Good Feelings," were a reversal, starting around the time of Andrew Jackson. But "No momentous event happened in 1830; instead, trend reversals were a result of nonlinear feedbacks driven by monotonic increases in such variables as labor supply." All the various factors, as measured and fed into the model, acted as expected. Labor oversupply up, wellbeing down, elite overproduction up, conflict among elites, instability and violence among state and society. These are not phase changes, or a step function, but rather (smoothed) curves. Then we have the road to the Civil War, where among many pieces of data, Turchin adduces the anecdote (talking about elite fragmentation), that a Senator Hammond said of the floor of Congress, "The only persons who do not have a revolver and a knife are those who have two revolvers."

After the Civil War, instability declined—but not to the levels of the early nineteenth century, and then spiked again around 1920 (this is an example of a sub-cycle subsumed within the longer, complete, secular cycle). (Turchin notes in passing, contrary to what Frederick Lewis Allen claimed in 1931's *Only Yesterday*, that the so-called Red Scare was not a mass hysteria, but a legitimate reaction of the elite to known violent organized subversives, who were put out business as a result, ending the violence they were fomenting.) The next trend reversal, therefore, was the Progressive Era, for the analysis of which Turchin explicitly relies on "New Left historians," who argue that the American elites reached consensus on a variety of necessary changes. Some of those related to labor peace and the like; others involved reducing intraelite competition by expelling those not fitting a certain mold, such as Jews. Most of all, they restricted immigration, which increased wellbeing, which led to a fully-fledged integrative phase—even though the economic elites knew full well that mass immigration lined their pockets by reducing worker wages and weakening workers' ability to organize. But it also increased revolutionary behavior, and the economic elites were willing to restrict it, hugely, to low levels never seen again, thereby benefitting society as a whole.

Turchin basically says the New Deal, therefore, was irrelevant and not a turning point for any purposes. It merely continued preexisting trends. Wellbeing increased—even during the Depression, contrary to myth. Inequality declined. America flourished, the nature of an integrative phase. The 1950s "were the Golden Age for common Americans." (We are told otherwise, but we are told lies.)

And then we finish with Part IV, covering 1930 to 2010, and predicting beyond, based on the model. The integrative phase ended, and the phase reversal began, about 1970. (Again, Turchin is not saying why. I'd blame it on the Left, and often have. Turchin, however, does not do politics, except as filtered through statistics. He would probably say it's a coincidence, or one of many possible manifestations of underlying trends, that the modern Left got real traction about 1970, and has steadily gained power since.) Here Turchin pulls out all the stops, using large sets of different structural variables, proxies, and the timing of their reversal, and compiling them into one set of cumulative tables and graphs. Did you know that after 1970, average height stopped growing, and for some groups, declined? And much more along the same lines. "[T]he direction of trend reversals was not random; rather they all conformed to the predictions of the Structural-Demographic Theory. This striking pattern suggests that something very fundamental changed in the American social system around 1970."

No surprise, labor oversupply has grown, due primarily to immigration but also to an ever-greater percentage of women working outside the home, which is why median household incomes have risen, masking that per capita incomes have fallen. (Turchin ignores the massive problem of looming population decline, however.) Elites have competed more, on every axis, including conspicuous consumption, and are less unified. Instability has risen rapidly; he generates a "Political Stress Indicator" that incorporates numerous pieces of data, and shows a hockey-stick graph of such stress, concluding "we are rapidly approaching a historical cusp at which American society will be particularly vulnerable to violent upheaval." Whether that upheaval will be similar to that of 1920, or of 1860, remains to be seen.

What do I think of all this? Well, I'm not sure. Obviously, I'm an apocalyptic pessimist, so the conclusion seems just about right to me. Certainly, events since 2016, especially in the past year, suggest Turchin is right. On the other hand, my pessimism doesn't come from math, but simply from viewing history, a lot of history, as well as human nature, and noting the obvious root causes of past historical declines over non-specific time periods. If something can't go on forever, it won't, but it may end tomorrow or in two hundred years. Perhaps Turchin is just saying the same thing from a different angle with some more certitude as to timing. Certainly, for example, some of my many complaints about the symptoms of degraded and stupid culture are subsumed within his measures of wellbeing. And many of my complaints about the ruling class have their direct impacts manifested in Turchin's measures, stripped of the judgmental freight that I load onto them (which is not to say I am incorrect to do so). But the modern world also has many fresh problems impossible to quantify historically, since maladies like rapid-onset gender dysphoria are a new thing, and the role of technology in speeding up change, including both decay and chaos, is something Turchin does not address. So my holistic approach may or may not be compatible with Turchin's mechanical approach; that their conclusions generally align may just be coincidence.

Turchin suggests that forewarned is forearmed, and perhaps using the knowledge he provides we can ameliorate the downstroke he expects in the 2020s, when all cycles concentrate to create the first truly low point in 150 years. He says nothing specifically about what to do, but it's completely obvious from everything he says about the SDT, both in general and as applied to America. We should immediately end all immigration; deport all illegal immigrants; and end birthright citizenship (I read yesterday that 400,000 anchor babies were born in America last year). We should also encourage women to leave the workforce and stay home with children, and have more babies to ameliorate the coming population collapse—we're not going to have any integrative phase if there are no children to participate. All that would be just fine by me, and in fact strongly endorsed by me, but it's not clear that much can be done about elite overproduction at this point, or the fragmentation of the elite, or the bloated, debt-ridden and war-losing state, or the other elements of increasing instability. Perhaps addressing labor oversupply would alleviate the down cycle, but the violent ruling class pushback against Trump's minor attempts to limit immigration suggests that the elite is not going to accept any limiting actions until forced to by the chaos to come. Anyway, if Turchin is right, it's probably too late at this point. For me, the answer is always the same—buy guns, and ammo, and wait to see.