

Inaugural Issues: Possibility Studies - Past, Present, and Future

Psychological history and predicting the future

Martin Seligman

Abstract

The central hypothesis of new work on Agency is that when people believe they can achieve their goals, progress occurs. When they do not have this mindset, stagnation occurs. This seems to be true for the Greco-Roman Epoch, Ancient China, Biblical time, and Europe from 400 CE to 1800. New quantitative methods for measuring progress and for measuring the frequency of agentic words allow for rigorous collaboration between psychologists and historians. These same methods may contribute to predicting the future.

Keywords

Agency, prediction, psychological history, word clouds

Department of Psychology, University of Pennsylvania, USA

Corresponding author(s):

Martin Seligman, University of Pennsylvania, 3720 Walnut St, Solomon Labs, Philadelphia, PA 19104, USA. Email: seligman@upenn.edu

There are presently two nascent ways of doing psychology across history. Henrich (2020) and Murthukrishna et al. (2021) focus on how historical events cause psychological states. So, for example, farming cultures that used the heavy plow to break up hard soil prized physical strength, and men had more of this than women. These cultures, and their descendants, therefore, display gender inequality beliefs. In contrast, farming cultures that used the hoe on hillside plots do not prize physical strength. Women hoe as well as men. These cultures and their descendants therefore display more gender equality beliefs. I call this discipline “*historical psychology*,” proper, since it focuses on how historical facts cause psychological change.

Nicolas Baumard, whose work I now mention, and I, in contrast, do “*psychological history*,” in which the psychological facts change the historical events—not the other way around. So, for example, during the Industrial revolution, having the mental states of efficacy and optimism (“I can do it”), Baumard (2019) postulated, caused more persistence in dealing with one failure after another in trying over and over to construct a steam engine that would not explode. These psychological states, widespread in England at the time, were proximal causes of the Industrial Revolution. There were of course many other (more remote) causes, such as affluence, leisure time, and tolerance for eccentricity.

What should such a field be called? *Psychohistory* is a perfect name for this field. This is the term that Asimov (1951) chose for the work of Hari Seldon in his classic Foundation Trilogy. I would have loved to

use *Psychohistory*, since Asimov's idea was indeed my inspiration but the word was pre-empted by Erikson (1957) in his misbegotten *Young Man Luther*. So Freudianly implausible was this book (e.g. Luther's playing with his hard feces as a child caused his defiant nature) that Erickson despoiled this term forever. Historians, not without reason, regard his book as fantasy.

In any event, my present project is "Psychological History," with a focus on the psychological state of Agency causing major historical events, and only to a lesser extent the other way around. My central hypothesis about the past is that the presence of the mindset of Agency causes progress and conversely, its absence causes stagnation.

