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Making a Horse out of a Camel: A Contingency Model for Managing the Problem-Solving Process in Groups

David M. Boje

One of the familiar sayings about the work done in groups is: "A camel is a horse put together by a committee." Anyone who has led a committee, team, assembly, or other group will testify that even with the best of intentions, obtaining a decision which represents the interests and capabilities of the individual members, and at the same time effectively solves the problem at hand, is an all but impossible task. In fact, many would respond that given common group games, like one person trying to dominate the group, hidden agendas, conformity pressures, people talking without listening—managing to put together a camel is doing quite well.

While many behavioral scientists have attempted to describe the differences between productive and nonproductive groups on tasks involving creative thinking or accuracy, few have attempted to summarize those differences in a *contingency model* of group decision making.¹ While many problem-solving models abound, most advocate *one best way* to problem-solve and to make the final group decision.² At the same time, people who have had years of experience at handling group decision-making situations have in hindsight developed many prescriptive interventions for facilitating the decision-making process. I would like to propose a flexible model that offers several ways to attack and decide problems. This model combines the findings of behavioral science researchers and the prescriptions of practitioners. Displayed in flowchart format are a number of decisions and courses of action open to group leaders in the problem-solving process. For

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1. Two notable exceptions are the Vroom and Yetton decision model (1973) and Delbecq et al. (1975) work on the Nominal Group technique.

2. Some of the problem-solving methods are discussed in Bales (1950), Osborn (1957), Sandberg (1973), and chapter 7 in Schmuck et al. (1972).

ease of presentation, the model is divided into five parts corresponding to the five phases in the group decision process. These consist of (1) problem identification, (2) solution generation, (3) evaluation, (4) decision, and (5) implementation. After explaining the five phases, an overall model will be presented.

In addition to presenting a contingency decision model, I will present a number of "games" which group members must avoid. Eric Berne defines a game as "an ongoing series of complementary ulterior transactions progressing to a well-defined, predictable outcome. Descriptively, it is a recurring set of transactions, often repetitious, superficially plausible, with a concealed motivation; or more colloquially, a series of moves with a snare, or 'gimmick'" (p. 48). One or more individuals in a group will from time to time engage in a game that, if left unchallenged by other members, will lead to dysfunctional consequences.

Consider the game of the "hidden agenda." Here the individual has an ulterior purpose, such as a personally beneficial decision outcome, pursuing a personality conflict with another member, wanting to leave early, or other concealed motive. Unless confronted, the "hidden agenda" game will result in any of several outcomes. A problem will be defined to yield the hidden preference, other members' alternatives will be attacked so that a pet alternative can be introduced, a hasty decision strategy will be advocated in order to push a hidden agenda through.

While the number of possible games is indeed infinite, we will focus only on dysfunctional games which repeatedly crop up in the problem-solving process. Further, the games will be introduced in the problem-solving phase where they occur most frequently. Take the hidden agenda; it is most likely to emerge in the problem-identification phase where members, for example, attempt to get the problem defined to yield their solution. This does not mean that a hidden agenda or other game will not occur in the other phases of the problem-solving process. In fact, if not resolved, a game can raise its ugly head early in the problem-identification phase and remain a recurring threat throughout the remaining four phases. The chart below lists the five problem-solving phases and the games that will be described within each phase.

<i>Problem-Solving Process Phases</i>	<i>Dysfunctional Process Games to Resolve</i>
1. Problem identification	"The hidden agenda" "Why don't we do it my way?" "Ain't it awful?"
2. Solution generation	"The hard sell" "Land me your ear"

3. Evaluation
 - "Why don't you, yes but?"
 - "All talk and no listening"
 - "Have we been here before?"
 - "Love me, love my dog"
 - "Groupthink"
4. Decision
 - "Let's get this over with"
 - "We all agree, right?"
 - "Avoid the monkey"
 - "Building lead balloons"
5. Implementation

*Game originally developed by Eric Berne.

Content vs. process leaders

Let's begin by distinguishing between the content, the actual work done on the problem by the group, and the process, *how* individuals work with each other to solve the problem.³ Further, we can break process into two types: *functional processes*, such as the *problem-solving phases*, and *dysfunctional processes*, such as any *disruptive games* that group members play. Functional here refers to improving the effectiveness of the operating performance of the group. When the leader decides how to attack a problem, what decision strategy to use, summarizes comments, interprets comments, defines objectives, etc., the problem-solving process is being attended. Alternatively, when the leader attempts to counter game playing, keeping people from being left out of the conversation, getting talkative people to be more brief, resolving personal conflicts, he is dealing with the dysfunctional aspects of the process.

Given these three activities—(1) dealing with content affairs, (2) leading the problem-solving process phases, and (3) countering game playing—the leader does not necessarily fill all three roles in all groups. One person can contribute his expertise on a topic and lead the content activities. Another individual (say, with administrative skills) structures the problem-solving process for the group. Yet a third person may deal with game-playing situations, perhaps even countering games leaders play to get their way in groups. To simplify the discussion, we will talk of strategies leaders use to counter games. It is important to note *leaders and nonleaders play games. All group members need to be trained to handle dysfunctional games and to share responsibility for managing the process phases.*

3. The distinction of content vs. process is based on Berne and Sheets' (1948) distinction between task and maintenance functions. It should be added here that many actions can be both process and content, such as who works on and does not work on a problem and information offered to the group by a member.

For someone who is just learning about group leadership, it is advisable to lead the process levels of the group and let the other members deal with the content issues. This is also a preferred strategy for group leaders who fear that their higher status in the group will give too much weight to ideas they introduce. This does not mean that a leader should not offer his own ideas to the group. The point is that how a leader introduces an idea will have a critical impact upon the direction the group takes. You might even consider this a *functional game*, i.e., where the transactions are seen as leading to a more effective decision outcome. Further, leading the problem-solving and game-countering process levels of the group is a demanding enough task to merit a leader's full attention.

