

Modeling Spiral of Silence Process: A Case-Study of Iran Presidential Elections 1997

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Abstract

System Dynamics has already proved useful in modeling various social phenomena and processes. As perfect examples of such processes, we can mention elections which are effected by many different social, economic, and political factors in every country. Often those factors are so interrelated and the pre-elections situations are so complicated that even the best political analysts not only cannot predict which party would win the competition, but also, after the elections, are unable to fully explain what factors contributed the most to one party's success in the elections. In this paper, we turn our attention to Iran's presidential elections held in 1997 whose outcome was unpredictable even a few weeks before the elections day. Few people could believe the result of the elections, yet many politicians, analysts, economists, and sociologists tried to describe the sequence of occurrences that led to such a huge win for the Reformists party. Among all the explanations proposed by different people, we focus on a sociological analysis which considers various important factors in Iranian society. The high compatibility of the results of our model's simulation with what happened in reality shows the great help that modeling can provide us in understanding social happenings.

Keywords: Spiral of Silence, elections, Reformists, Conservatives, dissatisfaction

Literature review

In early 1990's, the economic situation of Iran was worsening according to economic indicators. The increase in the exchange rate of foreign currencies, the galloping inflation, and some other factors had resulted in a considerable decrease in people's purchasing power.

In the same time, the Iranian society was changing in its values more or less. Prior to that time, most Iranians lived austerely; but, the changing world of that day started to lead the people toward consumerism. Increases in imports and advertisements as well as the growth of trade and shopping centers which caused the people to think more about the value the money could bring to them, had a hand in the change in people's attitude toward their lives. Through this change, unessential needs¹ penetrated the household portfolio of Iranians, gradually changing the main social values into materialistic ones. Moreover, the comfort and luxury in the life of the upper class of the society, which was also observed in the lives of some government's ministers and high-ranked managers, reinforced the change in the atmosphere and the norms of the society.

The combination of the two above-mentioned points (decrease in people's purchasing power and increase in the value of money) was the main reason for Iranians' dissatisfaction about their lives. In simple words, people grew dissatisfied about the economic situation because they did not earn enough to satiate their needs. The average income of lower social classes at that time was far too low to provide them even with their basic needs, and the income of middle-class people was not much higher than that. Considering that these two classes made up more than 80% of Iran's population at that time, it can be understood why dissatisfaction rose so quickly among the people.

Although the trend of dissatisfaction started from people in lower- and middle-classes, it spread to upper-class people with a delay. This, however, was not much related to economic issues. Instead, the upper-class people were mainly concerned about their freedom of action, which they felt was limited by the government.

All in all, regardless of its causes and reasons, dissatisfaction gradually became a "norm" among people. This, along with the fact that the majority of people blamed the government for all the mishaps, caused people to be in the pursuit of a reform in the government. The Conservatives who were the governor party of those days gradually lost public support and people's tendency to change turned out as a support for the Reformists.

The presidential elections of 1997 provided the Reformists with an ideal opportunity to benefit from the public support. Apart from the public trend

¹ In this paper, wherever we talk about "unessential needs", we mean needs which are neither basic nor essential to people's lives.

supporting the change, the Reformists' candidate (Seyyed Mohammad Khatami, president of Iran, 1997-2005) in the presidential elections had some characteristics which helped him much to attract people from all social classes and with diverse thoughts and beliefs. His personality, his well-mannered public appearances and speeches as well as his attitude toward both national and religious matters turned out to be appealing to the society. While being a clergy man helped him a lot in attracting the voters in small cities and villages with mostly religious atmospheres, his manner and new ideas attracted the voters in large cities since they thought of him as "the symbol of reform".

In addition to the above-mentioned factors, the youth played an important role in the 1997 elections. According to an act passed in the parliament a few years before the elections, the voting age was lowered from 18 to 16. With more young people to vote, public tendency to change was reinforced by the emotional effect caused by the low voting age. Moreover, as most Iranians can remember, young boys and girls enthusiastically supported the Reformists' candidate by holding pictures of that candidate in every gathering in universities, parks, streets, etc., especially in the last weeks before the elections. Perhaps young people contributed to the Reformists' win more than any other social group, not only simply by voting but also by openly declaring their opinion and discussing it with other people convincing them to vote for the Reformists' candidate.