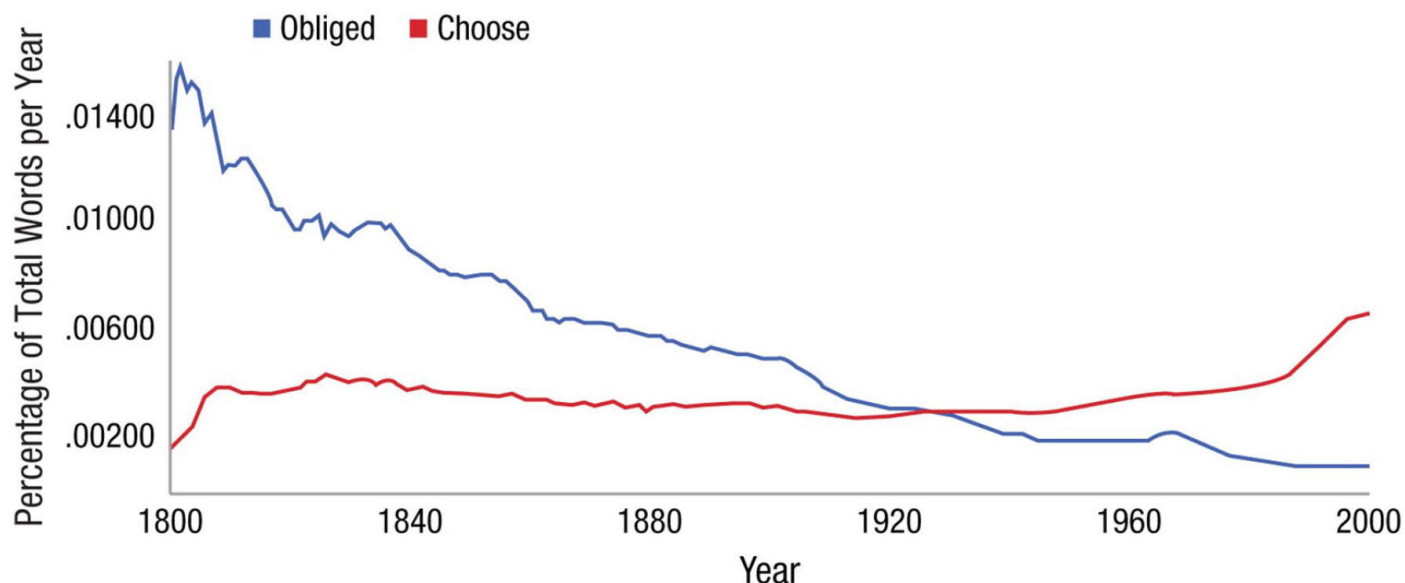
Agency has three components: Efficacy, the mindset that I can accomplish a specific goal now. Optimism, the mindset that I can accomplish this goal far into the future, and Imagination, the mindset that I can accomplish many goals. Efficacy causes trying hard; optimism causes persistence, and imagination causes innovation. These are exactly the mechanisms by which Agency causes progress.

To test this hypothesis across the past, I reviewed the evidence for the presence or absence of Agency with the co-occurrence of progress, as measured in religion and philosophy, science, medicine, and technology, literature and art, the quality of human life, and finally in politics, in particular, freedom. I have examined this in the Greco-Roman epoch (Seligman, 2020), the Bible, Ancient China (Zhao et al., 2022), Medieval Europe, the Renaissance, the Reformation, and the Restoration.

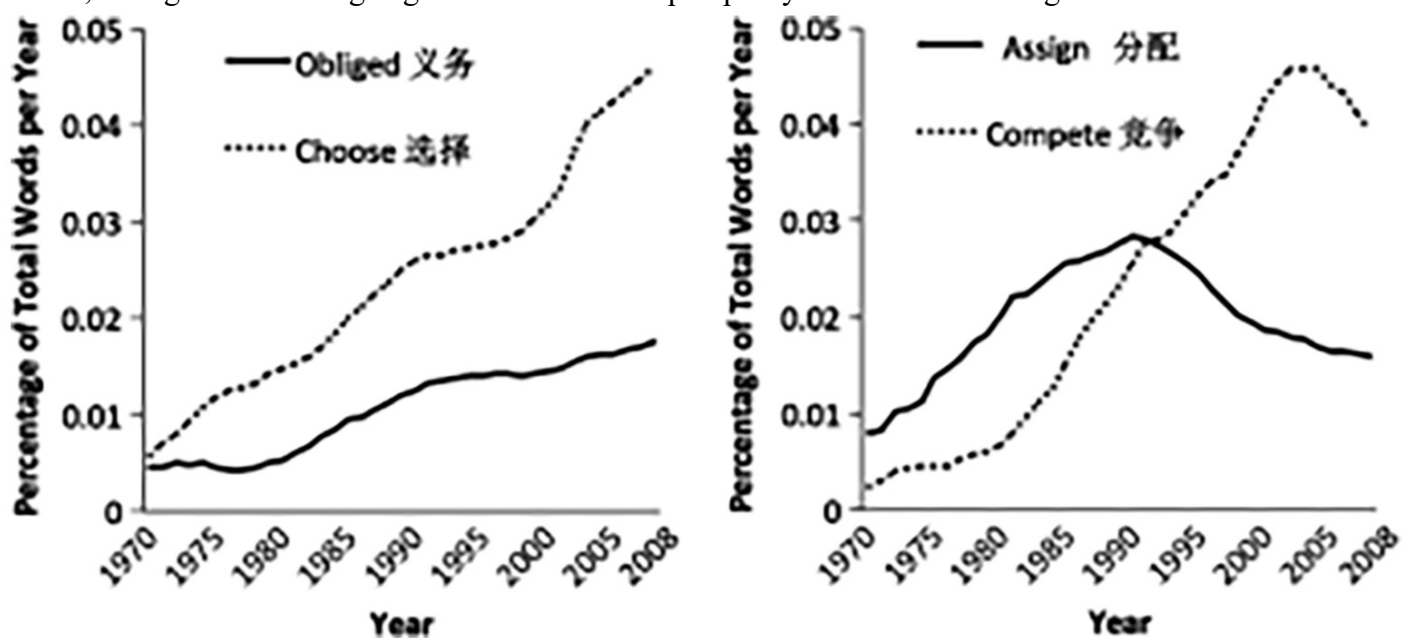
I proceeded the old-fashioned way, cherry-picking my way through clear statements of religious or philosophical beliefs in Agency, for example, Antigone of Sophocles' (441 BCE): *There are many wonderful things, but not one of them is more wonderful than man. This thing crosses the gray sea in the winter storm-wind, making its path along the troughs of the swelling waves*" and noting contemporary progress, for example, huge innovation in Greek drama. Or Augustine's (386 CE) rejection of the human will in favor of God's arbitrary grace, ushering in the profound stagnation of the early Middle Ages.

