

Opinion Polls: Do they do more harm than good?

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(J. Panaretos was an invited discussant in the invited session: Opinion Polls: Do they do more harm than good?)

Authors of the papers discussed: 1. Paul Baines Cranfield University, UK, Robert Worcester (Chairman of Mori International) , Roger Mortimore senior political analyst at Ipsos MORI. 2. Kathleen Frankovic, CBS News Director of Surveys and Producer for CBS News, President of the World Association for Public Opinion Research 3. George Terhanian President, Harris Interactive Europe, and Humphrey Taylor chairman of The Harris Poll, Harris Interactive Europe.

The other discussant was David Steel, University of Wollongong, Australia and Director of the Sampling section of Australian Bureau of Statistics.

Chair: Geoff Lee Australian Bureau of Statistics, Methodology and Data Management Division))

Transcription of the recording of the meeting follows:

Ladies and Gentlemen:

It is a pleasure for me to participate in this invited session of the ISI.

I would like to thank David Steel for inviting me and for giving me the opportunity to discuss three very interesting papers.

I would also like to congratulate the ISI for letting David Steel organize such a session. Usually, opinion polls and opinions about opinion polls are discussed in the media or in conferences of Social and Political Sciences. Statisticians, especially academic Statisticians, are not involved. This happens either because they do not have the interest in participating in such discussions or they are not given the opportunity.

On the other hand, academic Statisticians often criticize scientists in other fields for misuse of Statistics when applied to their fields, some times correctly so.

When we talk about opinion polls however we should think primarily about their impact to society and to democracy. Concerns on methodology should take this into account. If academic Statisticians take the attitude of either ignoring opinion polls or looking down on them as being a marketing tool, they fail their scientific responsibility. It is also wrong to say that opinion polls are not part of the interest of the scientific community of Statistics.

One further aspect that academic Statisticians should bear in mind is the difficulty of meeting in practice the assumptions required for the theory to hold. The fact that most of these assumptions are rarely met in practice should not prevent us from trying to improve their application to real life problems. I remember listening to a talk by Edward Deming more than twenty years ago. As an academic mathematical Statistician interested only in Mathematical Statistics at the time, I was not very familiar with what was happening in polling in real life. I was impressed when I heard him say that no one knows sampling theory well unless one sits for twenty-four hours outside the door of a stranger waiting for the person chosen to be in the sample to answer the questionnaire. I think this summarizes eloquently the difference between the theoretical approach and the applied approach and the difficulties of applying the former to the latter.

So, in that respect, I must say from the beginning that I find opinion polls useful. I also believe that academic Statisticians can –and should- offer their expertise in improving opinion polls rather than criticize them.

Academic statisticians are also not much involved in the media game, so their contributions to society are not easily recognizable. For example, there is some injustice done to Leslie Kish who was the first who introduced probabilistic sampling and based on that in 1948 he predicted correctly the results of the US presidential elections when “traditional” methods failed. Leslie Kish¹ was not known to the media, which is why he is not mentioned frequently.

¹ Kish was born in Poprad, Slovakia; he arrived with his family in the USA in 1926 with an English vocabulary of approximately 300 words. Kish used to relate how, at various times throughout history, Poprad belonged to five different countries-an appropriate symbol of his life motivated by a love of people from all parts of the world. In 1925, his parents decided to migrate to the United States-together with

In all three talks today there was mention of results of opinion polls and the criticism directed to them.

In my comments I will refer to a few instances that I think deserve some more attention by those who do opinion polls. I would also mention aspects that I think can improve the perception of the public and of those who conduct opinion polls.

I enjoyed the last talk because of the fact that it refers to some powerful figures in Statistics and their views expressed more than fifty years ago about opinion polls. Scientists like Cochran, Mosteller, Tukey and Kish realized the importance of the applications of the statistical theory of sampling to opinion polls.

And it was not only them. The application of sampling techniques to real life problems has drawn the attention of important theoretical statisticians. Among them, it is worth mentioning the significant contribution of D. Freedman regarding the 1980 and 1990 US censuses (see e.g. Freedman and Wachter (2007)). Freedman and Wachter testified to the United States Congress and the courts against adjusting the 1980 and 1990 censuses using estimates of differential undercounts. A 1990 lawsuit that sought to compel the United States Department of Commerce to adjust the census was heard on appeal by the U.S. Supreme Court, which ruled unanimously in favor of the Commerce Department and Freedman and Wachter's analysis.

All of the above scientists have expressed their understanding of the difficulties of using sampling methods in opinion polls and the need to approach the problem not just as a statistical one. The statistical aspect is, of course, a serious one. As it was mentioned in the last talk, when you need something like twelve thousand telephone calls in order to have a sample of one thousand, I wonder how one can claim that the possible margin of error is 2.5%.