Dynamic Hypothesis

From about two months before the elections, in addition to all long term and short term trends described in the previous section, a new trend was started which expedited the Reformists' win. That was an example of the process called "Spiral of Silence" by Noelle-Neumann. In her theory, Noelle-Neumann describes two groups - A and B - in a society. People in group A have the perception that their opinion is accepted by the society; so, they express their point of view in public strongly and with great self-confidence. Thus, more people join group A and this improves the perception of this group (and of all the people in the society) about themselves. On the other side, the exact opposite occurs for group B: they prefer to remain "silent" since they do not have enough self-confidence to express their opinion as they feel that it will not be accepted. So, they start to decrease in number and their perception about their opinion worsens. This two-sided process can go on in a loop structure (Spiral of Silence) until only a few people remain in group B and group A dominates the society.

In 1997 presidential elections, almost the same thing as above happened for the supporters of the Reformists as group A and the supporters of the Conservatives as group B (An additional group of Non-Voters also exists in our case). In fact, the Spiral of Silence was activated when the number of people supporting the Reformists became considerably more than those supporting the Conservatives. As we mentioned before, people - especially youth - supported the Reformists'

candidate in public in the last weeks before the elections, and that is exactly what we can expect from group A members in Noelle-Neumann's theory. This support caused many former Non-Voters as well as the supporters of the Conservatives to vote for the Reformists' candidate in the real elections, while the number of former Non-Voters who voted for the Conservatives' candidate was negligible.

Model Structure

Now we start describing the model step by step. At first step, we only deal with our three stock variables (Supporters of Conservatives, Supporters of Reformists, and Non-Voters) and their respective inflows and outflows. Every group of people also has a permanent (core) fraction of 10%. Actually, it is reasonable to assume that there exist people who, regardless of what happens in the society, would not change their minds about the elections.

As we have explained in the previous section, the number of former non-voters who later became supporters of the conservatives was negligible; so, there is no flow from Non-Voters to Conservatives (See Fig. 1). Also, time delays are assumed to exist for people in changing their minds about the elections.

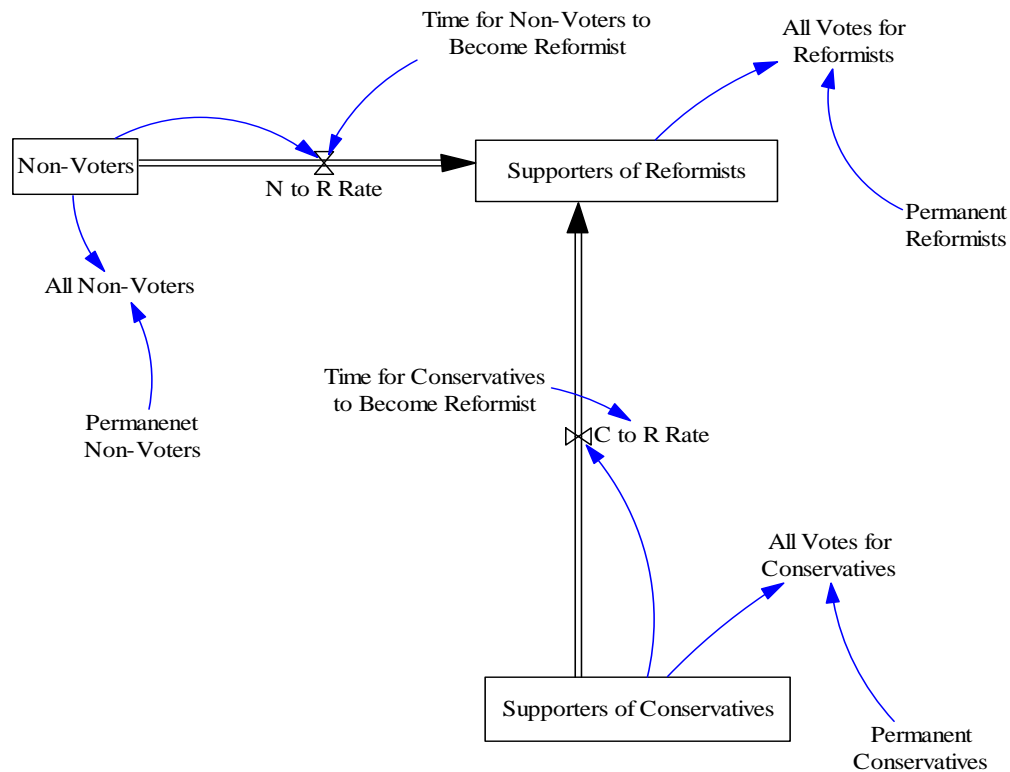


Fig. 1: Three Social Groups

Next, we consider the factors mentioned in the Literature Review section. As explained there, factors such as dissatisfaction and emotional effect of youth caused an increase in people's tendency to change and reform. Also, youth