Contingency model for group problem solving

The model is meant to be a guideline for group leaders and *not* a set of hard-and-fast rules and procedures. The leader should be familiar with the model to the extent of being able to pinpoint critical decision points and the situational determinants that suggest what action to pursue in each phase. The decisions must also be made on the basis of the leader's insight into factors peculiar to the situation at hand. As each part of the model is presented, a triangle refers to a decision that the problem-solving process leader must make and the squares represent action strategies which result from each decision. Where a paragraph is numbered, this number refers to a corresponding number in the diagram. Following the discussion of each phase of the model is the set of games that tend to emerge in that phase.

1.1 The first decision to be made is: Is this an appropriate problem for group action? Too often a leader will present the group with a problem that is (1) so trivial that the leader would be making better use of the group's time by deciding it himself, (2) not within the authority of the group to decide. This may also mean a problem where the leader has a vested interest in his own strategy. If this is the case, he should not waste the group's time. He should tell them what he wants and seek their critical opinions or not involve them at all. (3) Problems which are so emotionally charged that making a group decision may be dysfunctional to the long-term functioning of the group.

1.2 The next decision is: Is it a problem or a symptom? Many decision theorists have observed that groups often spend as much time looking for the underlying problem as they spend resolving the problem. Problem finding needs to be given much more attention by groups. Problems are not visually given. If a group is deciding what to

4. For more discussion of problems versus symptoms, read Jay (1976).

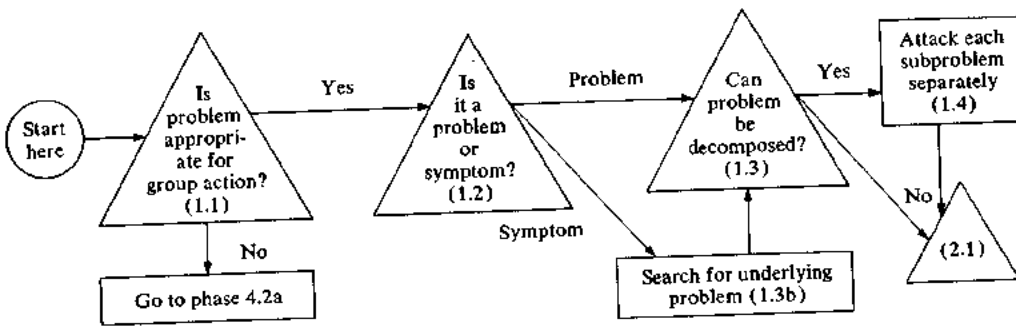


Figure 1. Problem-Identification Phase

do about a plant that is on strike, the strike itself may be a symptom of a more fundamental problem. The group will often need to wade through a number of symptoms before they will be able to identify the problem. A problem that seems clear may prove under close analysis to be the tip of the iceberg. It is the process leader's role to insure that all members have a thorough understanding of the fundamental problem before letting the group move prematurely to a phase it is unprepared for.

1.3b If what initially appeared to be a problem turns out to be a symptom, the group can share information in a way that will allow the problem to become evident. It may be advisable to gather additional information or even develop a case history to determine if the symptom is an indicator of a trend of symptoms, caused by a basic problem, such as poor communication channels, a need for a buffer between two departments, poorly trained managers, etc. Once the problem has been pinpointed and is well understood by all members the battle is all but won. A good problem definition will make solutions more obvious.

1.3 According to the decomposition principle, a problem with an underlying structure is best solved by a strategy of divide and conquer (structure is defined here as categories which are independent of one another).⁵ In decompositions, the group can handle more factors to apply to each of the simpler problems (subcategories) than if the entire problem is faced head-on. Leaders can often spot a decomposition problem when the group jumps from issue to issue with little progress. Decomposition helps to structure the problem into smaller units that are more manageable. Consider the following example.

As you decompose the problem, you may want to use different methods of generating solutions to each subproblem. For example, having each person tackle a different subproblem—using a creative approach for some subproblems and a more analytic (accuracy) approach to others (to be discussed further in the next phase).

Problem: What is the estimated cost of establishing a dial-a-ride service for the elderly population in the city of Springfield?

1.4 If the problem can be decomposed, research suggests that the accuracy of the decision will be increased. The leader must decide how far to decompose a problem before diminishing returns result or whether the interrelation among problem components is too complex to decompose.

5. This section is based on the results of an empirical study of problem decomposition by Armstrong et al. (1975). They found decomposition led to increased accuracy in individual problem solving. It seems plausible that the same will hold true for group problem solving.

