

Lawrence H. Summers:

Central banking is about being consistent with expectations, and so I will endeavor to be mildly provocative in my comments. First, a comment stimulated by what Jim Poterba said, nothing which I exactly disagree with, but I will present a different, simpler perspective on it: people don't actively tend to opt in or out because they find it costly to do so. This the case in a vast range of settings and was actually quite widely known before research in behavioral economics began. To take just one concrete example, why was the book club invented 75 years ago? And why does the book club, which basically pays you a bunch of money up front by giving you four books for free and then stipulates that you are not required to pay for a single thing, persist to this day? The rules are that they send you the book or they send you the slip saying they are going to send you the book, and if you don't send the slip back, which means you are opting out, you are in the book club. You get the book they send. People are willing to pay you a small fortune to get you in a situation where you have to opt out of what they want you to do. That well-known behavioral economist Ralph Nader discovered this phenomenon many years ago when he had his venture PIRG—Public Interest Research Group—work very hard to get a whole set of colleges to add a \$15 payment to tuition costs for all students which they could opt out if they wished, but if they did not opt out, the money would revert to Ralph Nader.

The ability to opt in or opt out is a crucial issue in modern financial legislation and is a major point of contention between the Americans and the Europeans. Everybody agrees that you have a right to privacy with respect to your financial information.

Everybody agrees that some people would rather be marketed to intelligently than unintelligently. So if my credit card bill reveals that I'm interested in tennis, and I'm not interested in fashion, then I would prefer being marketed products that are related to tennis. So the question is can your credit card information be used for direct marketing appeals? The American position is that opt out is a very good policy. If I want to have the information remain private, I can choose to have my information remain private—but the default position is that in the absence of my opting out, my credit card transactions can be used for marketing purposes. The European position holds that actively opting in is the right policy. I will assert that there has been no important context where it has ever been observed that people are not reluctant to opt in or out for which the framing of when opting takes place does not matter. If this conjecture is close to being right, it makes me much more skeptical of the context-by-context attempt to find rather tortured neoclassical economic explanations for this behavior when I think there's a simple overriding rule that actively opting in or out is costly to individuals.

My second observation is that I have always been puzzled by the term “behavioral economics.” I understand what macroeconomics is because there's an alternative which is microeconomics. I understand what international economics is because there's an alternative, which is a study about a closed economy. So I understand what most of the economic subfields constitute. Yet I have kept trying to figure out what “nonbehavioral economics” would be about, and the best I can do is to assume that it would seem sort of goofy to call your subdiscipline “irrational economics.” But there is an oddity in the name “behavioral economics,” since I would surmise that all fields of economic inquiry essentially study behavior. Paul Samuelson could talk about this point in a much more

learned way, but I will assert that what is really important about scientific revolutions and new ideas/paradigms is not so much the new answers they give to old questions, but the new questions that become possible to investigate and examine and debate in systematic ways. One of the reasons why Keynes' *The General Theory of Employment, Interest, and Money* was such a successful book was that two generations of graduate students could go estimate consumption functions, investment functions, and all kinds of functions that economists could not investigate before. Reading the papers presented at this conference, I was a bit struck that many of them seemed to be oriented towards asking the kinds of questions that economists have talked about for a long time. In effect, the modus operandi is to give a different answer by appealing to behavioral economics, which considers issues that economists traditionally have thought they didn't have much to say about—but that might be amenable to an analysis that is psychologically informed by something other than the classical model predicated on utility function. I've got five examples to discuss.

First, the question of transparency in central bank communications, which I judge that the general consensus constitutes an almost complete intellectual model. Here's what an anthropologist who came from Mars would observe: virtually everyone who deals with the subject speaks in favor of something called transparency and clear communication. The second thing the Martian anthropologist would observe is that there is a near-complete taboo among even the most enthusiastic advocates of transparency regarding the quantitative calibration of uncertainty. Some great discussions would delve into whether an event was possible, probable, had a high likelihood, or was a plausible outcome but that no responsible soul in an official capacity would be prepared to provide

a numerical calibration of the likelihood of any potential event. You never hear anyone from the Federal Reserve say that in our judgment, there is a one-third chance or there's between a 33 and a 50 percent chance of a recession—even the people who are most enthusiastic about transparent communication regarding monetary policy. It is, I believe, the policy of every central bank in the world, whether admitted or not, that the central bank's governor speaks publicly about policy and speaks anonymously (if somewhat less frequently perhaps), off-record to John Berry or their journalistic equivalent of Berry, with the explicit understanding that the views will be disseminated but not in the name of the central bank. Are these practices wise? I don't know the answer. What theory of achieving an objective is served by this dual policy of direct versus anonymous communication? I don't know the answer to that question either. If I had to guess, since these practices have evolved fairly universally and separately, they have a fair degree of functionality. Whether that functionality is in achieving national shared objectives or more particular objectives of the central bank is less obvious to me, but the question seems highly amenable to investigation using the perspective of what I will call psychologically informed economics.

