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Role thinking: Standing in other people's shoes to forecast decisions in conflicts

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Abstract

Better forecasts of decisions in conflict situations, such as occur in business, politics, and war, can help protagonists achieve better outcomes. It is common advice to “stand in the other person’s shoes” when involved in a conflict, a procedure we refer to as “role thinking.” We tested this advice in order to assess the extent to which it can improve accuracy. Improvement in accuracy is important because prior research found that unaided judgment produced forecasts that were little better than guessing. We obtained 101 role-thinking forecasts from 27 Naval postgraduate students (experts) and 107 role-thinking forecasts from 103 second-year organizational behavior students (novices) of the decisions that would be made in nine diverse conflicts. The accuracy of the forecasts from the novices was 33% and of those from the experts 31%. The accuracy of the role-thinking forecasts was little different from chance, which was 28%. In contrast, when we asked groups of participants to each *act* as if they were in the shoes one of the protagonists, accuracy was 60%.

Keywords: combining, group decision-making, simulated interaction, unaided judgment

Introduction

We examined the problem of predicting the decisions people will make in important and novel conflict situations such as occur in politics, war, business, and personal affairs. To date, neither statistical nor casual models have been found to be feasible for such situations and so decision makers must rely on judgmental methods. We investigated an approach to improving judgmental forecasting for conflicts by deriving forecasts from experts' analysis of information about the roles of the protagonists.

Conflict situations are often complex because they involve interactions between two or more parties with divergent interests. The complexity of conflicts provides fertile ground for hindsight bias. In retrospect, experts delight in claiming that the proper decisions in conflict situations were obvious and that the decisions that were actually made were absurd.

One possible reason for decisions that appear absurd in retrospect is that people involved in conflicts fail to properly consider the viewpoint of other protagonists. Robert McNamara, head of the U.S. Department of Defense during much of the Viet Nam war, drew this conclusion in the documentary, *The Fog of War* (Morris 2003). One of the lessons he said he had learned was that he should have put himself in the shoes of the enemy. This is the common-sense advice typically given to people who deal with conflict situations, and people often tell us that this is what they do.

We were unable to find prior research on the predictive value of instructing people to “put yourself in the shoes” of other protagonists in a conflict situation. Our primary hypothesis was that following that injunction in a structured manner should improve the ability of people to predict the decisions made by parties in conflict situations. We expected that those with more expertise in conflicts would be better able to use the information about roles. However, we had reservations over the extent of any improvement in forecasting accuracy due to the difficulty individuals might have in thinking through the interactions of a novel conflict.

We also hypothesized that information about roles is vital and that it would be more realistic—and thus more effective—to utilize this information by asking subjects to adopt a role and then to interact with those who adopted the roles of the other protagonists.

Difficulty of predicting decisions in conflict situations

The most common approach to forecasting decisions in conflict situations is to use unaided judgment. By unaided, we use the narrow definition of judgmental procedures unaided by established forecasting principles. This definition does not preclude drawing upon knowledge about the situation and discussions with other experts.

Our earlier research used nine conflict situations to assess the accuracy of forecasts from unaided judgment. The situations are briefly described in Table 1. Research participants were provided with one-to-two page descriptions. Descriptions of two of the conflicts were developed as the situations unfolded (55% Pay Plan and Nurses Dispute). The other seven conflict situations were obscure and unlikely to be recognized or were disguised to prevent participants from recognizing them. We excluded from our analysis the few responses in which the participant recognized the actual situation.

Table 1: Descriptions of conflict situations

Artists Protest:	Members of a rich nation’s artists’ union occupied a major gallery and demanded generous financial support from their government. What will be the final resolution of the artists’ sit-in?
Distribution Channel:	An appliance manufacturer proposed to a supermarket chain a novel arrangement for retailing their wares. Will the management of the supermarket chain agree to the plan?
55% Pay Plan:	Professional sports players demanded a 55 percent share of gross revenues and threatened to go on strike if the owners didn’t concede. Will there be a strike and, if so, how long will it last?
Journal Negotiations:	Editors have asked their journal’s publisher for better terms and have received an unfavorable response. What agreement do the parties come to?
Nurses Dispute:	Angry nurses increased their pay demand and threatened more strike action after specialist nurses and junior doctors received big increases. What will the outcome of their negotiations be?
Personal Grievance:	An employee demanded a meeting with a mediator when her job was down-graded after an evaluation by her new manager. What will the outcome of the meeting with the mediator be?
Telco Takeover:	An acquisitive telecommunications provider, after rejecting an offer to buy the mobile business of another, made a hostile bid for the whole corporation. How will the stand-off between the companies be resolved?
Water Dispute:	Troops from neighboring nations moved to their common border and the downstream nation threatened to bomb a new upstream dam. Will the upstream neighbor agree to release additional water and, if not, how will the downstream nation’s government respond?
Zenith Investment:	A large manufacturer evaluated an investment in expensive new technology in the face of political pressure. How many new manufacturing plants will the corporation decide to commission?