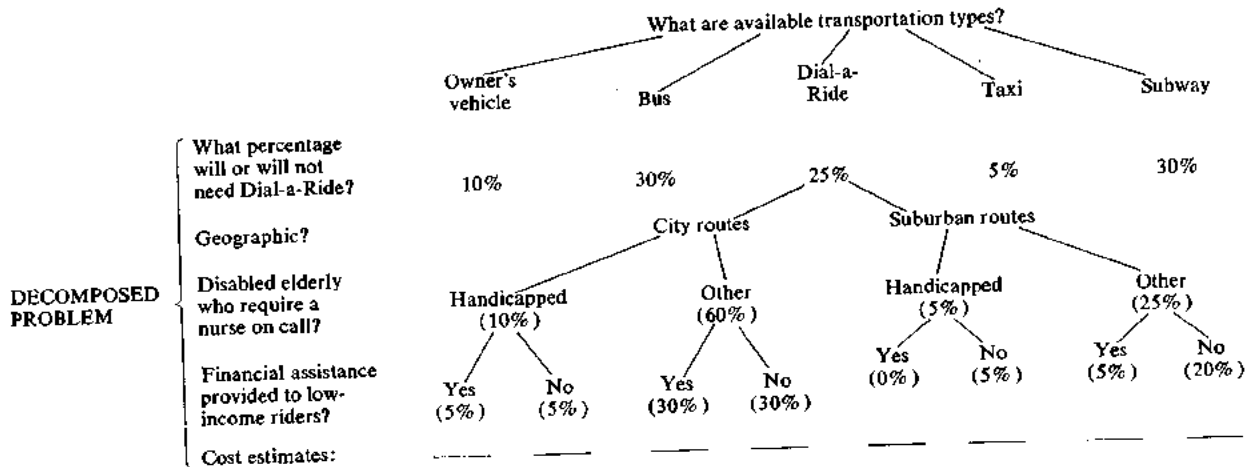


Figure 1.3

The problem-identification phase is without a doubt the most critical and most often neglected activity on the part of decision-making groups. A leader who can get the group to fully understand and analyze the problem will improve the effectiveness of the group and avoid needless time wasted by jumping too soon for solutions to poorly understood problems. It is a good idea to write a problem statement down on a wall chart, chalkboard, or flip chart with newsprint (and felt-tipped pens) to insure that everyone is in agreement and to keep the discussion on the track.⁶

Problem-identification phase games to resolve

"The hidden agenda." As described earlier, one or more members has a hidden purpose which they are not revealing before the group. This can sometimes be spotted early in the discussion when a member attempts to get a problem defined his way in order to set the group up to later introduce a preferred alternative. One strategy to confront this game is to ask the person directly if he has something else in mind. "I heard you say . . . but I feel that you are trying to get at something else." In this way, the person is made aware that a game is occurring and others know about it. In giving such feedback, not hurting the player's feelings is crucial. It is always better to give feedback by relating how you interpret a person's behaviors or how you felt about a behavior instead of assuming you know what is going on inside their head.

"Why don't we do it my way?" This has also been referred to as the self-authorized agenda. This game can be spotted when a member attempts to lead the group in a particular direction when other options are still being considered. The leader or other member may want to counter this game by asking the other members what they would prefer to do. A second strategy is to use the feedback approach described in the "hidden agenda" game. "I hear you saying . . . but I get the feeling you are trying to get the group to go the way you want it to go. Is that how you see it?" Again, focus on the behavioral or linguistic cues that lead you to that interpretation. Don't assume.

"Ain't it awful?" In this game, one or more members dwell on the negative aspects of the situation. They attempt to make it sound like there is no possible way out, or that forces outside the control of the group have taken over. While things may be bad, at some point the leader needs to focus attention on what can be done to turn things around.

6. The wall chart can consist of newspapers taped to the wall. The process leader uses a magic marker to list ideas.

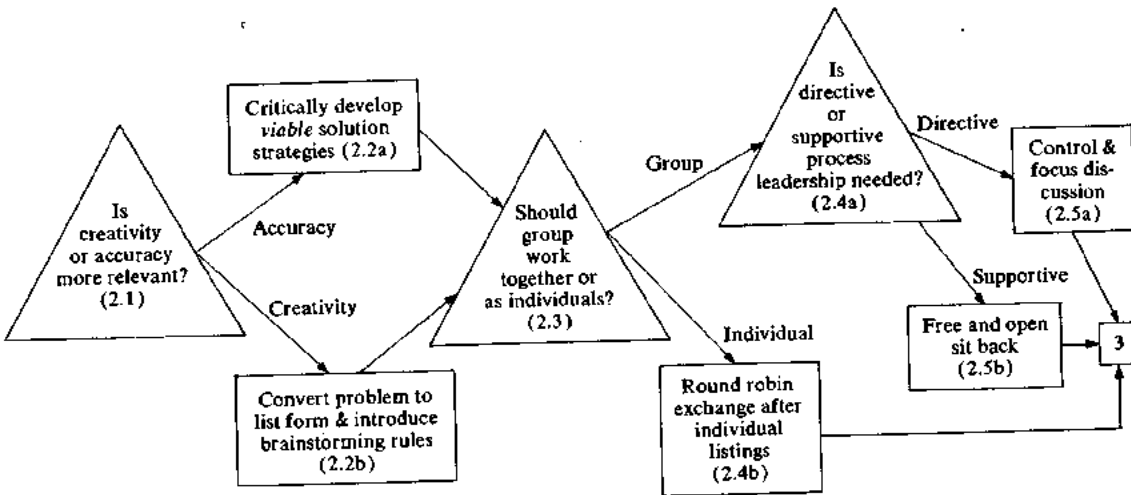


Figure 2. Solution-generation phase

2.1 In the solution-generation phase of problem solving, a number of decisions about how to structure the interaction to develop solution strategies are required of a group process leader. You should try to keep your group from getting into the "rut" of using the same technique for all problems. In this first decision, one must determine if creativity or accuracy is more relevant to the problem at hand. Problems of accuracy generally are less novel and more attention is paid to detailing well-understood search procedures. In creativity, many diverse inputs need to be integrated to resolve a novel problem or to generate a totally new solution. This does not mean accuracy and creativity are separable and distinct. Imagination is needed to generate critical details. Accuracy is needed to keep imagination from being aimless. The point is that the two involve different ways of processing group information, just as the left brain processes information differently than the right.

2.2a If accuracy is the objective, then critically developing a number of viable solution strategies is called for.⁷ Here the group attempts to combine their inputs to develop a limited number of carefully analyzed and systematically developed strategies to solve the problem. Later, a cost/benefit analysis can be used to evaluate each strategy. Many groups develop several competing strategy proposals for comparison.

2.2b In the case of a problem suitable for more creative thinking, the use of Osborn's Brainstorming Rules has been found to improve the group's ability to generate novel solutions.⁸ Sometimes one of the worstills of a problem-solving group is developing the same "bad" solutions to the same recurring problems. The first step is to convert the wording of the problem to a statement that will cause the group to generate a long of solution alternatives. For example, convert a problem such as "how to launch a new product" to "what are all the ways we can think of to launch this new product?"

