

Predictive Populations

(Unfinished)

Part I

“My visions of the future are always pretty much standard issue. The rich get richer, the poor get poorer and there are flying cars.”

-Joss Whedon

It has been many years since soothsayers, oracles, and astrologers were called upon to shape public policy. All right, it's only been a few decades, but Reagan was an anomaly. Yet predicting the future remains big business, and big politics. One does not have to scan the media for long, or spend much time chatting at the bar, before you hear a prediction of what is about to happen: “The Fed expects unemployment to decline.” “The Iraqis will be dancing in the streets.” “The end of the world is nigh.” Almost everyone is willing to get into the act.

Yet predictive accuracy is not very well studied. We have considerable information about the public ability to answer general-knowledge questions, which is to say questions about the past and the present. Much of this data is ambiguous; much of it is also rather depressing. (For instance, Gallup has found that 50%-60% of Americans cannot give a roughly accurate definition of “liberal” and “conservative.”) But general knowledge questions are a different species from predictive questions. Prediction is not solely based on access to knowledge, and perhaps is not even very closely related to such access. It is based on a general outlook about how the world works, an informal historicism, common sense, and realism—however cynical or idealistic reality may be. Finally, questions about the future are in a special way immune to interviewer bias. There is not, at the time the question is asked, any “right answer.”

This is a very informal study based on Gallup's surveys from 1935 to 2002. Gallup is an American institution, and reading through the old polls is a strange walk through American anxiety. The questions are as pregnant with neurosis as the answers: there are, for example, almost constant references to “World War III.” If one had no other familiarity with the American people, the image that emerges from the Gallup polls is that of a society passionately bickering over social mores and dress codes while expecting the apocalypse.

From the thousands of questions in the survey archives, I have picked out only those 75 questions that meet specific criteria. First, they must be purely predictive. They cannot be phrased as general knowledge tests, or inquiries into personal desires, hopes, or fears. Second, the questions must refer to global outcomes, not personal or localized outcomes. Thus I have discarded questions such as “Do you think your economic situation will improve next year?”

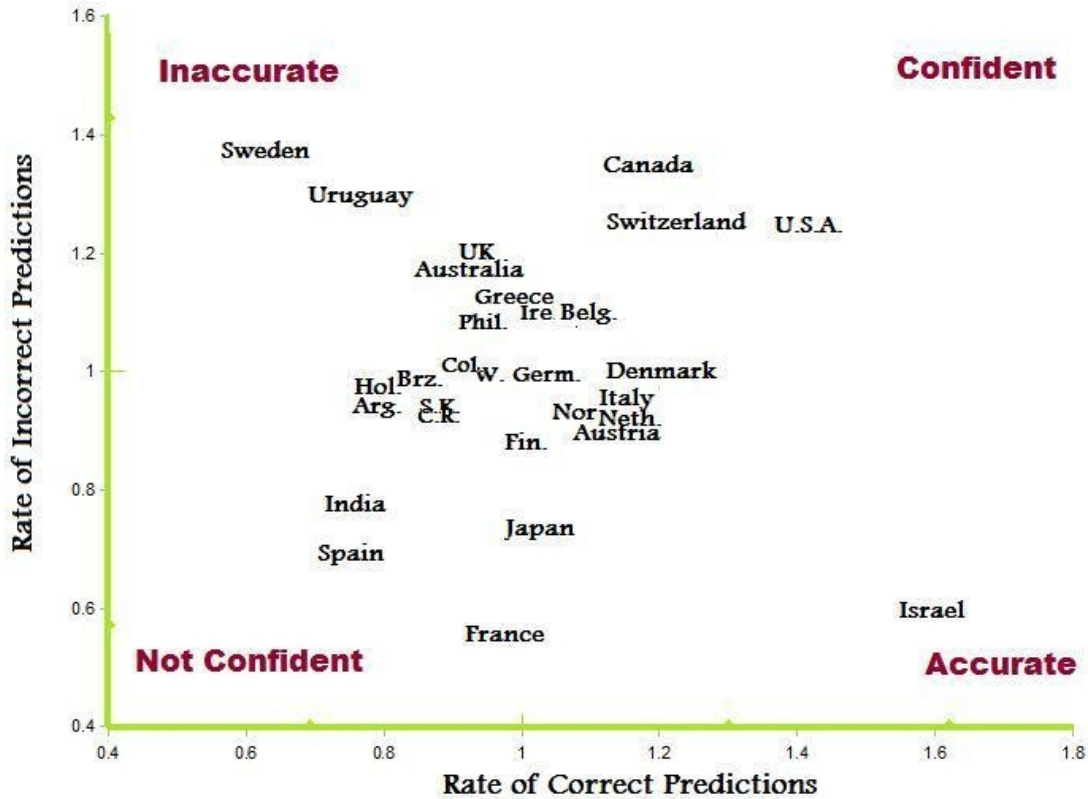
Third, the questions must refer to outcomes which can be verified or falsified with some degree of objectivity after the fact. They cannot refer to a counterfactual example, like how an unelected president *would have* performed. Nor can they refer to inherently vague benchmarks. This is sometimes contentious, given the ambiguous wording of many of Gallup's questions, especially in the earlier years. At the one extreme we have a question like “Will Truman be elected president?;” at the other, we have a question like “Will 1956 be a better year overall than 1955?” I have also passed over questions that refer to degrees of likelihood. In some grand deterministic sense, everything that happens was certain to happen, but that is not the universe we normally inhabit. A black man did win the US election in 2008, but people who predicted that that was “unlikely” in 2001 were not wrong, in our usual way of thinking.