played an important role in the elections not only by voting for the Reformists' candidate but also by instigating other people to vote for him. The popularity of the candidate was another important factor in his success (See Fig. 2). Here it should be noted that the values of variables and the behavior of lookup functions are adjusted so that our model simulates the real social situations of Iran in the last weeks before the elections.

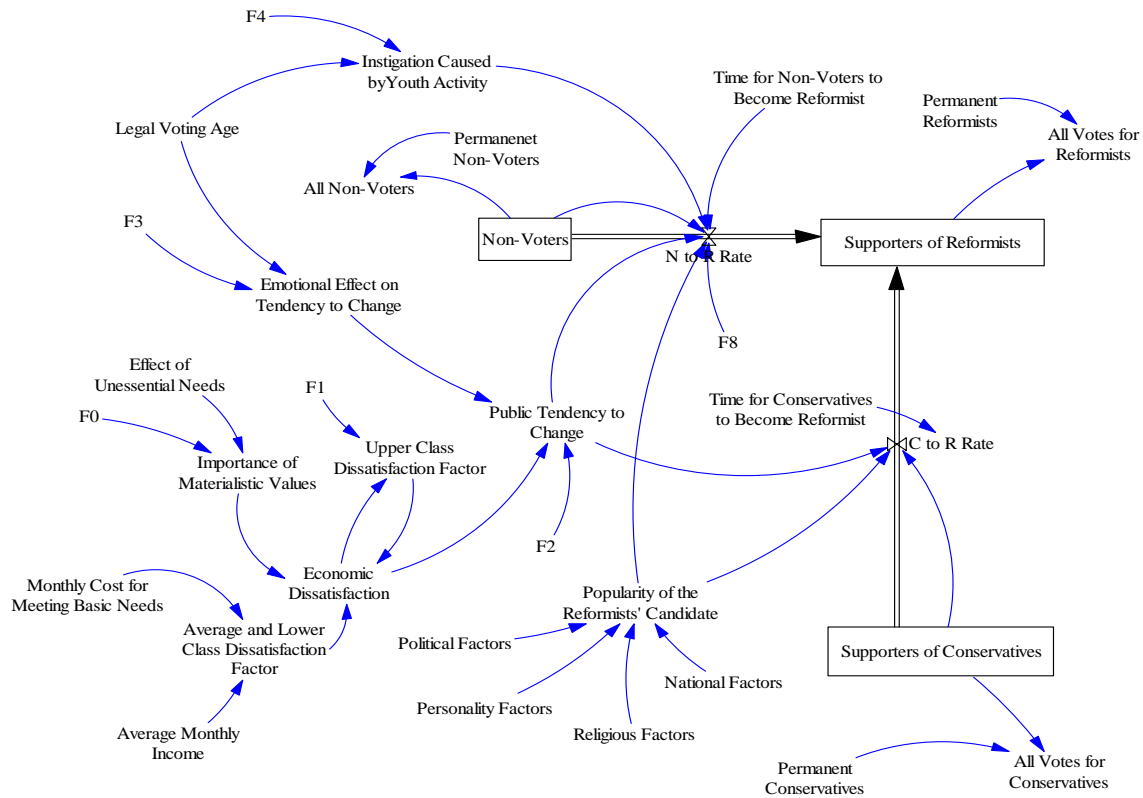


Fig. 2: Effect of Social Factors on the Pre-Elections Situation

In the final step, we complete the model by adding the loops indicating the effect of the Spiral of Silence on people's perception about both candidates (See Fig. 3). As we mentioned before, supporting the Reformists' candidate became a social norm gradually and that was the main factor in creating such a huge gap between the two rivals (about 13 million votes).

