SIMULATION REVIEW ESSAY

DEMOCRACY: The Workings of the Legislative Process by James S.
Coleman. Bobbs-Merrill Company, Indianapolis © 1966, 1969 by James
S. Coleman, $8.00.

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DEMOCRACY is a deceptively simple game that embodies some quite
subtle and complex principles. It directly challenges a presumed prejudice
about politics that is quite common in relatively unsophisticated audi-
ences. The popular belief being challenged views political bargaining and
vote trading as subversive of democracy. The right way for a person to act
in this view is to treat each issue on its merits. If a proposal is good, it
should be supported; if it lacks sufficient merit, it should be opposed. To
bargain is to inevitably find oneself in the position of supporting some
undeserving bills and opposing some deserving ones because one has made
political "deals."

Bargaining is thus seen as a kind of corruption, and its prevalence
among legislators is one reason why "politics" is viewed negatively. This
attitude does not merely hold that it is wrong to consider an issue on any
other grounds than its own merits, but that bargaining will result in a
circumvention of the will of the people. Because every issue has been
decided on extraneous factors, the entire set of decisions does not serve
any individual's interest very well. The aggregate of these individual
travesties is the subversion of the community interest.

DEMOCRACY challenges this view. Bargaining in the form of vote
trading is not only not inimical to the community welfare, it actually
contributes to its achievement. The greatest number of constituents will be
satisfied if skillful bargaining takes place. These agreements will necessarily
involve sacrificing constituent interests on some issues of lesser importance

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in order to ensure favorable actions on issues of greatest concern. Coleman suggests dramatizing this point by playing the game twice with identical constituencies—once allowing full bargaining and once allowing none. "The overall satisfaction for the community" he argues in the Coordinator's Manual, "will usually be less [without bargaining] than it was when the negotiations, exchanges, and agreements were carried out."

DEMOCRACY actually consists of several modules built around a basic game. The basic game is exceedingly straightforward and simple. A set of 52 constituency cards, containing numbers of constituents in favor and opposed to one of eight issues, are distributed among the 6 to 11 players. Each player's set of cards yields his constituency score. Thus, he might have a card labeled "Federal Aid to Education" indicating "0 persons for; 100 persons against." He gains points toward reelection by satisfying his constituents, not by how he votes but by whether he is able to produce results. If he is successful in getting federal aid to education defeated, he gains 100 points; if it passes, he loses these points. By totaling his points over eight issues, he determines whether or not he is successful in being reelected and by how much. A positive point total means reelection and a negative one means defeat.

Although Coleman does not make this explicit, the issues are of two types. Some general interest issues are represented by eight or ten cards per issue. This assures that a good many legislators will have constituencies that care about these issues to some degree. In many cases, the net number of constituency points to be gained or lost on a given card is quite small—perhaps as few as forty.

In addition, there are special interest issues represented by only four cards per issue. The reelection chances of at most four players will be affected by such an issue and perhaps even fewer if the luck of the deal gives a player more than one card on the issue. The constituency points won or lost on these special interest issues can be quite substantial—sometimes as much as 300 and usually at least 100. A given player may find himself with one make or break issue, leaving him quite free to wheel and deal on the other seven. On the other hand, another player may find that he represents a constituency which is closely divided on most issues requiring that he worry about the fate of several bills before he can be assured of reelection.

The combined constituency scores for and against a particular issue do not necessarily sum to zero. With respect to special interest issues, they do; the defense appropriation bill, however, has a net positive score of 100, summed over its eight cards. On the civil rights bill, although six of its ten

cards have a majority of constituents in favor, the scores against are more than enough to offset these six, yielding a net negative score of twenty over the entire set of ten. The total satisfaction score for the community as a whole is in fact only affected by the general interest bills. It will be maximized if the two with net positive scores are passed and the two with net negative scores are defeated.