But there are more rigorous ways of doing this than cherry-picking anecdotal evidence, a road that leads toward Hari Seldon's prediction of futures. These new methods are what makes the inaugural issue of the new journal, *Possibility Studies and Society*, a far-reaching event in the history of ideas. Here's how one widely applicable and more rigorous approach to possibilities starts: Agency (or, importantly, any other psychological term) has a few key words. This particular approach about Agency was pioneered by Greenfield (2013).

She asked using Google books how the frequency of one paradigmatic agency word, "choose," changed in America from 1800 to 2000 compared to one paradigmatic anti-agency word, "obliged." You can see in the first graph that as time goes on, and material progress occurs in America, the frequency of "choose" goes up and "obliged" goes down.



A second Google Books example is from China (Zeng & Greenfield, 2015), mapping the change in Agency as Deng Xiaoping breaks with Mao Zedong (after 1976) by introducing the free market into the Chinese economy. The agency words, “choose” and “compete” go up dramatically, and the anti-agency words, “obliged” and “assign” go down. Economic prosperity follows these changes.



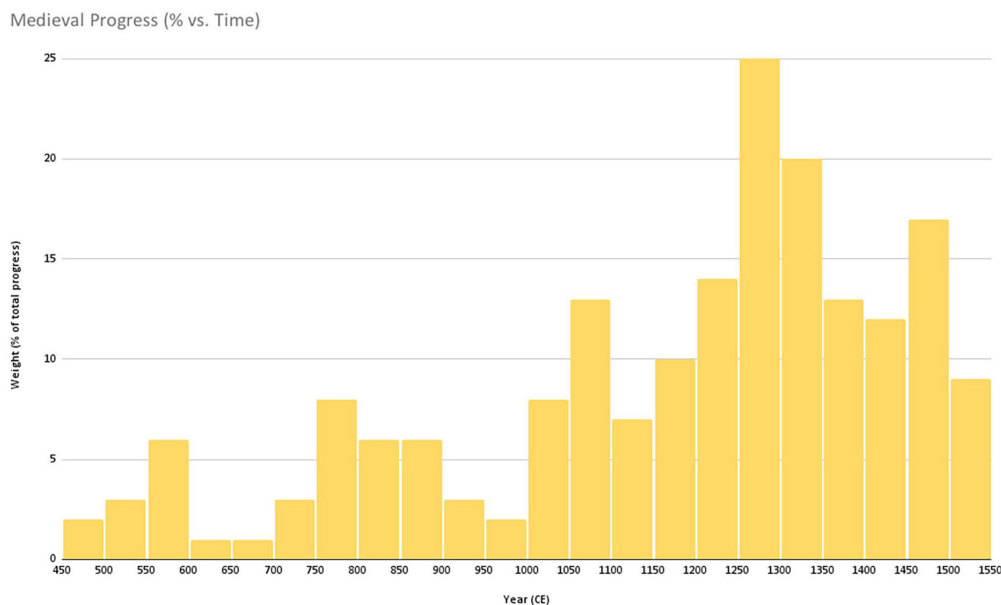
We can not only quantify Agency, but we can also quantify progress. With Noah Love, we do this for Europe’s Middle Ages by taking every notable historical instance of progress over this 1000-year epoch and converting each instance into a number, where 5 is momentous, such as the Copernican Revolution, and 1 is small, such as the invention of the Carolingian Miniscule. Then for every 50-year period we plot the percentage of that total that occurs therein. As you can see from the next graph, this corresponds to our analysis of the rise and fall in the belief in human Agency: very low after Augustine, a momentary rise during the Carolingian period, followed by a decline, and then a steep rise with Abelard, Aquinas, Dante, and Petrarch, climaxing with the Renaissance.