Simulation and Conclusion

We set the initial values of our three stocks as to represent the number of people in the respective groups in early March, 1997 (the last days of the Iranian calendar year), when the results of an unofficial survey was published in some newspapers. In that survey, potential voters were asked about their votes in the presidential elections which were to be held on May 23rd that year. The survey revealed the percentages of people with different points of view as seen in Fig. 4. Running the model will result in outputs which can be seen in Figs. 5 through 9.

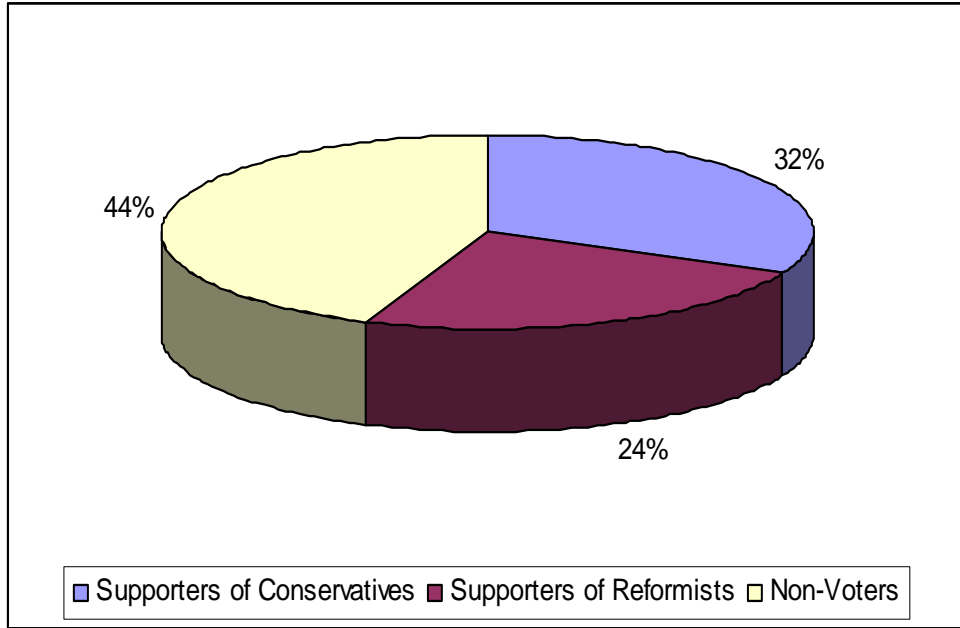
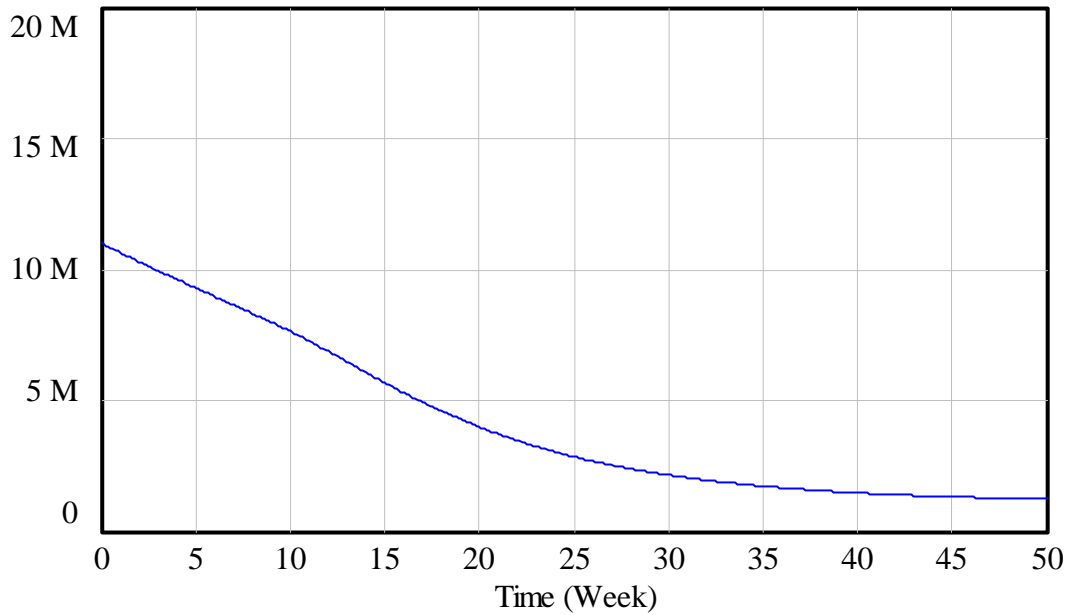


