"The Demise Of The Spartan YMCA-YWCA And
The Negentropy Of The United Fund
Of Santa Clara County"

by

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At San Jose State College there used to be a pioneering organization which developed techniques for the solution of the major social problems confronting the students of the college during the period of 1886 to 1960. This organization was the Spartan YM-YWCA which was terminated after 74 years of community service in which it tackled in turn major problems for which the college administration was not prepared to handle usually after the Y developed a solution for a student problem the procedure was eventually adopted by the college administration. The major projects are shown on a "Tree of Service" in SEP No. 45, "Steps Toward Effective Social Action," May 18, 1961.

In 1960 the United Fund Board reduced and then terminated support for the Spartan YMCA-YWCA on the basis that it did not serve a significant fraction of the student population. At the time I objected to the action of the Board and to the failure of the College Administration to so easily let such an important function on the college campus disappear.

Since that time I have developed a mathematical model for analysing such a situation. Using the "Thermodynamic Imperative" of R. B. Lindsay and the continuous channel from electrical communication theory, we can draw a first approximation to an ideal distribution curve/for the allocation of resources by an agency such as the United Fund.

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* R. B. Lindsay, The Role Of Science In Civilization, N.Y: Harper & Row (1964) $6.50. See also discussion in SEPR No. 86-A, "Ethics and the Thermodynamic Imperative," revised 5/15/65.

F.B. Wood, SEPR No. 92-C, "Estimating The Degree Of "Democracy" and "Dynamic-Justice" In States And Countries By Use Of The Mathematics Of Telegraph Message Transmission Probabilities." (7/29/64)
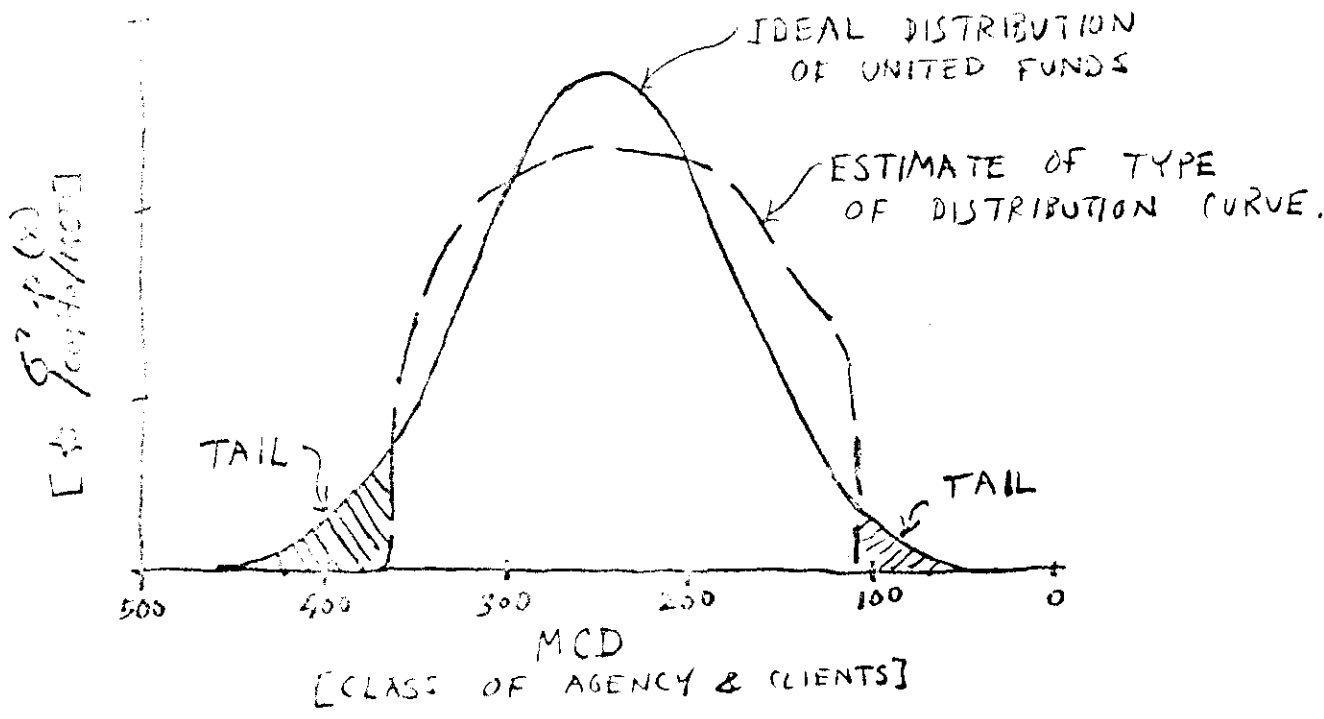
Fig. 1. Distributions of Money is a function of the Class of Agency and Clients of the United Fund.

Such a curve is approximated by a gaussian probability curve in Fig. 1 for the "Ideal Distribution of United Funds." The x-axis is in units of "MCD" -- measure of collective direction. The higher values of MCD are on the left to correspond to the popular conception of more non-conformist and socialist ideas being on the left correspond to a higher level of collective direction, although the concept of collective direction is not necessarily consistent with non-conformist action.