Brainstorming rules

- (1) *Criticism is ruled out.* Adverse judgement of ideas must be withheld until later. (Later here refers to the evaluation phase.)
- (2) *"Freewheeling" is welcomed.* The wilder the idea, the better; it is easier to tame down than to think up.

7. For a review of the parallels and differences between creativity and accuracy research, read Boie (1977). As to research on accuracy problems, Boie (1977) and Yost et al. (1977) suggest that certain problem-solving methods may be more appropriate for structured problems.

8. For a review of the creativity problem-solving research, read Bouchard (1969). See Thomas and Fink (1961), Wrooom et al. (1969), and Taylor et al. (1958) as sample of the many studies in this area.

- (3) *Quantity is wanted.* The greater the number of ideas, the more the likelihood of winners.
- (4) *Combination and improvement are sought.* In addition to contributing ideas of their own, participants should suggest how ideas of others can be turned into better ideas, or how two or more ideas can be joined into still another idea. (This rule is not applicable when individuals work in isolation to develop lists of ideas.)

The process leader needs to familiarize members with the brainstorming rules and may want to have them tackle some commonly used brainstorming problems to develop their brainstorming skills before trying an important issue. Here are a few exercises to try:

1. *Tourist Problem:* Each year a great many American tourists go to visit Europe. But now suppose that our country wished to get many more European tourists to come to visit America during their vacations. What steps can you suggest that would get more European tourists to come to this country?
2. *Thumbs Problem:* We don't think this is very likely to happen, but imagine for a moment what would happen if everyone born after 1980 had an extra thumb on each hand. This extra thumb will be built just as the present one is but located on the other side of the hand. It faces inward so that it can press against the fingers just as the regular thumb does now. Now, the question is: What practical benefits or difficulties will arise when people start having this extra thumb?⁹
3. List as many uses as you can think up for a coat hanger; for a broomstick.

2.3 With both techniques there remains disagreement as to whether having individuals work alone to generate separate lists of alternatives or together to develop a common list is better. Advocates of the individual technique argue that there are too many inhibiting factors, such as dysfunctional games, to use a joint listing approach.¹⁰ A number of studies in this area conclude that having people develop independent lists leads to a greater quantity of ideas and more unique ideas.¹¹ In general, group participation using the brainstorming technique has been found to inhibit creative thinking in the solution to simple problems. In the case of accuracy problem solving, there is less agreement

9. A classic study using these two problems is Taylor et al. (1958).

10. See, for example, Maier (1967) and Vandevon and Delbecq (1971) for discussions of dysfunctional group phenomena.

11. See Taylor et al. (1958) and Thomas and Fink (1961).

on the virtues of working independently, especially in the case of highly complex problems.¹² (Complex is defined here as many highly interdependent parts to a problem.) Consider, for example, problems which demand the expertise of a diverse set of specialists, no one of which could solve the problem alone. Deciding the design characteristics of a nuclear power plant (accuracy) or developing a new power source (creativity)—both require that the group attack the problem as one so that specialized information can be exchanged. Problems where one person alone could generate that new idea or handle an analysis issue can be attacked by individuals in isolation.

2.4a If you decide to work as a group, two styles of leadership you might consider, depending upon the situational requirements, are directive and supportive. The supportive approach has been found to be better suited to complex problems where information exchange is required.¹³

2.5a In the directive approach, a wall pad or blackboard can be used by the leader to list alternatives developed by the group. At this point in the problem-solving process it is advisable to actively limit evaluative comments until a number of strategies have been developed. By focusing attention on the pad or blackboard everyone will have the information before them and stay on track. If the tempo demands it, you may want to have more than one person available to do the listing. (This is especially true in brainstorming.) As you list ideas, try to list the ideas in as close to the member's phrasing and as fast as possible. Don't let any get away! It is important to list even far-out alternatives so that people feel free to contribute their ideas. Later in the evaluation phase a critical attitude can be emphasized to drop far-out suggestions. Don't say no to any idea at this point, just keep writing. A far-out idea can be important in jarring someone else's thinking. Finally, in the directive approach, the leader keeps central control over the communication exchanges. All comments are directed toward the process leader.

2.5b In the supportive style, the process leader temporarily abandons his leadership role to join the group. Here, open horizontal communication between all members is encouraged. With a highly complex

12. See Boje (1977) and Gustafson et al. (1973). Group techniques were not significantly better than individuals on accuracy problems. There is some indication that the complexity of a problem may account for these results (Yost and Herbert (1977)).

13. Bennis (1966) attempts to apply the results of communication experiments on the marble experiments with problem-solving styles. Directive as used here refers to the "wheel" group network where all communication is directed toward the leader. Supportive is analogous to the "circle" or all-to-all network. The latter has been found to be better suited to complex problems.

and difficult problem, one strategy is to let the group focus on each other's comments in a nondirective fashion. The leader may also want to be silent during most of this phase if he is trying to solicit an unbiased set of alternatives from the group. An alternative strategy is to let one of the group members or a secretary do the listing on a wall pad or blackboard and for the leader to become an active group member. Here the leader has to be careful to throw his idea out the same status attached as everyone else's. You do not want an alternative to be adopted simply because it came from your lips.

In both styles the listing can be facilitated by the proper use of "silence." (This is also useful for getting less assertive members to talk.) If ideas are not forthcoming, a simple way to jar people into action is to take a chair and stare at the members eye to eye. This increases the tension level and will often get people thinking and speaking again. Some of the best ideas can evolve by not shying away from silence. You should, however, avoid overusing the technique. When the group has generated a sufficient number of alternatives, silence may be an informal signal that it is time to move to the next phase.

2.4b If your need is to have people develop independent lists, one way to combine the lists is in a round-robin exchange format.¹⁴ The process leader asks each member for a single idea to place on the blackboard. Each member contributes one idea at a time in round-robin fashion until all ideas have been listed. There is no need for members to repeat an idea someone else has already introduced, unless their idea contributes significant variation to the first. Here again, the process leader must postpone evaluative comments and debates over specific alternatives until the next phase in the problem-solving process.