Fig. 4: Survey in early March, 1997

All Votes for Conservatives

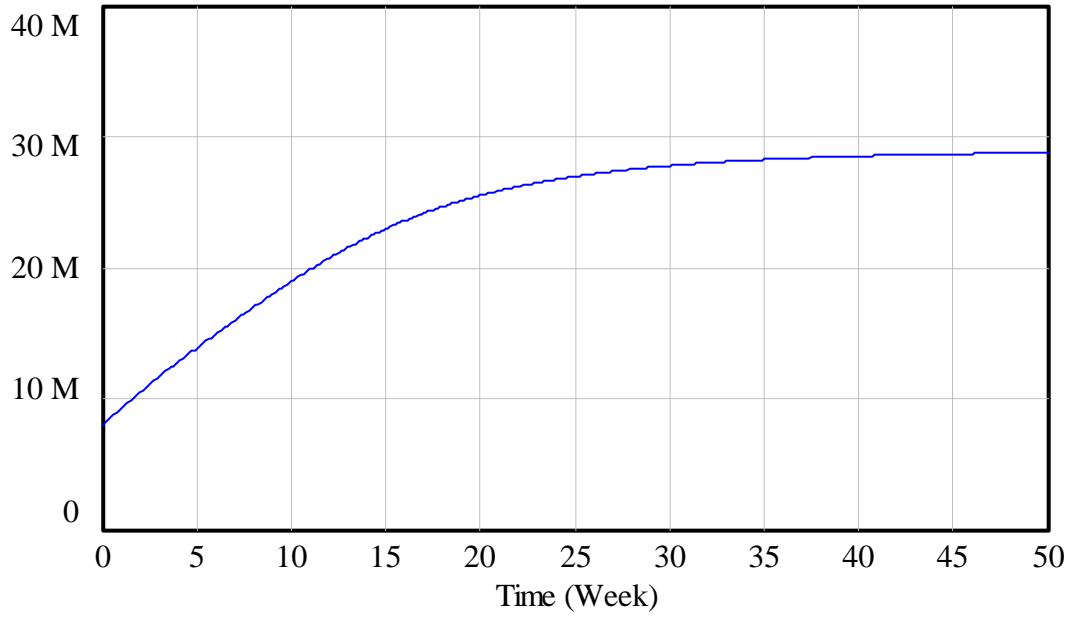


All Votes for Conservatives : Current1



Fig. 5

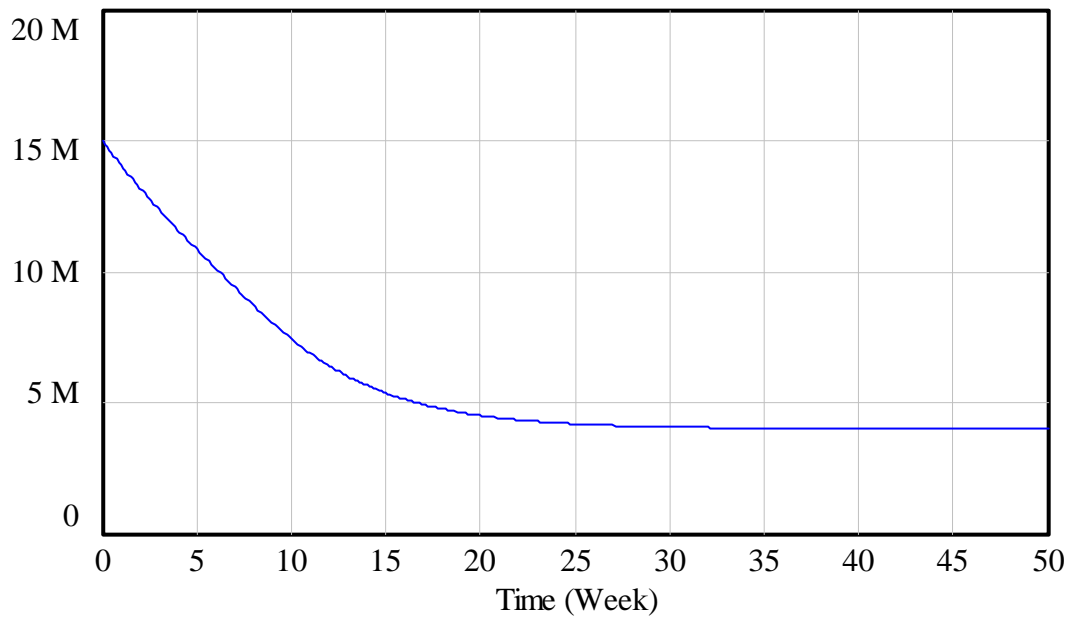
All Votes for Reformists



All Votes for Reformists : Current1

Fig. 6

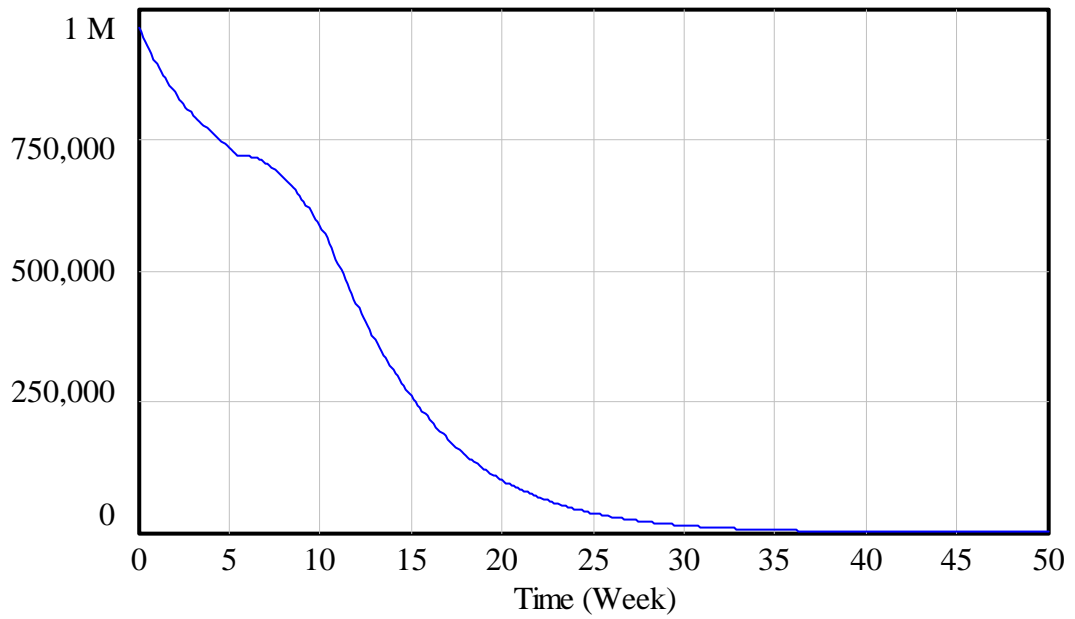
All Non-Voters



"All Non-Voters": Current1

Fig. 7

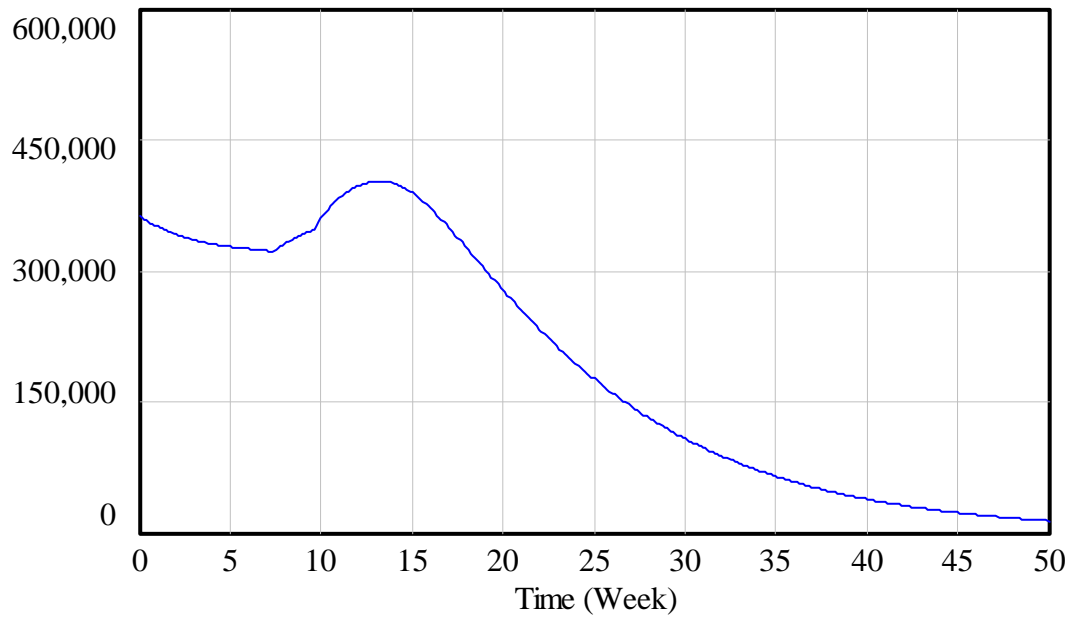
N to R Rate



N to R Rate : Current1

Fig. 8

C to R Rate



C to R Rate : Current1

Fig. 9

As these figures clearly show, the force created by factors seen in Fig. 2 causes the number of votes for the Reformists to rise week by week. Then, shortly after this number overtakes the number of votes for the Conservatives in week 3, the Spiral of Silence is activated to the advantage of the Reformists. This obviously affects the behaviors of “N to R” (Non-Voters to Reformists) and “C to R” (Conservatives to Reformists) rates from week 6 on (Figs. 8 and 9).