We should note at this point that none of the above observations is spelled out in either the instructions to the players (which is quite proper) or in the Coordinator's Manual. There is, in fact, not much room for improving total constituency satisfaction by bargaining. The primary gain is likely to be through the defeat of the civil rights bill in spite of the fact that six of ten cards have favorable constituency cards. It is difficult to understand why these self-conscious and quite subtle distributions on different issues are not spelled out and explained to the coordinator so that he can better interpret what is happening. As it stands, only a thorough scrutiny of the game brings out these relationships.

Beyond the basic game, there are a series of additional games—mostly built on the rules described above—that successively introduce such additional factors as a legislator's personal conviction, the effect of committees which may or may not forward bills to the floor, the power of a floor leader who controls the order in which bills are taken up, the effect of administration support for a legislative program, and other things. We have experimented with some of these variations and will have some additional comments on them below.

Our evaluation of the game is divided into two sections. In the first, we address the question of external validity—the extent to which the operating model embodied in the game captures the essence of the process it is attempting to simulate. In the second, we will discuss the usefulness of the game as a device for giving participants insight into the processes being modeled—that is, the extent to which the game succeeds in its educational purpose.

VALIDITY

Underlying the game of DEMOCRACY is an "invisible hand" model of collective decisions. This model holds that, under certain special conditions (which are met in the game), the community welfare will be served best by individual legislators skillfully pursuing the interests of their own individual constituency. The community welfare is defined here in terms

of aggregate satisfaction rather than in any organic sense. In other words, the total number of satisfied constituents will be highest if each legislator makes those deals necessary to satisfy his own constituency; he never need worry about the aggregate score or even be aware of it since the invisible hand of the voting marketplace will automatically produce this result.

This is an important truth, albeit a partial one. Coleman would be the first to acknowledge that many problems of collective decision remain. It is a truth that only makes sense to underline for an essentially naive audience, the kind that sees bargaining as immoral and corrupt. The basic game embodies this idea quite well although the gains from bargaining are small and not obvious to the participants without special efforts to underline them. Furthermore, they may easily be washed out by a small miscalculation by one legislator in either playing the game or in scoring it.

It is generally true that the game ranks high on strategic isomorphism. The kinds of tactics that work well in a real legislature work well in the game. Skill in interpersonal bargaining, in knowing whom to trust in what situation, in keeping careful track of whether or not one has the necessary votes, in careful timing of legislation, all pay off in the game.

However, there are a few points where this isomorphism breaks down. The game fails to represent the difference between a sharply divided constituency and an indifferent one. In real life, a legislator is considerably more free on an issue which no one cares about than he is on an issue where there are equal numbers of intense opinions on opposing sides. His vote on the latter issue must be finessed, but on the former issue it may be traded. In the game, these two situations are rendered equivalent since each will produce a net constituency score of zero. The legislator is then free to trade his vote in a manner that might well prove disastrous to a real legislator from a sharply divided constituency. Strategic isomorphism is violated at this point.

Gaining strategic isomorphism may sometimes involve a tradeoff in usefulness. In view of the purpose and intended audience in DEMOCRACY, it is not clear that the benefits in improving the validity of the game would offset a loss of clarity. In a game designed to challenge a naive conception of political bargaining, adding such a refinement might merely decrease the visibility of the "invisible hand."

There is a serious problem with the introduction of a legislator's convictions. In this version, the winner is that person who is both reelected and is able to vote his convictions the largest number of times. Reelection, as before, is determined by a net positive constituency score over the set of eight issues, and there is no particular merit in being reelected by a

landslide. On the contrary, a landslide victor who votes against his convictions on several occasions is doing much more poorly than one who squeaks through but always votes his convictions.

While the model itself makes sense and communicates something about the interplay between voting one's beliefs and satisfying one's constituency, it is not successfully embodied in the game. Several problems arise. The most basic is the lack of any built-in connection between a participant's convictions and those of his constituency. Studies of congressional voting have shown a great deal of independence, especially on foreign policy issues, of a legislator's opinion and those of his constituents. Still, it is hard to imagine the kind of sharp negative correlations that can easily arise in the course of this game. Convictions are set by the participants before they have received their constituency cards. The luck of the deal may bring them into total conflict between what they want and what they need to get reelected. Perhaps some allowance for changes of heart would help to avert such artificial situations.

