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## THE BOUNDARIES EXTENDED: AN EXPERIMENT COMPARING DIALECTICAL INQUIRY, DEVIL'S ADVOCACY, AND CONSENSUS USING THE EXECUTIVE GAME

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### ABSTRACT

Two experiments were conducted using undergraduate business seniors and experienced managers, designed to test the effects of Dialectical Inquiry (DI), Devil's Advocacy (DA), and Consensus(C) upon planning posturing and group attitudinal variables. The Executive Game of Henshaw and Jackson (1984) was used. Results supported DI as providing better long-term posturing than both DA and C. Contrary to earlier experiments, there was higher participant satisfaction with DI than with either DA or C.

### INTRODUCTION

Both experiments replicated the experimental design of Schweiger, Sandburg, and Ragan (1986), except the Executive Game simulation was used instead of case analysis. Sixteen groups of four students during one semester and eight groups of four managers during one day participated in the experiments. Four experimental treatments were used: DI, DA, C, and Control. The undergraduate experiment had four groups per treatment, and the managers two groups per treatment. We tested two types of hypotheses: decisional and attitudinal. Dependent variable measures for the decisional hypotheses were two-decision types plant investment, and research and development. It was hypothesized that DI would be associated with higher levels of both measures, since its assumption analysis would afford consideration of long-term planning scenarios. For the attitudinal hypotheses, it was predicted that higher conflict approaches (DI, DA) would be associated with lower levels of individual satisfaction with the decision-making process, based on Schweiger et al's findings. The decisional measures were aggregated from the groups' decision forms, and the attitudinal measures from a post-experiment questionnaire identical to the Schweiger et al study.

### FINDINGS

Manipulation checks indicated that all decision-making treatments were used by all groups. This was also supported by direct observation in breakout rooms, as well as with random video taping of group deliberations. One-way analysis of variance and planned t-tests indicated that DI was associated with significantly higher levels of plant investment and research and development budgets than either DA, C, or the Control groups. A feature of DI as a structured approach to strategic decision-making is that it causes assumptions to be carefully scrutinized. In the Executive Game, both plant investment and research and development afford long-term posturing in terms of production capability and higher profit margins. Interestingly, we found higher levels of satisfaction with the planning approach used for the DI and DA than for C, directly opposed to Schweiger et al's findings.

### DISCUSSION

Our findings indicate that the higher group conflict associated with DI causes more serious consideration of long-term planning posturing than the traditional consensus approach. This is probably due to the fact that DI incorporates the surfacing of more complex planning scenarios than simple consensus. Furthermore, although past research supports the notion that conflict is stressful, our experiments indicate that the participants (both students and managers) found DI to be exhilarating, especially in its structured debating component. The experiments, however, point to several problems with operationalizations of DI. First, it is doubtful that planning ideas can find corporate constituencies willing to attack them in terms of complete contradiction, required in DI. It is more likely that alternative planning scenarios become advanced by teams integrating a corporate viewpoint. Second, the use of gaming simulation is superior to case analysis, since it provides the persistence of group operation. One-shot cases compress the planning cycle. Third, gaming simulations do not rely upon subjective evaluative methods for performance variables. In the Schweiger et al study, judges were used to evaluate assumptions and plans. Fourth, there has been an overall lack of testing for strategic effectiveness, especially in measured outcomes of the planning process. Such measures are readily available using computer simulations.

To overcome these deficiencies, DI can be improved along two dimensions. First, increased awareness of the entire team's assumptions, and second, increased objectivity in the debating component. An alternative to DI is Dialectical Exchange (DX). This approach would require planning subgroups to initially develop assumptions and plans, and then exchange them in the debate. Each group would be advancing the recommendations of the other subgroup. This exchange would increase the level of objectivity by avoiding parochial argument, stressing discourse rather than conflict.

### CONCLUSIONS

The use of a computerized gaming simulation has provided different results than an experiment using case analysis. More extensive testing is necessary to exploit the learning environment of simulation. In addition, alternate inquiry systems such as DX may enrich the experimental external validity.

### REFERENCES

- Henshaw, Richard C., and James R. Jackson (1984), The Executive Game, Homewood, Ill: Richard D. Irwin.
- Schweiger, David M, William R. Sandberg, and James W. Ragan (1986), "Group Approaches For Improving Strategic Decision-Making: A Comparative Analysis of Dialectical Inquiry, Devil's Advocacy, and Consensus", Academy of Management Journal, 29(No.4), 51-71.