As we stated before, the initial values (week 0) of the stocks in the model represent the actual number of people in each group in early March, 1997. So, considering that the elections were held on May 23rd, the value of each stock in week 11 must approximately represent the number of votes for the respective group. This is verified by referring to the result of the elections which showed about 20,700,000 votes for the Reformists’ candidate, a little more than 7,000,000 votes for the Conservatives’ candidate, and about 7,000,000 non-voters².

Additionally, based on the behaviors of the variables in our model, we can predict that if the elections had been held a month later, the number of people in each group would have been as follows (approximately): 23,000,000 votes for the Reformists, 6,000,000 for the Conservatives, and 5,000,000 non-voters. That is because the Spiral of Silence would have been still active until all people, except for a small core in the Conservatives and Non-Voters Groups, would have joined the supporters of the Reformists.

In Sociological words, if we consider “voting for the Reformists’ candidate” as a social norm, Fig. 10 would best show different attitudes of people toward that norm and the extent to which the norm has diffused into the society.

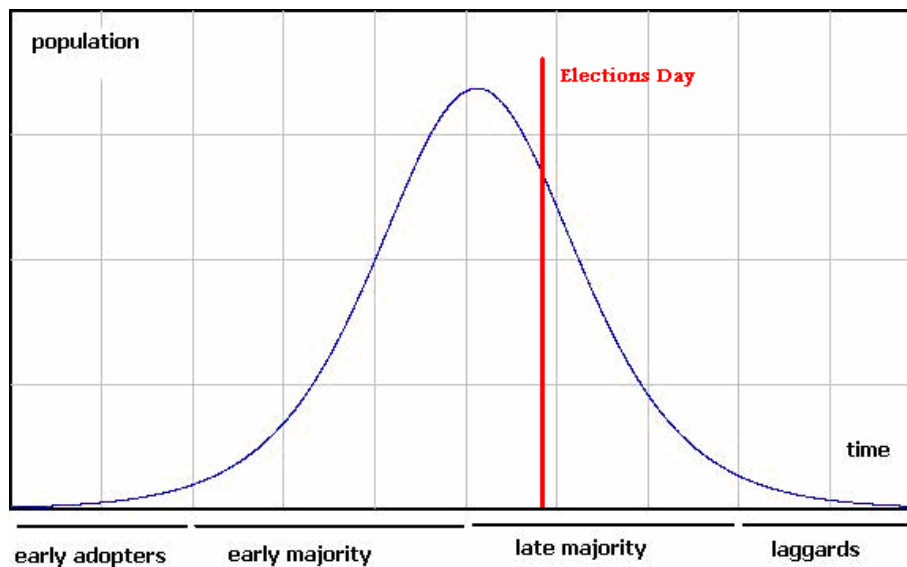


Fig. 10: Attitudes of People toward voting as a social norm

² In fact, there were also two less important candidates competing in the elections whose votes we simply ignored because both of them attracted less than 1,000,000 votes.

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