The issues themselves are a problem. They are heavily dated, and some of them seem quaint to the present generation. A few participants are old enough to remember when medical care for the aged was an issue, but very few can remember the days of Dixon-Yates and the tidelands oil controversy. Only defense appropriations are always topical. Participants frequently find that they either have no convictions at all or, where consensus has overtaken a controversy of yore, that they are unanimous in their views. The case of no real convictions is not much of a problem; even if the participants choose randomly, if they then attempt to maximize their conviction score within the constraint of getting reelected, they can still discover the tradeoffs involved. Unanimity is more serious because it creates a bias so strong that it can render bargaining efforts either needless or almost impossible. The model envisions some variance in convictions, but the game frequently does not produce it.

USEFULNESS

If the game is played several times and the participants become involved and are able to really develop their skills, many important points are revealed. Besides learning that bargaining can be useful rather than wicked, they can gain insight about the strategy of legislative action. Players are likely to leave with a greatly enhanced appreciation of why it is that the Rules Committee, which controls the traffic flow of legislation, has always

been such a powerful force in the House of Representatives. They learn not to make the mistake of bringing up a bill that they are interested in unless they are quite confident of its outcome.

They are likely to discover certain important facts about trust and keeping agreements. In repeated plays of the game, broken agreements diminish because players learn that it is against their long-run interest to double-cross others. In final sessions, end game effects occur and the double-cross comes back into use. This should suggest to the players that trust and trustworthiness rest on a bedrock of self-interest; one passes up short-run gain for long-run gain. The reputation for being untrustworthy can be a fatal handicap for a legislator who must get repeatedly reelected, not merely once.

Having said this, we must note that we have encountered difficulties in gaining the kind of involvement that seems a prerequisite for the above purposes to be achieved. We have run DEMOCRACY with classes at the University of Michigan on Game Simulation of Social Processes. These classes were composed primarily of undergraduates but with sometimes as many as 25% graduate students. In addition, one of us has run the game with high school teachers and with junior high school students.

We encountered by far the greatest difficulties with the University of Michigan students. The strengths and weaknesses of DEMOCRACY's embodiment of its operating model, combined with its apparent simplicity, make it an excellent example in a course on simulation design. Unfortunately, we found it difficult to gain the degree of involvement necessary to make the game go. It was played after students had already read a good deal about gaming, had played several quite complicated games, and had participated in their own exercise in designing a legislative game. DEMOCRACY struck them as high schoolish and not very chic, and they frequently played carelessly and quite poorly. Under such circumstances, the strengths of the game had little chance to emerge, although some could be brought out in the post-game discussion. In addition, many students were quite politically sophisticated and ready to criticize the model for its failure to make clear the limits of the "invisible hand" in producing responsiveness to unorganized interests. The game does not speak much to these concerns.

With the less sophisticated groups, the game produced greater involvement and greater skill in play. The bargaining was more vigorous and thorough, and the issues raised by the game spoke more directly to their concerns about the political process. Participant evaluations were generally much more positive. No matter how elegant the model embodied in a

game, a substantial degree of involvement in playing it seems necessary before the insights of the model can be gained. For this particular game, a less sophisticated audience than college students seems appropriate; high school students appear to be the ideal and the intended audience.

CONCLUSION

DEMOCRACY is a well designed, easy to administer game that offers a great deal to the appropriate audience. The rules are simple and not at all burdensome for either the players or the coordinator to learn. From the simple structure of the rules, a quite subtle and complicated process emerges. Additional factors can be introduced step by step through variations added onto the basic game. Relatively unsophisticated adults and high school students can gain important insights about the functions of bargaining and log-rolling in producing an effective legislature.