**Should Decision-Making in an Economy Take Account of Individual Inclinations?**

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Talk about new orientations and fads, Behavioral Economics has been all the rage recently, with contributions increasing by leaps and bounds, particularly given the field’s receptivity to laboratory experiments and field verification. But does its significance extend to macroeconomics and particularly, to considerations of economic growth for the future? Judging by the lack of reference to the field in Robert Gordon’s influential treatise, *The Rise and Fall of American Growth*, one might imagine that the answer is negative.

This presentation takes an alternative point of view—that a serious analysis of economic decision-making may indeed matter a great deal and that any discussion of the appropriate policy for growth certainly should take the actual behavior of individual decision makers into account. It’s not that such an approach would necessarily reverse the trend of low productivity and the meager increase in per capita income in the future. The headwinds identified by Gordon are too important, particularly the demographic ones—and perhaps also those of inequality, though political realities indicate that the latter can be limited. Beyond that, consider that the full impacts of some technological innovations are delayed; some of the technological innovations of the late 19th Century did not make a strong impact on improving productivity until decades later. Moreover, Gordon’s affirmation that there’s little that can be done to elevate the current level of innovation and the rewards for productivity improvement is not seriously examined.

What follows looks beyond the available laboratory and field exercises to consider the actual behavior of individuals engaged in several economic activities, or at least what their behavior might have been (and might be in the period ahead). Laboratory experiments and the field experiments based on occurrences in the real world, which take account of the tendencies of a group of participants, have revealed the rational and not-so-rational decision-making—the behavioral decision-making—of economic actors. Consider, though, what individual agents—admittedly individuals exercising dominant roles—had in mind when they made their decisions—and the implications of those decisions for productivity and economic growth. The existence of such dominant individuals may modify the pessimistic conclusions of the Gordon treatise about the outlook for the standard of living in the U.S. There is no questioning that much of the value of the decisions made by all decision makers is along the lines of what is indicated in the experimental and field literature (though perhaps some decisions can be understood only by taking account of the **explanations** of decision makers, as a small number of researchers have shown), **but, on the other hand, some individual decisions reflects a more venturesome approach and may exercise a disproportional weight on what occurs at a moment in time and in the future**.

Whether or not many patents—and innovative patents—are involved, consider the less-than-traditionally rational decision-making of Steve Jobs, Jeff Bezos, Elson Musk, Sam Walton and a number of others such as those involved in the new trends in artificial intelligence; the paper looks at a decision-making behavior that appears to be reorienting modern economies, but which does not seem to be captured by laboratory experiments or field exercises.

Have not the contributions of some of these innovators permeated society (or may they not be on the verge of doing so) in somewhat the same way that electricity, indoor plumbing, home appliances, transportation, etc. did in the past—whether their results have always been reflected in GNP accounts or not? Whether they have been reflected in the GNP accounts or not, what characterizes the decisions of those major innovators? Consider, in particular, the developers of IBM’s Watson who have built upon what the transformative breakthroughs that others made available, and even more so, those such as Jeff Bezos, some of whose innovations do not appear to have made any notable technological breakthroughs.

This short paper focuses on the decision-making of those who have elaborated on IBM’s Watson, on Steve Jobs and on Jeff Bezos. The last of these innovators has accumulated one of the largest fortunes in the country while still under the age of 40, the next-to-last was a co-founder and the transformer of one the largest companies in the U. S., and Watson may yet have a still larger impact. Unfortunately, only the decision-making of the late Steve Jobs is even partially recorded.

First, the elaborators of IBM’s Watson.

IBM was not one of the first in the field of the recent electronic breakthroughs, nor does the company have a distinctive claim on artificial intelligence. (Indeed, it is sharing the development of the Watson computer with a number of universities, and as for artificial intelligence generally, several other large companies also are pushing that development.) Moreover, it is more than a decade since the Watson computer was able to defeat Grand Masters in chess and several years since it achieved it victory over renowned experts on the television program, *Jeopardy!*. Investment in the machine has exceeded, indeed, probably greatly exceeded what economists might term rational, but it seems to be on the verge of resolving problems and achieving major gains in the medical area, gains that no one would have believed possible, and it seems that those gains are being followed in other fields as well. Unfortunately, while the emerging capabilities of Watson are being widely disseminated, the decision–making undertaken by IBM is proprietary so that no further comment is possible at this time; even so, note that many of Watson’s achievements amount to productivity gains and are leading to gains in the consumer standard of living and may do so to an even greater extent in the future.