Solution-generation phase games to resolve

"The hard sell." If you observe a member not only introducing an alternative, but following it up with a barrage of comments like: "This is the obvious choice," "I have here ten volumes of statistical tables in support of this alternative," "Here is how it is better than anything else presented today," "This alternative was driven by a little ol' lady," you know you are in the hard-sell game. To counter this game, inform the person that evaluative or "selling" comments belong in the next phase of the problem-solving process. At this point all you want to do is develop a number of alternative ideas on the problem.

"Lend me your ear." How often have you been in a group where

14. For more discussion of round robins, see Delbecq et al. (1975).

you encounter the excessive talker or speech giver. A subtle way to train members to avoid this game is the use of the wall pad or blackboard. Summarize the member's comments into a short paraphrase. Then check with the member to see if the summary captures what he was trying to say. Either the member will get the point and make future comments more brief and to the point, or the member will continue to ramble. *Be careful* to avoid alienating yourself from the group by cutting the person off too soon. This will introduce unnecessary leader-versus-group conflict. At the conclusion of the second rambling ask the group for support. "Does the rest of the group see any difference between this shorter phrasing and what . . . just said?" If all else fails, you may want to ask the rest of the group what they are gaining from the person's comments. In general, to avoid leader-versus-group conflict, let the game go for awhile until others are aware of it. Shutting it off too early will make you appear the villain.¹⁵

"*Why don't you, yes but.*" In this game, one or more members will counter every solution alternative suggested with comments like: "Yes, but you have not considered . . ." "Yes, but that will never work because of . . ." If this game persists, members with ideas will soon become uncomfortable about introducing them into the group. This is especially true of an idea that has not been completely thought out. This is also why evaluative comments are held until the next phase. (Often this is the very idea that with a little group work could become a superior solution.) "Yes, but" may also be a symptom of a "hidden-agenda" game. The member may be attacking everyone else's ideas to protect a hidden alternative. In "yes, but," the option is to either focus on the problem-solving process ("Let's save the challenges for the evaluation phase") or to use a feedback approach (a description of the behavior cues followed by your feelings) as outlined in the "hidden-agenda" game ("I hear you saying . . . but I have the feeling that you have something else in mind").

"*All talk and no listening.*" During some moments in the problem-solving process it is a good idea to let everyone have the floor either to get some thinking started or to release tensions on topics where everyone comes to the meeting with deeply felt opinions they intend to share. This getting-it-all-on-the-table strategy can become dysfunctional when members stop listening to one another. Here, once the members are aware of the problem, the process leader can intervene to demand that the group begins listening to one another. You may even want to ask people to start building on the previous comment to get things settled down. It is important to point out that, as the process leader,

15. This solution is based on suggestions found in Sandberg (1973).

you want the *group to take its share of responsibility* for game counter-ing. Perhaps we need a game dealing with "why only me?"

"*Have we been here before?*" Groups frequently forget where they are going and where they have been. A group will begin solving problem "A" and end up developing totally irrelevant solutions. Members will introduce the same ideas over and over again. To counter this game, a "recorder" is needed. This is generally the process leader (it can be another group member or a secretary), who records the problem statement and a summary phrasing of each of the members' solution ideas. This should be in open view of all members and is a very useful way to keep the group on track.

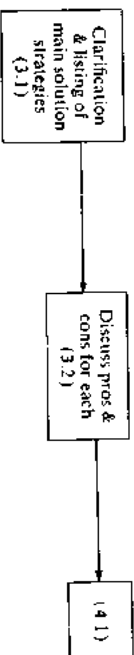


Figure 3. Evaluation phase

3.1 Whether your group has used the "critical" or the "brainstorming" problem-solving approach, it is important at this point for the process leader to list the main solution strategies, so that each one can be given careful evaluative consideration. If the group has generated a large number of alternatives (e.g., greater than ten), then it is advisable to ask that the group pare the list down to the five most workable and important. This can be done by going down the list of generated alternatives and asking the group if each one should be kept. If one person wants it, leave it up. If no answer comes or if they say no, then that alternative can be scratched. Similar alternatives can be combined into overall strategies. An alternative approach is to rank order and choose the top five. Clarify each strategy to be sure everyone understands all implications. Be sure you give each alternative *equal* consideration to keep the group from running off with the first one.

3.2 Here is where you can reapply brainstorming or critical analysis to come up with a listing of pros and cons for each strategy. You may even want to have individuals develop separate lists and then use a round-robin format to come up with an overall analysis of the strategies. Whether you employ a group or individual approach, you will need to avoid debates and confrontations between proponents of various alternatives. The focus here should be to give each alternative a complete hearing so that the group does not run off with the first one. Often, in discussing the pros and cons it will become obvious that the group has overlooked some major contingencies. If this occurs, then

you will need to redefine the problem and begin at phase 1 to repeat the problem-solving process. Giving the group the option of redefining the problem will keep them from implementing inappropriate strategies just to make a decision.

Evaluation-phase games to resolve

"*Love me, love my dog.*" A common game in the evaluation phase is where one or more members get their ego tangled up with their ideas. The result is that members feel pressured to evaluate the idea along with the person. A good analogy to tell a group about before this phase begins is poker. Once you put *your* money into the pot, it becomes the *group's* money. A bad poker player will invest in a losing hand because he fails to make this distinction. You need to emphasize the importance of such things as personal ownership of ideas and confrontations over who has the better idea as being out of place in problem-solving sessions. A caution to the group on games to avoid before each phase can save a lot of wasted energy.