With Noah Love and Jacob Lisner, we are presently looking at periods of American history in this quantitative way. We improve on Greenfield’s use of just single words, by constructing an entire lexicon, a large set of words and phrases that statistically co-occur with paradigmatic agentic words, such as, “able,

“can,” or “choose,” and a large set of words that are anti-agentic, co-occurring with such paradigmatic words as “helpless,” “duty,” or “unable.” We then harvest the frequency of these words by taking huge corpuses, such as Twitter, Facebook, or Wikipedia, and creating word clouds of Agency words and phrases. These word clouds are a statistical representation of the lexicon for Agency.

To apply this to progress in civil rights in America from 1950 to 2022, we then access the entire texts of Black-owned newspapers (e.g. The Chicago Defender) versus non-Black owned newspapers (e.g. The New York Times). These amount to billions of words, and we plot the rise and fall of agentic words, week by week, from 1950 to the present. We also do this for positive emotion and negative emotion words, and, I note, that a lexicon can be so formed for any psychological concept. The civil rights results are systematic, dramatic, and surprising, but this is not the place to reveal them.

Now for the sake of the argument, let’s suppose that the historical data convince us that the psychological state of Agency is a proximal driver of human progress over past history. When it is present, progress occurs. When it is absent, stagnation occurs. While it must be emphasized that all other relevant factors must be held constant, some predictions about possible futures follow:



Each instance of progress in the Medieval period was weighted on a scale of relative importance from 1 to 5 (e.g. invention of the Carolingian Miniscule = 1, Copernican Revolution = 5), converted into a percentage of the total progress accumulated during the Medieval period, and divided into 50-year tranches.

- (1) *National Innovation.* Nations which are high on beliefs in Agency, as measured rigorously, will be innovative and prosperous. Nations low on agency, or who show steep drops on Agency, will stagnate.
- (2) *Corporate Innovation.* Corporations with highly agentic leaders will flourish. Those without will fail.
- (3) *Building Agency.* Programs that build agency will engender innovation. I note that Agency is teachable, and the fields of positive psychology and positive education (Seligman, 2018) are largely devoted to this task.
- (4) *Political, Economic, and Religious Systems.* Those that encourage agency will engender innovation and prosperity. Those that discourage agency (e.g. an omnipotent God or Fate) will bring about stagnation.

In conclusion, it is my hope that this work illustrates a bit of the potential of possibility studies. Any

psychological concept such as trust, competition, anger, freedom, to name just a few, can be quantified by word clouds. Rises and falls in the prevalence of the concepts over time can be quantified from unprecedently enormous verbatim sources, such as the blogosphere. Predictions about the rise and fall of prosperity, the outcome of military conflicts and elections for example, particularly when combined with other external variables, can be envisioned. This is indeed what I believe Hari Seldon had in mind.

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