Unaided judgment was little better than chance as a forecasting method. Table 2 presents the findings. When the “Journal Negotiations” situation is excluded from the analysis, 29% of the novices’ forecasts were accurate.

Table 2: Accuracy of unaided judgment forecasts vs. chance

Situation	Chance	Unaided Judgment*	
		Novices	Experts
Distribution Plan	33	5 (42)	38 (17)
Artists Protest	17	5 (39)	10 (20)
55% Pay Plan	25	27 (15)	18 (11)
Telco Takeover	25	10 (10)	0 (8)
Journal Negotiations	25	12 (25)	- -
Personal Grievance	25	44 (9)	31 (13)
Zenith Investment	33	29 (21)	36 (14)
Water Dispute	33	45 (11)	50 (8)
<u>Nurses Dispute</u>	<u>33</u>	<u>68 (22)</u>	<u>73 (15)</u>
Averages (unweighted)	28	27 (194)	32 (106)

*Green and Armstrong (2007); Armstrong (2001) for Journal Negotiations

Role thinking method

Participants were provided with descriptions of the situation and the roles of all protagonists for each of the above nine situations. The number of roles for each conflict varied between two and ten.

Participants were led through the role-thinking procedure by a questionnaire that we devised for the purpose (Appendix A). The questionnaires started with a briefing for participants that stated: "A person's role can make a big difference to how he or she views a situation, so it can be difficult to predict what decisions will be made when people interact with each other. In the following table, please indicate which decision you think each party in the situation just described would prefer to be made and assess how likely it is that each party's preferred decision will actually occur."

Each questionnaire included a list of between three and six decisions that might plausibly have been made in the conflict situation. For example, in the case of the Nurses Dispute, research participants were asked to choose between (a) nurses' demand for an immediate 7% pay rise and a 1-year term were substantially or entirely met, (b) management's offer of a 5% pay rise and a 2-year term were substantially or entirely accepted, or (c) a compromise was reached.

The questionnaire prompted participants to nominate which of the decisions each party in the conflict would prefer and why, how the party would go about trying to achieve the preferred decision, and the chances out of 10 that the party's preferred decision would be made. Finally the questionnaire asked participants, having completed their analysis, to pick which of the decisions was most likely and why it might and might not occur. The process was intended to encourage participants to think hard about how the roles of the protagonists would affect their preferences and decisions.

There were two role-thinking sessions. Participants in the role-thinking session at Victoria University in Wellington, New Zealand, in April 2005, were 103 students who were enrolled in a second-year organizational behavior course. The students were mostly about twenty years of age. We asked them to rate their specialist experience in conflict management and their experience with conflicts similar to the conflict they were given. The median of the OB students' responses to these questions, using a zero-to-10-scale, was zero for both questions. We refer to these participants as "novices."

Participants in the role-thinking session at the Naval Postgraduate School at Monterey, CA, in May 2005 were 27 naval postgraduate students. Their ages were between 27 and 35. The median of their self-assessed specialist conflict management experience ratings was 4 out of 10 and for experience with similar conflicts was 1 out of 10. We refer to the naval postgraduate students as "experts."

Findings from role thinking experiments

We obtained 107 role-thinking forecasts from the novice participants for eight conflict situations and 101 forecasts from the expert participants for nine conflict situations. The unweighted average accuracy of the experts' forecasts was 31% (Table 3). When forecasts for the one conflict for which novice forecasts are not also available are excluded (Personal Grievance) 30% of the experts' role-thinking forecasts were accurate. These results differed little from guessing and,

contrary to our expectations, the experts using the role thinking procedure did slightly worse (at 31%, Table 3) than experts using their unaided judgment (32%, Table 2).