"*Groupthink.*" Irving Janis defines groupthink as "a mode of thinking that persons engage in when concurrence seeking becomes so dominant in a cohesive ingroup that it tends to override realistic appraisal of alternative courses of action."¹⁶ In other words, the members place such a high value on being cohesive and avoiding internal conflicts that they generate pressures against critical thinking. This can result in being overoptimistic about the risks involved in a strategy, rationalizing a strategy to the extent of ignoring negative information, or even withholding such information from the group, as well as a host of other dysfunctional consequences. To counter groupthink, you need to build some opposition into the group *before* it can take hold. Janis suggests assigning the role of critical evaluator to some members of the group, setting up independent evaluation groups to examine a problem-solving group's ideas, taking the role of "devil's advocate" to challenge the list of alternatives, and inviting in outside experts as some of the ways to combat groupthink.

5.1 It seems an obvious proposition that the type of decision strategy used by a group should depend on any number of contingent situational factors. Yet, groups invariably get into the rut of employing one method of decision making to the exclusion of all others. A number of decision theorists have suggested which situational factors are appropriate to which decision style, but there is still wide disagreement.¹⁷

16. See Janis (1971, 1972) for more on the group think phenomenon.

17. See Vroom (1973), Vroom and Yetton (1973), and Schmuck et. al. (1972) for discussion of when to use voting vs. consensus.

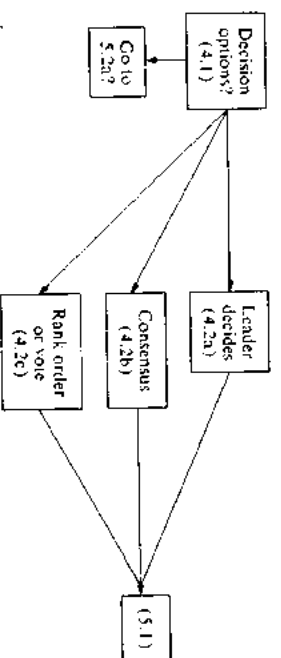


Figure 4. Decision phase

The following is an incomplete checklist of factors and the decision method which seems most appropriate. It's important to reemphasize that each group leader will need to examine his own situation to determine which method is most applicable. (If your answer to any of the following is yes, then the option indicated is probably required.)

1. Is the task trivial to the interests of the group members or is an obvious preference present? (Leader)
2. Does the authority to make the decision rest outside the group? Does the group have a vested interest? (It may still be useful to get suggestions and criticisms.) (Leader)
3. Is this a highly emotionally charged issue which will only serve to disrupt the long-term effectiveness of the group? (Groupthink must be avoided here.) (Leader)
4. Is is a problem where the group does not possess adequate background information to act? (Leader)
5. Is it a complex task where a high rate of information exchange and a critical discussion is preferred? (Consensus)
6. Is a voting decision likely to disguise conflicts or cover up disagreements? (Consensus)
7. Is involvement of the members needed to promote decision support and responsibility taking in implementation? (Consensus)
8. Is it a problem which requires a high-quality decision to cope with a potentially risky consequence? (Consensus)
9. Is it an issue where tension and disagreement is likely to be so diverse as to make consensus dysfunctional and where obtaining a group sanction is preferable to a leader-only decision? (Voting)
10. Is it a decision where a small minority stands in opposition and is not likely to affect acceptance or implementation? (Voting)
11. Does available time not allow for the arguments and conflicts to be fully developed and resolved? (Voting)

By becoming familiar with the above checklist, you can match the situation at hand with the most appropriate decision method. In this way, you will avoid overuse of, for example, consensus in trivial situations, saving it instead for just those major problems where it is needed most.¹⁸

4.2a Even if the leader makes the decision, it may be advisable to let the group provide useful information on the likely outcomes of a proposed decision. This can be accomplished either on a one-to-one basis by interviewing each member or as a group discussion. There may also be advantages to having a group participate in implementation planning even if it is not advisable for them to participate in the actual decision, for example, when a group is given a strategy to implement by a higher authority. Even though the decision has been made, involvement and implementation problem solving will point out unforeseen obstacles and generate partial commitment.

4.2b In consensus, the leader agrees in advance to abide by the final group decision. Consensus does not require having a unanimous vote where everyone agrees. It does require that everyone can freely express their arguments, that no decision will be made until every member who disagrees agrees to support the final group decision. In other words, even if the decision is not a member's first choice, he agrees to stand by the decision. Consensus is generally assumed to induce the greatest degree of commitment to the final decision. Consensus also affords the most thorough treatment of a problem by insuring that disagreements are exposed and resolved, it is also the most demanding and time-consuming of the three procedures.

4.2c Rank ordering involves having the members independently rank the alternatives from the most to the least preferred. The final group decision is the result of the combined rank orderings. Some suggest that this method allows for a better representation of minority opinions than a simple voting procedure.¹⁹ Voting, however, involves less time and is better suited where only a few alternatives are being considered. In some cases, you may want to combine the two (e.g., a rank ordering can be used to pick the two or three alternatives for final consideration in a final voting situation). At various points during the problem-solving process another type of voting that can be used is the "straw vote." This is a vote that does not count, that is useful as a nonthreatening check on how much agreement a group has.

5.2a One option that most groups overlook is the decision to reject all strategies that have been proposed on the grounds that none

18. Jean Bartunek points out that overuse of consensus as a decision option will turn people off to the technique because of the emotional stress that accompanies the strategy and the added time required.

19. See Delbecq et al. (1975) and Van de Ven and Delbecq (1973).

solve the problem at hand. In this case, the group goes back to the drawing board. This can be a particularly useful strategy when you consider that often the best ideas are the ones that the group comes up with once they have dispensed with the obvious, but often weak, strategies.

Decision-phase games to resolve

"Let's get this over with." Some of the worst group decisions are the result of haste. If one or more members is pushing to reach a decision because of the time constraints, then it may be advisable to postpone the actual decision until members have more time. If this game is introduced because the members do not feel the issue is important enough or if they are apathetic to the issue, then maybe it was inappropriate to present that problem for group consideration in the first place. Someone may be speeding everyone down a hidden agenda or other game.