The second curve "Estimate of Type of Distribution Curve" in Fig. shows how the United Fund Board cut off the tails of the distribution. It is true that the students in the left and right tails did constitute a small percentage of the student body. However they had an important role in the social health of the student body -- they were the ones who dared to think about the important problems of our civilization. The United Fund Board effectively eliminated the source of qualified guidance available to assist these future leaders channel the social concerns into constructive projects.

The calculation of the negentropy of Fig. I is a statistical averaging calculatio which gives us some insight into the functioning of the system. If we want to know more detail we have to make a more detailed analysis. The negative feedback
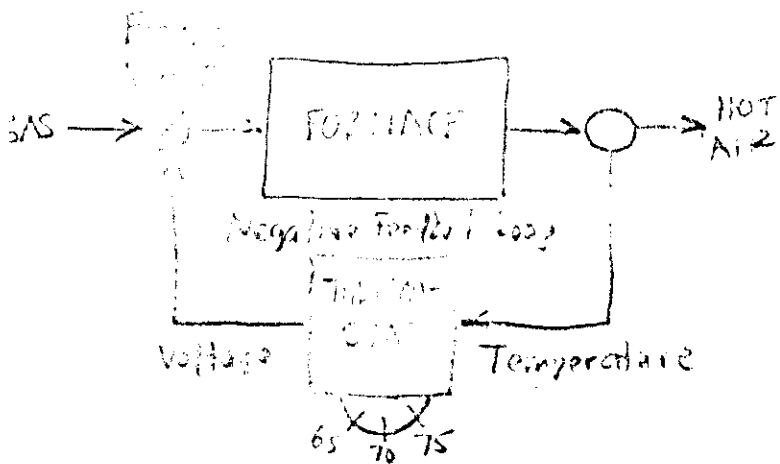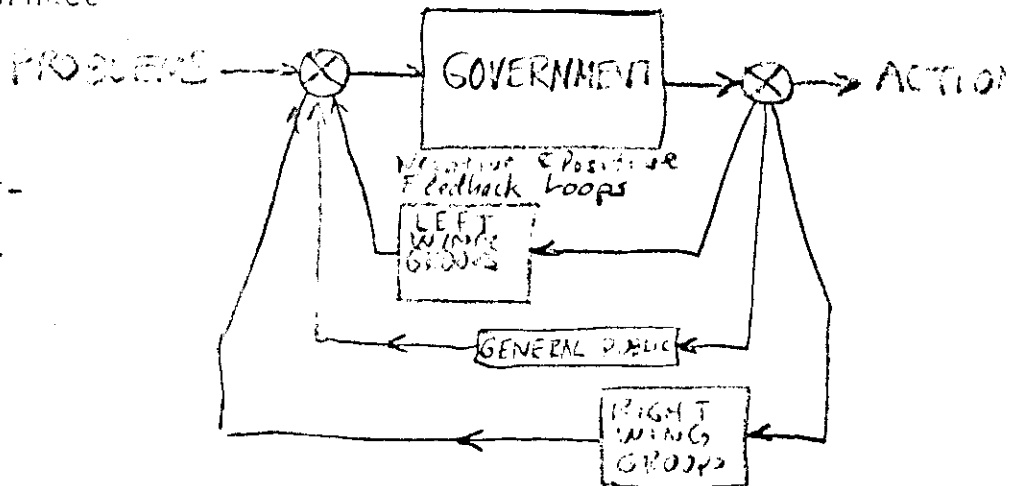
Fig. 2. Cybernetic Negative Feedback Loop Of Furnace Thermostat.

loop of Cybernetics can help us to understand political systems. The furnace and thermostat of Fig. 2 is a physical example of a cybernetic system. For more details and a short bibliography see SEPR No. 46-C#.

Fig. 3. Negative and Positive FeedbackLoops Of A Political System.

The negative and positive feedback loops of Fig. 3 illustrate the control function the different groups of people in a democracy have in keeping the administrators of government honest and stable. The state of our knowledge in applying cybernetic concepts to political systems has recently been summarized by Professor Karl Deutsch of Yale.

* F. B. Wood, "A Short Bibliography On Cybernetics And Realted Topics In Communication Theory." 4/24/65, 5pp.
# Karl W. Deutsch, The Nerves of Government--Models of Political Communication & Control, N.Y: Free Press of Glencoe(1963) $6.50

The Spartan Y performed a more complex function than that shown in Fig. 3. Some of the more recent problems solved by the Spartan Y was the improvement of communication between students from foreign countries(International Students Day est. 1951), development of communication between protestant students (Student Protestant Council est. 1953), improvement of feedback between faculty and students (Faculty Firesides est. 1955), and the reduction of racial discrimination in student housing(Non-Discriminatory Housing est. 1957).

Although the leaders of the Spartan Y probably didn't understand "negentropy" they maintained a literature display which did maximize the negentropy of the distribution of political ideas by having sample copies of the literature of all the significant political parties and organizations from the left to the right arranged carefully in the left-right order on the display case. The last Y secretary, Rev. Bill Jones, deserves great credit for assisting the students in developing such important techniques. At the time the Spartan Y was closed down, the students were developing some important concepts on the problems of peace and freedom. The review of the Spartan Y which led to the closing may have been in part due to incorrect reporting in the local newspapers of some of the initial student peace activities in 1956.

Now that we have better conceptual tools with which to analyse situations like the case of the Spartan Y and the United Fund, we have a better chance of saving the important institutions which improve human communication and make our political institutions both more stable and responsive to human needs.