Table 3
Accuracy of role thinking forecasts vs. chance

Situation	Chance	Role thinking	
		Novices	Experts
Distribution Plan	33	0 (14)	0 (13)
Artists Protest	17	8 (13)	0 (12)
55% Pay Plan	25	13 (12)	8 (13)
Telco Takeover	25	13 (16)	18 (11)
Journal Negotiations	25	25 (12)	30 (10)
Personal Grievance	25	- -	36 (11)
Zenith Investment	33	46 (13)	55 (11)
Water Dispute	33	75 (16)	56 (9)
<u>Nurses Dispute</u>	<u>33</u>	<u>82 (11)</u>	<u>73 (11)</u>
Averages (unweighted)	28	33 (107)	31 (101)

Our role-thinking analysis in Table 3 is on the basis of the broad distinction between the expertise of undergraduate students (novices) and that of mature graduate students (experts). That analysis takes no account of differences in specialist conflict management experience or of experience with similar conflicts or of the time the participants spent on their analysis. We reasoned that participants who had more of such relevant and direct experience should be better able to use the information we provided and that participants who spent more time on the analysis would also make better use of the information.

We next analyzed all the role-thinking responses (novices and experts combined) using participants' answers to questions about their experience and the time they spent on the task.

The role-thinking forecasts of those with some experience as conflict management specialists were only a little better at 33% accurate than the forecasts of those with no experience at 31% accurate. Experience with conflicts similar to the one being analyzed did help, however; the forecasts of participants with such experience were more accurate than the forecasts of those with no such experience at 38% accurate compared to 29%.

Spending more time on the role-thinking task was associated with forecasts that were somewhat more accurate; the forecasts derived from analyses of 25 minutes or more were somewhat more accurate at 35% than the 31% accurate forecasts from briefer analyses.

The findings on the effects of experience and time spent are only suggestive given that the sample sizes for the subgroups were small and the number of situations modest.

Comparison with forecasts from groups in simulated interaction

Armstrong (2001) and Green (2005) reported findings on using groups of people to simulate the roles and interactions of people involved in conflict situations, a method called "simulated interaction." Participants in the simulated interaction experiments were given information only on their own role. Otherwise they received the same information as participants in the role-thinking

and unaided-judgment treatments but, instead of analyzing the information they were given on their own, they participated in improvised interactions with people playing the roles of the other protagonists in a conflict. We expected simulated interactions to provide more realistic representations of the situations.

Note that we are here comparing group versus individual forecasts. However, given that unaided-judgment and role-thinking forecast accuracy differed little from guessing, combining the individual forecasts from those methods would do little to increase accuracy, and so the comparison is therefore a fair one.

As shown in Table 4, the simulated-interaction forecasts were accurate for 60% of the predictions, which was a substantial improvement over role-thinking accuracy of little more than 30%. The simulated interaction forecasts were more accurate than the role-thinking forecasts for all of the nine conflicts. In addition, when the simulated interaction forecasts were combined across the groups (an average of 14 groups simulated each situation) the modal group decision was accurate for eight of the nine conflicts, or 89%.

Table 4
Accuracy of forecasts from simulated interaction by groups vs. chance

Situation	Chance	Simulated Interaction*
		Novices
Distribution Plan	33	75 (12)
Artists Protest	17	29 (14)
55% Pay Plan	25	60 (10)
Telco Takeover	25	40 (10)
Journal Negotiations	25	42 (24)
Personal Grievance	25	60 (10)
Zenith Investment	33	59 (17)
Water Dispute	33	90 (10)
<u>Nurses Dispute</u>	<u>33</u>	<u>82 (22)</u>
Averages (unweighted)	28	60 (129)

*Green (2005); Armstrong (2001) for Journal Negotiations

Conclusions

Our hypothesis that role thinking would improve forecast accuracy received little support, probably because participants could not think through the complexities of the interactions. Nevertheless, the idea expressed in the injunction to put oneself in the other person's shoes is valid: the roles that people have are vital to their decisions. When participants were each assigned the role of a protagonist and were asked to simulate the interactions between them, their decisions were accurate for eight out of the nine conflicts for which we obtained forecasts.

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References

- Armstrong, J. S. (2001), *Principles of Forecasting*. Boston, MA: Kluwer Academic Publishers.
- Green, K. C. (2002). Forecasting decisions in conflict situations: a comparison of game theory, role-playing, and unaided judgement. *International Journal of Forecasting*, 18, 321-344.
- Green, K. C. (2005). Game theory, simulated interaction, and unaided judgment for forecasting decisions in conflicts: Further evidence. *International Journal of Forecasting*, 21, 463-472.
- Green, K. C. & Armstrong, J. S. (2007). The value of expertise for forecasting decisions in conflicts. *Interfaces*, 37(3), 287-299.
- Morris, E. (2003). *The Fog of War* (documentary film). Culver City, CA: Sony Pictures Classics.