"We all agree, right?" A game introduced to save time or because of apathy is one thing, but one which is a disguised way of forcing one's solution onto the group is another story. This game, sometimes referred to as the "self-authorized agenda," involves a member who pushes for a decision when, in fact, the majority of members are actually against that strategy. Thinking that everyone else agrees (when they do not), the members give in and the result is a decision only one person wanted and no one is aware that the minority won. A good way to counter this game is to quiz each member to see if, in fact, there is a consensus among the members. This game may also be a sign of the "groupthink" phenomenon or possibly a power play on the part of a member who wants your title. Beware!

5.1 One of the more common mistakes a group will make is to make the decision without developing a set of implementation plans. The solution selected should be broken into action steps. Each action step describes a segment of the solution to be implemented by a certain date. In this way, you can assign individual responsibility to each action

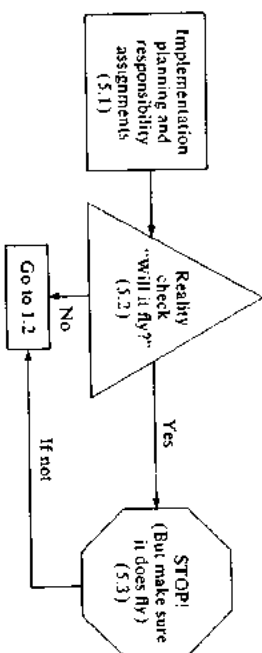


Figure 5. Implementation phase.

step and insure that something happens as a result of the problem-solving session. You may also want to brainstorm a list of resources that will be needed to implement each of the action steps. An alternative to jumping right into a large commitment of resources is to propose a pilot study of the selected alternatives. In this way, you can gather information on the pitfalls of implementing the complete strategy.

5.2 Reality Check. Now is the time to look back at your problem definition and determine if the strategy plan your group has developed solves the problem you identified. If you implemented this strategy, would it solve that problem? If not, then you can avoid a costly mistake by going back and redefining the problem or coming up with a more appropriate solution. One useful technique is to ask the group to brainstorm a list of all the things that could possibly go wrong. (According to Murphy's Law, "If something can go wrong, it will!") Once you have tested your planned strategy against all reasonable criticisms, go to the people who will be affected by the group's strategy and have them criticize it. In this way, you will avoid unnecessary stumbling blocks.

5.3 Stop. Once you have implemented your strategy, gather feedback on its progress. By closely monitoring the strategy, you can deal with problem areas by feeding them back through the problem-solving model at phase 1.2. Your strategy must be made to adapt to the contingencies that you were not able to anticipate. Don't get into the trap of ignoring unforeseen contingencies just to keep your plan intact. Continually look at modification options to your plan in light of new contingencies.

Implementation Phase Games to Resolve

"Avoid the monkey." "Monkey" refers to the acceptance of responsibility for the results of the group decision and for participating in actual implementation.²⁰ Whether members avoid the monkey will depend to great extent on the kind of participation that the leader was able to motivate on the part of the members during the entire meeting. The highest involvement should be in a thorough problem search, consensus decision where each member agrees to support the decision. By not participating in the phases you can take the minority position and later feel no responsibility for aiding in implementation. Whatever problem-solving method, interaction scheme, or decision technique, involvement of the members in implementation planning will generate some opportunities for responsibility taking. In fact, throughout the meeting you should focus on action planning and dividing the task up

among the members; then you can avoid leaving the problem-solving decision with the monkey on your shoulder.

"Building lead balloons." Oftentimes, a group will get carried away with their own ideas and propose an alternative that, while sounding like the answer to beat all answers, is in fact a lead balloon. It may be advisable to postpone implementation until the members have had a chance to reflect on the strategy and think through all the implications. At a second meeting, if everything is in order then you can proceed. Again, this game may be symptomatic of the "groupthink" phenomenon and can be avoided by building some critical thinking into your group.

The contingency model: combining all the phases

Figure 1 combines the five phases into one model. At each decision point, you will need to decide which course of action to take by examining the situational factors present. The primary thing to avoid is the assumption that there is *one best way* to analyze, solve, and implement in problem solving. The model can be extended by keeping in mind that there are many other decisions to consider besides the few presented here. As the process leader it is your responsibility to get the group to uncover those decision points so that the problem process you use matches the demands of the situation. Don't get into the rut of managing your group meeting the same "ole" way, regardless of the situation at hand.

You can begin at any point in this model. For example, if you have a firm grasp on the problem, you can start in phase 2. If your concern is with how to implement a directive assigned to your group, you can begin at phase 3. Any time you are in a phase and you discover that what you thought was a problem turns out to be a symptom, you can take your group back to phase 1. The model is meant to be a guide for you to plan and guide your group through the problem-solving process and to build some flexibility into your approach to problem solving. If enough groups in the organization become more adaptive in their ability to cope with a wider variety of problem types (e.g., from simple, to complex, to dealing with an undetermined problem), then the organization as a whole will be more adaptive. Building adaptability into an organization improves its long-term survival power.

Other games

Game analysis is a useful way to spot dysfunctional process behaviors on the part of group members. There are many more games to consider than the few listed here. Consider the following or go on to develop your own list.