Here's the second puzzle. What about the very great transitory efficacy of what might be called cheap talk? If Hank Paulson made the the following, observation which would follow naturally from standard economics textbooks (whether written by Paul Samuelson Greg Mankiw, or Robert Barro): the economy has slowed, the dollar has fallen, and some of the lost demand from the slowing economy will be made up by increased exports coming from the weaker value of the dollar—I promise to a moral certainty that if Paulson said that, roughly 100 billion dollars of wealth measured against

a global numeraire would be lost by those who are currently holding dollar assets within the space of twenty seconds. Why? Because they thought he might trade in the dollar on a scale that would be a quarter of the normal size of the fifteenth largest hedge fund in New York? Because he might whisper something to the independent central bank that might do something about it? I don't know, but there are many such examples of talk influencing the markets. When the Dow was at 6,400, why did Alan Greenspan's observation that markets sometimes have a tendency towards irrational exuberance have a profound impact on the level of the stock market? It is clear that exhortation and commentary are thought to be an important part of the arsenal of financial policymakers. What is that all about? Behavioral economics should have something systemic to say about this question.

As the third example, Alan Blinder has been engaged in some research that points up what the questions are but doesn't think yet provide dispositive answers. Why is it that we think that the job of providing civilian control of the armed forces should be done by one person, but that the job of setting monetary policy should be done by a committee of seven headed by one figure who is deemed to be dominant though given almost no statutory power? Is there something different about monetary policy? Should everything be done by a committee? Is it wrong in the case of monetary policy to do the things in the way we do them? If we're going to do it this way, should we do what the previous governor of the Bank of England famously did, which was to observe that he always voted last and never lost or what the current governor of the Bank of England does, which is proudly announce that it's a committee process, and sometimes he gets his way, and sometimes he doesn't? What is the right way to achieve our objectives? This is a

similar situation where it seems to me that some understanding of human behavior and the non-purely neoclassical aspects of human behavior would shed light on the issue.

Fourth, there is the choice between multiple equilibriums. Here's a game for all of you to play. I want each of you to think about this question. You can play strategy A in which case you will neither pay nor receive any money or you can play strategy B. If everyone in the room plays strategy B, everyone in the room will get a 100 dollars. If anybody in the room does not play strategy B, everyone will lose 500 hundred dollars. Everybody understand what the game is? How many would choose strategy A? How many people would choose strategy B? Okay, now let's change the game. By the way, they're both Nash equilibrium if everybody does them. Strategy A is the so-called dominant Nash equilibrium strategy, and yet it's not what you all play. Now let me change to a game where the set of Nash equilibriums is essentially the same. If more than 15 people in the room play strategy A or B, but if less than 15 people in the room choose strategy A, strategy B pays off 500 hundred dollars. If more than 15 people choose strategy A, if you take strategy B you lose 500 hundred dollars. Now, what would you choose? How many people would choose A? How many people would choose B? This kind of reasoning must have something to do with why when a bank has more reserves, a multiple equilibrium run is less likely, and when a bank has less reserves, a multiple equilibrium run is more likely. But what's special about 15? How does it depend on the full context of factors? As I just illustrated, it's clear that using a dominant Nash equilibrium truly gets the wrong answer. But what decisionmaking process determines what happens must be an important behavioral aspect as well.

For my fifth and final example, how do we really control principal-agent problems in the real world? I don't know whether it's a one dimensional infinity or a two dimensional infinity of stuff about incentive structures and the design of an optimal contract, optimally deployed or principal-agent, equilibrium in one principal and three agents, or seven principals and two agents, or whatever. What Weber had to say about the subject was that it was really important to have professions that had professional norms and professional ethics, because then doctors would not be respected by other doctors if they performed more operations on their patients in order to make more money, so the imposition of norms would control the principal-agent problem. The paper that had the greatest influence on my thinking about banking regulation in the last twenty years was the paper by George Akerlof and Paul Romer that made the point that I wasn't worldly enough at the time to appreciate. Namely, that for every bank that decided to take advantage of the FDIC put and ramp up its volatility so that it could earn higher profits—because it was heads we won, tails you lost—for every case like that, there were 50 banks where nobody was watching very closely, and so the guys running these banks decide to lend a lot of money to their brothers-in-law or to pay a really big dividend or to sponsor the mother of all golf tournaments. How do we control for that kind of moral hazard-type behavior? How do we set and establish norms that reduce those kinds of inherent risks? I don't know the answer to that question either, but what these five examples all have in common is that they raise really important issues. These are questions that you almost cannot begin to talk about within a neoclassical paradigm, and yet it seems to me that the kinds of considerations that might or might not be important for the types of behaviors we consider standard are almost dominant here.

A final observation: if the Federal Reserve Act were being legislated today, having twelve regional banks would not be a consideration. But one of the virtues of having twelve regional Federal Reserve banks has been that over time it has been possible for some of the banks to develop distinctive research perspectives and to become centers of thought of a particular kind. The monetarist St. Louis Fed, has said much that was new and much that was true and that something close to that impact could be said of the Minnesota Fed's acting as a center of rational expectations in economics. I have no doubt at all that they have made an enormous contribution to the quality of the policy debate and the range of the perspectives that are open for consideration by the economics profession and in the setting of monetary policy. I humbly submit that the Boston Fed, having made an excellent start with this conference, consider adopting a distinctive thrust around behavioral economics through what they do in their research department.