The problem with opinion polls is not just a statistical issue. It is mainly a problem for Democracy. Statistical statements are already hard enough

hundreds of thousands of other Hungarians. Within a year, his father died and Leslie became the principal wage earner in a five-person household. He became a U.S. citizen in 1936. In 1937, with less than one college year left, Kish joined the International Brigades and went to Spain to fight for the Loyalists.

for the layman to digest. The miscarriage of statistical methods, often encountered in polling, can only make things worse. For example, the usual claim reported by polls of, say, a 3% possible margin of error, is both misleading and wrong. If I am not mistaken, in the US, the response rate in telephone opinion polls is no more than 5%. So, I am wondering how it is possible to claim that what you have in your sample at the end is representative of the whole population (as you would expect if you had a really random sample from this population).

In my opinion, there are certain things that opinion polls and firms that conduct opinion polls can do in order to improve the public understanding of the limitations of opinion polls and what they can offer.

I have listed a few here. There may be others too

- 1. The full questionnaire of all opinion polls reported should be made publicly available.**
- 2. Those who report poll results should also specify in the report who has ordered and paid for the poll and who has constructed the questionnaire (the firm or the customer). This because some times, after the poll is done, it is argued that it was the client who insisted on the form of the questionnaire.**
- 3. In all polls, especially in telephone ones, the sample size that was initially drawn should be reported along with the sample size that the poll ended up with.**
- 4. Every opinion poll should report the demographics both of the initial and of the final sample.**
- 5. It is important to report the weights used to come up with the reported results.**
- 6. The setting up of a central independent authority is necessary that will have the power to scientifically examine the work of polling firms and have the authority to randomly inspect the details of any poll at any given time with unrestricted access to the raw data.**

In many instances, those who do opinion polls, because they don't have a random sample and they cannot have a random sample, weigh their results. Some of the weighting is done with objective factors, for example demographics, but some others are based on the personal opinion of the pollster. This happened in France in 2002 and the polls were grossly wrong. Polling firms tried to correct the problem in 2007 and they were successful to a certain extent.

Talking about France, one is surprised that in 2002 the findings of opinion polls were so close from one firm to the other and that they

were all wrong. It is difficult for one not to suspect that these firms were coordinated before reporting their findings.

In the United States, I think there is more trust in opinion polls than in Europe and there again there have been cases where the results of the polls were correct and some others where they were very wrong.

I find the new development of Internet polling described in one of the talks interesting and promising. I also like the suggestion of using different methods of sampling in order to come up with a more accurate representation of the feelings of the people.

You wouldn't expect that from a Statistician, but I would say that if we insist only on probability sampling, because of what is happening in practice, we are not going to get far.

There are other approaches that one can use in trying to gauge the opinion of the people. Deliberative polling is one of them that I find particularly useful, although somewhat expensive.

In deliberative polling, we choose a random sample of citizens and give them a questionnaire about some issues. Next, we provide them with information about the issues. We give them time to study this information and then we get them together at one place to exchange opinions and consult experts about the issues and then we ask their opinion again. The purpose of the exercise is to study changes of opinion and attitude.

The advantage of deliberative polling is that, to a certain extent, it eliminates rational ignorance, which is another major problem in conventional surveys. If I remember correctly, it was George Bishop of the University of Cincinnati (Bishop et al, 1980), who asked in a survey about the public affairs act of 1975 and the public offered their opinion about it. There was not such an act! In 1995 the Washington Post celebrated the twentieth anniversary of this fictional act and they asked people whether they thought this should be repealed. Again the public had an opinion as to whether it should be repealed or not, although it didn't exist in the first place!

So, I think different and newer methods in gauging the opinion of people are essential.

I would like to add that I am against the practice of not allowing the results of an opinion poll to be published a few days, one day, two

days, or one week before elections. Of course, polls influence voting behaviour but I don't think that it is possible to avoid this problem.

I also disagree with the practice of lawmakers in some countries to meddle in scientific issues regarding polling. An extreme example of such interference is my own country Greece. Recently, a law was introduced that does not allow reporting of polls based on samples with less than 1000 completed questionnaires! To give an idea of the magnitude of ignorance in adopting this measure, I can only mention that the nuclear test surveys by Kish in the US began in October 1946, with national samples of only 600! I should add to this Kish's 1948 sample of 600 that became the famous sample that predicted Truman's election victory over Dewey, to which I referred earlier. (Interestingly, that study wasn't really planned to predict the election. It just happened to include only one question about it).