20. For more on the monkey metaphor, see Oncken and Wass (1974).

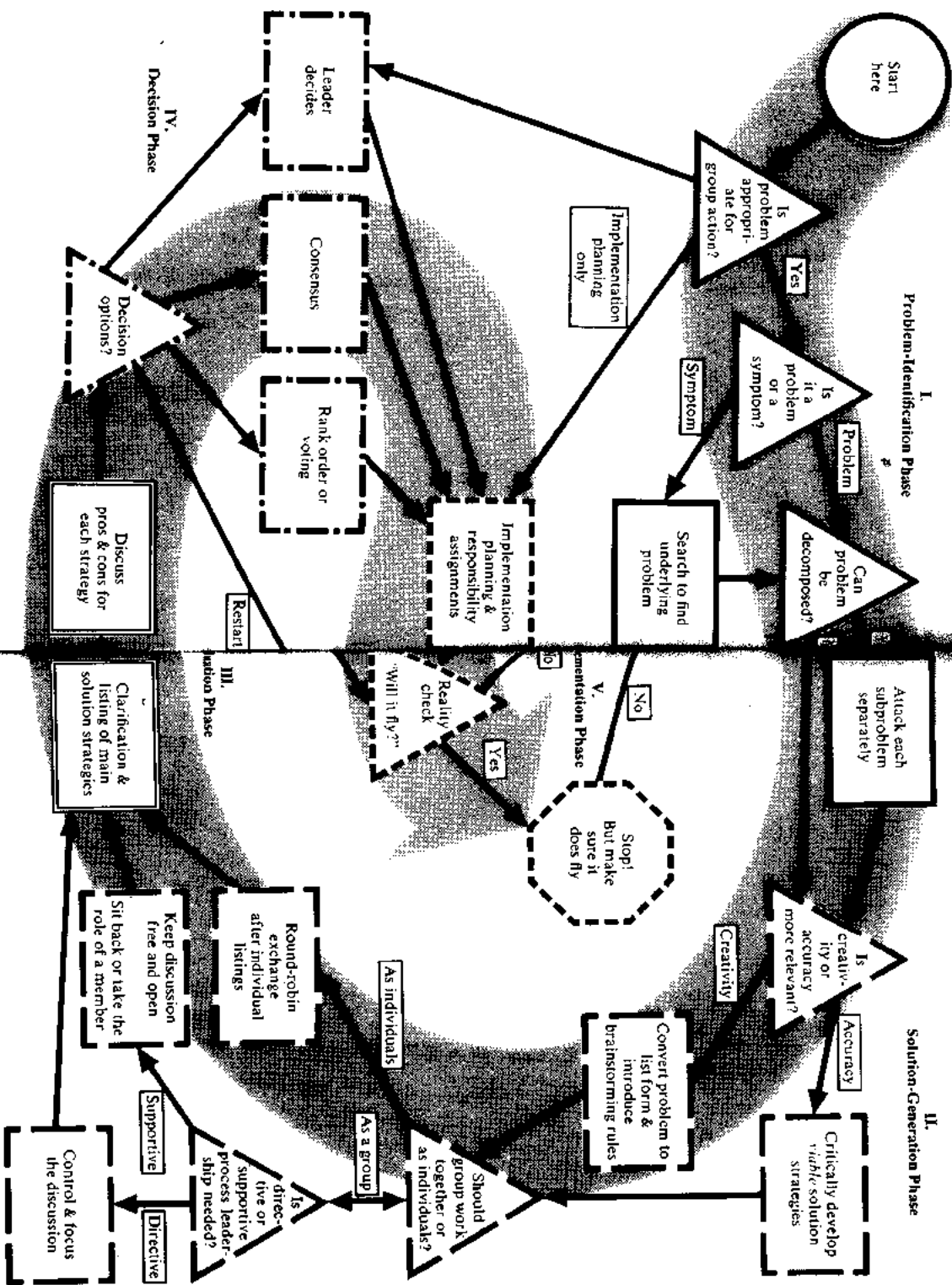


Fig. 6

"Let's you and him fight." A member sets two members against each other for sport.

"Now I've got you, you S.O.B." A member digs a trap for one or more members to fall into.

"I'll speak if you make me." Someone uses silence as a crutch or as a way to get more psychic attention.

These games can occur anytime during the problem-solving process. In addition to dysfunctional games, there are functional games which you may want to build into your group, such as Harris' "I'm OK, You're OK." By managing the game playing in groups you can improve not only the group's problem-solving productivity, but the overall spirit and enthusiasm of the group.

Case episode: The financial aids office

It is now Tuesday and you are a director of a financial aids office. Your assistant director, responsible for counseling, has come to you several times about the nonprofessional attitudes of his staff. His concerns lie in the areas of commitment to the job and their attitudes toward assigned responsibilities. Specifically, he raises the issue of a "professional mentality" versus an "8-to-5 mentality." He sees himself as an open person with a progressive managerial style, but feels forced to begin cracking down.

On two separate occasions, members of his staff have come to you and expressed their concern about his overbearing interference in their work. The staff members preface their remarks with expressions of respect, but at the same time imply that he does not recognize their abilities nor trust them to perform up to their professional capabilities. He does not delegate work or responsibilities, fails to make assignments until issues are at a crisis stage, and supervises them as if they were blue-collar workers. They are fearful of giving him direct feedback.

It comes to a head today at your regular staff meeting. Your assistant director is absent until next Monday. Instead of pursuing the planned agenda, the counseling staff spends all morning expressing their doubts about their supervisor's ability to provide the leadership required by the unit. They are ready to walk out unless something is settled by 1 P.M. You have until the staff returns from lunch to consider the problem.

Follow the guidelines below

1. After general group discussion, appoint one person to be the process leader, while the remaining members focus on the content.

2. Reach agreement on a one-sentence definition of the underlying problem. Be sure it is a problem and not a symptom.
3. Decide if a critical or a creative problem-solving approach is more appropriate.
4. Should you, as directors, develop a list of alternatives individually or as a group?
5. Pare the final list down to the best three alternatives and clarify each.
6. Discuss the pros and cons for each alternative.
7. Which decision technique should be used? Who should be involved in the decision? Director, assistant director, staff?
8. Develop an implementation plan and action steps to get the chosen alternative into action.
9. *Reality Check*: Before going back to face the staff at 1 P.M., discuss any potential pitfalls in your chosen alternative plan and action steps.
10. *Stop!* How will you monitor your plan to be sure that it flies?

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