Jeff Bezos has a technical background and while that probably has been a factor in enabling him to pursue many of the avenues he has chosen, he has achieved an extraordinary record of business success—more so than almost all other business executives—his decision-making processes remain unknown, but judging by what he has achieved to date, many if not most of his gains reflect productivity gains and advances in consumer standards of living. (And his first major breakthrough, that of Amazon, did not even reflect his technological expertise.)

Steve Jobs. There are now several biographies of Steve Jobs, one of which, that of Walter Isaacson, endeavors to explain Job’s decision-making on several matters. There are two considerations. First, how did Jobs make his own decisions, and second, to what extent were his decisions those that prevailed in Apple (and the other corporations in which he was a leader). Jobs described himself as a visionary, much influenced by intuitive considerations and not concerned with market research. He stated that he strove to give the consumer, not what the latter might have sought at present, but what he, Jobs, thought that consumers would want and how they would respond to Jobs’ decisions about products in the period ahead. He sought products that would incorporate both technological advances and artistic merit and would reflect what he terms the simplicity that would appeal to individuals who were busy with other matters and were not hobbyists.

Many individuals have idiosyncratic preferences, of course, but only a handful of them come to guide the decisions of large corporations. Jobs did, due especially to his extraordinarily charisma, his ability to combine technological and artistic factors, his inclination to hire especially bright, imaginative (and outspoken) individuals, and his remarkable negotiation skills. While his personal manner was abrupt, and sometimes simply inconsiderate, and he did not always prevail against other strong views (which also may not invariably have coincided with the aggregate findings of behavioral economics), in most cases, he did. Those who worked with him recognized that he was right much more often than not, and the large financial rewards were an acceptable price to pay for the control he sought and exercised and even for his inclination to take credit for his company’s successes when the ideas came from others.

Bur it is not just the individual views of a Steve Jobs that matters. Jeff Bezos, Elon Musk and several others whose personal decisions have come to auger importantly in their enterprises, appear to have become dominant forces in the American economy (with others following in their paths, probably much along the lines indicated by the findings of the current analysis of behavioral decision-making). Even lesser CEOs often play a disproportional role in the decisions of their companies. Nor is this simply a matter of the current moment. Consider Henry Ford and even those who eventually lost control of their companies, like Igor Sikorsky, the inventor of the helicopter.

What emerges is the importance not merely of adding to the decision-making behavior revealed by the empirical findings of experimental economics, the sometimes different behavior reflected by an aggregation of the expressed responses of individuals involved in actual decision-making, but also the decision-making judgments of those individuals whose enterprises have come to register in a quantitatively important manner in the economy. Perhaps the decision-making findings of experimental economics have made it possible to predict many of the outcomes of Microsoft for many years, and perhaps what we have learned from experimentally-based decision-making even has made it possible to predict IBM’s continued investment in Watson, but would it have been remotely likely that we would have predicted the breakthroughs in several of the areas singled out by Jeff Bezos or Steve Jobs? (Indeed, even Sam Walton’s decision to locate large retail outlets in small towns and out-of-the-way suburban locales at the time that the country was becoming more urbanized may qualify as an unpredictable group decision.) Yet the areas of focus and the decisions of such individuals have had a major impact on the American landscape and in the international community. And even in the case of less influential individuals, consider what often transpires in corporate decision-making when underlings do not take issue with company CEOs.

All this also underscores the concern about the nature of support for invention and innovation—although some of these decision makers have insisted that profits were not their first objective (which, if true, patents and copyrights might aim at something other than allowing so extraordinarily for high profits). And this is not just a sexist matter. Despite the apparently more rational approach of female investors, take note of those women whose personal views and attitudes toward decision-making also guided company decision-making, as for example, Helena Rubenstein and Estee Lauder.

Maybe Gordon was unduly pessimistic after all and the days of significant increases in the American standard of living are not entirely past.