Exit Polls: Many references were made to exit polls. Let me say it simply: exit polls are useless. Why spend money and resources in order to probe the public's opinion when this will shortly be revealed in the most decisive and accurate way possible? The only well-intentioned explanation I can find in good faith is that of human curiosity combined with the media's eagerness to turn the voting process into a spectacle. Perhaps there are darker sides.

This critique notwithstanding, perhaps exit polls do offer one singular contribution to society: They are only harmful to the pollsters (and some hotheaded politicians). Exit polls constitute the only instance where pollsters run the risk of being humiliated in the broadest sense (the audience is the general public) and on the very same day they make their prediction – within only hours. They thus provide concrete evidence to the people against putting too much faith in opinion polls.

I would like to close by trying to answer the question posed by the session: Do opinion polls do more harm than good or more good than harm? I would say they do well to pollsters, to the media and to political consultants, there is no doubt about that.

As far as politicians are concerned, I think that to some, opinion polls are beneficial, while to others they are damaging; and this is not only related to whether the results of the opinion poll are favourable or disheartening. It has to do with the more general settings at the particular juncture. Segolene Royal was complaining so much about opinion polls in the last French Presidential elections. Her problem though was her campaign strategy rather than the polls.

The public is the large group for which some of the things that opinion polls reveal are useful and some are useless. I think whatever information opinion polls offer is good except forecasting election results. Of course, forecasting the election outcome is exactly what pollsters need in order to get public attention (and get funding for their business). However, predicting the outcome of an election is a hard problem and whether the prediction is accurate or not it is often the result of a coincidence rather than of a superior methodology. In my opinion, whether opinion polls are successful or not in predicting election results is pure luck.

This would not be a serious problem if it were not used by some media and interest groups to influence the outcome of elections by misleading the public. In such cases opinion polls interfere with the essence of the democratic process and become harmful.

Finally, as far as the academics are concerned, opinion polls may offer a lot of published papers, but most importantly they offer good and difficult problems to deal with. Statisticians have a lot to offer.

Thank you.

References

- Bishop, George, F.; Oldendick Robert, W.; Tuchfarber, Alfred J. ; Bennet, Stephen E. (1980). Pseudo-Opinions on Public Affairs. *Public Opinion Quarterly* 44, pp. 198-209.
- Cochran WG, Mosteller F, Tukey JW (1953). Statistical Problems of the Kinsey Report. *Journal of the American Statistical Association*, Vol. 48, No. 264, pp. 673-716.
- Frankel, Martin; King, Benjamin (1996). A conversation with Leslie Kish. *Statistical Science*, 11(1), pp. 65-87.
- Freedman, D.A. and Wachter, K.W. (2007). Methods for Census 2000 and statistical adjustments. In *Social Science Methodology*. Sage (2007) pp. 232–45. Steven Turner and William Outhwaite, editors.
- Gosnell, H.F. (Winter, 1949-1950). Review on: “The Pre-Election Polls of 1948: Report to the Committee on Analysis of Pre-Election Polls and Forecasts. by Frederick Mosteller ; Herbert Hyman ; Philip J. McCarthy ; Eli S. Marks ; David B. Truman ; Leonard W. Doob ;Duncan MacRae, Jr.,; Frederick F. Stephan ; Samuel A. Stouffer ; S. S. Wilks”. *The Public Opinion Quarterly*, 13(4), pp. 691-692

Kinsey A.C, Hyman, H., Sheatsley, P.B., Hobbs, A.H., Lambert, R.D., Pastore, N., Goldstein, J., Terman, L.M., Wallin, P., Wallis, W.A., Cochran, W.G., Mosteller, F., Tukey, J.W. (1955). The Cochran-Mosteller-Tukey Report on the Kinsey Study: A Symposium. *Journal of the American Statistical Association*, 50 (271), pp. 811- 829.

Mosteller, Frederick; Hyman, Herbert; McCarthy, Philip J.; Marks, Eli S.; Truman, David B.; Doob, Leonard W.; MacRae, Duncan, Jr.; Stephan, Frederick F.; Stouffer, Samuel A.; Wilks, S. S. (1950) *The Pre-Election Polls of 1948: Report to the Committee on Analysis of Pre-Election Polls and Forecasts. The Public Opinion Quarterly*, 13 (4), (Winter, 1949-1950), pp. 691-692.

The Committee on Analysis of Pre-Election Polls and Forecasts of the Social Science Research Council (Winter, 1948-1949). Report on the Analysis of Pre-Election Polls and Forecasts. *The Public Opinion Quarterly*, (12) (4), pp. 599-622.