Some of these 75 questions can be falsified but not verified; for example “Will it be impossible for a man to land on the moon?” In a seeming defiance of Popper, other questions can be verified but not falsified: “Will anyone ever use a nuclear weapon?” But if a question cannot be (or *has not been*) falsified or verified with some degree of objectivity, I've passed over it.

Finally, I have only selected those questions for which answers are broken down by some demographic basis. We know that people in general cannot predict the future, that people in general are overconfident. What I propose to look at is whether certain groups are better (or bolder) prophets than others.

Part II

This begins the results section of my informal study of predictive ability in different groups, based on the Gallup polls. I'll be presenting a series of charts, all in the same format. The first one deals with the predictive ability of people from different nations.



The charts present this information in a fairly concise visual format, but they take a moment to read. From left to right on the horizontal axis, we have increasing rates of correct predictions. From bottom to top on the vertical axis, we have increasing rates of incorrect predictions. (The scores are normalized, because some issues are much easier to predict than others). Thus Israel, in the lower right hand corner, has the highest overall *accuracy*. They are two standard deviations above the mean for correctness, and one standard deviation below the mean for incorrectness. Sweden, diagonally opposite Israel, has the dubious distinction of being *least* accurate. They are wrong about twice as often as they are right. If the Israelis tells you it will rain, and the Swedes tells you it will be sunny, pack your umbrella.

We can visualize this diagonal axis as one of increasing *predictiveness*: more correct answers, fewer incorrect answers. We can define a summary score for predictiveness (P) as the ratio of accuracy to inaccuracy scores. Sweden has a P of 0.46; Israel's is 2.56. Almost all the nations measured here, however, score between 0.8 and 1.2. Their predictions are correct about as often as they are incorrect.

However, these nations are splayed across the other diagonal axis, running from the lower left to the upper right. This axis corresponds to *confidence*, and we can define a summary score (C) as the product of accurate and inaccurate scores. Spain, for instance, has a C-value of 0.52. Although their predictions are slightly more apt to make be right than wrong (P=1.07), they are very reluctant to make any predictions whatsoever. The US has a slightly higher P-value than Spain (1.12), but we are vastly more confident than the Spanish. Our C-value is 1.75: we *always* have an opinion.

I hope that this basic layout is comprehensible. I am going to post the other charts as I finish them up.